

ESMRMB 2016 SEPT. 29 – OCT. 1 VIENNA/AT



33RD ANNUAL SCIENTIFIC MEETING



MEETING GUIDE

The European Forum for MR research and clinical practice
www.esmrm.org

A large Ferris wheel with a complex metal lattice structure and several red passenger cars. The wheel is set against a clear sky, and some green foliage is visible in the lower right corner. A circular grey overlay is positioned in the lower-left quadrant of the image, containing text.

ACCREDITATION

The ESMRMB 2016 is accredited by the European Accreditation Council for Continuing Medical Education and the European Union of Medical Specialists (EACCME/UEMS), by the European Federation of Organisations for Medical Physics (EFOMP) and by the Austrian Medical Chamber (DFP).

Find more information on p. 9



3	Willkommen in Wien!
4	Scientific Programme at a glance
6	Committees
8	List of Reviewers
9	General Information
13	General Scientific Information
17	ePosters at ESMRMB 2016
19	Scientific Programme
19	Thursday, September 29, 2016
42	Friday, September 30, 2016
65	Saturday, October 1, 2016
95	ePosters
103	Paper Posters
110	Clinical Review Posters
112	Software Exhibits
114	News & Views
120	Author Index
132	Topic Index
140	Important Addresses
142	Floorplans
145	Congress Sponsors
146	ESMRMB 2016 – Industry-sponsored Symposia
149	Exhibition Guide





Willkommen in Wien!



Dear friends, dear colleagues,

It is a great pleasure to welcome you to the 33rd annual meeting of the European Society of Magnetic Resonance in Medicine and Biology in the city of Vienna.

In these times of political uncertainties, unexpected change and terrorist intimidation that threaten to divide instead of unite, we are very happy to continue to offer a platform to meet, talk and collaborate.

This year, we are thrilled to offer some exciting new features. For one, we have a grant & career session that should be particularly attractive to younger participants, where professionals will give advice on the dos and don'ts in grant writing and job applications. Another novelty is our "News & Views" poster section. The "NEWS" format will allow participants to present their latest results, with an abstract deadline placed less than 2 months before the meeting and the "VIEWS" section, intended as a space for discussion, will permit speakers to present views rather than facts. To stimulate communication between generations and disciplines, we also offer a "Meet the Expert" networking event, where experts will give advice on various topics.

In addition, we again present an outstanding educational and plenary programme highlighting both well-established and novel MR techniques and applications. Particular emphasis is placed this year on the background, the present applications and future potential of computer assistance. Of course, our traditional highlights can be found in the programme, such as the Sir Peter Mansfield Lecture, the Hot Topic Debate and the Roundtable Discussion. Lunch is made available at Industry-sponsored symposia, and we encourage you to visit the technical exhibition displaying the latest products from the companies in our field.

The Local Organising Committee cordially invites you to the Welcome Reception on Thursday evening, September 29. Catch up with colleagues over food and drinks in the Congress Center!

Vienna, situated on the banks of the Danube, in the heart of Europe, is a vibrant city with unique charm and flair. You can explore much of the beautiful inner city by foot, where you can see the famous St. Stephen's Cathedral and catch a performance at the State Opera. A tour of the historical center by horse-drawn carriage, the Fiaker, is also highly recommended!

We would like to thank you all for your contributions and efforts to make this meeting a success. We wish you a very fruitful and enjoyable meeting here in Vienna.



Xavier Golay
ESMRMB President



Roland Kreis
Scientific Programme
Committee Chair



Siegfried Trattnig
Local Organising
Committee Chair





Scientific Programme at a glance

THURSDAY, SEPTEMBER 29, 2016	ROOM	LEHAR 3-4	STOLZ 1	STOLZ 2
	TIME			
	08:00-09:00		Teaching Session (adv.) (p. 19) Zero-echo-time MRI: quick and silent	Teaching Session (adv.) (p. 19) Functional kidney imaging with MRI
	09:10-10:15	Opening Ceremony (p. 20) Sir Peter Mansfield Lecture		
	10:20-11:20	Plenary Session (p. 20) Hybrid imaging and intervention		
	11:35-12:45	Teaching Session (basic) (p. 20) New developments in preclinical and clinical contrast-enhanced imaging	Scientific Session (p. 21) MRI of the chest and the breast	Scientific Session (p. 22) Lipids in many shades
	12:50-13:50	Industry-sponsored Symposium		
	14:00-15:30	Teaching Session (adv.) (p. 29) Metabolic imaging	Scientific Session (p. 29) Perfusion imaging of human brain & head	
	16:00-17:30	Teaching Session (adv.) (p. 32) Functional neuroimaging techniques	Scientific Session (p. 33) Novel hardware concepts	Scientific Session (p. 34) Animal models
	17:35	Meet the expert - networking event (p. 41 + p. 136) Level 1 – Restaurant Brasserie		

FRIDAY, SEPTEMBER 30, 2016	ROOM	LEHAR 3-4	STOLZ 1	STOLZ 2
	TIME			
	08:00-09:00		Teaching Session (adv.) (p. 42) Sparse sampling approaches	Teaching Session (basic) (p. 42) 4D Flow imaging
	09:10-10:40	Plenary Session (p. 43) Fields of dreams - tuning and boosting for the next generation		
	10:50-12:20	Teaching Session (basic) (p. 43) Neuro MRA		Scientific Session (p. 44) ¹³ C, ³¹ P, and ¹ H MRS
	12:30-13:30	Industry-sponsored Symposium		
	13:50-15:20	Teaching Session (adv.) (p. 47) Transforming MR spectroscopy into a clinical tool (in collaboration with the European Marie-Curie Initial Training Network "TRANSACT")	Scientific Session (p. 47) Pulse sequences	Scientific Session (p. 49) Diffusion methods for microstructure assessment
	15:40-17:10	Scientific Session (p. 56) Diffusion measurements applied to tissue	Grant & Career Session (p. 57 + p. 137)	Scientific Session (p. 57) Methods for brain and body MRS
	17:20-18:20	Hot Topic Debate (p. 64) Man versus machine in Radiology: the computer will take over		

SATURDAY, OCTOBER 1, 2016	ROOM	LEHAR 3-4	STOLZ 1	STOLZ 2
	TIME			
	08:00-09:00		Teaching Session (basic) (p. 65) Basics of machine learning	Teaching Session (adv.) (p. 65) RF pulse design
	09:10-10:40	Plenary Session (p. 66) Hunting the hidden: a deeper look into images, randomness and fingerprints		
	10:50-12:20	Teaching Session (basic) (p. 66) Basics of multiband imaging	Scientific Session (p. 67) Quantitative imaging biomarkers	Teaching & Scientific Session (p. 68) CEST: state of the art and beyond
	12:30-13:30		ESMRMB Annual Business Meeting	
	13:50-15:20	Teaching Session (adv.) (p. 75) Myocardial tissue characterisation, T ₁ , T ₂ , T ₂ * DWI	Scientific Session (p. 76) RF transmission and reception	Scientific Session (p. 77) Functional MRI
	15:40-17:10	Scientific Session (p. 85) RF Pulses	Scientific Session (p. 86) Motion, artefacts & quality control	Scientific Session (p. 87) Molecular and cellular imaging
	17:20-18:20	Roundtable Discussion (p. 94) Is our DNA safe in our magnets?		
	18:20-18:40	Closing & Awards Ceremony (p. 94)		



LEHAR 1	LEHAR 2	MEET THE AUTHORS		
Teaching Session (basic) (p. 19) MR-physics for radiologists				
Scientific Session (p. 23) Epilepsy and degenerative brain disorders	Lightning Talks (p. 24) Hardware, pulse sequences and diffusion	ePoster 12:35-13:05	Paper Poster 12:35-13:05	
Scientific Session (p. 31) Cardiac MRI: getting to the heart of the matter		News 14:00-15:00	Views 14:00-15:00	Software Exp. 14:00-15:00
Scientific Session (p. 35) Vascular and head injury	Lightning Talks (p. 37) Image analysis and reconstruction	ePoster 17:00-17:30	Paper Poster 17:00-17:30	
Meet the expert - networking event (p. 41 + p. 136) Level 1 – Restaurant Brasserie				

Technical Exhibition
08:30 - 17:30

LEHAR 1	LEHAR 2	MEET THE AUTHORS		
Teaching Session (basic) (p. 42) MRI in the presence of implants: how to address artifacts and safety concerns				
Scientific Session (p. 45) Novel contrasts and methods		ePoster 10:50-11:20	Paper Poster 10:50-11:20	Software Exp. 10:50-11:50
		ePoster 11:20-11:50	Paper Poster 11:20-11:50	
		ePoster 11:50-12:20	Clinical Rev. P. 11:50-12:20	
Scientific Session (p. 50) Flow and angiography	Lightning Talks (p. 51) Data processing and quantification	ePoster 14:50-15:20	Paper Poster 14:50-15:20	
Scientific Session (p. 58) Brain tumours	Lightning Talks (p. 60) Animal models and molecular imaging	ePoster 16:40-17:10	Paper Poster 16:40-17:10	

Technical Exhibition
08:30 - 17:30

LEHAR 1	LEHAR 2	MEET THE AUTHORS		
Teaching Session (adv.) (p. 65) Arterial spin labeling in practice				
Scientific Session (p. 69) Abdominal clinical applications	Lightning Talks (p. 70) Perfusion, functional and MRS	ePoster 11:50-12:20	Paper Poster 11:50-12:20	
Industry-sponsored Symposium				
Scientific Session (p. 78) MSK MRI: more than bones	Lightning Talks (p. 80) Brain & peripheral nerves	ePoster 14:50-15:20	Paper Poster 14:50-15:20	
Scientific Session (p. 88) Beyond anatomy in brain	Lightning Talks (p. 89) It's a no-brainer!	ePoster 16:40-17:10	Paper Poster 16:40-17:10	

Technical Exhibition
08:30-17:30



Committees



City Hall

EXECUTIVE BOARD

President

Golay, Xavier, London/UK

Past President

Larsson, Elna-Marie, Uppsala/SE

President Elect

Achten, Rik, Ghent/BE

Secretary

Knutsson, Linda, Lund/SE

Treasurer

Scheurer, Eva, Basel/CH

Membership Officer

Prayer, Daniela, Vienna/AT

Education Officer

Günther, Matthias, Bremen/DE

Editor-in-Chief, MAGMA

Cozzone, Patrick J., Marseille/FR & Singapore/SGP

Director, School of MRI & Chairperson of the LOC 2016

Trattnig, Siegfried, Vienna/AT

Director, Lectures on MR

Breuer, Felix, Würzburg/DE

Director, Hands on MRI

van der Lugt, Aad, Rotterdam/NL

Director, Teach-the-Teacher

Steinbrich, Wolfgang, Basel/CH

Chairperson of the SPC 2016

Kreis, Roland, Bern/CH

Chairperson of the SPC 2017

Leiner, Tim, Utrecht/NL





SCIENTIFIC PROGRAMME COMMITTEE

Roland Kreis, Bern/CH (chairperson)
Angelo Bifone, Rovereto/IT
Else Danielsen, Copenhagen/DK
Martin Graves, Cambridge/UK
Matthias Günther, Bremen/DE
Martin Koch, Lübeck/DE
Sebastian Kozerke, Zurich/CH
Mark Ladd, Heidelberg/DE
Tim Leiner, Utrecht/NL
Ana Ramos, Madrid/ES
Julia Schnabel, London/UK
Marion Smits, Rotterdam/NL
Vincent Vandecaveye, Leuven/BE

LOCAL ORGANISING COMMITTEE

Siegfried Trattnig, Vienna/AT (chairperson)
Klaus Bohndorf, Vienna/AT
Gilbert Hangel, Vienna/AT
Ewald Moser, Vienna/AT
Elisabeth Springer, Vienna/AT
Pavol Szomolanyi, Vienna/AT
Martin Zalaudek, Vienna/AT



Karlskirche



Spanish Riding School





List of Reviewers

S. Aime, Torino/IT
M. Alecci, L'Aquila/IT
E. Atalar, Ankara/TR
M. Bernard, Marseille/FR
I. Berry, Toulouse/FR
A. Bifone, Roverto/IT
W. Bogner, Vienna/AT
A. Boss, Bern/CH
J. Bremerich, Basel/CH
C. Cudalbu, Lausanne/CH
E. Danielsen, Copenhagen/DK
T. David, London/UK
F. De Keyzer, Leuven/BE
W. Dreher, Bremen/DE
T. Dresselaers, Leuven/BE
C. Faber, Münster/DE
P. Figueiredo, Lisbon/PT
M. Forjaz Secca, Lisbon/PT
P. Fransson, Stockholm/SE
M. Friebe, Magdeburg/DE
J. Futterer, Nijmegen/NL
P. Gatehouse, London/UK
V. Giampietro, London/UK
N. Girard, Marseille/FR
M.J. Graves, Cambridge/UK
M. Günther, Bremen/DE
A. Haase, Munich/DE
M. Hall-Craggs, London/UK
A. Heerschap, Nijmegen/NL
G. Helms, Lund/SE
J. Heverhagen, Bern/CH
U. Himmelreich, Leuven/BE
A. Jacquier, Marseille/FR
P. Jakob, Würzburg/DE
M. Julià-Sapé, Barcelona/ES
H. Kann, Leiden/NL
R.A. Kauppinen, Bristol/UK
M. Koch, Lübeck/DE
H. Koestler, Würzburg/DE
S. Kozerke, Zurich/CH
R. Kreis, Bern/CH
B. Künnecke, Basel/CH
M. Ladd, Heidelberg/DE
E.-M. Larsson, Uppsala/SE
S. Laurent, Mons/BE
T. Leiner, Utrecht/NL
J. Machann, Tübingen/DE
V. Magalie, Lyon/FR
S.J. Malik, London/UK
B. Menze, Munich/DE
T. Metens, Brussels/BE
V. Mlynarik, Vienna/AT
H. Möller, Leipzig/DE
G. Morana, Treviso/IT
A. Nederveen, Amsterdam/NL
T. Niendorf, Berlin/DE
D. Norris, Nijmegen/NL
M. Noseworthy, Hamilton, CA/USA
M. Notohamiprodjo, Tübingen/DE
R.G. Nunes, Lisbon/PT
R. Peeters, Leuven/BE
V. Positano, Pisa/IT
R. Pozzi Mucelli, Verona/IT
D. Prayer, Vienna/AT
J. Prompers, Eindhoven/NL
K.P. Pruessmann, Zurich/CH
A. Ramos, Madrid/ES
J.-P. Ranjeva, Marseille/FR
F. Saez, Bilbao/ES
L. Schad, Mannheim/DE
K. Scheffler, Tübingen/DE
F. Schick, Tübingen/DE
J. Schnabel, London/UK
F. Schubert, Berlin/DE
L.M. Sconfianza, San Donato Milanese/IT
M. Smits, Rotterdam/NL
O. Speck, Magdeburg/DE
T. Stöcker, Bonn/DE
H.S. Thomsen, Herlev/DK
A. Trojanowska, Lublin/PL
R. Turner, Leipzig/DE
S. Ulmer, Basel/CH
K. Uludag, Tübingen/NL
L. Umutlu, Essen/DE
A. van der Lugt, Rotterdam/NL
S. Van Huffel, Leuven/BE
P. van Ooij, Amsterdam/NL
M. van Osch, Leiden/NL
V. Vandecaveye, Leuven/BE
E. Vázquez, Barcelona/ES
A. Vellido, Barcelona/ES
C. Windischberger, Vienna/AT
L. Winter, Berlin/DE





Accreditation

The **'ESMRMB CONGRESS 2016'** is accredited by the **European Accreditation Council for Continuing Medical Education (EACCME)** to provide the following CME activity for medical specialists. The EACCME is an institution of the European Union of Medical Specialists (UEMS), www.uems.net.

The **'ESMRMB CONGRESS 2016'** is designated for a **maximum of (or 'for up to') 18 hours of European external CME credits**.

Through an agreement between the European Union of Medical Specialists and the American Medical Association, physicians may convert EACCME credits to an equivalent number of AMA PRA Category 1 Credits™. Information on the process to convert EACCME credit to AMA credit can be found at www.ama-assn.org/go/internationalcme.

Live educational activities, occurring outside of Canada, recognized by the UEMS-EACCME for ECMEC credits are deemed to be Accredited Group Learning Activities (Section 1) as defined by the Maintenance of Certification Program of The Royal College of Physicians and Surgeons of Canada.

EFOMP accredits the International Conference **"ESMRMB 2016"** to be held in Vienna, September 29 – October 1, 2016, as a Continuing Professional Development (CPD) event for Medical Physicists, with a **maximum of 28 hours**. The Accreditation Code for the event is: CG010/2016

The **Österreichische Ärztekammer** (the professional representation of all Austrian physicians) has designated the **ESMRMB Annual Scientific Meeting 2016** for a maximum of **30 medical points for the Austrian Diplom-Fortbildungs-Programm (DFP) in the field of Radiology** in total.

Please note that the number of points may vary from country to country. For further information please contact the responsible national jurisdiction. Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity.

Badges

It is obligatory for all participants to wear their badges visibly throughout the meeting. In case of loss, a replacement badge will only be provided on full payment of the applicable onsite registration fee. Forgotten badges will be replaced against a deposit of the full onsite registration fee.

Confirmation of payment and attendance

Any congress-related confirmation will be available after the congress in the MyUserArea (login with your last name and Personal ID as printed on your badge) under MyConfirmations.

Congress Language

The official congress language is English.

Members' Lounge

We would once again like to invite all active regular, fellow, senior, honorary, and radiographer members to join us for free coffee and drinks in the Members' Lounge on level 0, opposite the registration desk. Check your badge and if you have the following icon on your badge, you are welcome to join the **ESMRMB 2016 Members' Lounge!**

Please note that this only applies to members who have paid the 2016 membership dues of the following type: regular, fellow, honorary, senior, radiographer, and corporate (not included: junior, associate, free associate)





General Information

Preview Centre

The Preview Centre is located in Schubert 1 on level 1. Speakers are requested to contact the Preview Centre and to hand in their Power Point presentation (on USB flash drive) at least 90 minutes before the beginning of the session of their presentation.

Opening hours of the Preview Centre

Wednesday, September 28: 16:00–18:00
Thursday, September 29 – Saturday, October 1: 07:45–18:30

Registration

Onsite registration fees in Euro (€)

Full Fee

Member	€ 695
Senior Member	€ 340
Non-Member	€ 965

Junior*

Member	€ 240
Non-Member	€ 490

MR technologist/radiographer**

Member	€ 240
Non-Member	€ 485

All prices are including VAT.

Reduced congress fees for ESMRMB Members

Reduced congress fees are available for members of the equivalent membership type in good standing who have paid their 2016 membership fee. Senior Members of ESMRMB, who have paid their 2016 membership fee, can register at a Senior Member registration fee.

* Junior registration applies to students and residents in training. For a junior registration, a copy of the last diploma (bachelor, masters, medical degree) has to be uploaded during online application, sent to the ESMRMB Office or presented at the registration desk onsite. The registration is limited to 6 years following the date of the diploma. Please note that this does not apply to PhD degrees.

** For a reduced registration ticket as MR technologist/radiographer, an attestation of the institution/head of department is required. The document has to be uploaded in the course of the registration process, sent to the ESMRMB Office or presented at the registration desk onsite.

Onsite registration hours

Wednesday, September 28: 15:00–18:00
Thursday, September 29 – Friday, September 30: 07:00–19:00
Saturday, October 1: 07:00–15:00





Payment

On site, payment can be made by credit card (Visa and Eurocard/Mastercard), debit card or in cash (Euros only).

Please note that cheques will not be accepted.

Terms of cancellation

The ESMRMB offered the option of taking out a cancellation insurance with our partner 'Europäische Reiseversicherung' during the online pre-registration. The insurance fee depends on the selected ticket and can only be booked during online pre-registration. After finalisation of the registration and/or payment, insurance can no longer be selected.

The refunding of registration fees due to a change of ticket type or cancellation of participation is only possible with a valid insurance.

The ESMRMB itself will not refund any registration fees. All requests must be issued to the 'Europäische Reiseversicherung' directly. Refunds will be given according to the terms and conditions of the 'Europäische Reiseversicherung'; the ESMRMB is not responsible for any refunds of registration fees. Replacement participants will be treated as new registrations and are thus requested to register anew.

VAT charges may be claimed in your country in case a valid VAT number is available. Please make sure to indicate the VAT number and the correct invoice address during your registration. Changes to the invoice after the congress may not be possible, due to accounting reasons.

Rooms

Level -1

Coat Check

Entrance Level 0

Registration

Media Lounge

Foyer Stolz

Stolz 1

Stolz 2

Foyer Lehar

Lehar 1

Lehar 2

Lehar 3-4

Members' Lounge

Technical Exhibition

Lecture Room

Lecture Room

Paper Poster and Clinical Review Poster Exhibition

Software Exhibits

ePoster Exhibition

News & Views Posters

Lecture Room

Lecture Room

Plenary Session Room, Lecture Room

Level 1

Schubert 1

Restaurant Brasserie

Preview Centre (Slide Centre)

Welcome Reception

„Meet the expert“

Please proceed to pages 142 – 143 for the floorplans of the congress venue!





General Information

Social Event

The Welcome Reception will be held on the first floor of the congress center, in the Restaurant Brasserie, on Thursday, September 29, at 18:00 where we also offer a forum for personal contacts with MR experts (**Meet the expert**, see p. 41 & 136).

ESMRMB 2016 on social media!

Would you like to

- communicate easily with other congress participants?
- exchange ideas or comment on a particular session?
- share great photos with everyone?

You can do all that and more in our ESMRMB2016 slack team, on facebook and twitter (#ESMRMB2016)!



Slack is easy to join: fill in the survey at www.surveymonkey.com/r/esmrmb and we will send you an invite! Then all you have to do is sign up to slack and start communicating!

Technical Exhibition

Opening hours of the technical exhibition:

Thursday – Saturday: 08:30–17:30

For information on ESMRMB 2016 exhibitors, please refer to pages 149 ff.

Wireless LAN - Internet

Wireless LAN will be available to delegates throughout the congress center.

This service is provided free of charge to delegates.

Network: ESMRMB

Password: esmrmb2016





Abstracts

ESMRMB 2016 abstracts have been published as an electronic supplement to MAGMA, the official journal of the Society, accessible via the ESMRMB website. The electronic supplement has been published on springerlink.com. It is available on all Springer servers worldwide, and can thus reach a large audience. The digital object identifier (DOI) ensures that all abstracts of the ESMRMB 2016 meeting are fully citable in literature.

Abstracts, Thursday, September 29, 2016

DOI: 10.1007/s10334-016-0568-x

Abstracts, Friday, September 30, 2016

DOI: 10.1007/s10334-016-0569-9

Abstracts, Saturday, October 1, 2016

DOI: 10.1007/s10334-016-0570-3

ePoster, Paper Poster, Clinical Review Poster, Software Exhibits

DOI: 10.1007/s10334-016-0571-2

Author Index

DOI: 10.1007/s10334-016-0572-1

The complete electronic Book of Abstracts, the learning material of the Teaching Sessions, the Industry Symposia Programmes and the Exhibition Guide are available to all ESMRMB 2016 Congress participants for download at the ESMRMB website under: ESMRMB 2016 Congress – Download Congress Documents.

Hot Topic Debate

The highly popular debate will take place again this year. Strong opponents have been selected for the Friday evening debate session on “Man versus Machine in Radiology: the computer will take over”. After each opponent has given a 15-minute statement, the audience is strongly encouraged to actively participate in the debate.

Hot Topic Debate on “Man versus machine in Radiology: the computer will take over”

Friday, September 30, 17:20–18:20

Room Lehar 3-4

Lightning Talks

We would like to invite congress participants to join this year’s “Lightning Talks”, where authors of designated electronic and paper posters will briefly present their poster to the audience! During the last 30 minutes of each session, the audience and authors will move to the electronic and paper poster exhibitions to “meet-the-authors” for a more detailed presentation and to be able to ask questions.





General Scientific Information

News & Views

News: Late-breaking results

At the ESMRMB 2016, a special section of our meeting space for paper posters has been reserved to present the latest research!

This format allows you to learn about the most up-to-date research progress and we are convinced that this section will provide substantial added value to our meeting. Where else would you learn about the latest results from your peers within a couple of months of the respective findings?

Please be aware that contributions in this section are not fully peer-reviewed abstracts (no publication in the official ESMRMB Book of Abstracts).

Views: Opinion and Discussion Section

This category is intended to offer space for discussion of any topical issue. Views on any disputed issue will be presented as a paper poster. This may involve propositions for changes in radiological practice or MR research.

Meet the authors of News & Views paper posters on Thursday, September 29, from 14:00–15:00.

Oral & Paper Poster Presentations as ePosters

All oral and paper poster presentations which are also available as an electronic poster in the ePoster submission system are highlighted with the following remark: *also available as ePoster*

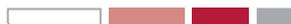
You can search for these presentations by the presentation number or by author, institution, title, session and topic.

Roundtable Discussion

You will have the opportunity to attend a Roundtable Discussion where three speakers with differing backgrounds and expertise highlight different aspects of the question “Is our DNA safe in our magnets?”. An expert moderator will lead the interactive and thought-provoking discussion and will also engage you to participate in the session.

Saturday, October 1, 2016, 17:20–18:20

Room: Lehar 3-4





Scientific Poster Exhibition

ESMRMB 2016 will again stage an electronic scientific exhibition, using ePostersLive. In addition to the electronic posters, there will also be a scientific poster exhibition of 128 traditional paper posters and 10 clinical review posters, which will be mentioned in the respective abstract section of the Meeting Guide. Posters related to the 8 software exhibits as well as posters related to our new presentation formats NEWS & VIEWS will also be displayed in the paper poster exhibition area!

Sir Peter Mansfield Lecture

The official opening will be on Thursday, September 29, at 09:10 in the main auditorium Lehar 3-4. The Sir Peter Mansfield Lecture entitled "Mind the Field: Sensing, IT, and a Lesson from Mobile Phones" will be given by Professor Klaas Pruessmann (CH) and held right after the opening ceremony from 09:25–10:15 in the main auditorium.

Software Exhibits

This exhibit aims to demonstrate computer applications in information management of magnetic resonance data. It is focused mainly on non-commercial computer-based demonstrations of software programmes that manage magnetic resonance data. The Software Exhibit Computer Demonstration with 8 exhibits will be open from Thursday-Saturday in Foyer Lehar.

You can **meet the presenters** of the exhibit on **Thursday, September 29**, from **14:00–15:00** and on **Friday, September 30**, from **10:50–11:50**.

Teaching Syllabus

The learning material of the Teaching Sessions is available online at www.esmrmb.org.

Young Investigator Award

The prestigious ESMRMB - Young Investigator Award offers young researchers a unique platform to stand out from the crowd. The competition is open to young clinicians and scientists at the undergraduate, graduate and postgraduate levels under the age of 35. The major criteria for the selection of finalists were the overall achievements of the candidates in MR as documented in their CVs (and publication list), the quality of the published or submitted paper in MAGMA as well as the quality of the submitted paper to the ESMRMB 2016.

The winner will be awarded € 1,000 and the two other finalists € 300 each. The final decision on the ranking will be made by a jury after listening to their presentations.

More information on our 2016 finalists can be found on page 18.

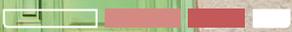
The award ceremony will take place on Saturday, October 1 at 18:20h!





DOKUMENTATION
OTTO WAGNER

WIEN/VIENNA
OTTO WAGNER
PAVILLON
KARLSPLATZ





ePosters – Fully digital scientific exhibition

The electronic format of the scientific exhibition is continued this year at ESMRMB 2016, using ePostersLive. In consideration of requests received at previous annual meetings, ESMRMB also offers a traditional paper poster area and a clinical review poster exhibition.

15 computer workstations have been installed in the ePoster area, Foyer Lehar, at which around **300** electronic exhibits can be viewed by delegates throughout the duration of the congress. Trained staff will explain how to use the system and its advanced search functions.

Lightning Talks

Selected scientific exhibits will be shortly presented during this Session. The Lightning Talks will take place in room Lehar 2 from Thursday to Saturday.

Poster Awards

All electronic exhibits and pdf files of paper posters received by August 22 were reviewed by the Scientific Exhibition Jury, that considered both scientific quality of the poster as well as its presentation format and selected the winners of the following awards: **1 Magna Cum Laude, 2 Cum Laude, 7 Certificates of Merit.**

The Poster Award Ceremony will take place on Saturday, October 1, at 18:20, in room Lehar 3-4. The winning posters have been marked with a special sign. 

Meet the Authors

Every electronic poster author has been allocated a specific PC workstation in the ePoster area for a designated timeslot at which they can meet interested conference delegates and authors of related topics to discuss their work. All PCs in the ePoster area are numbered and easy to find. Find out when the authors of the electronic posters of your interest are available for discussion in the “ePoster” part of this programme.



ESMRMB YOUNG INVESTIGATOR AWARD

ESMRMB

European Society for Magnetic Resonance in Medicine and Biology

FINALISTS:

Thursday, September 29, 2016

14:00–15:30 12 Scientific Session

Stolz 1

Perfusion imaging of human brain & head

62 14:00

Effect of crushing with Acceleration and Velocity selective labeling modules on regular ASL signal at multiple post labeling delays

S. Schmid¹, E. Petersen², M. van Osch¹; ¹Radiology, Leiden University Medical Center, Leiden/NETHERLANDS, ²Centre for Functional and Diagnostic Imaging and Research, Danish Research Centre for Magnetic Resonance, Copenhagen University Hospital Hvidovre, Hvidovre/DENMARK

Friday, September 30, 2016

13:50–15:20 28 Scientific Session

Stolz 2

Diffusion methods for microstructure assessment

168 13:50

Diffusion-weighted echo planar MR imaging of the neck at 3 Tesla using integrated shimming: Comparison of MR sequence techniques for the reduction of artifacts caused by magnetic field inhomogeneities

S. Gatidis¹, J. Weiss¹, A. Stemmer², K. Nikolaou¹, P. Martirosian³, M. Notohamiprodjo¹; ¹Department of Radiology, University of Tuebingen, Tuebingen/GERMANY, ²Siemens Healthcare GmbH, Siemens Healthcare GmbH, Erlangen/GERMANY, ³University Hospital Tübingen, Germany, Section on Experimental Radiology, Department of Diagnostic and Interventional Radiology, Tübingen/GERMANY

15:40–17:10 34 Scientific Session

Lehar 1

Brain tumors

224

Comparison of Vessel Abnormality Quantification Measures in Gliomas from TOF MRA data

M. Strumia¹, W. Reichardt¹, O. Staszewski², D.H. Heiland³, A. Weyerbrock³, I. Mader⁴, M. Bock¹; ¹Medical Physics Department of Radiology, University Medical Center, Freiburg/GERMANY, ²Department of Neuropathology, University Medical Center, Freiburg/GERMANY, ³Department of Neurosurgery, University Medical Center, Freiburg/GERMANY, ⁴Department of Neuroradiology, University Medical Center, Freiburg/GERMANY

JURY:

M. Günther, Bremen/DE

M. Koch, Lübeck/DE

M. Smits, Rotterdam/NL

Awards will be presented on Saturday during the Closing & Awards ceremony!

Scientific Programme

THURSDAY, SEPTEMBER 29, 2016

-
- 8:00–9:00** **1 Teaching Session - Advanced** *Stolz 1*
Zero-echo-time MRI: 'quick and silent'
Moderators: M. Weiger, Zurich/CH
L. Lamalle, Grenoble/FR
-
- 1** 08:00 **Short-T2 MRI**
M. Weiger; *Institute for Biomedical Engineering, University and ETH Zurich, Zurich/
SWITZERLAND*
-
- 2** 08:30 **Quiet MRI**
D.M. Grodzki; *Magnetic Resonance, Siemens Healthcare GmbH, Erlangen/GERMANY*
-
- 8:00–9:00** **2 Teaching Session - Advanced** *Stolz 2*
Functional kidney imaging with MRI
Moderators: A. Radjenovic, Glasgow/UK
M. Viallon, Geneva/CH
-
- 3** 08:00 **Measurement of renal perfusion and filtration**
A. Lundervold; *Department of Biomedicine and Department of Radiology, Haukeland
University Hospital, University of Bergen, Bergen/NORWAY*
-
- 4** 08:30 **Diffusion MRI of the kidney**
M. Notohamiprodjo; *Radiology, University Hospital Tuebingen, Tuebingen/GERMANY*
-
- 8:00–9:00** **3 Teaching Session - Basic** *Lehar 1*
MR physics for radiologists
Moderators: M. Günther, Bremen/DE
M. Chappell, Oxford/UK
-
- 5** 08:00 **Basics of magnetic resonance and k-space**
M. Weigel¹, **J. Leupold**²; ¹*Radiological Physics, University Hospital Basel, Basel/
SWITZERLAND*, ²*Department of Radiology · Medical Physics, University Medical Center
Freiburg, Freiburg/GERMANY*
-
- 6** 08:30 **Basic MR sequences**
B. Jung; *Institute of Diagnostic, Interventional and Pediatric Radiology, University Hospital,
Bern/SWITZERLAND*

Scientific Programme

THURSDAY, SEPTEMBER 29, 2016

9:10–10:15 4 Opening Ceremony Lehar 3-4
Sir Peter Mansfield Lecture

7 09:25 **Mind the Field: Sensing, IT, and a Lesson from Mobile Phones**
K.P. Pruessmann; *Institute for Biomedical Engineering, ETH Zurich, Zurich/SWITZERLAND*

10:20–11:20 5 Plenary Session Lehar 3-4
Hybrid imaging and intervention
Moderators: S. Kozerke, Zurich/CH
A. Ramos, Madrid/ES

8 10:20 **Multimodal PET/MR Imaging in Preclinical Research and Clinical Translation**
B. Pichler; *Eberhard Karls University of Tübingen, Department of Preclinical Imaging and Radiopharmacy, Tübingen/GERMANY*

9 10:50 **Image guided radio-oncology**
A.-C. Knopf; *Radiotherapy, UMCG, Groningen/NETHERLANDS*

11:35–12:45 6 Teaching Session - Basic Lehar 3-4
New developments in preclinical and clinical contrast-enhanced imaging
Moderators: A. Bifone, Rovereto/IT
A.P. Candiota, Cerdanyola Del Vallès/ES

10 11:35 **Introduction by the moderator: Current trends in contrast-enhanced MR**
A. Bifone; *Center for Neuroscience and Cognitive Systems, Istituto Italiano di Tecnologia, Rovereto/ITALY*

11 11:45 **New developments using CEST agents**
S. Aime; *Department of Molecular Biotechnologies and Health Sciences & Molecular Imaging Center, University of Torino, Torino/ITALY*

12 12:15 **USPIO and molecular imaging agents**
F. Kießling; *Experimental Molecular Imaging (ExMI), RWTH Aachen University, Aachen/GERMANY*

MRI of the chest and the breast

Moderators: E. Scheurer, Basel/CH
M. Rezk, Cairo/EG

-
- 13** 11:35 **Oxygen enhancement in healthy individuals depends on age but not diffusing capacity**
S. Kindvall¹, S. Diaz², J. Svensson³, P. Wollmer⁴, L.E. Olsson¹; ¹Medical radiation physics, Translational Medicine, Lund University, Malmö/SWEDEN, ²Medical Radiology, Translational Medicine, Lund University, Malmö/SWEDEN, ³Skåne University Hospital, Medical imaging and physiology, Lund/SWEDEN, ⁴Clinical Physiology, Translational Medicine, Lund University, Malmö/SWEDEN
also available as ePoster
-
- 14** 11:46 **Proton spectra from healthy lung: Double Gaussian fits and T2 values**
R. Mulkern¹, M. Balasubramanian¹, R. Seethamraju², E. Grant¹, R. Maccougall¹, B. Gagoski¹, E. Lee¹; ¹Radiology, Children's Hospital, Boston/MA/UNITED STATES OF AMERICA, ²MR R&D, Siemens Healthcare, Malvern/PA/UNITED STATES OF AMERICA
also available as ePoster
-
- 15** **WITHDRAWN**
-
- 16** 11:57 **Diffusion weighted imaging with background suppression in breast cancer**
K. Allam; MR Unit, Ainshams University, Cairo/EGYPT
-
- 17** 12:08 **Characterising Breast Tumours using multi-parametric MRI data**
E. Kousi, E. O'Flynn, V. Morgan, N. Desouza, M. Schmidt; MRI, Cancer Research UK Cancer Imaging Centre, Division of Radiotherapy and Imaging, The Institute of Cancer Research and Royal Marsden Hospital, Sutton, Surrey/UNITED KINGDOM
-
- 18** 12:19 **Automatic Outer and Inner Breast Tissue Segmentation in MRI images of Breast Cancer Patients**
S. Sehrawat¹, S. Chatterjee², M. Singhal³, R.K. Gupta³, A. Singh¹; ¹Centre for Biomedical Engineering, IIT DELHI, New Delhi/INDIA, ²Computer Science, IIT DELHI, New Delhi/INDIA, ³Radiology, Fortis Memorial Research Institute, Gurgaon/INDIA
also available as ePoster

11:35–12:45 **8 Scientific Session**

Stolz 2

Lipids in many shades

Moderators: G.J. Strijkers, Amsterdam/NL
L. Valkovic, Oxford/UK

19 11:35 Detection of adipose tissue fatty acid composition changes with 3.0T MRI in a 31 days overfeeding protocol

A. Nemeth¹, H. Ratiney¹, B. Leporq¹, B. Segrestin², K. Seyssel³, P.-J. Valette⁴, H. Vidal⁵, M. Laville², O. Beuf¹; ¹INSA-Lyon, UCBL, UJM Saint Etienne, CNRS, Inserm, CREATIS UMR 5220, U1206, F-69616, Univ Lyon, Lyon/FRANCE, ²Centre Hospitalier Lyon Sud, Centre de Recherche en Nutrition Humaine Rhône-Alpes (CRNH-RA), Pierre-Bénite/FRANCE, ³Faculty of Biology and Medicine, University of Lausanne, Department of Physiology, Lausanne/SWITZERLAND, ⁴Département d'imagerie digestive, CHU Edouard Herriot, Hospices Civils de Lyon, Lyon/FRANCE, ⁵INSERM UMR1060, Laboratoire CarMeN, Univ Lyon, Oullins/FRANCE
also available as ePoster

20 11:46 The absolute mass concentration of hepatic fat content in children and adolescents: cut-off value for hepatic steatosis measured by MR spectroscopy

E. Chabanova¹, C. Esmann Fonvig², C. Bøjsøe³, J.-C. Holm⁴, H. S. Thomsen¹; ¹Department of Diagnostic Radiology, Copenhagen University Hospital Herlev Gentofte, Herlev/DENMARK, ²The Novo Nordisk Foundation Center for Metabolic Research, Section for Metabolic Genetics, University of Copenhagen, Copenhagen/DENMARK, ³The Children's Obesity Clinic, Department of Pediatrics, Copenhagen University Hospital Holbæk, Holbæk/DENMARK, ⁴Faculty of Health Sciences, University of Copenhagen, Copenhagen/DENMARK

21 11:57 Correlation of MRI and MRS measurement of lipid content in patients before and after liver transplantation

M. Drobny¹, P. Sedivy¹, M. Dezortova¹, X. Deligianni², D. Jiráková¹, M. Burian¹, I. Hejlova³, P. Trunecka³, M. Hajek¹; ¹MR-Unit, Dept. Diagnostic and Interventional Radiology, Institute for Clinical and Experimental Medicine, Prague/CZECH REPUBLIC, ²Clinic of Radiology and Nuclear Medicine, University of Basel Hospital, Basel/SWITZERLAND, ³Dept Hepatology, Institute for Clinical and Experimental Medicine, Prague/CZECH REPUBLIC
also available as ePoster

22 12:08 Perinatal exposure to dichloro-bisphenol A alters lipid composition of mouse liver

D. El Hamrani¹, A. Chepied², W. Mème¹, M. Mesnil², N. Defamie², S. Mème¹; ¹CNRS UPR 4301, Centre de Biophysique Moléculaire, Orléans/FRANCE, ²CNRS ERL 7368, Signalisation et Transport Ionique Membranaire, Poitiers/FRANCE
also available as ePoster

- 23** 12:19 **Muscle water T2 and fat fraction determination with undersampled radial multi spin echo NMR imaging and compressed sensing**
B. Coppa¹, B. Marty¹, P.-Y. Baudin², N. Azzabou¹, P. Carlier¹; ¹*NMR laboratory, Institute of Myology, Paris/France*, ²*R&D, Consultants for Research in Imaging and Spectroscopy, Tournai/BELGIUM*
also available as ePoster
- 24** 12:30 **Robust Quantification of Myelin Water Volume and Water Exchange**
A. Tisell¹, S. Shimekaw¹, G. Cedersund², P. Lundberg¹; ¹*Institutionen för medicin och hälsa, Linköpings Universitet, Linköping/SWEDEN*, ²*Department of Biomedical Engineering, Linköping University, Linköping/SWEDEN*
also available as ePoster

11:35–12:45 9 Scientific Session

Lehar 1

Epilepsy and degenerative brain disorders

Moderators: J.A. Hernandez-Tamames, Rotterdam/NL
D. Sappey-Mariniere, Bron/FR

- 25** 11:35 **Proton MR spectroscopic imaging of Parkinson's disease with mild cognitive impairment or normal cognition registered to MNI152 brain atlas**
S. Cengiz¹, D.B. Arslan¹, E. Erdogdu², A. Kicik³, G.H. Hatay¹, Z. Tufekcioglu⁴, B. Bilgic⁴, H. Hanagas⁴, A.M. Ulug¹, H. Gurvit⁴, T. Demiralp³, **E. Ozturk-Isik**¹;
¹*Biomedical Engineering Institute, Bogazici University, Istanbul/TURKEY*, ²*Psychology and Cognition Research Institute, Bremen University, Bremen/GERMANY*, ³*Hulusi Behcet Life Sciences Research Center, Neuroscience Unit, Istanbul University, Istanbul/TURKEY*, ⁴*Istanbul Faculty of Medicine, Department of Neurology, Behavioral Neurology and Movement Disorders Unit, Istanbul University, Istanbul/TURKEY*
- 26** 11:46 **ASL perfusion MRI as a biomarker in presymptomatic genetic frontotemporal dementia**
H. Mutsaerts¹, S.S. Mirza¹, **J. Petr**², J. Rohrer³, T. David⁴, D. Cash⁴, E. De Vita⁴, K. Dick⁴, S. Ourselin⁵, J. Van Swieten⁶, D. Galimberti⁷, J. Rowe³, C. Graff⁸, F. Tagliavini⁷, R. Laforce Jr.⁹, E. Finger¹⁰, A. Medonca¹¹, J. Knight¹², B. Macintosh¹, M. Masellis¹; ¹*Medicine, Sunnybrook Research Institute, Toronto/CANADA*, ²*Institute for radiopharmaceutical cancer research, Helmholtz-Zentrum Dresden-Rossendorf, Dresden/GERMANY*, ³*Neurology, University College London, London/UNITED KINGDOM*, ⁴*Institute of Neurology, University College London, London/UNITED KINGDOM*, ⁵*CIMIC, University College London, London/UNITED KINGDOM*, ⁶*Neur, Erasmus Medical Center, Rotterdam/NETHERLANDS*, ⁷*Neurology, Istituto di Ricovero e Cura a Carattere Scientifico Ospedale Policlinico, Milan/ITALY*, ⁸*Neurology, Karolinski Institutet, Stockholm/SWEDEN*, ⁹*Neurology, Université Laval, Quebec/ON/CANADA*, ¹⁰*Neurology, University of Western Ontario, London/ON/CANADA*, ¹¹*Instituto de Medicina Molecular, University of Lisbon, Lisbon/PORTUGAL*, ¹²*Genetics, University of Lancaster, Lancaster/UNITED KINGDOM*

Scientific Programme

THURSDAY, SEPTEMBER 29, 2016

27 11:57 **Comparison of cerebral blood volume and arterial blood volume between Parkinson's disease patients with mild cognitive impairment and normal cognition using arterial spin labelling MR at 3T**

D.B. Arslan¹, S. Cengiz¹, A. Kicik², E. Erdogdu³, G.H. Hatay¹, Z. Tufekcioglu⁴, B. Bilgic⁴, A.M. Ulug¹, H. Hanagas⁴, H. Gurvit⁴, T. Demiralp², **E. Ozturk-Isik¹**;

¹Biomedical Engineering Institute, Bogazici University, Istanbul/TURKEY, ²Hulusi Behcet

Life Sciences Research Center, Neuroimaging Unit, Istanbul University, Istanbul/TURKEY,

³Psychology and Cognition Research Institute, Bremen University, Bremen/GERMANY, ⁴Istanbul

Faculty of Medicine, Department of Neurology, Behavioral Neurology and Movement Disorders Unit, Istanbul University, Istanbul/TURKEY

28 12:08 **The red nucleus in Parkinsonian disorders: a quantitative MRI study**

O. Al-Helli, T. David, J. Thornton, T. Yousry; *Institute of Neurology, University College London, London/UNITED KINGDOM*

29 12:19 **The Correlation of Hippocampal T2-mapping with Neuropsychology Test in Patients with Alzheimer's Disease**

Z. Luo¹, X. Zhuang¹, C. Yue²; ¹Radiology, The First Affiliated Hospital, Xiamen University, Xiamen, PR China, Xiamen/CHINA, ²Neurology, The First Affiliated Hospital, Xiamen University, Xiamen, PR China, Xiamen/CHINA

30 12:30 **EEG synchronization measures predict epilepsy-related BOLD-fMRI fluctuations better than commonly used univariate metrics**

R. Abreu¹, A. Leal², F. Lopes Da Silva³, P. Figueiredo¹; ¹ISR-Lisboa/LARSyS and Department of Bioengineering, Instituto Superior Técnico, Universidade de Lisboa, Lisboa/

PORTUGAL, ²Department of Neurophysiology, Centro Hospitalar Psiquiátrico de Lisboa, Lisboa/

PORTUGAL, ³Center of Neuroscience, Swammerdam Institute for Life Sciences, University of Amsterdam, Amsterdam/NETHERLANDS

11:35–12:35 **10 Lightning Talks**

Lehar 2

Hardware, pulse sequences and diffusion

Moderators: K. Scheffler, Tübingen/DE

A.O. Rodriguez, Mexico/MX

31 11:35 **A ¹H/¹³C transceive array coil for the human calf at 7 T: initial results**

S. Goluch¹, R. Kriegler², M. Pichler², J. Sieg², M. Gajdošík³, E. Laistler², M. Krššák¹;

¹Department of Medicine III, Division of Endocrinology and Metabolism, Medical University of Vienna, Vienna/AUSTRIA, ²Center for Medical Physics and Biomedical Engineering, Medical

University of Vienna, Vienna/AUSTRIA, ³Department of Biomedical Imaging and Image Guided

Therapy, Medical University of Vienna, Vienna/AUSTRIA

MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05

also available as ePoster

- 32** 11:37 **Influence of the active detuning inductance in a receive-only surface coil on the transmit field homogeneity of a birdcage resonator**
L. Nohava, L. Navarro De Lara, E. Moser, E. Laistler, R. Kriegl; *Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna/AUSTRIA*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
also available as ePoster
-
- 33** 11:39 **Simulated phase of driving voltage for travelling wave MRI with a parallel-plate waveguide at 7 T**
F. Vazquez¹, S. Solis¹, R. Martin¹, **A. Rodriguez²**; ¹*Physics Department, Faculty of Sciences, UNAM, Mexico City/MEXICO*, ²*Electrical Engineering Department, Universidad Autonoma Metropolitana Iztapalapa, Mexico City/MEXICO*
MEET THE AUTHOR in the ePoster Area at PC#1, on Sept. 29, 12:35–13:05
-
- 34** 11:41 **Travelling-wave transmitted with a simple waveguide for rodents Magnetic Resonance Imaging at 9.4T**
F. Vazquez¹, O. Marruf², R. Martin¹, S. Solis¹, **A. Rodriguez³**; ¹*Physics Department, Faculty of Sciences, UNAM, Mexico City/MEXICO*, ²*Department of Neuroimaging, National Institute of Neurology and Neurosurgery MVS, Mexico City/MEXICO*, ³*Electrical Engineering Department, Universidad Autonoma Metropolitana Iztapalapa, Mexico City/MEXICO*
MEET THE AUTHOR in the ePoster Area at PC#2, on Sept. 29, 12:35–13:05
-
- 35** 11:43 **PIN-diode switched dual-tuned RF coils**
Y. Ha, A.W. Magill, C.-H. Choi, N.J. Shah; *Institute of Neuroscience and Medicine 4, Forschungszentrum Juelich, Juelich/GERMANY*
MEET THE AUTHOR in the ePoster Area at PC#3, on Sept. 29, 12:35–13:05
-
- 36** 11:45 **Magnetic Resonance Guided High Intensity Focussed Ultrasound Ergonomic Animal Experiment Platform**
C. Abraham¹, S. Pichardo², L. Curiel³; ¹*Biotechnology, Lakehead University, Thunder Bay/CANADA*, ²*TBRRI, Thunder Bay Regional Health Science Centre, Thunder Bay/ON/CANADA*, ³*Engineering, Lakehead University, Thunder Bay/ON/CANADA*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
-
- 37** 11:47 **B1 phase gradient coil design for low field exploration of TRASE MRI**
S. Kumaragamage, M. Lang, D. Ostapchuk, **C. Bidinosti**; *Physics, University of Winnipeg, Winnipeg/CANADA*
MEET THE AUTHOR in the ePoster Area at PC#4, on Sept. 29, 12:35–13:05
-
- 38** 11:49 **An inductive performance measure of matrix gradient coils**
F. Jia, S. Kroboth, K. Layton, S. Littin, H. Yu, J. Hennig, M. Zaitsev; *Dept. of Radiology, Medical Physics, Medical Center - University of Freiburg, Freiburg/GERMANY*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
-
- 39** 11:51 **B0 matrix shim array design - optimization of the position, geometry and the number of segments of individual coil elements**
I. Zivkovic¹, I. Tolstikhin², B. Schoelkopf², K. Scheffler³; ¹*High Field Magnetic Resonance Department, Max Planck Institute for Biological Cybernetics, Tuebingen/GERMANY*, ²*Empirical Inference, Max Planck Institute for Intelligent System, Tuebingen/GERMANY*, ³*Dept. for Biomedical Magnetic Resonance, University of Tuebingen, Tuebingen/GERMANY*
MEET THE AUTHOR in the ePoster Area at PC#5, on Sept. 29, 12:35–13:05

Scientific Programme

THURSDAY, SEPTEMBER 29, 2016

-
- 40 11:53 **Physical Limitations Affecting Non-Invasive Low Frequency Tissue Conductivity Reconstructions Using a TMS-MRI Setup**
S. Mandija¹, P. Petrov², S. Neggers², P. Luijten¹, C. Berg¹; ¹*Center for Image Sciences, University Medical Center Utrecht, Utrecht/NETHERLANDS*, ²*Rudolf Magnus Institute of Neuroscience, University Medical Center Utrecht, Utrecht/NETHERLANDS*
MEET THE AUTHOR in the ePoster Area at PC#6, on Sept. 29, 12:35–13:05
-
- 41 11:55 **Calibration of a Fast Field-Cycling NMR Relaxometer for Measurements on Biological Samples that Extend to the Ultra-Low Field Region**
V. Zampetoulas, L. Broche, D. Lurie; *Aberdeen Biomedical Imaging Centre, University of Aberdeen, Aberdeen/UNITED KINGDOM*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
-
- 42 11:57 **Vestibular effects induced by modulated magnetic fields in a clinical MRI device**
I. Cortes-Dominguez¹, M. Fernandez-Seara², N. Perez-Fernandez³, **J. Burguete**¹;
¹*Physics and Applied Mathematics, University of Navarra, Pamplona/SPAIN*, ²*Radiology, University Hospital of Navarra, Pamplona/SPAIN*, ³*Otolaryngology, University Hospital of Navarra, Pamplona/SPAIN*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
-
- 43 11:59 **Evaluation of clinical MRI scanner capabilities to perform ISO/TS 10974 ‘Sequence of Sequences’ for Combined Field Testing for active implantable medical devices (AIMD)**
J. Kreutner¹, J. Van Den Brink², M. Scholten³, P. Sanders², G. Schaefers¹;
¹*Research, MR:comp GmbH / MRI-StaR, Gelsenkirchen/GERMANY*, ²*MRI Development, Philips Healthcare, Best/NETHERLANDS*, ³*Test Lab, MR:comp GmbH, Gelsenkirchen/GERMANY*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
-
- 44 12:01 **Hot Spot Survey and 3D power distribution of an electronic catheter during a RF-field exposure using fiberoptic temperature sensors**
S. Scholz, G. Schaefers, A. Douiri, W. Görtz; *Test Laboratory, MR:comp, Gelsenkirchen/GERMANY*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
-
- 45 12:03 **Gradient-induced charge and rectified current measurement of a multi-electrode active implantable medical device (AIMD) according to ISO/TS 10974 Clause 16**
S. Scholz, W. Görtz, A. Douiri, G. Schaefers; *Test Laboratory, MR:comp, Gelsenkirchen/GERMANY*
MEET THE AUTHOR in the ePoster Area at PC#7, on Sept. 29, 12:35–13:05

- 46 12:05 **Magnetic Resonance Elastography simulation with an Object Oriented Development Interface for NMR**
P. Lefebvre, E. Van Reeth, E. Brusseau, D. Grenier, K. Tse Ve Koon; *Univ Lyon, INSA-Lyon, Université Lyon 1, UJM-Saint Etienne, CNRS, Inserm, CREATIS UMR 5220, Creatis, Villeurbanne/FRANCE*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
also available as ePoster
-
- 47 12:07 **A simple prescan calibration procedure for Ultrashort echo time imaging**
P. Latta¹, Z. Starcuk, Jr.², M. Gruwel³, B. Tomanek⁴; ¹*Central European Institute of Technology, Masaryk University, Brno/CZECH REPUBLIC*, ²*Institute of Scientific Instruments of the CAS, v. v. i., Institute of Scientific Instruments of the CAS, v. v. i., Brno/CZECH REPUBLIC*, ³*Biological Resources Imaging Laboratory, Mark Wainwright Analytical Centre, Sydney/ACT/AUSTRALIA*, ⁴*Department of Oncology, University of Alberta, Edmonton/AB/CANADA*
MEET THE AUTHOR in the ePoster Area at PC#8, on Sept. 29, 12:35–13:05
-
- 48 12:09 **Long-T₂ component suppression by multiple inversion recovery for high-field ultrashort echo-time imaging – a feasibility study**
Z. Starcuk Jr.¹, J. Starcukova¹, P. Latta²; ¹*Magnetic Resonance & Cryogenics, Institute of Scientific Instruments, CAS, Brno/CZECH REPUBLIC*, ²*Central European Institute of Technology, Masaryk University, Brno/CZECH REPUBLIC*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
also available as ePoster
-
- 49 12:11 **How to achieve T1 contrast in multi-shot 3DGRASE**
A. Cristobal Huerta¹, M. Vogel², J.A. Hernandez-Tamames¹; ¹*Nuclear Medicine and Radiology, Erasmus MC, Rotterdam/NETHERLANDS*, ²*Team Leader ASL Scientists Europe, GE Healthcare, Leiderdorp/NETHERLANDS*
MEET THE AUTHOR in the ePoster Area at PC#9, on Sept. 29, 12:35–13:05
-
- 50 12:13 **New hybrid sequence 3DGRASE - 3DFSE**
J.A. Hernandez-Tamames¹, **A. Cristobal-Huerta**¹, M. Vogel²; ¹*Radiology, Erasmus MC, Rotterdam/NETHERLANDS*, ²*Team Leader ASL Scientists Europe, GE Healthcare, Leiderdorp/NETHERLANDS*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
also available as ePoster
-
- 51 12:15 **Temporal and spatial characteristics of signal voids in repetitive acquisitions of the human lower leg using spin-echo vs. stimulated echo diffusion-weighted imaging**
M. Schwartz¹, G. Steidle¹, P. Martirosian¹, B. Yang², F. Schick¹; ¹*University Hospital Tübingen, Germany, Section on Experimental Radiology, Department of Diagnostic and Interventional Radiology, Tübingen/GERMANY*, ²*University of Stuttgart, Germany, Institute of Signal Processing and System Theory, Stuttgart/GERMANY*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
also available as ePoster

Scientific Programme

THURSDAY, SEPTEMBER 29, 2016

-
- 52** 12:17 **Spontaneous activity in surface EMG in relation to signal voids in repetitive single-shot DW-MRI of the human lower leg: Comparison of measurements under varying conditions**
M. Schwartz¹, G. Steidle¹, P. Martirosian¹, A. Ramos-Murguialday², B. Yang³, F. Schick¹; ¹Section on Experimental Radiology, University Hospital of Tübingen, Tübingen/GERMANY, ²Institute for Medical Psychology and Behavioural Neurobiology, University Hospital of Tübingen, Tübingen/GERMANY, ³Institute of Signal Processing and System Theory, University of Stuttgart, Stuttgart/GERMANY
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
also available as ePoster
-
- 53** 12:19 **Fast mean diffusion imaging (FAMEDI) using microcapillary-based phantoms**
S. Vellmer¹, R. Stirnberg², D. Edelhoff¹, D. Suter¹, T. Stöcker², I.I. Maximov¹;
¹Experimentelle Physik 3, Technische Universität Dortmund, Dortmund/GERMANY, ²MR Physics Group, German Center for Neurodegenerative Diseases (DZNE), Bonn/Germany
MEET THE AUTHOR in the ePoster Area at PC#10, on Sept. 29, 12:35–13:05
- 
Certificate of Merit
-
- 54** 12:21 **Water-in-oil Emulsion as a Simple Phantom for Validation of Double Diffusion Encoding MRI Sequences**
P. Ulloa, A. Benedyk, R. Landmesser, M.A. Koch; *Institute of Medical Engineering, University of Lübeck, Lübeck/GERMANY*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
also available as ePoster
- 
Certificate of Merit
-
- 55** 12:23 **Effects of orientational anisometric MRI acquisitions on structural connectomes**
R. Tudela¹, E. Muñoz-Moreno², X. López-Gil², G. Soria²; ¹Group of Biomedical Imaging of the University of Barcelona, CIBER de Bioingeniería, Biomateriales y Nanomedicina (CIBER-BBN), Barcelona/SPAIN, ²Experimental MRI 7T Unit, IDIBAPS, Barcelona/SPAIN
MEET THE AUTHOR in the ePoster Area at PC#11, on Sept. 29, 12:35–13:05
-
- 56** 12:25 **Ex-vivo arterial collagen fibre tractography using micro diffusion tensor imaging**
S.S. Shahid¹, C. Kerskens², R. Gaul¹, V. Flamini³, C. Lally¹; ¹Dept. of Mechanical and Manufacturing Engineering, Trinity College Dublin, Dublin/IRELAND, ²Trinity Institute of Neuroscience, Trinity College Dublin, Dublin/IRELAND, ³Department of Mechanical and Aerospace Engineering, NYU Polytechnic School of Engineering, New York/AL/UNITED STATES OF AMERICA
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
also available as ePoster
- 
Cum Laude

57 12:27 **Determination of the optimal diffusion time for assessing appetite with functional diffusion MRI**
I. Guadilla, M.J. Guillén, S. Cerdán, P. López-Larrubia; *Modelos experimentales de enfermedades humanas, Instituto de Investigaciones Biomédicas Alberto Sols, Madrid/SPAIN*
MEET THE AUTHOR in the ePoster Area at PC#12, on Sept. 29, 12:35–13:05

58 12:29 **Follow-up of brain microstructure changes in Glioblastoma human model by multiparametric MRI: the effect of Avastin®**
M. Sarraf¹, G. Fares², H. Lahrech³; ¹*Radiothérapie, Clinique de St Malo, St Malo/France*,
²*Radiotherapy, Mount Lebanon Hospital, Beyrouth/LEBANON*, ³*INSERM, INSERM, Grenoble/France*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 12:35–13:05
also available as ePoster

14:00–15:30 11 Teaching Session - Advanced Lehar 3-4
Metabolic imaging
Moderators: F. Bamberg, Tübingen/DE
F. Schmid, Münster/DE

59 14:00 **Quantification of subcutaneous and visceral adipose tissue as a novel marker for risk**
J. Bell, E.L. Tomas; *Life Sciences, University of Westminster, London/UNITED KINGDOM*

60 14:30 **Relevance and approaches to quantification of hepatic steatosis**
H. Hetterich; *Institute of Clinical Radiology, Hospital of the Ludwig-Maximilians-University, München/GERMANY*

61 15:00 **Novel MR techniques and applications for metabolic imaging**
F. Schick; *Section on Experimental Radiology, University of Tübingen, Tübingen/GERMANY*

14:00–15:30 12 Scientific Session Stolz 1
Perfusion imaging of human brain & head
Moderators: A. Khalil, Bordeaux /FR
T. Lindner, Kiel/DE

62 14:00 **Effect of crushing with Acceleration and Velocity selective labelling modules on regular ASL signal at multiple post labelling delays**
S. Schmid¹, E. Petersen², M. Van Osch¹; ¹*Radiology, Leiden University Medical Center, Leiden/NETHERLANDS*, ²*Centre for Functional and Diagnostic Imaging and Research, Danish Research Centre for Magnetic Resonance, Copenhagen University Hospital Hvidovre, Hvidovre/DENMARK*
also available as ePoster



63 14:22 **CAIPIRINHA-accelerated 3D GRASE ASL for brain perfusion imaging: A comparison with segmented and GRAPPA-accelerated acquisitions**
M. Boland, R. Stirnberg, T. Stöcker; *MR Physics Group, German Center for Neurodegenerative Diseases (DZNE), Bonn/GERMANY*

Scientific Programme

THURSDAY, SEPTEMBER 29, 2016

-
- 64** 14:33 **Automated outlier detection for time-encoded ASL**
F. Von Samson-Himmelstjerna¹, M. Chappell², M. Günther¹; ¹*MR Physics and Imaging, Fraunhofer MEVIS, Bremen/GERMANY*, ²*Institute of Biomedical Engineering, University of Oxford, Oxford/UNITED KINGDOM*
-
- 65** 14:44 **Influence of realignment-induced interpolation errors on the estimation of cerebral blood flow using arterial spin labelling fMRI**
J. Petr¹, H. Mutsaerts², E. De Vita³, Z. Shirzadi², S. Cohen⁴, C. Blokhuis⁴, D. Pajkrt⁴, F. Hofheinz¹, J. Van Den Hoff¹, I. Aslani⁵; ¹*PET Center, Institute of Radiopharmaceutical Cancer Research, Helmholtz-Zentrum Dresden Rossendorf, Dresden/GERMANY*, ²*Medicine, Sunnybrook Research Institute, Toronto/CANADA*, ³*Lyshold Department of Neuroradiology, The National Hospital for Neurology and Neurosurgery, London/UNITED KINGDOM*, ⁴*Department of Pediatric Infectious Diseases, Emma Children's Hospital, Academic Medical Center, Amsterdam/NETHERLANDS*, ⁵*Integrated Neuro-Imaging Laboratory, Rochester Institute of Technology, Rochester/NY/UNITED STATES OF AMERICA*
-
- 66** 14:55 **Measuring low-frequency oscillations in cerebral blood flow using ASL perfusion MRI**
D. De Jong¹, O. Meulenbroek¹, K. Aarnink², J. Smit², M. Olde Rikkert¹, M. Van Osch³, J. Claassen¹; ¹*Geriatric medicine Radboud Alzheimer Centre, Radboudumc, Nijmegen/NETHERLANDS*, ²*MIRA institute for Biomedical Technology and Technical Medicine, University of Twente, Enschede/NETHERLANDS*, ³*Department of Radiology, Leiden University Medical Center, Leiden/NETHERLANDS*
-
- 67** 15:06 **Evaluation of pCASL sequences for CBF measures in healthy subjects and patients with high-grade carotid artery stenosis**
S. Kaczmarz¹, J. Göttler¹, H. Kooijman², K. Van De Ven³, D. Karampinos⁴, C. Zimmer¹, C. Preibisch¹; ¹*Abteilung für Neuroradiologie, Klinikum rechts der Isar, München/GERMANY*, ²*Philips Healthcare, Philips GmbH, Hamburg/GERMANY*, ³*Philips Medical Systems, Philips, Best/NETHERLANDS*, ⁴*Abteilung für Radiologie, Klinikum rechts der Isar, München/GERMANY*
-
- 68** 15:17 **Non-invasive measurement of perfusion changes in the parotid gland after gustatory stimulation with the intravoxel incoherent motion imaging approach**
A. Becker, A. Manoliu, A. Boss; *Diagnostische und Interventionelle Radiologie, UniversitätsSpital Zürich, Zürich/SWITZERLAND*

Cardiac MRI: Getting to the heart of the matter

Moderators: P. Carlier, Paris/FR
T. Dresselaers, Leuven/DE

- 69** 14:00 **Optimisation of T1 Mapping for the Assessment of Myocardial Iron Overload**
S. Mcelroy; *Medical Engineering and Physics, King's College London, London/UNITED KINGDOM*
also available as ePoster
- 70** 14:11 **Towards free-breathing cardiac MOLLI T1 mapping using prospective slice position tracking**
T. Dresselaers¹, M. Versluis², A. Marchi³, G. Vovas¹, J. Bogaert¹; ¹*Imaging and Pathology, University Hospitals Leuven, Leuven/BELGIUM*, ²*Philips Healthcare Benelux, Philips, Eindhoven/NETHERLANDS*, ³*Cardiovascular and Thoracic Department, Azienda Ospedaliera-Universitaria Careggi, Florence/ITALY*
- 71** 14:22 **Conditions for Separation and Individual Quantification of IMCL and EMCL Signals in ¹H Cardiac MRS**
A. Fillmer¹, A. Hock², D. Cameron³, A. Henning⁴; ¹*Medical Metrology, Physikalisch-Technische Bundesanstalt (PTB), Berlin/GERMANY*, ²*Department of Psychiatry, Psychotherapy and Psychosomatics, Hospital of Psychiatry, University of Zurich, Zurich/SWITZERLAND*, ³*Norwich Medical School, University of East Anglia, Norwich/UNITED KINGDOM*, ⁴*Magnetic Resonance Center, Max Planck Institute for Biological Cybernetics, Tuebingen/GERMANY*
- 72** 14:33 **Automatic Volumetry of Cardiac Adipose Tissues Using Opposed-Phase Magnetic Resonance Imaging at 3 Tesla**
F. Fallah¹, P. Martirosian², J. Machann³, B. Yang⁴, F. Schick²; ¹*Section on Experimental Radiology, Department of Diagnostic and Interventional Radiology, University Hospital Tübingen, Germany, Institute of Signal Processing and System Theory, University of Stuttgart, Germany, Stuttgart/GERMANY*, ²*University Hospital Tübingen, Germany, Section on Experimental Radiology, Department of Diagnostic and Interventional Radiology, Tübingen/GERMANY*, ³*Institute for Diabetes Research and Metabolic Diseases (IDM) of the Helmholtz Center Munich at the University of Tübingen, Germany, Section on Experimental Radiology, Department of Diagnostic and Interventional Radiology, University Hospital Tübingen, Germany, Tübingen/GERMANY*, ⁴*University of Stuttgart, Germany, Institute of Signal Processing and System Theory, Stuttgart/GERMANY*
also available as ePoster
- 73** 14:44 **Novel Ultrasound Triggering of Cardiac Functional MRI using Spatially Resolved MR-compatible Doppler**
L.A. Crowe¹, G. Manasseh¹, A. Chmielewski², A.-L. Hachulla¹, H. Muller³,
R. Salomir¹, J.-P. Vallée¹; ¹*Radiology, Geneva University Hospital, Geneva/SWITZERLAND*, ²*Hospital for Sick Children, University of Toronto, Toronto/CANADA*, ³*Cardiology, Geneva University Hospital, Geneva/SWITZERLAND*
also available as ePoster

Scientific Programme

THURSDAY, SEPTEMBER 29, 2016

74 14:55 **Implementation of Low-Rank + Sparse Matrix Decomposition on GPUs for Accelerating Re-Construction Time**

S. A. Qazi, I. Ullah, H. Omer; *Department of Electrical Engineering, COMSATS Institute of Information Technology, Islamabad/PAKISTAN*
also available as ePoster

75 15:06 **Median value quantification of segmental myocardial T2* reduces observer's variability on two T2* fitting methods applied pixel-wise**

P. Triadyaksa, N.H.j. Prakken, M. Oudkerk, P.E. Sijens; *Center for Medical Imaging North East The Netherlands, University of Groningen - University Medical Center Groningen, Groningen/NETHERLANDS*
also available as ePoster

76 15:17 **Mapping Dynamic Myocardial Fibre Reorientation in Dilated Cardiomyopathy using Dual-Phase In-Vivo Cardiac Diffusion Tensor Imaging**

C. Von Deuster¹, E. Sammut¹, C.T. Stoeck¹, R. Razavi¹, S. Kozerke²; ¹*Imaging Sciences and Biomedical Engineering, King's College London, London/UNITED KINGDOM*,
²*Institute for Biomedical Engineering, University and ETH Zurich, Zurich/SWITZERLAND*

16:00–17:30 14 Teaching Session - Advanced Functional neuroimaging techniques

Lehar 3-4

Moderators: P. Figueiredo, Lisbon/PT
I. Boscolo Galazzo, London/UK

77 16:00 **How to get the data**

M. Donahue; *Radiology and Radiological Sciences, Vanderbilt University Medical Center, Nashville/TN/UNITED STATES OF AMERICA*
also available as ePoster

78 16:30 **How to deal with the data**

M. Chappell; *Institute of Biomedical Engineering, University of Oxford, Oxford/UNITED KINGDOM*

79 17:00 **How to use it: from basic research to the clinics**

S. Caspers; *Institute of Neuroscience and Medicine (INM-1), Research Centre Jülich, Jülich/GERMANY*

Novel hardware concepts

Moderators: E. Atalar, Ankara/TR
M. Meyerspeer, Vienna/AT

-
- 80** 16:00 **Optimization of Timing Parameters in Acoustic Radiation Force Imaging**
T. Dadakova, M. Bock; *Dept. of Radiology, Medical Physics, Medical Center – University of Freiburg, Faculty of Medicine, University of Freiburg, Freiburg/GERMANY*
also available as ePoster
-
- 81** 16:11 **A Z-Gradient Array for Spatially Oscillating Magnetic Fields in Multi-Slice Excitation**
K. Ertan, S. Taraghinia, A. Sadeghi, E. Atalar; *National Magnetic Resonance Research Center (UMRAM), Bilkent University, Ankara/TURKEY*
also available as ePoster
-
- 82** 16:22 **Using a matrix gradient coil for shimming of the human brain**
F. Jia, S. Kroboth, K. Layton, S. Littin, J. Assländer, M. Reiser, F. Wang, H. Yu, M. Zaitsev; *Department of Radiology, Medical Physics, University Medical Center Freiburg, Freiburg/GERMANY*
-
- 83** 16:33 **Unified Coils (UNIC) for Parallel Imaging and B0 Shimming**
H. Han¹, J. Stager¹, W. Cao², Z. Li¹, J. Cho³, D. Zhou³, Y. Wang³, D. Li¹;
¹*Cedars-Sinai Medical Center, Biomedical Imaging Research Institute, Los Angeles/CA/ UNITED STATES OF AMERICA*, ²*Huazhong University of Science and Technology, Tongji Hospital, Wuhan/CHINA*, ³*Cornell University, Cornell University Medical College, New York City/ NY/UNITED STATES OF AMERICA*
-
- 84** 16:44 **Development of a head coil system with integrated transmission source for accurate attenuation correction in PET/MRI: Monte Carlo Simulations**
A. Renner, J. Sieg, R. Kriegl, L. Navarro De Lara, E. Moser, T. Beyer, W. Birkfellner, M. Figl, E. Laistler; *Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna/AUSTRIA*
-
- 85** 16:55 **Decoupling an Array of Monolithic Transmission Line Resonators (TLRs) for 7 T MRI using Shielding Rings**
S. Hosseinezhadian¹, R. Kriegl², Z. Li¹, M. Poirier-Quinot¹, L. Darrasse¹, E. Moser², E. Laistler², J.-C. Ginefri¹; ¹*Physics, IR4M(Imagerie par Résonance Magnétique Médicale et Multi-Modalités) Université Paris-Sud, Université Paris Saclay, Orsay, France, Orsay/ FRANCE*, ²*Center of Medical Physics and Biomedical Engineering, Medical University Vienna, Vienna/AUSTRIA*
also available as ePoster
-
- 86** 17:06 **Full-dublex MRI for zero TE imaging**
M. Salim¹, A.C. Ozen², M. Bock², **E. Atalar**¹; ¹*National Magnetic Resonance Research Center (UMRAM), Bilkent University, Ankara/TURKEY*, ²*Dept. of Radiology - Medical Physics, University Medical Center Freiburg, Freiburg/GERMANY*

Scientific Programme

THURSDAY, SEPTEMBER 29, 2016

87 17:17 **Ultrasonic soldering on glass for the construction of MRI coils with minimized background signal in short-T2 images**
M.B. Rösler, M. Weiger, T. Schmid, D.O. Brunner, R. Froidevaux, K.P. Pruessmann; *Institute for Biomedical Engineering, ETH and University Zurich, Zurich/SWITZERLAND*

16:00–17:30 **16 Scientific Session**

Stolz 2

Animal models

Moderators: A. Viola, Marseille/FR
A. Heerschap, Nijmegen/NL

88 16:00 **A multimodality protocol combining endoscopic MRI and confocal endomicroscopy for mice colorectal lesions assessment**
H. Dorez¹, R. Sablong¹, L. Canaple², H. Saint-Jalmes³, S. Gaillard¹, H. Ratiney¹, D. Moussata⁴, O. Beuf¹; ¹CREATIS CNRS UMR 5220 – INSERM U1206 – UJM Saint Etienne – Université Lyon 1 – INSA Lyon, Université de Lyon, Villeurbanne/FRANCE, ²Institut de Génomique Fonctionnelle de Lyon, Université de Lyon 1, UMR 5242 CNRS, Ecole Normale Supérieure de Lyon, Université de Lyon, Lyon/FRANCE, ³LTSI, INSERM UMR 1099, Rennes/FRANCE, ⁴Service hépato-gastroentérologie, Centre Régional Universitaire de Tours, Tours/FRANCE
also available as ePoster

89 16:11 **Tendon μ -structural changes after mechanical load, investigated by parameter-selective 2D- and 3D-MR-microscopy in an adult bovine animal model**
A. Berg¹, M. Stoiber²; ¹Center for Medical Physics and Biomedical Engineering, MR-CE, Medical University of Vienna, Vienna/AUSTRIA, ²Center for Medical Physics and Biomedical Engineering & Vienna Ludwig-Boltzmann-Cluster for Cardiovascular Research, Medical University of Vienna, Vienna/AUSTRIA

90 16:22 **Contrast Optimization for an Animal Model of Prostate Cancer MRI at 3T**
C. Abraham¹, B. Tomanek², L. Curiel³; ¹Biotechnology, Lakehead University, Thunder Bay/ON/CANADA, ²Oncology, University of Alberta, Edmonton/AB/CANADA, ³Engineering, Lakehead University, Thunder Bay/ON/CANADA

91 16:33 **High field NODDI assessment of intrauterine growth restriction consequences on rat pup brain**
Y. Van De Looij¹, A. Rideau², O. Baud², P. Hüppi¹, S. Sizonenko¹; ¹Division of child growth and development, Department of Paediatrics, University of Geneva, Geneva/SWITZERLAND, ²DHU Protect, Robert Debré Hospital, Paris/FRANCE

- 92** 16:44 **MRI based assessment of demyelination in a mouse cuprizone model - application of cryo-coil and MP-RAGE at 9.4T**
W. Piędzia¹, K. Jasinski¹, K. Kalita¹, K. Korga¹, K. Janeczko², **W.P. Węglarz¹**;
¹Department of Magnetic Resonance Imaging, Institute of Nuclear Physics Polish Academy of Sciences, Krakow/POLAND, ²Institute of Zoology, Jagellonian University, Krakow/POLAND
also available as ePoster
- 93** 16:55 **Metabolic evolution of cortex before, during and immediately after global ischemia: an ultra-short echo time ¹H MRS study**
M.G. Lepore¹, **H. Lei²**; ¹Centre d'Imagerie Biomédicale, Ecole Polytechnique Fédérale de Lausanne, Lausanne/SWITZERLAND, ²Radiology, University of Geneva, Geneva/SWITZERLAND
also available as ePoster
- 94** 17:06 **Time shift analysis of resting-state functional MRI data in a mouse model of focal cerebral ischemia: preliminary results**
A.A. Khalil¹, S. Mueller², M. Foddiss³, U. Dirnagl³, J.B. Fiebach¹, A. Villringer⁴, P. Boehm-Sturm²; ¹Department of Academic Neuroradiology, Center for Stroke Research Berlin, Charité University Medicine Berlin, Berlin/GERMANY, ²Charité Core Facility 7T Experimental MRIs, Charité University Medicine Berlin, Berlin/GERMANY, ³Department of Experimental Neurology, Center for Stroke Research Berlin, Charité University Medicine Berlin, Berlin/GERMANY, ⁴Department of Neurology, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig/GERMANY
also available as ePoster
- 95** 17:17 **Short term effect of lactate neuroprotection in neonate hypoxia-ischemia: a metabolic or signal effect?**
L. Mazuel, S. Sanchez, J.-F. Chateil, **A.-K. Bouzier-Sore**; CNRS/University of Bordeaux, CRMSB, Bordeaux/FRANCE

16:00–17:30 17 Scientific Session

Lehar 1

Vascular and head injury

Moderators: A. van der Lugt, Rotterdam/NL
F. Gentili, Siena/IT

- 96** 16:00 **Independent component analysis of resting-state hemodynamics in acute stroke: A new approach for identifying hypoperfusion**
A.A. Khalil¹, E. Kirilina², T. Nierhaus³, K. Villringer¹, A. Villringer⁴, J.B. Fiebach¹;
¹Department of Academic Neuroradiology, Center for Stroke Research Berlin, Berlin/GERMANY, ²Center of Cognitive Neuroscience Berlin, Department of Education and Psychology, Free University Berlin, Berlin/GERMANY, ³Neurocomputation and Neuroimaging Unit, Free University Berlin, Berlin/GERMANY, ⁴Department of Neurology, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig/GERMANY
also available as ePoster
- 97** 16:11 **Toward Consolidation of MRI-Based Macro- and Mesoscale Models of Cerebral Vasculature**
M. Kocinski¹, A. Materka¹, A. Deistung², J.R. Reichenbach²; ¹Institute of Electronics, Lodz University of Technology, Lodz/POLAND, ²Medical Physics Group, Institute for Diagnostic and Interventional Radiology, Jena University Hospital, Friedrich Schiller-University, Jena/GERMANY

Scientific Programme

THURSDAY, SEPTEMBER 29, 2016

-
- 98** 16:22 **Could we evaluate the clot composition with standard MRI stroke protocol ? An in vitro study with predetermined clot component**
K. Janot¹, A.P. Narata¹, I. Filipiak², J.-P. Cottier³, R. Guibon⁴,
G. Fromont-Hankard⁴; ¹Service de Neuroradiologie Interventionnelle, CHRU de Tours, Tours/FRANCE, ²UMR85, PRC, CNRS, IFCE, INRA, Université de Tours, Nouzilly/FRANCE, ³Service de Neuroradiologie Diagnostique, CHRU de Tours, Tours/ FRANCE, ⁴Service d'Anatomie et Cytologie Pathologiques, CHRU de Tours, Tours/FRANCE
also available as ePoster
-
- 99** 16:33 **DTI in chronic hemispheric ischemic stroke patients as a predictor of motor recovery**
E. Kremneva¹, L. Dobrynina², R. Konovalov¹, A. Kadykov²; ¹Radiology, Research Center of Neurology, Moscow/RUSSIAN FEDERATION, ²Neurology, Research Center of Neurology, Moscow/RUSSIAN FEDERATION
-
- 100** 16:44 **Diffusion Kurtosis MRI (DKI) in severe Traumatic Brain Injury**
I. Gutmann¹, A. Liedler², G. Heinz¹, S. Oberndorfer³, K. Ungersböck⁴, F. Marhold⁴;
¹Institute for Radiology and Intervention, University Hospital St. Pölten, St. Pölten/AUSTRIA, ²Anesthesiology and Emergency Care, University Hospital St. Pölten, St. Pölten/AUSTRIA, ³Neurology, University of St. Pölten, St. Pölten/AUSTRIA, ⁴Neurosurgery, University Hospital St. Pölten, St. Pölten/AUSTRIA
-
- 101** 16:55 **Fractal Analysis of Blood Oxygenation Level Dependent (BOLD) Signals from Mild Traumatic Brain Injury (mTBI) Patients**
O. Dona¹, M. Noseworthy²; ¹Biomedical Engineering, McMaster University, Hamilton/on/CANADA, ²Electrical and Computer Engineering, McMaster University, Hamilton/ON/CANADA
also available as ePoster
-
- 102** 17:06 **DTI-TMS assessment of corticospinal tract and corpus callosum integrity in ischemic stroke patients with relation to their motor outcome at the chronic stage**
S. Kulikova¹, M. Piradov², R. Konovalov³, A. Limonova⁴, L. Dobrynina⁵, M. Nazarova⁶; ¹Laboratory of Interdisciplinary Empirical Studies, National Research University Higher School of Economics, Perm/RUSSIAN FEDERATION, ²Neurology, Research Center of Neurology, Moscow/RUSSIAN FEDERATION, ³Neuroradiology, Research Center of Neurology, Moscow/RUSSIAN FEDERATION, ⁴Faculty of Fundamental Medicine, Moscow State University, Moscow/RUSSIAN FEDERATION, ⁵3rd clinical department, Research Center of neurology, Moscow/RUSSIAN FEDERATION, ⁶Centre for Cognition and Decision Making, National Research University Higher School of Economics, Moscow/RUSSIAN FEDERATION
also available as ePoster

103 17:17 **Magnetic resonance imaging biomarkers for assessment of vascular pathologies in gliomas**
M. Zimmermann¹, K. Rössler¹, A. Mennecke¹, A. Dörfler², S. Oberndorfer³, M. Buchfelder¹, G. Heinz⁴, A. Stadlbauer¹; ¹Neurosurgery, University of Erlangen-Nürnberg, Erlangen/GERMANY, ²Neuroradiology, University of Erlangen-Nürnberg, Erlangen/GERMANY, ³Neurology, University Clinic of St. Pölten, St. Pölten/AUSTRIA, ⁴Radiology, University Clinic of St. Pölten, St. Pölten/AUSTRIA

16:00–17:00 18 Lightning Talks

Lehar 2

Image analysis and reconstruction

Moderators: T. Stöcker, Bonn/DE
M. Uecker, Göttingen/DE

104 16:00 **A comparison of Total Generalized Variation, Gaussian and Wiener filtering methods for noise reduction in FLAIR² images**
R. Schranzer¹, A. Rauscher², M. Egger¹, E. Haimburger¹, K. Bredies³, G. Reishofer⁴, G. Grabner¹; ¹Department of Radiologic Technology, Carinthia University of Applied Sciences, Klagenfurt/AUSTRIA, ²UBC MRI Research Centre, University of British Columbia, Wesbrook Mall/BC/CANADA, ³Institute for Mathematics and Scientific Computing, University of Graz, Graz/AUSTRIA, ⁴Department of Radiology, Medical University of Graz, Graz/AUSTRIA

MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 17:00–17:30

105 16:02 **Comparison of white matter volume changes between patients with obsessive compulsive and generalized anxiety disorders**
G.-W. Jeong, G.-W. Kim; *Radiology, Chonnam National University Hospital/Medical School, Gwang-Ju/KOREA, REPUBLIC OF*

MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 17:00–17:30

106 16:04 **A voxel-based morphometric approach to the progression of atrophy in Alzheimer's disease**
F. Er¹, D. Goularas², B. Ormeci³; ¹Department of Biotechnology, Yeditepe University, Istanbul/TURKEY, ²Department of Computer Engineering, Yeditepe University, Istanbul/TURKEY, ³Department of Neurology, Yeditepe University Hospital, Istanbul/TURKEY

MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 17:00–17:30
also available as ePoster

107 16:06 **Performance evaluation for automated segmentation of Hippocampus Subfields: Preliminary Results using FreeSurfer and ASHS**

P. Khandelwal, M. Barth, **S. Bollmann**; *Centre for Advanced Imaging, University of Queensland, Brisbane/AUSTRALIA*

MEET THE AUTHOR in the ePoster Area at PC#1, on Sept. 29, 17:00–17:30

108 16:08 **Comparative brain activation patterns between implicit and explicit retrieval tasks in schizophrenia**

G.-W. Jeong, G.-W. Kim; *Radiology, Chonnam National University Hospital/Medical School, Gwang-Ju/KOREA, REPUBLIC OF*

MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 17:00–17:30
also available as ePoster

Scientific Programme

THURSDAY, SEPTEMBER 29, 2016

-
- 109** 16:10 **ZTE and UTE MRI can follow the degradation of calcium phosphate cement in tooth**
W. Dou¹, S. Mastroggiacomo², A. Veltien¹, X.F. Walboomers², A. Heerschap¹;
¹Department of Radiology, Radboud University Medical Centre, Nijmegen/NETHERLANDS,
²Department of Biomaterials, Radboud University Medical Centre, Nijmegen/NETHERLANDS
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 17:00–17:30
-
- 110** 16:12 **Magnetic Resonance Fingerprinting (MRF) implementation on Graphical Processing Unit (GPU) for exploiting inherent parallelism**
I. Ullah¹, **S. Tallat**¹, F. Shahid¹, H. Shahzad¹, N. Seiberlich², M. Griswold²,
H. Omer¹; ¹Electrical Engineering, Comsats Institute of Information Technology, Islamabad/
PAKISTAN, ²Department of Biomedical Engineering, Case Western Reserve University,
Cleveland, Oh/OH/UNITED STATES OF AMERICA
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 17:00–17:30
also available as ePoster
-
- 111** 16:14 **Validation of TGV regularized accelerated MR reconstruction by age estimation**
M. Schlögl¹, B. Neumayer², T. Ehammer², T. Widek², C. Payer³, M. Urschler²,
R. Stollberger⁴; ¹Institute of Medical Engineering, Graz University of Technology, Graz/
AUSTRIA, ²Clinical Forensic Imaging, Ludwig Boltzmann Institute, Graz/AUSTRIA, ³Institute for
Computer Graphics and Vision, Graz University of Technology, Graz/AUSTRIA, ⁴Institute of
Medical Engineering, Graz University of Technology and BioTechMed-Graz, Graz/AUSTRIA
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 17:00–17:30
-
- 112** 16:16 **16-fold accelerated 3D imaging at 7 Tesla using the hardware-independent sequence format PulSeq and a python toolbox for image reconstruction**
J.M. Schwarz¹, D. Brenner¹, K.J. Layton², M. Zaitsev², T. Stöcker¹; ¹MR Physics
Group, German Center for Neurodegenerative Diseases (DZNE), Bonn/GERMANY, ²Department
of Radiology, Medical Physics, University Medical Center Freiburg, Freiburg/GERMANY
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 17:00–17:30
-
- 113** 16:18 **Compressively sampled MR Image Reconstruction Exploiting Wavelet Tree Sparsity with Modified Conjugate Gradient**
F. Akbar, R. Qasim, M. Kaleem, **H. Omer**; Electrical Engineering, Comsats Institute Of
Information Technology, Islamabad/PAKISTAN
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 17:00–17:30
also available as ePoster
-
- 114** 16:20 **Low Rank Matrix Decomposition using Jacobi SVD Method in L+S Algorithm**
A. Saeed, S. Nasir, **S. A. Qazi**, H. Omer; Electrical Engineering, Comsats Institute of
Information Technology, Islamabad/PAKISTAN
MEET THE AUTHOR in the ePoster Area at PC#2, on Sept. 29, 17:00–17:30

- 115** 16:22 **Compressively Sampled MR Image Reconstruction using Iterative Algorithm with Radial Sampling**
S. Elahi, **M. Kaleem**, H. Omer; *Department of Electrical Engineering, COMSATS Institute of Information Technology, Islamabad/PAKISTAN*
MEET THE AUTHOR in the ePoster Area at PC#3, on Sept. 29, 17:00–17:30
-
- 116** 16:24 **L+S Reconstruction using Iterative Soft Thresholding and Separable Surrogate Functional (SSF) Method**
M. Bashir, **S. A. Qazi**, I. Aslam, H. Omer; *Electrical Engineering, Comsats Institute of Information Technology, Islamabad/PAKISTAN*
MEET THE AUTHOR in the ePoster Area at PC#4, on Sept. 29, 17:00–17:30
-
- 117** 16:26 **Compressively Sampled MR Image Reconstruction using Modified POCS Algorithm**
S. Elahi, **M. Kaleem**, H. Omer; *Department of Electrical Engineering, COMSATS Institute of Information Technology, Islamabad/PAKISTAN*
MEET THE AUTHOR in the ePoster Area at PC#5, on Sept. 29, 17:00–17:30
-
- 118** 16:28 **Sparse Image Reconstruction using Tangent-Vector-based Gradient Projection Method**
M. Kaleem¹, U. Zia¹, S.-U.-R. Sarwar², M. Qureshi¹, H. Omer¹; ¹*Electrical Engineering, COMSATS Institute of Information Technology, Islamabad/PAKISTAN*, ²*Electrical Engineering, CASE University, Islamabad/PAKISTAN*
MEET THE AUTHOR in the ePoster Area at PC#6, on Sept. 29, 17:00–17:30
-
- 119** 16:30 **Coil Sensitivity Maps Estimation for k-t SPARSE SENSE Reconstruction using Eigen-Value Approach**
I. Shahzadi, I. Aslam, **S. A. Qazi**, H. Omer; *Electrical Engineering, Comsats Institute of Information Technology, Islamabad/PAKISTAN*
MEET THE AUTHOR in the ePoster Area at PC#7, on Sept. 29, 17:00–17:30
-
- 120** 16:32 **Eigen-value Approach of Coil Sensitivity Maps Estimation for L+S Reconstruction of Dynamic MR Images**
I. Shahzadi, **S. A. Qazi**, H. Shahzad, H. Omer; *Electrical Engineering, COMSATS Institute of Information Technology, Islamabad/PAKISTAN*
MEET THE AUTHOR in the ePoster Area at PC#8, on Sept. 29, 17:00–17:30
-
- 121** 16:34 **Combining CG-SENSE with Compressed Sensing for MR Image reconstruction for Radial and Spiral Trajectories**
I. Ullah, H. Omer; *Electrical Engineering, Comsats Institute of Information Technology, Islamabad/PAKISTAN*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 17:00–17:30
also available as ePoster

Scientific Programme

THURSDAY, SEPTEMBER 29, 2016

-
- 122 16:36 **GRAPPA Operator Gridding (GROG) for Optimized L+S GRASP Reconstruction of Dynamic Contrast Enhanced MRI**
I. Shahzadi, I. Aslam, **S. A. Qazi**, H. Omer; *Department of Electrical Engineering, COMSATS Institute of Information Technology, Islamabad/PAKISTAN*
MEET THE AUTHOR in the ePoster Area at PC#9, on Sept. 29, 17:00–17:30
-
- 123 16:38 **Reconstruction of undersampled Multi-coil Radial data using POCS with GROG gridding**
U. Zia, S. Sohail, **M. Kaleem**, H. Omer; *Electrical Engineering, COMSATS Institute of Information Technology, Islamabad/PAKISTAN*
MEET THE AUTHOR in the ePoster Area at PC#10, on Sept. 29, 17:00–17:30
-
- 124 16:40 **Compressed Sensing for Cartesian and Non-Cartesian trajectories using Conjugate Gradient and POCS Algorithms**
U. Zia, S. Sohail, **M. Kaleem**, H. Omer; *Electrical Engineering, COMSATS Institute of Information Technology, Islamabad/PAKISTAN*
MEET THE AUTHOR in the ePoster Area at PC#11, on Sept. 29, 17:00–17:30
-
- 125 16:42 **Compressively Sampled MR Image Reconstruction using p-Thresholding Iterative Algorithm**
S. Elahi, **M. Kaleem**, H. Omer; *Department of Electrical Engineering, COMSATS Institute of Information Technology Islamabad, Pakistan., Islamabad/PAKISTAN*
MEET THE AUTHOR in the ePoster Area at PC#12, on Sept. 29, 17:00–17:30
-
- 126 16:44 **Optimized GRASP for Dynamic Contrast Enhanced MRI using GRAPPA Operator Gridding (GROG) and Iterative Soft-Thresholding**
I. Shahzadi, I. Aslam, **S. A. Qazi**, H. Omer; *Electrical Engineering, Comsats Institute of Information Technology, Islamabad/PAKISTAN*
MEET THE AUTHOR in the ePoster Area at PC#13, on Sept. 29, 17:00–17:30
-
- 127 16:46 **Compressed Sensing in MRI: how the Maximum Undersampling Factor depends on the Image Size**
C. Lazarus¹, A. Coste², N. Chauffert³, A. Vignaud⁴, P. Ciuciu¹; ¹DRF/I2BM/NeuroSpin/UNATI/Parietal, CEA, Gif-Sur-Yvette/France, ²NeuroSpin, CEA, Gif-Sur-Yvette/France, ³NeuroSpik, CEA, Gif-Sur-Yvette/France, ⁴DRF/I2BM/NeuroSpin/UNIRS, CEA, Gif-Sur-Yvette/France
MEET THE AUTHOR in the ePoster Area at PC#14, on Sept. 29, 17:00–17:30

128 16:48

Navigator-based motion detection in 3D FLASH imaging at no scan time cost

D. Papp¹, M. Callaghan¹, I. Dragonu², C. Buckley², H. Meyer³, N. Weiskopf⁴; ¹*UCL Institute of Neurology, Wellcome Trust Centre For Neuroimaging, London/UNITED KINGDOM*, ²*Diagnostic Imaging and MRI, Siemens Healthcare Ltd., Frimley/UNITED KINGDOM*, ³*Diagnostic Imaging and MRI, Siemens Healthcare GmbH, Erlangen/GERMANY*, ⁴*Department of Neurophysics, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig/GERMANY*

MEET THE AUTHOR in the Paper Poster Area, on Sept. 29, 17:00–17:30
also available as ePoster

17:35

Meet the expert

Level 1

Body & CV Radiology

T. Leiner, Utrecht/NL
H.S. Thomsen, Herlev/DK

Molecular and Preclinical MR

S. Aime, Torino/IT
A. Bifone, Rovereto/IT
U. Himmelreich, Leuven/BE
R. Kauppinen, Bristol/UK

MR Physics, Sequences, Hardware

P. Figueiredo, Lisbon/PT
M. Günther, Bremen/DE
B. Jung, Freiburg/DE
K.P. Pruessmann, Zurich/CH
O. Speck, Magdeburg/DE

Neuroradiology

E.-M. Larsson, Uppsala/SE
D. Prayer, Vienna/AT
M. Smits, Rotterdam/NL

Processing, image analysis, machine learning

M. Ladd, Tübingen/DE
J. Schnabel, London/UK
K. Uludag, Tübingen/DE

Spectroscopy

C. Arús, Cerdanyola del Vallès/ES
C. Boesch, Bern/CH
E. Danielsen, Copenhagen/DK

Scientific Programme

FRIDAY, SEPTEMBER 30, 2016

-
- 8:00–9:00** **19 Teaching Session - Advanced** Stolz 1
Sparse sampling approaches
Moderators: M. Blaimer, Würzburg/DE
P. Ehse, Tübingen/DE
-
- 129 08:00** **Computational methods for fast imaging**
M. Uecker; *Institut für Diagnostische und Interventionelle Radiologie, Universitätsmedizin Göttingen, Göttingen/GERMANY*
-
- 130 08:30** **Modern strategies for efficient MR parameter quantification**
M. Doneva; *Europe, Philips Research, Hamburg/GERMANY*
-
- 8:00–9:00** **20 Teaching Session - Basic** Stolz 2
4D Flow imaging
Moderators: B. Jung, Bern/CH
M. Koch, Lübeck/DE
-
- 131 08:00** **Basic MRI principles and techniques for the analysis of cardiovascular hemodynamics**
P. Dyverfeldt; *Center for Medical Image Science and Visualization (CMIV), Linköping University, Linköping/SWEDEN*
-
- 132 08:20** **Current and emerging clinical application: do flow patterns matter?**
A. Frydrychowicz; *Clinic for Radiology and Nuclear Medicine, University Hospital Schleswig-Holstein, Campus Lübeck, Lübeck/GERMANY*
-
- 133 08:40** **New Developments & Future Directions: Acceleration, Advanced Analysis, and Hemodynamic Biomarkers**
M. Markl; *Radiology & Biomedical Engineering, Cardiovascular Imaging Research, Chicago/IL/UNITED STATES OF AMERICA*
-
- 8:00–9:00** **21 Teaching Session - Basic** Lehar 1
MRI in the presence of implants: how to address artifacts and safety concerns
Moderators: M.J. Graves, Cambridge/UK
S.J. Vannesjo, Zurich/CH
-
- 134 08:00** **Imaging in the presence of implants: artifact reduction**
M. Nittka; *HC DI MR PI TIO, Siemens Healthcare GmbH, Erlangen/GERMANY*
-
- 135 08:30** **Safety and regulations for passive implants in MRI**
J. Felblinger¹, L. Belguerras², C. Pasquier¹; ¹CHU de Nancy Brabois, INSERM, Vandoeuvre/FRANCE, ²U947 IADI, Université de Lorraine, Vandoeuvre/FRANCE

9:10–10:40 **22 Plenary Session**

Lehar 3-4

Fields of dreams - tuning and boosting for the next generation

Moderators: M.J. Graves, Cambridge/UK
M.E. Ladd, Heidelberg/DE

136 09:10 **Parallel transmit MRI: fulfilling the dream of safer and more effective imaging**

S.J. Malik; *Division of Imaging Sciences and Biomedical Engineering, King's College London, London/UNITED KINGDOM*

137 09:40 **Stronger magnets, higher gradients...is that all?**

P. Harvey; *MRI Systems, Philips, Best/NETHERLANDS*

138 10:10 **Boosting metabolic imaging sensitivity with hyperpolarization**

A. Comment; *Pollards Wood, General Electric Healthcare, Chalfont St Giles/UNITED KINGDOM*

10:50–12:20 **23 Teaching Session - Basic**

Lehar 3-4

Neuro MRA

Moderators: F.B. Pizzini, Verona/IT
P. Clement, Ghent/BE

139 10:50 **Technical aspects and developments**

M. Van Osch; *Radiology, LUMC, Leiden/NETHERLANDS*

140 11:35 **Clinical applications of neuro MRA with and without contrast**

H.R. Jäger; *Academic Neuroradiology Unit, Department of Brain Repair and Rehabilitation, UCL Institute of Neurology, London/UNITED KINGDOM*

10:50–12:20 **24 Scientific Session**

Stolz 2

¹³C, ³¹P and ¹H MRS

Moderators: C. Boesch, Bern/CH
M. Dezortova, Prague/CZ

141 10:50 Influence of Mutated Isocitrate Dehydrogenase 1 on Metabolism in Acute Myeloid Leukemia Studied by Hyperpolarized [1-¹³C]α-ketoglutaric Acid and [1-¹³C]pyruvate

E. Kubala¹, K.A. Muñoz Álvarez¹, O. Dovey², S.J. Glaser³, M. Schwaiger¹, G.S. Vassiliou², R. Rad⁴, R.F. Schulte⁵, M.I. Menzel⁵; ¹Department of Nuclear Medicine at Klinikum rechts der Isar, Technische Universität München, München/GERMANY, ²a, The Wellcome Trust Sanger Institute, Hinxton/Cambridge/UNITED KINGDOM, ³Department of Chemistry, Technische Universität München, Garching/GERMANY, ⁴Department of Medicine II at Klinikum rechts der Isar, Technische Universität München, München/GERMANY, ⁵Diagnostics, Imaging & Biomedical Technologies, GE Global Research, Garching/GERMANY
also available as ePoster

142 11:01 Anaplerotic pathways in prostate metastasis cell lines LNCaP and VCaP citrate metabolism

F.H.a. Van Heijster¹, V. Breukels¹, C.j. Jansen², J.A. Schalken², A. Heerschap¹; ¹Radiology and Nuclear Medicine, Radboud University Medical Center, Nijmegen/NETHERLANDS, ²Urology, Radboud University Medical Center, Nijmegen/NETHERLANDS

143 11:12 Recruitment of calf muscles during plantar flexion with different knee angulation investigated by dynamic spiral 31P-MRSI at 7T

L. Valkovic¹, M. Chmelik², M. Gajdošik², B. Gagoski³, C. Rodgers¹, I. Frollo⁴, M. Krššák², O. Andronesi⁵, S. Trattnig², W. Bogner²; ¹Oxford Centre for Clinical MR Research (OCMR), University of Oxford, Oxford/UNITED KINGDOM, ²High Field MR Center, Department of Biomedical Imaging and Image-guided Therapy, Medical University of Vienna, Vienna/AUSTRIA, ³Radiology, Children's Hospital, Boston/MA/UNITED STATES OF AMERICA, ⁴Department of Imaging Methods, Institute of Measurement Science, Slovak Academy of Sciences, Bratislava/SLOVAK REPUBLIC, ⁵Athinoula A. Martinos Center for Biomedical Imaging, Department of Radiology, Massachusetts General Hospital, Harvard Medical School, Boston/AL/UNITED STATES OF AMERICA
also available as ePoster

144 11:23 T1 measurement during muscle exercise and recovery by progressive saturation with localized 31P MRS

M. Meyerspeer¹, A.I. Schmid¹, G.B. Fiedler¹, F. Niess¹, S. Goluch², M. Wolzt³, E. Moser¹; ¹Center of Medical Physics and Biomedical Engineering, Medical University Vienna, Vienna/AUSTRIA, ²Department of Internal Medicine III, Medical University of Vienna, Vienna/AUSTRIA, ³Department of Clinical Pharmacology, Medical University Vienna, Vienna/AUSTRIA
also available as ePoster

145 11:34 Localised 31P MRS measured contributions to skeletal muscle ATP synthesis and cellular proton kinetics during exercise and recovery
G.B. Fiedler¹, G.J. Kemp², F. Niess¹, A.I. Schmid¹, E. Laistler¹, M. Wolzt³, E. Moser¹, M. Meyerspeer¹; ¹Center of Medical Physics and Biomedical Engineering, Medical University Vienna, Vienna/AUSTRIA, ²Institute of Ageing and Chronic Disease, University of Liverpool, Liverpool/UNITED KINGDOM, ³Department of Clinical Pharmacology, Medical University Vienna, Vienna/AUSTRIA

146 11:45 Caffeine effects on human brain metabolites measured by J-edited in vivo MR spectroscopy
H.J. Zöllner¹, M. Jonuscheit², R.S. Lanzman², H.-J. Wittsack², G. Oeltzschner³; ¹Institute of Clinical Neuroscience and Medical Psychology, University Dusseldorf, Medical Faculty, Dusseldorf/GERMANY, ²Department of Diagnostic and Interventional Radiology, University Dusseldorf, Medical Faculty, Dusseldorf/GERMANY, ³Russell H. Morgan Department of Radiology and Radiological Science, The Johns Hopkins University School of Medicine, Baltimore, MD, Baltimore/AL/UNITED STATES OF AMERICA

147 11:56 T₂ relaxation of methyl protons in adipose tissue for omega-3 fatty acid quantification at 7T
M. Gajdošík¹, L. Hingerl¹, A. Skoch², P. Sedivy³, S. Trattnig¹, M. Hajek³, M. Dezortova³, M. Krššák⁴; ¹High Field MR Center, Department of Biomedical Imaging and Image-guided Therapy, Medical University of Vienna, Vienna/AUSTRIA, ²MR-Unit, Dept Diagnostic and Interventional Radiology, Institute for Clinical and Experimental Medicine, Prague/CZECH REPUBLIC, ³MR unit, Institute for Clinical and Experimental Medicine, Prague/CZECH REPUBLIC, ⁴Division of Endocrinology and Metabolism, Department of Internal Medicine III, Medical University of Vienna, Vienna/AUSTRIA

148 12:07 Non-invasive assessment of progression and therapy in in amyotrophic lateral sclerosis (ALS) mice using Magnetic Resonance Imaging and Spectroscopy
A. Weerasekera¹, D. Sima², P. Van Damme³, T. Dresslaers⁴, S. Van Huffel², U. Himmelreich¹; ¹Imaging and pathology, Biomedical MRI, KU Leuven, Leuven/BELGIUM, ²Electrical Engineering, ESAT-Stadius, KU Leuven, Leuven/BELGIUM, ³Neurology, UZ Leuven, Leuven/BELGIUM, ⁴Radiology, UZ Leuven, Leuven/BELGIUM

10:50–12:20 25 Scientific Session

Lehar 1

Novel contrasts and methods

Moderators: F. Schick, Tübingen/DE
S. Hey, Best/NL

149 10:50 Apparent residual dipole patterns of draining veins in functional susceptibility mapping
P.S. Özbay¹, G. Warnock², C. Rossi¹, F. Kuhn², B. Akin³, K.P. Pruessmann⁴, D. Nanz¹; ¹Institute of Diagnostic and Interventional Radiology, University Hospital Zurich and University of Zurich, Zurich/SWITZERLAND, ²Department of Nuclear Medicine, University Hospital Zürich and University of Zurich, Zurich/SWITZERLAND, ³Medical Physics, University Medical Center, Freiburg/GERMANY, ⁴Institute for Biomedical Engineering, University of Zurich and ETH Zurich, Zurich/SWITZERLAND

Scientific Programme

FRIDAY, SEPTEMBER 30, 2016

-
- 150 11:01** **Ex-vivo and in-vivo ultra-High-Field R2* and QSM microimaging in Alzheimer's disease**
E. Tuzzi¹, G. Hagberg², D. Balla³, J. Loureiro¹, M. Neumann⁴, C. Laske⁵, R. Pohmann¹, M. Valverde¹, K. Scheffler¹; ¹High-field Magnetic Resonance, Max Planck Institute for Biological Cybernetics, Tuebingen/GERMANY, ²High-field MR, Max Planck Institute for Biological Cybernetics, Tuebingen/GERMANY, ³Physiology of Cognitive Processes, Max Planck Institute for Biological Cybernetics, Tuebingen/GERMANY, ⁴Division of Neuropathology, University Hospital Tuebingen, Tuebingen/GERMANY, ⁵Section for Dementia Research, Hertie-Institute for Clinical Brain Research, Tuebingen/GERMANY
-
- 151 11:12** **²³Na NMRS and ¹H T₂ mapping relative sensitivities to detect acute changes in intra-/extracellular volume fractions in the skeletal muscle**
T. Gerhalter¹, P.-Y. Baudin², E.C.a. Araujo¹, E. Giacomini³, P. Carlier¹, B. Marty¹; ¹NMR laboratory, Insitute of Myology, Paris/France, ²R&D, Consultants for Research in Imaging and Spectroscopy, Tournai/BELGIUM, ³UNIRS, CEA/12BM/NeuroSpin, Gif-Sur-Yvette/France
-
- 152 11:23** **Effect of Topical Application of DeepHeat Rub on Exercise Induced Muscle Damage (EIMD) as Measured by Magnetic Resonance Elastography (MRE)**
M. Perrins¹, E. Barnhill², P. Kennedy³, L. Macgregor⁴, J. Braun², I. Sack², A. Hunter⁴, C. Brown⁵, E.J.r. Van Beek¹, N. Roberts¹; ¹Clinical Research Imaging Centre (CRIC), University of Edinburgh, Edinburgh/UNITED KINGDOM, ²MR Elastography Group, Charité – Universitätsmedizin Berlin, Berlin/GERMANY, ³MRE Research Group, Ichan School of Medicine at Mount Sinai, New York/NY/UNITED STATES OF AMERICA, ⁴School of Sport Science, University of Stirling, Stirling/UNITED KINGDOM, ⁵Research and Quality Development, The Mentholatum Company, East Kilbride/UNITED KINGDOM
-
- 153 11:34** **Quantitative pulsed CEST at 7T in vivo**
J.-E. Meissner¹, A. Korzowski¹, M. Zaiss², M.E. Ladd¹, P. Bachert¹; ¹Medical Physics in Radiology, German Cancer Research Center (DKFZ), Heidelberg/GERMANY, ²High-Field Magnetic Resonance, Max Planck Institute for Biological Cybernetics, Tübingen/GERMANY
-
- 154 11:45** **An adiabatic spin-lock approach for T1p-based dynamic glucose enhanced MRI at ultra-high fields - first application in a brain tumor patient**
P. Schuenke¹, C. Koehler², A. Korzowski¹, J. Windschuh¹, P. Bachert¹, M.E. Ladd¹, S. Mundiyanapurath³, D. Paech², S. Bickelhaupt², D. Bonekamp², H.-P. Schlemmer², A. Radbruch², M. Zaiss¹; ¹Medical Physics in Radiology, German Cancer Research Center (DKFZ), Heidelberg/GERMANY, ²Radiology, German Cancer Research Center (DKFZ), Heidelberg/GERMANY, ³Neurology, University Hospital Heidelberg, Heidelberg/GERMANY

155 11:56 **LED induced 19F hyperpolarization in physiological solvent**
F. Euchner¹, U. Bommerich¹, T. Trantzschel¹, J. Bargon², M. Plaumann¹, J. Bernarding¹; ¹Department for Biometrics and Medical Informatics, Otto-von-Guericke University, Magdeburg/GERMANY, ²Institute of Physical Chemistry, University of Bonn, Bonn/GERMANY
also available as ePoster

156 12:07 **Alginate Spheres with Microbubbles as MRI Contrast Agents for Gastric Pressure Measurement**
E. Abdurakman¹, M. Bencsik¹, G. Cave¹, D. Fairhurst¹, C. Hoad², P. Gowland², R. Bowtell²; ¹School of Science & Technology, Nottingham Trent University, Nottingham/UNITED KINGDOM, ²Sir Peter Mansfield Imaging Centre, University of Nottingham, Nottingham/UNITED KINGDOM

13:50–15:20 **26 Teaching Session - Advanced** *Lehar 3-4*
Transforming MR spectroscopy into a clinical tool (in collaboration with the European Marie-Curie Initial Training Network 'TRANSACT')
Moderators: U. Himmelreich, Leuven/BE
M. Jablonski, Brno/CZ

157 13:50 **Challenges for push-button processing and quantification of MR spectra**
C. Cudalbu; *CIBM, EPFL, Lausanne/SWITZERLAND*

158 14:20 **Automated MR spectra classification for diagnostic support: tools and applications**
S. Van Huffel; *Electrical Engineering, ESAT-Stadius, KU Leuven, Leuven/BELGIUM*

159 14:50 **The role of MR spectroscopy in multiparametric diagnosis of prostate disease**
A. Heerschap; *Radiology and Nuclear Medicine, Radboud University Medical Center, Nijmegen/NETHERLANDS*

13:50–15:20 **27 Scientific Session** *Stolz 1*
Pulse sequences
Moderators: O. Speck, Magdeburg/DE
M.B. Rösler, Heidelberg/DE

160 13:50 **Enhanced Simultaneous Multiple Quantum Filtered Sodium Magnetic Resonance Imaging**
A. Shymanskaya, W.A. Worthoff, C.-H. Choi, N..J. Shah; *Institute of Neuroscience and Medicine - 4, Forschungszentrum Juelich GmbH, Juelich/GERMANY*

161 14:01 **Cartesian versus radial Ultra Short Echo Time (UTE) acquisition schemes for myocardial tissue sodium quantification at 7 Tesla**
S. Rapacchi¹, M. Bydder¹, M. Guye¹, M. Bernard¹, A. Jacquier², F. Kober¹;
¹CRMBM CEMEREM UNMR 7339, Aix Marseille Université CNRS, Marseille/France, ²CRMBM CEMEREM UNMR 7339, Aix Marseille Université CNRS APHM, Marseille/France
also available as ePoster

Scientific Programme

FRIDAY, SEPTEMBER 30, 2016

-
- 162** 14:12 **Efficiency Analysis of Magnetic Field Measurement for MR Electrical Impedance Tomography (MREIT)**
C. Göksu¹, L.G. Hanson¹, P. Ehses², K. Scheffler², A. Thielscher¹; ¹*DTU Elektro Biomedical Engineering and Danish Research Center for Magnetic Resonance, Technical University of Denmark and Copenhagen University Hospital Hvidovre, Copenhagen/DENMARK*, ²*High-field MR Center and Department of Biomedical Magnetic Resonance, Max Planck Institute for Biological Cybernetics and University of Tübingen, Tübingen/GERMANY*
also available as ePoster
-
- 163** 14:23 **Phase-sensitive fat-water separation using frequency-modulated bSSFP**
A. Slawig, V. Ratz, T. Wech, H. Neubauer, T. Bley, H. Köstler; *Department of Diagnostic and Interventional Radiology, University of Würzburg, Würzburg/GERMANY*
-
- 164** 14:34 **Localizing Fiducial Markers using Undersampled co-RASOR MRI for Radiation Therapy Planning**
E. McNabb¹, R. Wong², M. Noseworthy³; ¹*School of Biomedical Engineering, McMaster University, Hamilton/ON/CANADA*, ²*Radiation Oncology, Juravinski Cancer Centre, Hamilton/ON/CANADA*, ³*Electrical and Computer Engineering, McMaster University, Hamilton/CANADA*
also available as ePoster
-
- 165** 14:45 **High-Dynamic-Range High-SNR B₁⁺ Mapping Using Multiple Cyclic MR Signals**
T. Nemtanu¹, M. Bouldj², **J.M. Warnking**¹; ¹*Grenoble Institut des Neurosciences, Inserm U1216, La Tronche/FRANCE*, ²*Département Ingénierie des Equipements de Travail, INRS, Vandoeuvre/FRANCE*
also available as ePoster
-
- 166** 14:56 **Optimization of In Vivo Multi-Parametric Mapping Based on Fast Steady-State Sequences**
L. De Rochefort¹, G. Guillot¹, R.-M. Dubuisson¹, R. Valabregue²; ¹*IR4M UMR8081, Univ. Paris-Sud CNRS Univ. Paris-Saclay, Orsay/FRANCE*, ²*CENIR, ICM, Hôpital Pitié-Salpêtrière, Paris/FRANCE*
-
- 167** 15:07 **Cartesian and non-Cartesian 3T real-time speech MRI: a comparison of image quality in the assessment of velopharyngeal closure**
A.C. Freitas¹, M. Ruthven², R. Boubertakh², M.E. Miquel²; ¹*William Harvey Research Institute, Queen Mary University of London, London/UNITED KINGDOM*, ²*Clinical Physics, Barts Health NHS Trust, London/UNITED KINGDOM*
also available as ePoster

Diffusion methods for microstructure assessment

Moderators: D.G. Norris, Nijmegen/NL
A. Leemans, Utrecht/NL

168 13:50


Diffusion-weighted echo planar MR imaging of the neck at 3 Tesla using integrated shimmming: Comparison of MR sequence techniques for the reduction of artifacts caused by magnetic field inhomogeneities

S. Gatidis¹, J. Weiss¹, A. Stemmer², K. Nikolaou¹, P. Martirosian³, M. Notohamiprodjo¹; ¹Department of Radiology, University of Tuebingen, Tuebingen/GERMANY, ²Siemens Healthcare GmbH, Siemens Healthcare GmbH, Erlangen/GERMANY, ³University Hospital Tübingen, Germany, Section on Experimental Radiology, Department of Diagnostic and Interventional Radiology, Tübingen/GERMANY

169 14:12

Optimization of slice profiles for diffusion-weighted STEAM imaging

M. Shrestha, U. Nöth, R. Deichmann; Brain Imaging Center (BIC), Goethe University Frankfurt, Frankfurt Am Main/GERMANY
also available as ePoster

170 14:23

Prospective Correction of Long-Term Subject Motion in Diffusion Tensor Imaging Using Intermediate, Pseudo-Trace-Weighted Images

D.C. Hoinkiss, D.A. Porter; MR Physics and Imaging, Fraunhofer MEVIS, Bremen/GERMANY
also available as ePoster

171 14:34

Image Denoising Considerably Improves Reliability of Intravoxel Incoherent Motion Parameters

C. Reischauer¹, **C. Von Deuster²**, A. Gutzzeit¹; ¹Institute of Radiology and Nuclear Medicine, Clinical Research Unit, Hirslanden Hospital St. Anna, Lucerne/SWITZERLAND, ²Institute for Biomedical Engineering, ETH and University of Zurich, Zurich/SWITZERLAND

172 14:45

Evaluation of the non-Gaussian diffusion component in the human kidney by Padé exponent model: initial results

A. Ljmani, R.S. Lanzman, H.-J. Wittsack; Department of diagnostic and interventional radiology, University Duesseldorf, Duesseldorf/GERMANY

173 14:56

Pore size distribution estimation using the mixing time dependency of a double diffusion encoding experiment: a proof of concept from Monte Carlo simulated data

V. Methot, M.A. Koch; Institute for Medical Engineering, University of Lübeck, Lübeck/GERMANY
also available as ePoster

174 15:07

Microstructure of the human brain hippocampus revealed by diffusion MR microscopy at 11.7T

J. Beaujoin¹, F. Boumezeur¹, J. Bernard¹, M. Axer², J.-F. Mangin³, C. Poupon¹; ¹DRF/12BM/Neurospin/UNIRS, CEA Saclay, Gif-Sur-Yvette/FRANCE, ²North Rhine-Westphalia, Forschungszentrum Jülich, Jülich/FRANCE, ³DRF/12BM/NeuroSpin/UNATI, CEA, Gif-Sur-Yvette/FRANCE
also available as ePoster

Scientific Programme

FRIDAY, SEPTEMBER 30, 2016

13:50–15:20 29 Scientific Session

Lehar 1

Flow and angiography

Moderators: A. Frydrychowicz, Lübeck/DE
S. Rapacchi, Los Angeles/US

-
- 175** 13:50 **Accelerated visualization of selected intracranial arteries by Cycled super-selective Arterial Spin Labelling**
T. Lindner¹, N. Larsen¹, O. Jansen¹, M. Helle²; ¹*Clinic for Radiology and Neuroradiology, University Hospital Schleswig-Holstein, Campus Kiel, Kiel/GERMANY*, ²*Tomographic Imaging Department, Philips GmbH Innovative Technologies Research Laboratories, Hamburg/GERMANY*
also available as ePoster
-
- 176** 14:01 **Fast and robust MR inflow angiography using a continuous moving slice (CMS) FLASH sequence**
M. Okanovic¹, M. Blaimer², F. Breuer², P. Jakob¹; ¹*Experimental Physics V (Biophysics), University of Wuerzburg, Wuerzburg/GERMANY*, ²*Magnet-Resonanz und Röntgen Bildgebung, Fraunhofer IIS/MRB, Wuerzburg/GERMANY*
-
- 177** 14:12 **Quantitative in vitro Streamline Vorticity Analysis of Intracranial Aneurysm using 4D PC MRI**
P. Bovenkamp¹, T. Brix², A. Scherzinger², C. Karmonik³, K. Hinrichs², V. Hoerr⁴; ¹*Department of Clinical Radiology, University Hospital Münster, Münster/GERMANY*, ²*Department of Computer Science, University of Münster, Münster/GERMANY*, ³*Magnetic Resonance Imaging Core, Houston Methodist Research Institute, Houston/TX/UNITED STATES OF AMERICA*, ⁴*Institute of Medical Microbiology, Jena University Hospital, Jena/GERMANY*
-
- 178** 14:23 **A Study of The Effects of Localized Stiffening on an Aortic Phantom using MRI**
K. Rachid, D. Rodriguez; *IR4M, Univ. Paris-Sud, CNRS, Université Paris-Saclay, Orsay/FRANCE*
also available as ePoster
-
- 179** 14:34 **Self-Gated 4D Phase Contrast in Mice using Ultra-Short Echo Time Imaging**
M. Krämer¹, K.-H. Herrmann¹, A.G. Motaal², J.R. Reichenbach¹, G.J. Strijkers³, V. Hoerr⁴; ¹*Medical Physics Group, Institute of Diagnostic and Interventional Radiology, Jena University Hospital - Friedrich Schiller University Jena, Jena/GERMANY*, ²*Biomedical NMR, Department of Biomedical Engineering, Eindhoven, Eindhoven University of Technology, Eindhoven/NETHERLANDS*, ³*Biomedical Engineering and Physics, Academic Medical Center, Amsterdam/NETHERLANDS*, ⁴*Institute of Medical Microbiology, Jena University Hospital - Friedrich Schiller University Jena, Jena/GERMANY*

- 180** 14:45 **Automatic identification and tracking of the major arteries in Magnetic Resonance Angiography scans**
A. O'Neil¹, E. Beveridge¹, J.G. Houston², I. Poole¹; ¹Image Analysis Team, Toshiba Medical Visualization Systems, Edinburgh/UNITED KINGDOM, ²Cardiovascular & Diabetes Medicine, University of Dundee, Dundee/UNITED KINGDOM
also available as ePoster
- 181** 14:56 **Influence of the k-t PCA acceleration factor on the accuracy of flow measurement in 4D PC-MRI**
G. Pagé¹, A.-V. Salsac², O. Balédent¹; ¹BioFlow Image, University Picardie Jules Verne, Amiens/FRANCE, ²Biomedical and Bioengineer Laboratory, University Technologique de Compiègne, Compiègne/FRANCE
also available as ePoster
- 182** 15:07 **Phase-encoded selective Arterial Spin Labeling to simultaneously visualize morphology, flow direction and velocity in selected intracranial arteries**
T. Lindner¹, N. Larsen¹, O. Jansen¹, M. Helle²; ¹Clinic for Radiology and Neuroradiology, University Hospital Schleswig-Holstein, Campus Kiel, Kiel/GERMANY, ²Tomographic Imaging Department, Philips GmbH Innovative Technologies Research Laboratories, Hamburg/GERMANY
also available as ePoster
-
- 13:50–14:50** **30 Lightning Talks** Lehar 2
Data processing and quantification
Moderators: L.G. Hanson, Hvidovre/DK
C. Barmet, Zurich/CH
-
- 183** 13:50 **Evaluation of the Performance of Post-acquisition Resolution Enhancement Methods for Magnetic Resonance Images**
F. Fallah¹, D. Di Franco², B. Yang², F. Bamberg³; ¹Section on Experimental Radiology, Department of Diagnostic and Interventional Radiology, University Hospital Tübingen, Germany, Institute of Signal Processing and System Theory, University of Stuttgart, Stuttgart/GERMANY, ²University of Stuttgart, Germany, Institute of Signal Processing and System Theory, Stuttgart/GERMANY, ³University Hospital Tübingen, Germany, Section on Experimental Radiology, Department of Diagnostic and Interventional Radiology, Tübingen/GERMANY
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20
also available as ePoster
-
- 184** **WITHDRAWN**
-
- 185** 13:52 **Wide range T1/T2 phantom conception for a multi-center cardiac clinical trial: DRAGET**
J.S. Louis, P. Ferry, J. Poujol, L. Bonnemains, J. Felblinger, M. Beaumont; INSERM U947, Université de Lorraine, IADI, Imagerie Adaptative Diagnostique et Interventionnelle, Nancy/FRANCE
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20
also available as ePoster

Scientific Programme

FRIDAY, SEPTEMBER 30, 2016

-
- 186** 13:54 **Quality Assessment in Very Large Prospective Multicenter Cohort MR Imaging Studies – the MR Imaging Study within the German National Cohort (NAKO)**
J.G. Hirsch¹, A. Köhn², D.C. Hoinkiss¹, J. Singe², M. Albers³, N. Aumann³, M. Günther¹; ¹MR Physics and Imaging, Fraunhofer MEVIS, Bremen/GERMANY, ²Software Development, Fraunhofer MEVIS, Bremen/GERMANY, ³Institute for Community Medicine, University Medicine Greifswald, Greifswald/GERMANY
MEET THE AUTHOR in the ePoster Area at PC#2, on Sept. 30, 14:50–15:20
-
- 187** 13:56 **Does the size of susceptibility artefact assessment – using the guidelines – in MRI vary among different users?**
A. Illanes, J. Krug, M. Maatoq, M. Friebe; *INKA - Intelligent Katheter, Otto von Guericke University, Magdeburg/GERMANY*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20
-
- 188** 13:58 **gagCEST at 7T: Comparison of evaluation methods**
P. Peterson¹, X. Xu², L.E. Olsson¹, P. van Zijl², J. Svensson³; ¹Medical radiation physics, Translational Medicine, Lund University, Malmö/SWEDEN, ²Kennedy Krieger Institute, F.M. Kirby Research Center, Johns Hopkins University School of Medicine, Department of Radiology, Baltimore/MD/UNITED STATES OF AMERICA, ³Bild och funktion, Skanes Universitetssjukhus, Lund/SWEDEN
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20
also available as ePoster
-
- 189** 14:00 **Measuring reversible and irreversible transverse relaxation rates in the brain at 7T: an assessment of Lorentzian versus Gaussian models**
M. Balasubramanian¹, J. Polimeni², R. Mulkern¹; ¹Department of Radiology, Boston Children's Hospital, Boston/MA/UNITED STATES OF AMERICA, ²Department of Radiology, Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Boston/MA/UNITED STATES OF AMERICA
MEET THE AUTHOR in the ePoster Area at PC#3, on Sept. 30, 14:50–15:20
-
- 190** 14:02 **The influence of phase calibration scans on quantitative susceptibility mapping at 7 Tesla**
S. Bollmann¹, S. Robinson², K. O'Brien³, L. Marstaller¹, M. Barth¹; ¹Centre for Advanced Imaging, University of Queensland, Brisbane/QLD/AUSTRALIA, ²High Field Magnetic Resonance Center of Excellence, Medical University of Vienna, Vienna/AUSTRIA, ³Healthcare Pty Ltd, Siemens, Brisbane/QLD/AUSTRALIA
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20
also available as ePoster

191 14:04



Cum
Laude

Quantification of microscopic tissue parameters in lung

L.R. Buschle¹, F.T. Kurz², T. Kampf¹, H.-P. Schlemmer¹, C.H. Ziener¹; ¹Radiology, German Cancer Research Center (DKFZ), Heidelberg/GERMANY, ²Neuroradiology, Heidelberg University Hospital, Heidelberg/GERMANY

MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20

also available as ePoster

192 14:06

Bias in quantitative MRI from misregistration effects and noise

R. Metere¹, A. Schäfer², H.E. Möller¹; ¹NMR Unit, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig/GERMANY, ²Diagnostic Imaging - Magnetic Resonance - Research & Development, Siemens Healthcare GmbH, Erlangen/GERMANY

MEET THE AUTHOR in the ePoster Area at PC#4, on Sept. 30, 14:50–15:20

193 14:08

Monitor Morphology Alterations using MRI. A Follow-Up Study on Two Different Arterio-Venous Fistula Types

N. Aristokleous¹, L. Browne², E. Kokkalis¹, S. Broderick², M. Walsh², J.G. Houston¹; ¹Cardiovascular & Diabetes Medicine, University of Dundee, Dundee/UNITED KINGDOM, ²Mechanical, Aeronautical and Biomedical Engineering, and Materials and Surface Science Institute, University of Limerick, Limerick/IRELAND

MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20

also available as ePoster

194 14:10

Derivation of Iron Concentration from Image Intensity in Iron-Stained Brain Slices

J. Wachter¹, V. Endmayr², S. Hametner², H. Lassmann², J.R. Reichenbach³, S. Robinson⁴, E. Haimburger¹, C. Menard⁵, T. Haider⁶, H. Traxler⁷, S. Trattnig⁴, **A. Deistung**³, G. Grabner¹; ¹Department of Radiologic Technology, Carinthia University of Applied Sciences, Klagenfurt/AUSTRIA, ²Centre for Brain Research, Medical University of Vienna, Vienna/AUSTRIA, ³Medical Physics Group, Institute for Diagnostic and Interventional Radiology, Jena University Hospital, Friedrich Schiller-University, Jena/GERMANY, ⁴High Field Magnetic Resonance Centre, Department of Biomedical Imaging and Image-guided Therapy, Medical University of Vienna, Vienna/AUSTRIA, ⁵Department of Medical Engineering, Carinthia University of Applied Sciences, Klagenfurt/AUSTRIA, ⁶University Clinic for Trauma Surgery, Medical University Vienna, Vienna/AUSTRIA, ⁷Center of Anatomy and Cellbiology, Medical University Vienna, Vienna/AUSTRIA

MEET THE AUTHOR in the ePoster Area at PC#5, on Sept. 30, 14:50–15:20

195

WITHDRAWN

196 14:12

Comparing ZTE attenuation correction in brain PET-MR with CT and atlas-based attenuation correction

M. Khalifé¹, C. Nioche¹, F. Wiesinger², L. Kallou¹, M. Soussan¹, S. Desarnaud¹, V. Brulon¹, C. Comtat¹; ¹Laboratoire Imagerie Moléculaire In Vivo (IMIV), Commissariat à l'Energie Atomique et aux Energies Renouvelables, Orsay/FRANCE, ²GE Global Research, GE, Munich/GERMANY

MEET THE AUTHOR in the ePoster Area at PC#6, on Sept. 30, 14:50–15:20

197 14:14

Correlation between conductivity and water content in tumours: how much cell water is active?

A.-M. Oros-Peusquens, Y. Liao, N.J. Shah; INM-4, Research Centre Juelich, Juelich/GERMANY

MEET THE AUTHOR in the ePoster Area at PC#7, on Sept. 30, 14:50–15:20

Scientific Programme

FRIDAY, SEPTEMBER 30, 2016

-
- 198** 14:16 **Investigation of relaxation effects in gagCEST - A simulation study**
P. Peterson¹, J. Svensson²; ¹Medical radiation physics, Translational Medicine, Lund University, Malmö/SWEDEN, ²Bild och funktion, Skanes Universitetssjukhus, Lund/SWEDEN
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20
also available as ePoster
-
- 199** 14:18 **The Influence of Tinnitus Perception on Brain Sub-Cortical Structures Surface Shape**
F. Alhazmi¹, J. Alghamdi², I. Mackenzie³, T. Kay⁴, G.J. Kemp⁵, V. Sluming¹;
¹Institute of Translational Medicine, University of Liverpool, Liverpool/UNITED KINGDOM,
²Physics Department, King Abdulaziz University, Jeddah/SAUDI ARABIA, ³University of Liverpool, University of Liverpool, Liverpool/UNITED KINGDOM, ⁴Audiology Department, Aintree University Hospital NHS Foundation Trust, Liverpool/UNITED KINGDOM, ⁵Institute of Ageing and Chronic Disease, University of Liverpool, Liverpool/UNITED KINGDOM
MEET THE AUTHOR in the ePoster Area at PC#8, on Sept. 30, 14:50–15:20
-
- 200** 14:20 **Influence of different respiratory tracking techniques on respiratory-dependent stroke volumes - A real-time MRI study -**
H. Körperich¹, M. Wattenberg², K.T. Laser³, A. Abdul Samad¹, P. Barth¹, J. Gieseke⁴, W. Burchert¹; ¹Institute for Radiology, Nuclear Medicine and Molecular Imaging, Heart and Diabetes Center NRW, Bad Oeynhausen/GERMANY, ²Institut für Robotik und Kognitive Systeme, Universität zu Lübeck, Lübeck/GERMANY, ³Center for Congenital Heart Defects, Heart and Diabetes Center NRW, Bad Oeynhausen/GERMANY, ⁴Radiologische Klinik, Universitätsklinikum Bonn, Bonn/GERMANY
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20
also available as ePoster
-
- 201** 14:22 **A quantitative and accelerated R_p-based polymer gel dosimetry evaluation for dose verification in radiotherapy**
P. Mann¹, **P. Schuenke**², M. Zaiss³, M. Witte¹, S. Mueller², M.E. Ladd², P. Bachert², C. Karger¹; ¹Applied Medical Radiation Physics, German Cancer Research Center (DKFZ), Heidelberg/GERMANY, ²Medical Physics in Radiology, German Cancer Research Center (DKFZ), Heidelberg/GERMANY, ³High-Field Magnetic Resonance, Max Planck Institute for Biological Cybernetics, Tübingen/GERMANY
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20
-
- 202** 14:24 **T1 mapping using 3-point FSE and multi-flip-angle methods and effect of B1 field inhomogeneity on T1 in human brain on 3T MRI scanner**
A. Sengupta¹, P. Sahoo², P. Gupta³, R. Gupta³, A. Singh⁴; ¹Centre for Biomedical Engineering, Indian Institute of Technology, New Delhi/INDIA, ²MRI, Philips, New Delhi/INDIA, ³Radiology, FORTIS, New Delhi/INDIA, ⁴Centre for Biomedical Engineering, IIT DELHI, New Delhi/INDIA
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20
also available as ePoster

- 203** 14:26 **Optimizing Inversion-Recovery bSSFP for T₁ Quantification at Ultra High-Field**
P. Ehses¹, J. Bause², K. Scheffler²; ¹Dept. of Biomedical Magnetic Resonance, University Hospital Tübingen, Tübingen/GERMANY, ²Dept. for Biological Cybernetics, Max-Planck-Institute, Tübingen/GERMANY
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20
- 204** 14:28 **Combined application of PMRI and CS for MR Image reconstruction**
H. Shahzad, H. Omer, **I. Ullah**; *Electrical Engineering, COMSATS Institute of Information Technology, Islamabad/PAKISTAN*
MEET THE AUTHOR in the ePoster Area at PC#9, on Sept. 30, 14:50–15:20
- 205** 14:30 **Accelerated T1-Mapping with iteratively TV regularized Gauss-Newton Method**
O. Maier¹, M. Schlögl¹, A. Lesch¹, A. Petrovic¹, R. Stollberger²; ¹Institute of Medical Engineering, Graz University of Technology, Graz/AUSTRIA, ²Institute of Medical Engineering, Graz University of Technology and BioTechMed-Graz, Graz/AUSTRIA
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20
also available as ePoster
- 206** 14:32 **Low-rank model for dynamic MRI: joint solving and debiasing**
M. Daňková¹, **P. Rajmic**²; ¹Dept. of Telecommunications, Brno University of Technology, Brno/CZECH REPUBLIC, ²SPLab, Brno University of Technology, Brno/CZECH REPUBLIC
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20
also available as ePoster
- 207** 14:34 **Study of fluid flow patterns in a human pharynx phantom using phase contrast-MRI**
 **P. Gurumurthy**, **P. Ulloa**, C. Hagen, T. M. Buzug, M.A. Koch; *Institute of Medical Engineering, University of Lübeck, Lübeck/GERMANY*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 14:50–15:20
also available as ePoster
- 208** 14:36 **Discretization, accuracy, and precision in Magnetic Resonance Elastography reconstruction**
J. Yue¹, M. Tardieu², F. Julea³, T. Boucneau³, C. Pellot-Barakat¹, X. Maître³; ¹Univ. Paris-Sud, Université Paris-Saclay, Imagerie Moléculaire In Vivo, IMIV, Inserm, CEA, CNRS, Orsay/FRANCE, ²Univ. Pierre et Marie Curie, Centre de Recherche sur l'Inflammation, CRI, Inserm, CNRS, Paris/FRANCE, ³Univ. Paris-Sud, Université Paris-Saclay, Imagerie par Résonance Magnétique Médicale et Multi-Modalités, IR4M, CNRS, Orsay/FRANCE
MEET THE AUTHOR in the ePoster Area at PC#10, on Sept. 30, 14:50–15:20
- 209** 14:38 **Quantification of low fat fractions at 3T: comparison of water-fat imaging toolbox and MR spectroscopy**
R. Korinek¹, M. Gajdošík², S. Trattnig², M. Krššák³; ¹Magnetic Resonance and Cryogenics, Institute of Scientific Instruments of the CAS, Brno/CZECH REPUBLIC, ²High Field MR Center, Department of Biomedical Imaging and Image-guided Therapy, Medical University of Vienna, Vienna/AUSTRIA, ³Department of Medicine III, Division of Endocrinology and Metabolism, Medical University of Vienna, Vienna/AUSTRIA
MEET THE AUTHOR in the ePoster Area at PC#11, on Sept. 30, 14:50–15:20

15:40–16:50 31 Scientific Session

Lehar 3-4

Diffusion measurements applied to tissue

Moderators: U. Klose, Tübingen/DE

A.-M. Oros-Peusquens, Jülich/DE

210 15:40 **Rat pup brain injury induced by Lipopolysaccharide assessed by NODDI at 9.4T**

Y. Van De Looij¹, J. Dean², A. Gunn², P. Hüppi¹, S. Sizonenko¹; ¹*Division of child growth and development, Department of Pediatrics, University of Geneva, Geneva/SWITZERLAND*, ²*Department of Physiology, University of Auckland, Auckland/NEW ZEALAND*

211 15:51 **Correlations between functional MRI and diffusion MR microscopy using NODDI in cortical regions of the brain**

A. Teillac¹, S. Lefranc², E. Duchesnay², F. Poupon², M.A. Ripoll Fuster¹, D. Le Bihan¹, J.-F. Mangin², C. Poupon¹; ¹*DRF/12BM/NeuroSpin/UNIRS, CEA, Gif-Sur-Yvette/France*, ²*DRF/12BM/NeuroSpin/UNATI, CEA, Gif-Sur-Yvette/France*
also available as ePoster

212 16:02 **Determination of the best combination of b-values for ADC-based assessment of benign and malignant vertebral body fractures with a diffusion-weighted sTSE sequence**

A. Baur-Melnyk¹, H.R. Dürr², A.-C. Stellwag¹, O. Dietrich¹, M. Reiser¹, **T. Geith**¹; ¹*Institute for Clinical Radiology, University Hospital of Munich, Munich/GERMANY*, ²*Department of Orthopedic Surgery, University Hospital of Munich, München/GERMANY*

213 16:13 **Bayesian Intravoxel Incoherent Motion Parameter Mapping in the Human Heart**

G. Spinner¹, C. Von Deuster², C.T. Stoeckl¹, S. Kozerke¹; ¹*Institute for Biomedical Engineering, ETH Zürich, Zürich/SWITZERLAND*, ²*Imaging Sciences and Biomedical Engineering, King's College, London/UNITED KINGDOM*

214 16:24 **A critical assessment of Bayesian approaches to intravoxel incoherent motion modelling**

P.T. While; *Department of Radiology and Nuclear Medicine, St. Olav's University Hospital, Trondheim/NORWAY*

215 16:35 **Orientation Dependence of the IVIM Signal in the Healthy Cerebral Gray Matter**

C. Eberhardt¹, M. Klarhoefer², T. Finkenstaedt¹, G. Andreisek¹, A. Boss¹, **C. Rossi**¹; ¹*Institute of Diagnostic and Interventional Radiology, University Hospital Zurich and University of Zurich, Zurich/SWITZERLAND*, ²*Healthcare Sector, Siemens AG, Zurich/SWITZERLAND*
also available as ePoster

Moderator: R. Kreis, Bern/CH

15:40 **Dos and Don'ts of Grant Writing: in particular in view of Individual Fellowships within the EU's Marie Skłodowska-Curie Actions Program**
T. Lindahl; *National Contact Point for the Marie Skłodowska-Curie Actions, FFG - Austrian Research Promotion Agency, Vienna/AUSTRIA*

16:25 **The Art of Recruiting: Panel discussion on which factors on a CV weight most**
P.J. Cozzone¹, M.E. Ladd², E.-M. Larsson³, J.A. Schnabel⁴, A. van der Lugt⁵; *¹CRMBM-CNRS Faculty of Medicine, Marseille/France and the Singapore Biomedicine Consortium (SBIC), Singapore, ²German Cancer Research Center (DKFZ), Medical Physics in Radiology, Heidelberg/Germany, ³Uppsala University Hospital, Uppsala/Sweden, ⁴Biomedical Engineering, London/United Kingdom, ⁵Erasmus MC Radiology, Rotterdam/Netherlands*

Methods for brain and body MRS

Moderators: R. Mulkern, Boston/US
M. Noseworthy, Hamilton/CA

216 15:40 **Effect of variable knee angle on the contributions of gastrocnemius medialis and soleus to plantar flexion measured simultaneously with multivoxel localized ³¹P MRS**
F. Niess¹, G.B. Fiedler¹, A.I. Schmid¹, S. Goluch², R. Kriegel¹, M. Wolzt³, E. Moser¹, M. Meyerspeer¹; *¹Center of Medical Physics and Biomedical Engineering, Medical University Vienna, Vienna/Austria, ²Department of Internal Medicine III, Medical University of Vienna, Vienna/Austria, ³Department of Clinical Pharmacology, Medical University Vienna, Vienna/Austria*
also available as ePoster

217 15:51 **Evaluation of PCr/ATP ratio in the human heart at 7T using adiabatic excitation**
L. Valkovic¹, W. Clarke¹, L. Purvis¹, B. Schaller¹, I. Frollo², M. Robson¹, C. Rodgers¹; *¹Oxford Centre for Clinical MR Research (OxCMR), University of Oxford, Oxford/United Kingdom, ²Department of Imaging Methods, Institute of Measurement Science, Slovak Academy of Sciences, Bratislava/Slovak Republic*
also available as ePoster

218 16:02 **Absolute quantification of hepatic metabolites using 3D localized ³¹P-MRS at 7T**
L. Pflieger¹, M. Gajdošík², M. Chmelík², M. Trauner³, S. Trattnig², M. Krebs¹, M. Krššák¹; *¹Division of Endocrinology and Metabolism, Department of Internal Medicine III, Medical University of Vienna, Vienna/Austria, ²High Field MR Center, Department of Biomedical Imaging and Image-guided Therapy, Medical University of Vienna, Vienna/Austria, ³Division of Hepatology and Gastroenterology, Department of Internal Medicine III, Medical University of Vienna, Vienna/Austria*

Scientific Programme

FRIDAY, SEPTEMBER 30, 2016

- 219 16:13** **Optimizing diffusion-weighted MR spectroscopy of the brain: Simultaneous modeling and correction for motion-related signal distortions**
V. Adalid, A. Döring, S.P. Kyathanahally, V. Brandejsky, C.S. Bolliger, R. Kreis;
Radiology and Clinical Research, University of Bern, Bern/SWITZERLAND
- 220 16:24** **Ultra-high resolution brain MRSI at 7 T**
G. Hangel¹, B. Strasser¹, M. Považan¹, L. Hingerl¹, S. Gruber¹, M. Chmelík¹, S. Trattnig², W. Bogner¹; ¹MRCE, Medical University of Vienna, Vienna/AUSTRIA, ²Christian Doppler Laboratory for Clinical Molecular MR Imaging, Christian Doppler Forschungsgesellschaft, Vienna/AUSTRIA
- 221 16:35** **High-Definition 2D MRSI of Whole-Brain Slice with Sparse k-Space Sampling**
A. Klauser¹, J. Kasten², D. Van De Ville², F. Lazeyras¹; ¹Imaging and medical information science, University of Geneva, Geneva/SWITZERLAND, ²Institute of Bioengineering, École Polytechnique Fédérale de Lausanne, Lausanne/SWITZERLAND
also available as ePoster
- 222 16:46** **Direct Aspartate quantification using MEGA-PRESS pulse sequence**
P. Menshchikov¹, T. Akhadov², A. Manzhurtsev³, M. Ublinskiy³, N. Semenova¹;
¹Dynamics of chemical and biological processes, N.N. Semenov Institute of Chemical Physics of RAS, Moscow/RUSSIAN FEDERATION, ²Radiology, NRI of Children Emergent Surgery and Trauma, Moscow/RUSSIAN FEDERATION, ³Enzyme Catalysis Kinetics, N.M. Emanuel Institute of Biochemical Physics of RAS, Moscow/RUSSIAN FEDERATION
also available as ePoster
- 223 16:57** **Reverse Monte Carlo as MRS quantitation quality assessment**
M. Jablonski, J. Starcukova, Z. Starcuk; *Institute of Scientific Instruments, Czech Academy of Sciences, Brno/CZECH REPUBLIC*

15:40–17:10 34 Scientific Session

Lehar 1

Brain tumors

Moderators: F.B. Pizzini, Verona/IT
C. Thomsen, Copenhagen/DK

224 15:40 **Comparison of Vessel Abnormality Quantification Measures in Gliomas from TOF MRA data**



M. Strumia¹, W. Reichardt¹, O. Staszewski², D.H. Heiland³, A. Weyerbrock³, I. Mader⁴, M. Bock¹; ¹Medical Physics Department of Radiology, University Medical Center, Freiburg/GERMANY, ²Department of Neuropathology, University Medical Center, Freiburg/GERMANY, ³Department of Neurosurgery, University Medical Center, Freiburg/GERMANY, ⁴Department of Neuroradiology, University Medical Center, Freiburg/GERMANY

- 225** 16:02 **Correlation between pre-operative cognitive deficits and language white matter tract invasion in presumed low grade glioma patients**
F. Incekara¹, D. Satoer¹, E. Visch-Brink², A. Vincent¹, **M. Smits**³; ¹Neurosurgery, Erasmus Medical Center, Rotterdam/NETHERLANDS, ²Neuroscience, Erasmus Medical Center, Rotterdam/NETHERLANDS, ³Radiology, Erasmus Medical Center, Rotterdam/NETHERLANDS
also available as ePoster
- 226** 16:13 **DCE-MRI measurements in glioma: comparison between 2 models**
S. Fallatah¹, E. De Vita¹, R. Jäger², X. Golay²; ¹Neuroradiology, The National Hospital for Neurology and Neurosurgery, London/UNITED KINGDOM, ²Brain Repair and Rehabilitation, UCL, Institute of Neurology, London/UNITED KINGDOM
also available as ePoster
- 227** 16:24 **Radiological response assessment in the era of bevacizumab: RANO or volumetry? A report from the BELOB trial**
R. Gahrman¹, M. Van Den Bent², B. Van Der Holt², R. Vernhout², W. Taal², M.j.b. Taphoorn³, J.c. De Groot⁴, L.v. Beerepoot⁵, J. Buter⁶, Z. Flach⁷, M. Hanse⁸, B. Jasperse⁹, M. Smits¹; ¹Radiology, Erasmus MC, Rotterdam/NETHERLANDS, ²Neurology, Erasmus MC, Rotterdam/NETHERLANDS, ³Neurology, MCH, Den Haag/NETHERLANDS, ⁴Radiology, UMCG, Groningen/NETHERLANDS, ⁵Oncology, EZ, Tilburg/NETHERLANDS, ⁶Oncology, VUMC, Amsterdam/NETHERLANDS, ⁷Radiology, Isala, Zwolle/NETHERLANDS, ⁸Neurology, Catharina ziekenhuis, Eindhoven/NETHERLANDS, ⁹Radiology, AvL, Amsterdam/NETHERLANDS
- 228** **WITHDRAWN**
- 229** 16:35 **Metabolic mapping of high-grade gliomas: comparison of F-18 fluorochole PET and proton MR spectroscopy**
M. Acou¹, N. Sauwen², D. Sima³, J. Bolcaen⁴, S. Van Huffel³, I. Goethals⁴, E. Achten¹; ¹Radiology, Ghent University Hospital, Ghent/BELGIUM, ²ESAT/STADIUS, KU Leuven, Leuven/BELGIUM, ³Electrical Engineering, ESAT-Stadius, KU Leuven, Leuven/BELGIUM, ⁴Nuclear Medicine, Ghent University Hospital, Ghent/BELGIUM
also available as ePoster
- 230** 16:46 **Glioma Magnetic Resonance Imaging Practices in Europe: Results from the European Society for Neuroradiology (ESNR) Diagnostic Subcommittee Survey on Glioma Imaging**
S.C. Thust¹, T. Yousry¹, N. Bargallo Alabart², M. Vernooij³, **M. Smits**⁴; ¹Lysholm Department of Neuroradiology, National Hospital for Neurology and Neurosurgery, London/UNITED KINGDOM, ²Servicio de Neuroradiologica, Hospital Clinic i Provincial, Barcelona/SPAIN, ³Departments of Radiology and Epidemiology, Erasmus Medical Centre, Rotterdam/NETHERLANDS, ⁴Radiology, Erasmus MC, Rotterdam/NETHERLANDS

Scientific Programme

FRIDAY, SEPTEMBER 30, 2016

15:40–16:40 35 Lightning Talks

Lehar 2

Animal models and molecular imaging

Moderators: C. Faber, Münster/DE

A.-K. Bouzier-Sore, Bordeaux/FR

-
- 231** 15:40 **Phase contrast in a mouse model of cerebral malaria**
T.-A. Perles-Barbacaru, E. Pecchi, M. Bernard, A. Viola; *Aix Marseille University, CRMBM UMR CNRS 7339, Marseille/France*
MEET THE AUTHOR in the ePoster Area at PC#1, on Sept. 30, 16:40–17:10
-
- 232** 15:42 **Early life stress-induced alterations in volume and structural integrity in the rat brain observed with post-mortem MRI**
A. Van Der Toorn¹, M. Loi², R.M. Dijkhuizen¹, M. Joëls², R.A. Sarabdjitsingh²;
¹*Biomedical MR Imaging and Spectroscopy group, Center for Image Sciences, University Medical Center Utrecht, Utrecht/NETHERLANDS*, ²*Department of Translational Neuroscience, Brain Center Rudolf Magnus, University Medical Center Utrecht, Utrecht/NETHERLANDS*
MEET THE AUTHOR in the ePoster Area at PC#2, on Sept. 30, 16:40–17:10
-
- 233** 15:44 **Multiparametric magnetic resonance studies for identifying biomarkers in a depression model developed in female rats**
F. Sanchis¹, T. Navarro-Hernanz², **P. López-Larrubia**¹; ¹*Experimental models of human diseases, Instituto de Investigaciones Biomédicas, Madrid/Spain*, ²*SIERMAC, Instituto de Investigaciones Biomédicas, Madrid/Spain*
MEET THE AUTHOR in the ePoster Area at PC#3, on Sept. 30, 16:40–17:10
-
- 234** 15:46 **Perinatal exposure to dichloro-bisphenol A induces metabolic and micro-architectural modifications in mouse hippocampus**
D. El Hamrani¹, A. Chepied², W. Mème¹, M. Mesnil², N. Defamie², S. Mème¹;
¹*CNRS UPR 4301, Centre de Biophysique Moléculaire, Orléans/France*, ²*CNRS ERL 7368, Signalisation et Transport Ionique Membranaire, Poitiers/France*
MEET THE AUTHOR in the ePoster Area at PC#4, on Sept. 30, 16:40–17:10
-
- 235** 15:48 **In vivo MR evidence that trimethyltin neurodegeneration in rats resembles Alzheimer's pathology**
L. Baciak¹, Z. Gasparova², I. Juranek², T. Liptaj¹; ¹*Department of NMR and MS, Slovak Technical University, Bratislava/SLOVAK REPUBLIC*, ²*Institute of Experimental Pharmacology & Toxicology, Slovak Academy of Sciences, Bratislava/SLOVAK REPUBLIC*
MEET THE AUTHOR in the ePoster Area at PC#5, on Sept. 30, 16:40–17:10
-
- 236** 15:50 **Delineation of Subthalamic Nuclei on 3D High Resolution MRI Templates of In-Vivo Sheep Brains**
A. Ella, J. Delgado, H. Adriaenssen, P. Chemineau, M. Keller; *Department of reproductive physiology and behavior, INRA Centre Val de Loire, Nouzilly/France*
MEET THE AUTHOR in the ePoster Area at PC#6, on Sept. 30, 16:40–17:10

- 237** 15:52 **SWI and DWI MR findings of rat brain with model of permanent bilateral common carotid artery occlusion**
A. Kutasheva, D. Kirginekov, V. Kurilo, D. Namestnikova, I. Gubskiy, L. Gubsky;
Department of Fundamental and Clinical Neurology, The Russian National Research Medical University named after N.I.Pirogov, Moscow/RUSSIAN FEDERATION
MEET THE AUTHOR in the ePoster Area at PC#7, on Sept. 30, 16:40–17:10
- 238** 15:54 **Vascular dementia model in rats and the effect of creatine citrate: In vivo 31P MR spectroscopy study**
S. Kašparová, **L. Melichercik**, T. Tvrđik; *Central laboratory of NMR & MS, Slovak University of Technology, Bratislava/SLOVAK REPUBLIC*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 16:40–17:10
- 239** 15:56 **Towards Ischaemic Stroke Timing for Clinical Utility Using Quantitative MRI Data**
T. Norton¹, M. Knight¹, M. Pereyra², R. Bosnell³, P. Clatworthy³, **R.A. Kauppinen¹**;
¹*School of Experimental Psychology, University of Bristol, Bristol/UNITED KINGDOM*, ²*School of Mathematics, University of Bristol, Bristol/UNITED KINGDOM*, ³*Stroke Neurology, North Bristol NHS Trust, Bristol/UNITED KINGDOM*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 16:40–17:10
- 240** 15:58 **Trans-resveratrol supplementation during gestation and lactation attenuates hypoxia-ischemia brain lesions in rat neonates**
L. Mazuel, U. Dumont, S. Sanchez, J. Blanc, V. Bouchaud, J.-F. Chateil, M.-C. Beauvieux, **A.-K. Bouzier-Sore**; *CNRS/University of Bordeaux, CRMSB, Bordeaux/FRANCE*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 16:40–17:10
also available as ePoster
- 241** 16:00 **Stuttering-like behavior in songbirds after brain damage**
K. Lukacova¹, L. Baciak², E. Pavukova¹, S. Kasparova², L. Kubikova¹; ¹*Department of Physiology and Ethology, Institute of Animal Biochemistry and Genetics, Ivanka Pri Dunaji/SLOVAK REPUBLIC*, ²*Department of NMR Spectroscopy and Mass Spectroscopy, Faculty of Chemical and Food Technology, Slovak University of Technology, Bratislava/SLOVAK REPUBLIC*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 16:40–17:10
also available as ePoster
- 242** 16:02 **Measurements of T₁ dispersion profile over the range of 1 to 2 teslas using a small animal Fast Field Cycling MRI system**
N. Chanet, G. Willoquet, L. Jourdain, G. Guillot, L. De Rochefort; *IR4M, UMR8081, Univ. Paris-Sud, CNRS, Université Paris-Saclay, Orsay, Orsay/FRANCE*
MEET THE AUTHOR in the ePoster Area at PC#8, on Sept. 30, 16:40–17:10
- 243** 16:04 **Impaired tolerance to ischemia-reperfusion of the female type 2 diabetic rat heart was associated with impaired energy metabolism, cardiac and endothelial function**
N. Fourny¹, C. Lan¹, J. Movassat², M. Bernard¹, M. Desrois¹; ¹*CRMBM, UMR 7339, Aix-Marseille Université, CNRS, Marseille/FRANCE*, ²*B2PE, BFA UMR 8251, Université Paris-Diderot, CNRS, Paris/FRANCE*
MEET THE AUTHOR in the ePoster Area at PC#9, on Sept. 30, 16:40–17:10

Scientific Programme

FRIDAY, SEPTEMBER 30, 2016

- 244** 16:06 **GlucoCEST imaging of 2-Deoxy-D-glucose uptake in the healthy mouse brain under resting condition**
S. Tambalo¹, **A. Busato**², P. Marzola²; ¹Neurosciences, Biomedicine and Movement Sciences, Consorzio INSTM @ University of Verona, Verona/ITALY, ²Computer Science, University of Verona, Verona/ITALY
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 16:40–17:10
- 245** 16:08 **Hyperpolarized ¹²⁹Xe dissolved-phase magnetic resonance imaging in pig lungs**
A.L. Kern¹, A. Voskrebenzev¹, M. Gutberlet¹, J. Renne¹, K. Qing², N. Zinne³, H. Biller⁴, J.M. Hohlfeld⁴, F. Wacker¹, J. Vogel-Clausen¹; ¹Institute of Diagnostic and Interventional Radiology, Hannover Medical School, Hannover/GERMANY, ²Department of Radiology and Medical Imaging, University of Virginia School of Medicine, Charlottesville/VA/ UNITED STATES OF AMERICA, ³Department of Cardiothoracic, Transplantation and Vascular Surgery, Hannover Medical School, Hannover/GERMANY, ⁴Clinical Airway Research, Fraunhofer Institute for Toxicology and Experimental Medicine, Hannover/GERMANY
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 16:40–17:10
also available as ePoster
- 246** 16:10 **MR angiography reveals congenital portosystemic shunts in mice**
H. Lei¹, R. Gruetter²; ¹Radiology, University of Geneva, Geneva/SWITZERLAND, ²Centre d'Imagerie Biomédicale, Ecole Polytechnique Fédérale de Lausanne, Lausanne/SWITZERLAND
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 16:40–17:10
also available as ePoster
- 247** 16:12 **PFOB and Proton MRI on a Clinical System for Tolerance Evaluation in Piglets after Total Liquid Ventilation Recovery**
L. De Rochefort¹, R.-M. Dubuisson¹, F. Lidouren², M. Kohlhauser², R. Tissier²; ¹IR4M UMR8081, Univ. Paris-Sud CNRS Univ. Paris-Saclay, Orsay/France, ²INSERM U955-3, Univ Paris Est, Ecole Nationale Vétérinaire de Maisons-Alfort, Maison-Alfort/France
MEET THE AUTHOR in the ePoster Area at PC#10, on Sept. 30, 16:40–17:10
- 248** 16:14 **Analysis of the balanced Steady State Free Precession (bSSFP) sequence behaviour in hyperpolarization conditions for on- and off-resonant components**
S. Bär¹, M. Weigel², J. Hennig¹, D. Von Elverfeldt¹, J. Leupold¹; ¹Klinik für Radiologie · Medizin Physik, Universitätsklinikum Freiburg, Freiburg/GERMANY, ²Radiological Physics, University Hospital Basel, Basel/SWITZERLAND
MEET THE AUTHOR in the ePoster Area at PC#11, on Sept. 30, 16:40–17:10

249 16:16 **A novel approach to LipoCEST MRI agents based on the removal of vesicle's sphericity by forming asymmetric supramolecular systems**
E. Di Gregorio, G. Ferrauto, S. Aime; *Molecular Biotechnologies and Health Sciences, University of Torino, Torino/ITALY*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 16:40–17:10


Certificate of Merit

250 16:18 **Tissue Fixation Affects the Magnetic Susceptibility and Effective Transverse Relaxation Rate of Brain Tissue**
A. Deistung¹, S. Hametner², V. Endmayr², J. Wachter³, X. Feng¹, H. Lassmann², J.R. Reichenbach¹, S. Robinson⁴, E. Haimburger³, C. Menard⁵, T. Haider⁶, H. Traxler⁷, S. Trattnig⁴, G. Grabner³; ¹*Institute for Diagnostic and Interventional Radiology, Medical Physics Group, Jena University Hospital - Friedrich Schiller University, Jena/GERMANY*, ²*Center for Brain Research, Medical University of Vienna, Vienna/AUSTRIA*, ³*Department of Radiologic Technology, Carinthia University of Applied Sciences, Klagenfurt/AUSTRIA*, ⁴*Department of Biomedical Imaging and Image-guided Therapy, High Field Magnetic Resonance Center of Excellence, Medical University of Vienna, Vienna/AUSTRIA*, ⁵*Department of Medical Engineering, Carinthia University of Applied Sciences, Klagenfurt/AUSTRIA*, ⁶*University Clinic for Trauma Surgery, Medical University Vienna, Vienna/AUSTRIA*, ⁷*Center of Anatomy and Cellbiology, Medical University Vienna, Vienna/AUSTRIA*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 16:40–17:10
also available as ePoster

251 16:20 **T1 and T2 to assess membrane water permeability and Hemozoin generation as biomarkers in Plasmodium falciparum infected red blood cells**
E. Gianolio¹, G. Ferrauto¹, E. Di Gregorio¹, S. Aime¹, E. Valente², D. Ulliers², O. Skorokhod², E. Schwarzer²; ¹*Molecular Biotechnology and Health Science, University of Torino, Turin/ITALY*, ²*Department of Oncology, University of Torino, Turin/ITALY*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 16:40–17:10

252 16:22 **7 T Neuroimaging in Forensic Pathology**
A. Krauskopf¹, M. Breithaupt¹, S. Heinze², P. Glemser¹, H.-P. Schlemmer³, K. Yen¹; ¹*Institute of Forensic and Traffic Medicine, University Heidelberg, Heidelberg/GERMANY*, ²*Institute of Forensic Medicine, University Medicine Mainz, Mainz/GERMANY*, ³*Radiology, German Cancer Research Center (DKFZ), Heidelberg/GERMANY*
MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 16:40–17:10
also available as ePoster

253 16:24 **Towards High-Resolution Mapping of Lactate via NOE**
T. Lenich¹, A. Pampel¹, A. Kranz², H.E. Möller¹; ¹*NMR Unit, Max-Planck-Institute for Human Cognitive and Brain Sciences, Leipzig/GERMANY*, ²*Experimental Imaging Unit, Fraunhofer Institute for Cell Therapy and Immunology, Leipzig/GERMANY*
MEET THE AUTHOR in the ePoster Area at PC#12, on Sept. 30, 16:40–17:10


Certificate of Merit

254 16:26 **A novel termoresponsive agent for ¹⁹F MR molecular imaging**
A. Gálisová¹, D. Jiráková¹, M. Hrubý², O. Sedláček², M. Hájek¹; ¹*MR-Unit, Dept Diagnostic and Interventional Radiology, Institute for Clinical and Experimental Medicine, Prague/CZECH REPUBLIC*, ²*Academy of Sciences of the Czech Republic, Institute of Macromolecular Chemistry, Prague/CZECH REPUBLIC*
MEET THE AUTHOR in the ePoster Area at PC#13, on Sept. 30, 16:40–17:10

Scientific Programme

FRIDAY, SEPTEMBER 30, 2016

255 16:28 **External surface modification changes MRI visibility of iron based drug delivery system**

M. Peller¹, M. Ingrisch¹, A. Zimpel², D. Luca², K. Böll¹, U. Lächelt³, S. Wuttke²;

¹Institute for Clinical Radiology, University Hospital of Munich, Munich/GERMANY, ²Department of Chemistry and Center for NanoScience (CeNS), LMU Munich, Munich/GERMANY,

³Department of Pharmacy and Center for NanoScience (CeNS), LMU Munich, Munich/GERMANY

MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 16:40–17:10

256 16:30 **Fluorine MRI optimization for immune cell tracking**

C. Chirizzi, D. De Battista, G. Casella, R. Furlan, G. Comi, L. Chaabane; *San Raffaele Hospital, Institute of Experimental Neurology (INSPE), Milan/ITALY*

MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 16:40–17:10

257 16:32 **High-resolution MRI on plants: New insights into the development and biomechanics of dragon tree ramifications**

L. Hesse¹, T. Masselter¹, N. Spengler², J.G. Korvink², J. Leupold³, T. Speck¹;

¹Plant Biomechanics Group Freiburg, Botanical Garden Freiburg, Freiburg/GERMANY,

²Institute of Microstructure Technology (IMT), Karlsruhe Institute of Technology, Eggenstein-Leopoldshafen/GERMANY, ³Department of Radiology · Medical Physics, University Medical Center Freiburg, Freiburg/GERMANY

MEET THE AUTHOR in the Paper Poster Area, on Sept. 30, 16:40–17:10

also available as ePoster

258 16:34 **High-resolution structural analysis of human arterial blood vessel walls in different stages of arteriosclerosis by magnetic resonance microscopy**

M. Heil¹, D. Edelhoff¹, I. Schmitz², D. Suter¹;

¹Experimentelle Physik 3, Technische Universität Dortmund, Dortmund/GERMANY, ²Institut für Pathologie, Ruhr Universität Bochum, Bochum/GERMANY

MEET THE AUTHOR in the ePoster Area at PC#14, on Sept. 30, 16:40–17:10

17:20–18:20 **36 Hot Topic Debate**

Lehar 3-4

Man versus machine in Radiology: the computer will take over

Moderator: I. Berry, Toulouse/FR

Proponent

W. Niessen; *Erasmus MC, Biomedical Imaging Group Rotterdam, Rotterdam/NETHERLANDS*

Opponent

A. Dixon; *University of Cambridge, Department of Radiology, Cambridge/UNITED KINGDOM*

Scientific Programme

SATURDAY, OCTOBER 1, 2016

-
- 8:00–9:00** **37 Teaching Session - Basic** Stolz 1
Basics of machine learning
Moderators: J.A. Schnabel, London/UK
N. Tayari, Nijmegen/NL
-
- 259** 08:00 **Theory: machine learning techniques for medical imaging**
K. Bhatia, J. Schnabel; *Biomedical Engineering, King's College London, London/
UNITED KINGDOM*
also available as ePoster
-
- 260** 08:30 **Applications: manifold learning for tracking the changing connectome in
the human brain**
G. Langs; *Universitätsklinik für Radiologie und Nuklearmedizin, Medizinische Universität Wien,
Vienna/AUSTRIA*
-
- 8:00–9:00** **38 Teaching Session - Advanced** Stolz 2
RF pulse design
Moderators: S. Malik, London/UK
M. Blaimer, Würzburg/DE
-
- 261** 08:00 **Fundamentals of RF pulse design**
D. Norris; *Donders Institute, Radboud University, Nijmegen/NETHERLANDS*
-
- 262** 08:30 **Multidimensional Rf pulses and parallel Tx**
A. Sbrizzi; *Imaging Division, University Medical Center, Utrecht/NETHERLANDS*
-
- 8:00–9:00** **39 Teaching Session - Advanced** Lehar 1
Arterial spin labeling in practice
Moderators: E. Achten, Gent/BE
F. von Samson-Himmelstjerna, Berlin/DE
-
- 263** 08:00 **Technical considerations and implementation in brain tumour and
cerebrovascular disease**
M. Smits; *Radiology and Nuclear Medicine, Erasmus MC, Rotterdam/NETHERLANDS*
-
- 264** 08:30 **Clinical ASL in dementia and psychiatric disease**
A. Bastos Leite; *Department of Medical Imaging, University of Porto, Faculty of Medicine,
Porto/PORTUGAL*

Scientific Programme

SATURDAY, OCTOBER 1, 2016

-
- 9:10–10:40 40 Plenary Session** *Lehar 3-4*
Hunting the hidden: a deeper look into images, randomness and fingerprints
Moderators: J.A. Schnabel, London/UK
M. Koch, Lübeck/DE
-
- 265 09:10 Characterizing brain tissue microstructure using quantitative MRI - towards in-vivo histology**
N. Weiskopf; *Department of Neurophysics, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig/GERMANY*
-
- 266 09:40 Exploiting sparsity and new encoding schemes for accelerated quantitative MR**
C. Prieto; *Division of Imaging Sciences and Biomedical Engineering, King's College London, London/UNITED KINGDOM*
-
- 267 10:10 Deep learning approaches in MRI - and beyond...**
B. Van Ginneken; *Radiology and Nuclear Medicine, Radboud University Hospital, Nijmegen/NETHERLANDS*
-
- 10:50–12:20 41 Teaching Session - Basic** *Lehar 3-4*
Basics of multiband imaging
Moderators: K.P. Pruessmann, Zurich/CH
S. Schmitter, Heidelberg/DE
-
- 268 10:50 Multiband RF Pulse design**
P. Koopmans; *NDCN FMRIB, University of Oxford, Oxford/UNITED KINGDOM*
presented by D. Norris
-
- 269 11:20 Accelerated multiband imaging: image reconstruction strategies**
M. Blaimer; *Magnetic Resonance and X-ray Imaging (MRB), Fraunhofer Institute for Integrated Circuits (IIS), Würzburg/GERMANY*
also available as ePoster
-
- 270 11:50 Accelerated multiband imaging: killer applications**
R.G. Nunes; *Instituto de Biofísica e Engenharia Biomédica, Faculdade de Ciências, Universidade de Lisboa, Lisbon/PORTUGAL*
also available as ePoster

Quantitative imaging biomarkers

Moderators: M. Chappell, Oxford/UK
S. van Huffel, Leuven/DE

- 271 10:50 Understanding the relationship between R_1 and R_2^* MRI biomarkers of hypoxia: insights from 786-0 renal cancer xenografts and patients with renal carcinoma**
R. Little¹, Y. Jamin², J. Boul², J. Naish¹, H. Lu¹, A. Reynolds², G. Parker¹, N. Clarke³, J. Waterton¹, S. Robinson², **J. O'Connor⁴**; ¹Centre for Imaging Sciences, University of Manchester, Manchester/UNITED KINGDOM, ²Division of Radiotherapy and Imaging, The Institute of Cancer Research, London/UNITED KINGDOM, ³Department of Urology, Salford Royal Hospitals NHS Foundation Trust, Salford/UNITED KINGDOM, ⁴Institute of Cancer Sciences, University of Manchester, Manchester/UNITED KINGDOM
- 272 11:01 Simultaneous multiparametric quantitative extraction at 7 Tesla using QuICS**
L. Leroi¹, L. De Rochefort², M. Santin³, F. Mauconduit⁴, R. Valabregue³, D. Le Bihan¹, C. Poupon¹, A. Vignaud¹; ¹DRF/12BM/NeuroSpin/UNIRS, CEA, Gif-Sur-Yvette/FRANCE, ²IR4M UMR8081, Univ. Paris-Sud CNRS Univ. Paris-Saclay, Orsay/FRANCE, ³CENIR, ICM, Hôpital Pitié-Salpêtrière, Paris/FRANCE, ⁴Healthcare department, Siemens, Saint-Denis/FRANCE
- 273 11:12 Quantitative biomechanical T2 mapping of knee cartilage in healthy volunteers with 3D-TESS at 7T**
S. Röhrich¹, P. Szomolanyi¹, M. Schreiner², V. Juras¹, R. Heule³, O. Bieri³, S. Trattnig¹; ¹Department of Biomedical Imaging and Image-guided Therapy High Field MR Centre, Medical University of Vienna, Vienna/AUSTRIA, ²Department of Orthopedic Surgery, Medical University of Vienna, Vienna/AUSTRIA, ³Department of Radiology, Division of Radiological Physics, University of Basel Hospital, Basel/SWITZERLAND
also available as ePoster
- 274 11:23 Accurate multi-echo spin-echo T₂ quantification using deconvolution**
A. Petrovic, R. Stollberger; Institute of Medical Engineering, Graz University of Technology and BioTechMed-Graz, Graz/AUSTRIA
- 275 11:34 Human Papillomavirus status in Oropharyngeal Squamous Cell Carcinoma: Quantitative and Histogram Analysis of Perfusion and Diffusion MRI Parameters**
M. Han, J.W. Choi, S.Y. Kim; Departement of Radiology, Ajou University Medical Center, Suwon/KOREA, REPUBLIC OF
- 276 11:45 Texture Parameters of DCE-Derived Blood Pharmacokinetic Maps as Possible Biomarkers of Endometrial Carcinoma Grade**
M. Kocinski¹, A. Materka¹, A. Lundervold², H.B. Salvesen³, S. Ytre-Hauge⁴, I.S. Haldorsen⁴; ¹Institute of Electronics, Lodz University of Technology, Lodz/POLAND, ²Department of Biomedicine and Department of Radiology, Haukeland University Hospital, University of Bergen, Bergen/NORWAY, ³Department of Obstetrics and Gynecology, Haukeland University Hospital, University of Bergen, Bergen/NORWAY, ⁴Department of Radiology, Haukeland University Hospital, University of Bergen, Bergen/NORWAY

Scientific Programme

SATURDAY, OCTOBER 1, 2016

277 11:56 **Effect of temporal resolution and sampling duration on pharmacokinetic parameters derived from prostate DCE-MRI data: a quantitative phantom study**

S.P. Knight¹, J.E. Browne², J.F. Meaney¹, A.J. Fagan¹; ¹*School of Medicine / National Centre for Advanced Medical Imaging (CAMI), St James Hospital, Trinity College University of Dublin, Dublin/IRELAND*, ²*School of Physics & Medical Ultrasound Physics and Technology Group, Centre of Industrial Engineering Optics, FOCAS, Dublin Institute of Technology, Dublin/IRELAND*

278 12:07 **Is tumor heterogeneity quantified by 3D texture analysis of MRI able to predict non-response to NAC in breast cancer?**

N. Michoux¹, L. Bollondi², A. Depeursinge³, L. Fellah¹, I. Leconte¹, H. Müller³; ¹*Radiology Department - IREC - IMAG, Université Catholique de Louvain - Cliniques Universitaires Saint-Luc, Brussels/BELGIUM*, ²*Department of Radiology and Medical Informatics, Hôpitaux Universitaires de Genève, Geneva/SWITZERLAND*, ³*Informatics, HES-SO, University of Applied Sciences Western Switzerland, Sierre/SWITZERLAND*

10:50–12:00 **43 Teaching & Scientific Session**
CEST: state of the art and beyond

Stolz 2

Moderators: P. van Zijl, Baltimore/US
X. Golay, London/UK

10:50 **Moderation and Introduction**

P. van Zijl; *Johns Hopkins University School of Medicine, Department of Radiology, Department of Radiology, Baltimore/UNITED STATES*

279 11:15 **3-O-methyl-D- glucose CEST MRI and PET/CT of different breast cancer models**

M. Rivlin, G. Navon; *Chemistry, Tel Aviv University, Tel Aviv/ISRAEL*

280 11:26 **Be prepared, stay tuned and keep'em separated – CEST MRI in the human brain at 9.4 Tesla**

M. Zaiss¹, P. Ehses², J. Windschuh³, K. Scheffler²; ¹*High-Field Magnetic Resonance, Max Planck Institute for Biological Cybernetics, Tübingen/GERMANY*, ²*High-field MR Center and Department of Biomedical Magnetic Resonance, Max Planck Institute for Biological Cybernetics and University of Tübingen, Tübingen/GERMANY*, ³*Medical Physics in Radiology, German Cancer Research Center (DKFZ), Heidelberg/GERMANY*

281 11:37 **Indirect detection of Lactate using CEST in muscle at 7T**

J.-E. Meissner¹, C. Bauer¹, A. Korzowski¹, M. Zaiss², M.E. Ladd¹, P. Bachert¹; ¹*Medical Physics in Radiology, German Cancer Research Center (DKFZ), Heidelberg/GERMANY*, ²*High-Field Magnetic Resonance, Max Planck Institute for Biological Cybernetics, Tübingen/GERMANY*

282 11:48 **Inhomogeneous magnetization transfer detection by dual frequency CEST spectroscopy**
J. Breitling¹, S. Goerke¹, M. Zaiss², J. Windschuh¹, K.D. Klika³, P. Bachert¹;
¹Medical Physics in Radiology, German Cancer Research Center, Heidelberg/GERMANY, ²High-field Magnetic Resonance Center, Max Planck Institute for Biological Cybernetics, Tübingen/GERMANY, ³Molecular Structure Analysis, German Cancer Research Center, Heidelberg/GERMANY

283 11:59 **Quantitative pulsed CEST-MRI at a clinical 3T MRI system**
J. Stabinska, T. Cronenberg, H.-J. Wittsack, A. Müller-Lutz; *Department of Diagnostic and Interventional Radiology, University Dusseldorf, Medical Faculty, Dusseldorf/GERMANY*

284 **WITHDRAWN**

12:10 **Overall discussion and Conclusion**
P. van Zijl; *Johns Hopkins University School of Medicine, Department of Radiology, Department of Radiology, Baltimore/UNITED STATES OF AMERICA*
X. Golay; *University College London, Institute of Neurology, London/UNITED KINGDOM*

10:50–12:20 **44 Scientific Session**

Lehar 1

Abdominal clinical applications

Moderators: M. Bernard, Marseille/FR
H. Thomsen, Herlev/DK

285 **WITHDRAWN**

286 10:50 **MRI Study of Postprandial Gastrointestinal Motility and Gut Peptides**
A. Khalaf¹, C. Hoac², A. Menys³, A. Nowak¹, S. Taylor³, R. Spiller¹, P. Gowland², L. Marciari¹, G. Moran¹; *¹Nottingham Digestive Diseases Centre, University of Nottingham, Nottingham/UNITED KINGDOM, ²Sir Peter Mansfield Imaging Centre, University of Nottingham, Nottingham/UNITED KINGDOM, ³Centre for Medical Imaging, University College London, London/UNITED KINGDOM*

287 11:01 **Multiparametric magnetic resonance imaging in differential diagnosis of ovarian tumors**
A. Solopova¹, A. Makatsaria², S. Ternovoy¹; *¹Department of Radiology, I.M. Sechenov First Moscow State Medical University, Moscow/RUSSIAN FEDERATION, ²Department of Obstetrics and Gynecology, I.M. Sechenov First Moscow State Medical University, Moscow/RUSSIAN FEDERATION*

288 11:12 **Whole-body MRI with Diffusion-Weighted Imaging (DWI) in staging and follow-up of malignant melanoma: advantages and limitations**
P.P. Arcuri¹, S. Roccia², R. Riccio³, S. Molica⁴, S. Palermo⁵, G. Fodero¹; *¹Radiology, De Lellis, A.O. Pugliese-De Lellis, Catanzaro/ITALY, ²INPS, I.N.P.S., Lamezia Terme/ITALY, ³Oncologic Radioterapy, A.O. Pugliese-De Lellis, Catanzaro/ITALY, ⁴Onco-Haematology, A.O. Pugliese-De Lellis, Catanzaro/ITALY, ⁵Nuclear Medicine Department, A.O. Pugliese-De Lellis, Catanzaro/ITALY*
also available as ePoster

Scientific Programme

SATURDAY, OCTOBER 1, 2016

289 11:23 **Short-term measurement repeatability of a simplified intravoxel incoherent motion (IVIM) analysis for clinical routine diffusion-weighted imaging in malignant liver lesions and normal liver at 1.5 T**
A.M. Sprinkart, G.M. Kukuk, H.H. Schild, P. Mürtz, C.C. Pieper; *Dept. of Radiology, University of Bonn, Bonn/GERMANY*
also available as ePoster

290 11:34 **ICTGV Reconstruction of DCE golden-angle radial VIBE data**
M. Schlögl¹, M. Holler², A. Schwarzl¹, K. Bredies², R. Stollberger³; ¹*Institute of Medical Engineering, Graz University of Technology, Graz/AUSTRIA*, ²*Institute of Mathematics and Scientific Computing, University of Graz, Graz/AUSTRIA*, ³*Institute of Medical Engineering, Graz University of Technology and Biotechmed-Graz, Graz/AUSTRIA*

291 11:45 **Radial uTE for free breath liver iron quantification in children with transfusion induced iron overload**
D. Kupriyanov¹, **G. Tereshchenko**², A. Gvozdev², D. Ibragimova²; ¹*Imaging Systems, Philips Healthcare, Moscow/RUSSIAN FEDERATION*, ²*Radiology department, Federal Research Center for Pediatric Hematology, Oncology and Immunology, Moscow/RUSSIAN FEDERATION*

292 11:56 **Increased Bile Excretion of Gd-EOB-DTPA in Diffuse Liver Disease: Mechanistic Modeling of qDCE-MRI in Patients With Severe Fibrosis**
M. Karlsson¹, M. Forsgren¹, O. Dahlqvist Leinhard¹, N. Dahlström¹, B. Norén¹, M. Ekstedt¹, S. Kechagias¹, G. Cedersund², P. Lundberg¹; ¹*Department of Health and Medicine, Linköping University, Linköping/SWEDEN*, ²*Department of Biomedical Engineering, Linköping University, Linköping/SWEDEN*

10:50–11:50 **45 Lightning Talks**

Lehar 2

Perfusion, functional and MRS

Moderators: U. Himmelreich, Leuven/BE
E.-M. Larsson, Uppsala/SE

293 10:50 **Defining and evaluating a sham condition for interleaved TMS/fMRI experiments using a dedicated MR head coil array**
L. Navarro De Lara¹, A. Thielscher², M. Woletz¹, M. Tik¹, E. Moser¹, C. Windischberger¹, E. Laistler¹; ¹*Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Wien/AUSTRIA*, ²*DTU Elektro Biomedical Engineering and Danish Research Center for Magnetic Resonance, Technical University of Denmark and Copenhagen University Hospital Hvidovre, Copenhagen/DENMARK*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20

294 10:52 **Implementation of line scanning BOLD fMRI on a clinical 3 T – Scanner**
J. Bauer, D. Spitzer, C. Faber; *University of Muenster, Department of Clinical Radiology, Muenster/GERMANY*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20

- 295** 10:54 **Mapping of the cerebral oxygen extraction fraction at 3 Tesla using artificial neural networks**
S. Domsch¹, B. Mürle², S. Weingärtner¹, J. Zapp¹, F. Wenz³, L. Schad¹;
¹Department of Computer Assisted Clinical Medicine, Heidelberg University, Mannheim/
GERMANY, ²Department of Neuroradiology, Medical Faculty Mannheim, Mannheim/GERMANY,
³Department of Radiation Oncology, Medical Faculty Mannheim, Mannheim/GERMANY
MEET THE AUTHOR in the ePoster Area at PC#1, on Oct. 1, 11:50–12:20
- 296** 10:56 **Cortical and subcortical activation in subjects with normal and atypical swallowing: a fMRI study during volitional overt and covert swallowing**
S. Fall¹, P. Nicol², B. Devauchelle³, P. Goudot², O. Balédent¹, S. Dakpé³,
J.-M. Constans⁴; ¹BioFlowImage, University Hospital of Picardy, Amiens/France,
²Maxillo Facial Department, Pitié Salpêtrière University Hospital, Paris/France, ³Maxillo Facial
Department, Institut Faire Faces, University Hospital of Picardy, Amiens/France, ⁴Radiology
Department, University Hospital of Picardy, Amiens/France
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20
also available as ePoster
- 297** 10:58 **The importance of correcting susceptibility-related distortions in presurgical fMRI at 7 T**
P. Lima Cardoso¹, **B. Dymerska**¹, F. Ph. S. Fischmeister², N. Mahr², E. Matt²,
S. Trattnig¹, R. Beisteiner², S. Robinson¹; ¹High Field MR Center, Department of
Biomedical Imaging and Image-guided Therapy, Medical University of Vienna, Vienna/AUSTRIA,
²Study Group Clinical fMRI, Department of Neurology, Medical University of Vienna, Vienna/
AUSTRIA
MEET THE AUTHOR in the ePoster Area at PC#2, on Oct. 1, 11:50–12:20
- 298** 11:00 **Assessment of resting state default mode network functional connectivity in Alzheimer's disease using arterial spin labelled perfusion MRI**
A. Galiano Millan¹, R. García De Eulate¹, M. Vidorreta², M. Rivero³, M. Recio³,
J.L. Zubieta¹, M. Fernandez-Seara¹; ¹Radiology, University of Navarra Hospital, Pamplona/
SPAIN, ²Center for Functional Neuroimaging, University of Pennsylvania, Philadelphia/PA/
UNITED STATES OF AMERICA, ³Neurology, University of Navarra Hospital, Pamplona/SPAIN
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20
- 299** 11:02 **Impact of calibration method on CBF multi-session reproducibility using multiple post-labeling-delay pCASL**
J. Pinto¹, M. Chappell², P. Figueiredo¹; ¹ISR-Lisboa/LARSyS and Department of
Bioengineering, Instituto Superior Técnico, Universidade de Lisboa, Lisboa/PORTUGAL,
²Institute of Biomedical Engineering, University of Oxford, Oxford/UNITED KINGDOM
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20
- 300** 11:04 **Partial Volume Effects Correction for QUASAR ASL: Investigating the Sensitivity to Partial Volume Estimates**
M.Y. Zhao¹, E. Rostrup², O.M. Henriksen³, M. Chappell¹; ¹Institute of Biomedical
Engineering, University of Oxford, Oxford/UNITED KINGDOM, ²Functional Imaging Unit,
Department of Clinical Physiology, Nuclear Medicine and PET, Copenhagen University Hospital
Rigshospitalet Glostrup, Copenhagen/DENMARK, ³Department of Clinical Physiology, Nuclear
Medicine and PET, Copenhagen University Hospital Rigshospitalet Blegdamsvej, Copenhagen/
DENMARK
MEET THE AUTHOR in the ePoster Area at PC#3, on Oct. 1, 11:50–12:20

Scientific Programme

SATURDAY, OCTOBER 1, 2016

301 11:06 **A multi-compartment flow phantom to test territory selection using vessel encoded arterial spin labelling**

M. Chappell¹, B. Fryer¹, R. Wight¹, T.W. Okell²; ¹*Institute of Biomedical Engineering, University of Oxford, Oxford/UNITED KINGDOM*, ²*FMRIB Centre, University of Oxford, Oxford/UNITED KINGDOM*

MEET THE AUTHOR in the ePoster Area at PC#4, on Oct. 1, 11:50–12:20

302 11:08 **Total generalized variation (TGV) for spatio-temporal denoising of high resolution ASL perfusion data**

S.M. Spann¹, C.S. Aigner¹, K.S. Kazimierski², M. Kraiger¹, R. Stollberger³; ¹*Institute of Medical Engineering, Graz University of Technology, Graz/AUSTRIA*, ²*Institute of Mathematics and Scientific Computing, University of Graz, Graz/AUSTRIA*, ³*Institute of Medical Engineering, Graz University of Technology and BioTechMed-Graz, Graz/AUSTRIA*

MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20

also available as ePoster

303 11:10 **Perfusion and Transit-Time Quantification in the Human Liver using Pseudo-Continuous Arterial Spin Labeling MR Imaging**

P. Martirosian¹, R. Pohmann², C. Schraml³, N. Schwenzler³, H. Schmidt³, M. Schwartz¹, K. Scheffler², K. Nikolaou³, F. Schick¹; ¹*Section on Experimental Radiology, University Hospital of Tübingen, Tübingen/GERMANY*, ²*Department of High-field Magnetic Resonance, Max Planck Institute for Biological Cybernetics, Tübingen/GERMANY*, ³*Department of Diagnostic and Interventional Radiology, University Hospital of Tübingen, Tübingen/GERMANY*

MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20

also available as ePoster

304 11:12 **Single-shot 3D GRASE ASL for fast, motion-insensitive whole kidney perfusion mapping**

F. Nery¹, E. De Vita², C.A. Clark¹, I. Gordon¹, D. Thomas³; ¹*Development Imaging and Biophysics Section, UCL Institute of Child Health, London/UNITED KINGDOM*, ²*Neuroradiology, The National Hospital for Neurology and Neurosurgery, London/UNITED KINGDOM*, ³*Department of Brain Repair and Rehabilitation, UCL Institute of Neurology, London/UNITED KINGDOM*

MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20

also available as ePoster

305 11:14 **Comparison of Pharmacokinetic Models for Joint DCE/DSC-MRI**

O. Macicek, R. Jiřík, Z. Starcuk, Jr.; *Magnetic Resonance and Cryogenics, Institute of Scientific Instruments of the CAS, v. v. i., Brno/CZECH REPUBLIC*

MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20

also available as ePoster

- 306** 11:16 **Using Multichannel Blind AIF Estimation with the DCATH model to Allow Increased Temporal Sampling Interval in DCE-MRI**
J. Kratochvíla¹, R. Jiřík¹, Z. Starcuk, Jr.¹, M. Bartoš², M. Standara³, T. Taxt⁴;
¹*Institute of Scientific Instruments, The Czech Academy of Sciences, Brno/CZECH REPUBLIC,*
²*Institute of Information Technology and Automation, The Czech Academy of Sciences, Praha/*
CZECH REPUBLIC, ³*Department of Radiology, Masaryk Memorial Cancer Institute, Brno/*
CZECH REPUBLIC, ⁴*The Department of Biomedicine, University of Bergen, Bergen/NORWAY*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20
- 307** 11:18 **Direct Comparison of ASL and DCE-MRI in a Mouse Model of Cancer**
L. Grossova¹, R. Jiřík¹, E. Dražanová¹, K. Soucek², Z. Starcuk, Jr.¹; ¹*Institute of*
Scientific Instruments, The Czech Academy of Science, Brno/CZECH REPUBLIC, ²*Department*
of Cytokinetics, Institute of Biophysics, Academy of Sciences of the Czech Republic, Brno/
CZECH REPUBLIC
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20
- 308** 11:20 **Sparse Parallel Acceleration for full 3D Golden-Angle Radial Whole-Breast DCE-MRI**
M.A. Saleem¹, M. Vicari¹, I.N. Kompan², R. Mann³, S. Vreemann³; ¹*Medical Physics,*
Fraunhofer MEVIS, Bremen/GERMANY, ²*Medical Imaging Research Institute, Mediri GmbH,*
Heidelberg/GERMANY, ³*Diagnostic Image Analysis Group, Radboud University Nijmegen,*
Nijmegen/NETHERLANDS
MEET THE AUTHOR in the ePoster Area at PC#5, on Oct. 1, 11:50–12:20
- 309** **WITHDRAWN**
- 310** 11:22 **Comparison study of liver fat quantification in diabetes patients using proton MRS with and without water suppression**
Y. Kupriyanova, K. Bódis, V. Burkart, K. Müssig, J. Szendrői, J.O.J. Lundbom,
M. Roden; *Institute for Clinical Diabetology, German Diabetes Center, Leibniz Center for*
Diabetes Research, Heinrich Heine University, Düsseldorf/GERMANY
MEET THE AUTHOR in the ePoster Area at PC#7, on Oct. 1, 11:50–12:20
- 311** 11:24 **Canonical polyadic decomposition for tissue type differentiation using multi-parametric MRI in high-grade gliomas**
B. Halandur Nagaraja¹, N. Sauwen¹, D. M. Sima¹, U. Himmelreich²,
L. De Lathauwer¹, S. Van Huffel¹; ¹*ESAT/STADIUS, KU Leuven, Leuven/BELGIUM,*
²*Imaging and pathology, KU Leuven, Leuven/BELGIUM*
MEET THE AUTHOR in the ePoster Area at PC#8, on Oct. 1, 11:50–12:20
- 312** 11:26 **Glutamatergic neurotransmission in patients with borderline personality disorder: a 3T magnetic resonance spectroscopy study**
J. Bauer¹, S. Chrysanthou², P. Ohrmann², H. Kugel¹; ¹*University of Muenster,*
Department of Clinical Radiology, Muenster/GERMANY, ²*University of Muenster, Department of*
Psychiatry, Muenster/GERMANY
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20
- 313** 11:28 **Quantification of Glutamate and Glutamine by 1(H) Spectroscopy using CSI sequences. Reliable or not?**
S. Maennlin, R. Kolb, U. Klose; *Neuroradiology, Eberhard Karls University, Tübingen/*
GERMANY
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20

Scientific Programme

SATURDAY, OCTOBER 1, 2016

- 314 11:30** **Multi-slice approach for noninvasive therapy response assessment in preclinical GBM using MRSI and a semisupervised source extraction approach**
N. Arias-Ramos¹, V. Mocioiu², M. Julià-Sapés³, S. Lope-Piedrafita⁴, C. Arús¹, A.P. Candiota³; ¹*Departament de Bioquímica i Biologia Molecular (BBM), Universitat Autònoma de Barcelona (UAB), Cerdanyola Del Vallès/SPAIN*, ²*Institut de Biotecnologia i de Biomedicina, Universitat Autònoma de Barcelona (UAB), Cerdanyola Del Vallès/SPAIN*, ³*Networking Research Center on Bioengineering, Biomaterials and Nanomedicine (CIBER-BBN), Universitat Autònoma de Barcelona (UAB), Cerdanyola Del Vallès/SPAIN*, ⁴*Servei de RMN, Universitat Autònoma de Barcelona (UAB), Cerdanyola Del Vallès/SPAIN*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20
also available as ePoster
- 315 11:32** **Multiple MRS signals between 1.1-1.3 ppm in the healthy human brain**
U. Klose¹, S. Maennlin¹, R. Kolb¹, A. Gröger²; ¹*Neuroradiology, University of Tübingen, Tübingen/GERMANY*, ²*Neurology, University of Mainz, Mainz/GERMANY*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20
- 316 11:34** **In vivo magnetic resonance spectroscopy for the characterization of colorectal tumors in colitis murine model: initial findings**
H. Dorez¹, R. Sablong¹, L. Canaple², H. Saint-Jalmes³, S. Gaillard¹, D. Moussata⁴, H. Ratiney¹, O. Beuf¹; ¹*CREATIS CNRS UMR 5220 – INSERM U1206 – UJM Saint Etienne – Université Lyon 1 – INSA Lyon, Université de Lyon, Villeurbanne/FRANCE*, ²*Institut de Génomique Fonctionnelle de Lyon, Université de Lyon 1, UMR 5242 CNRS, Ecole Normale Supérieure de Lyon, Université de Lyon, Lyon/FRANCE*, ³*LTSI, INSERM UMR 1099, Rennes/FRANCE*, ⁴*Service hépato-gastroentérologie, Centre Régional Universitaire de Tours, Tours/FRANCE*
MEET THE AUTHOR in the ePoster Area at PC#9, on Oct. 1, 11:50–12:20
- 317 11:36** **Reduced Glutamatergic Metabolism in Prefrontal Cortex of Animal Model of Posttraumatic Stress Disorder: In vivo ¹H MRS at 9.4T**
S.-I. Lim, K.-H. Song, C.-H. Yoo, B.-Y. Choe; *Department of Biomedical Engineering, and Research Institute of Biomedical Engineering, The Catholic University of Korea College of Medicine, Seoul/KOREA, REPUBLIC OF*
MEET THE AUTHOR in the ePoster Area at PC#10, on Oct. 1, 11:50–12:20
- 318 11:38** **Hippocampal Metabolism Modulation of Subchronic Nicotine-Treated Rats by Using Proton Magnetic Resonance Spectroscopy at 9.4T**
S.-I. Lim, K.-H. Song, C.-H. Yoo, B.-Y. Choe; *Department of Biomedical Engineering, and Research Institute of Biomedical Engineering, The Catholic University of Korea College of Medicine, Seoul/KOREA, REPUBLIC OF*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20
also available as ePoster

319 11:40 **Liver Metabolites in Rat Model of High-Fat-Diet-induced Fatty Liver Disease Using ¹H MRS with Internal Standard Method**
K.-H. Song¹, C.-H. Yoo, S.-I. Lim, B.-Y. Choe; *Department of Biomedical Engineering, The Catholic University of Korea, Seoul/KOREA, REPUBLIC OF*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20
also available as ePoster

320 11:42 **Order Statistic Filtering Performed on MEGA-PRESS data Influenced by Subject Head Motion**
S. Tapper¹, A. Tisell², P. Lundberg²; *¹Department of Medical Health Sciences, Linköping University, Radiation Physics, Linköping/SWEDEN, ²Linköping University, Center for Medical Image Science and Visualization (CMIV), Linköping/SWEDEN*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20

321 11:44 **Implementation of MEGA-s(emi)LASER sequence using MASE for detecting GABA at 7T**
S. Rohani Rankouhi¹, H. Dyvorne², D. Hong¹, P. Balchandani², D. Norris³; *¹Erwin L. Hahn Institute for Magnetic Resonance Imaging, University of Duisburg-Essen, Essen/GERMANY, ²Translational and Molecular Imaging Institute, Icahn School of Medicine at Mount Sinai, New York/NY/UNITED STATES OF AMERICA, ³Donders Institute, Radboud University, Nijmegen/NETHERLANDS*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 11:50–12:20

322 11:46 **Single-Shot-RARE for rapid 3D hyperpolarized metabolic ex vivo tissue imaging: RF-pulse design for semi-dense spectra**
P.O. Magnusson¹, P. Rose Jensen², T. Dyrby³, M. Karlsson², M. Lerche², L.G. Hanson⁴; *¹Centre for Functional and Diagnostic Imaging and Research - Danish Research Centre for Magnetic Resonance (DRCMR), Copenhagen University Hospital Hvidovre, Hvidovre/DENMARK, ²DTU Elektro and Albeda Research Aps, Technical University of Denmark, Lyngby/DENMARK, ³DRCMR and Department of Applied Mathematics and Computer Science - Image Analysis and Computer Graphics section, Copenhagen University Hospital Hvidovre and Technical University of Denmark, Hvidovre/DENMARK, ⁴DRCMR and DTU Elektro, Copenhagen University Hospital Hvidovre and Technical University of Denmark, Hvidovre/DENMARK*
MEET THE AUTHOR in the ePoster Area at PC#11, on Oct. 1, 11:50–12:20

13:50–15:20 **46 Teaching Session - Advanced** Lehar 3-4
Myocardial tissue characterisation, T1, T2, T2*, DWI
Moderators: T. Dresselaers, Leuven/BE
H. Hetterich, Munich/DE

323 13:50 **T1 and ECV mapping: reliable biomarkers ready for prime-time?**
P. Gatehouse; *Cardiovascular Biomedical Research Unit, Royal Brompton Hospital, London/UNITED KINGDOM*

324 14:20 **Cardiac T₂ and T₂* mapping: from the basics to the latest advances**
R.B. Van Heeswijk; *Radiology, Lausanne University Hospital (CHUV), Lausanne/SWITZERLAND*

325 14:50 **Cardiac DWI: new frontiers of tissue characterization**
M. Viallon; *Radiology Department, University Hospital of Saint Etienne, University of Lyon, CREATIS- UMR CNRS 5220 INSERM U1206, Saint Etienne/FRANCE*

Scientific Programme

SATURDAY, OCTOBER 1, 2016

13:50–15:20 47 Scientific Session

Stolz 1

RF transmission and reception

Moderators: E. Laistler, Vienna/AT
E. Serés Roig, Lausanne/CH

-
- 326** 13:50 **The impact of brain pathologies on maximum local SAR: a simulation study using an 8 channel parallel transmit coil at 7T**
S. Goluch¹, A. Kuehne², R. Kriegl¹, E. Moser¹, E. Laistler¹; ¹Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna/AUSTRIA, ²MRI.Tools GmbH, Berlin/GERMANY
-
- 327** 14:01 **VERSE-guided parallel excitations and RF power control using gradient field monitoring at 7T**
M. Cavusoglu¹, K.P. Pruessmann¹, S.J. Malik²; ¹Biomedical Engineering, ETH Zurich, Zurich/SWITZERLAND, ²Biomedical Engineering, Kings Collage London, London/UNITED KINGDOM
-
- 328** 14:12 **Flexible 23-Channel Receive-Only Coil Array for High-Resolution 3T MRI**
R. Kriegl, L. Navarro De Lara, M. Pichler, J. Sieg, E. Moser, C. Windischberger, E. Laistler; Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna/AUSTRIA
also available as ePoster
-
- 329** 14:23 **Comparison of the Ultimate Intrinsic SNR in a Spherical Phantom vs a Realistic Human Head Model at 9.4 T**
A. Pfrommer, A. Henning; Magnetic Resonance Center, Max Planck Institute for Biological Cybernetics, Tuebingen/GERMANY
also available as ePoster
-
- 330** 14:34 **Combined ¹H/²³Na MRI: Initial Images with Quarter-Wavelength CDRA Prototype**
J.T. Svejda, D. Erni, A. Rennings; Department of General and Theoretical Electrical Engineering (ATE), University of Duisburg-Essen, Duisburg/GERMANY
also available as ePoster
-
- 331** 14:45 **An 8-Ch Transmit Dipole Head and Neck Array for 7T Imaging: Improved SAR levels, Homogeneity, and Z-Coverage over the Standard Birdcage Coil**
M. Restivo, H. Hoogduin, A.A. Haghnejad, M. Gosselink, M. Italiaander, D. Klomp, C. Van Den Berg, P. Luijten, A. Raaijmakers; Center for Images Sciences, University Medical Center Utrecht, Utrecht/NETHERLANDS

332 14:56 **Dual-Tuned $^{13}\text{C}/^1\text{H}$ Head Coil for PET/MR Hybrid Imaging**
M. Oehmigen¹, M.E. Lindemann¹, M. Sauer², **T. Lanz**², H. Quick¹; ¹High Field and Hybrid MR Imaging, University Hospital Essen, Essen/GERMANY, ²R&D, Rapid Biomedical GmbH, Rimplar/GERMANY

333 15:07 **A 30 Channel Rx Array for ^{23}Na Imaging of the Head at 7 Tesla**
F. Resmer¹, J.M. Lommen², N.G.R. Behl², M. Sauer¹, N. Benkhedah², R. Umatham², M.E. Ladd², A.M. Nagel², **T. Lanz**¹; ¹R&D, Rapid Biomedical GmbH, Rimplar/GERMANY, ²Medical Physics in Radiology, German Cancer Research Center (DKFZ), Heidelberg/GERMANY
also available as ePoster

13:50–15:20 48 Scientific Session

Stolz 2

Functional MRI

Moderators: R.A. Kauppinen, Bristol/UK
S. Bollmann, Zurich/CH

334 13:50 **Serial Correlations in Ultra-Fast Simultaneous Multislice (SMS) EPI at 7T**
S. Bollmann¹, A. Pucket², R. Cunnington², M. Barth¹; ¹The University of Queensland, Centre for Advanced Imaging, Brisbane/QLD/AUSTRALIA, ²The University of Queensland, Queensland Brain Institute, Brisbane/QLD/AUSTRALIA
also available as ePoster

335 14:01 **A method for dynamic distortion correction and improved signal temporal stability in 7T fMRI**
B. Dymerska¹, B.A. Poser², M. Barth³, S. Trattng¹, S. Robinson¹; ¹High Field MR Center, Department of Biomedical Imaging and Image-guided Therapy, Medical University of Vienna, Vienna/AUSTRIA, ²Department of Psychology and Neuroscience, Cognitive Neuroscience, Maastricht University, Maastricht/NETHERLANDS, ³Centre for Advanced Imaging, University of Queensland, Brisbane/AUSTRALIA
also available as ePoster

336 14:12 **Acceleration of functional MRI data acquisition by separation of background and dynamic components**
L. Weizman¹, K. Miller¹, Y. Eldar², **M. Chiew**¹; ¹Oxford Centre for Functional MRI of the Brain, Oxford University, Oxford/UNITED KINGDOM, ²Electrical Engineering, Technion, Israel Institute of Technology, Haifa/ISRAEL

337 14:23 **BOLD fMRI in the Basal Ganglia at 7T Using Simultaneous Multislice (SMS) Multi-echo EPI**
S. Bollmann¹, A. Pucket², B.A. Poser³, R. Cunnington², M. Barth¹; ¹The University of Queensland, Centre for Advanced Imaging, Brisbane/QLD/AUSTRALIA, ²The University of Queensland, Queensland Brain Institute, Brisbane/QLD/AUSTRALIA, ³Department of Psychology and Neuroscience, Cognitive Neuroscience, MR Physics, Maastricht University, Maastricht/NETHERLANDS
also available as ePoster

Scientific Programme

SATURDAY, OCTOBER 1, 2016

338 14:34 **Application of Multi-echo EPI on a Fear conditioning Task: Evidence of Improved BOLD Detection in Ventromedial Prefrontal Cortex**
B. Fernandez¹, L. Leuchs², P. Sämann², M. Czisch², V. Spoomaker²; ¹*Applications and Workflow, GE Healthcare, Orsay/France*, ²*Neuroimaging Unit, Max Planck Institute of Psychiatry, Munich/Germany*

339 14:45 **SSFP fMRI provides robust and distortion-free activation maps at 14 T**
I. Jelescu, O. Reynaud, R. Gruetter; *Centre d'Imagerie Biomédicale, Ecole Polytechnique Fédérale de Lausanne, Lausanne/SWITZERLAND*
also available as ePoster

340 14:56 **BOLD fMRI mapping of epileptic seizures using optically detected Ca²⁺ data**
F. Schmid¹, L. Wachsmuth¹, F. Albers¹, A. Lüttjohann², T. Budde², C. Faber¹;
¹*Department of Clinical Radiology, University of Münster, Münster/Germany*, ²*Department of Physiology I, University of Münster, Münster/Germany*

341 15:07 **Feasibility of Magnetic Resonance Imaging (MRI) and Electromyography (EMG) Measures of Skeletal Muscle During Voluntary Contraction**
M. Behr, A. Akbari, C. Rockel, B. Tyler, M. Noseworthy; *Biomedical Engineering, McMaster University, Hamilton/ON/CANADA*

13:50–15:20 49 Scientific Session

Lehar 1

MSK MRI: more than bones

Moderators: D. Bendahan, Marseille/FR
T. Gerhalter, Paris/FR

342 13:50 **Ultra-high field MRI and biomechanical investigation of vertebral bone microarchitecture**
D. Guenoun¹, A. Foue², M. Pithioux³, S. Guis⁴, T. Le Corroller¹, P. Champsaur¹, J.p. Mattei⁴, M. Guye⁵, P. Chabrand³, **D. Bendahan**⁵; ¹*Radiology (Ste Marguerite), APHM, Marseille/France*, ²*UMR CNRS 7339, Aix-Marseille Université-CNRS, Marseille/France*, ³*ISM UMR 7287, Aix-Marseille Université-CNRS, Marseille/France*, ⁴*Rheumatology (Ste Marguerite), APHM, Marseille/France*, ⁵*CRMBM CEMEREM UNMR 7339, Aix Marseille Université CNRS, Marseille/France*

343 14:01 **Skeletal age estimation using shape variations of the manubrium in MR images**
N.P. Martinez Vera¹, J. Hoeller¹, **B. Neumayer**¹, T. Widek¹, T. Ehammer¹, M. Urschler²; ¹*Clinical Forensic Imaging, Ludwig Boltzmann Institute, Graz/Austria*, ²*Institute for Computer Graphics and Vision, BioTechMed, Graz University of Technology, Graz/Austria*
also available as ePoster

- 344** 14:12 **Acceleration of MR Measurements for Age Estimation**
B. Neumayer¹, M. Schlögl², C. Payer³, T. Widek¹, T. Ehammer¹, R. Stollberger⁴, M. Urschler¹; ¹*Clinical Forensic Imaging, Ludwig Boltzmann Institute, Graz/AUSTRIA*, ²*Institute of Medical Engineering, Graz University of Technology, Graz/AUSTRIA*, ³*Institute for Computer Graphics and Vision, Graz University of Technology, Graz/AUSTRIA*, ⁴*Institute of Medical Engineering, Graz University of Technology and Biotechmed-Graz, Graz/AUSTRIA*
also available as ePoster
- 345** 14:23 **Comparison of Shoulder MRI and Shear-Wave Ultrasonography Findings of Biceps Tendon - A preliminary study**
E. Inci, **M.O. Nalbant**, E. Hocaoglu, R. Turkay, S. Aksoy; *Radiology, Bakirkoy Research and Training Hospital, Istanbul/TURKEY*
- 346** 14:34 **Detection of Biochemical Changes in Tendons of Patients with Diabetes Mellitus with Normal Clinical and Imaging Findings by T2*-mapping at 7T MR**
M. Zalaudek¹, W. Marik², V. Juras¹, B. Hager¹, S. Kitzer¹, M. Riedl³, M. Weber⁴, O. Bieri⁵, X. Deligianni⁵, S. Trattnig¹; ¹*Biomedical Imaging and Image Guided Therapy, High Field MR Center, Medical University of Vienna, Vienna/AUSTRIA*, ²*Biomedical Imaging and Image Guided Therapy, Division of Musculoskeletal and Neuroradiology, Wien/AUSTRIA*, ³*Medicine III, Division of Endocrinology and Metabolism, Medical University of Vienna, Wien/AUSTRIA*, ⁴*Biomedical Imaging and Image Guided Therapy, Methodological Consulting and Statistical Analysis, Medical University of Vienna, Wien/AUSTRIA*, ⁵*Department of Radiology, Division of Radiological Physics, University of Basel Hospital, Basel/SWITZERLAND*
also available as ePoster
- 347** 14:45 **Magnetic Resonance Imaging of the Sacroiliac Joints in SpA: with or without intravenous contrast media?**
F. Gentili¹, L. Cantarini², M. Fabbroni², S. Guerrini¹, N. Cioffi Squitieri¹, F.G. Mazzei³, B. Frediani², M. Galeazzi², L. Volterrani¹, M.A. Mazzei¹; ¹*Department of Medical, Surgical and Neuro Sciences, Diagnostic Imaging, University of Siena, Azienda Ospedaliera Universitaria Senese, Siena/ITALY*, ²*Rheumatology Unit, Research Center of Systemic Autoimmune and Autoinflammatory Diseases, University of Siena, Azienda Ospedaliera Universitaria Senese, Siena/ITALY*, ³*Diagnostic Imaging, Azienda Ospedaliera Universitaria Senese, Siena/ITALY*
- 348** 14:56 **Effects of Intensity Nonuniformities, Nonuniformity Correction Methods, and Intensity Normalizations on Texture-Based Classification of T2-weighted Aged Calf Muscles**
F. Fallah¹, N. Schwenzer², F. Schick³, B. Yang⁴; ¹*Section on Experimental Radiology, Department of Diagnostic and Interventional Radiology, University Hospital Tübingen, Germany, Institute of Signal Processing and System Theory, University of Stuttgart, Germany, Stuttgart/GERMANY*, ²*Department of Diagnostic and Interventional Radiology, University Hospital of Tübingen, Tübingen/GERMANY*, ³*University Hospital Tübingen, Germany, Section on Experimental Radiology, Department of Diagnostic and Interventional Radiology, Tübingen/GERMANY*, ⁴*University of Stuttgart, Germany, Institute of Signal Processing and System Theory, Stuttgart/GERMANY*
also available as ePoster

Scientific Programme

SATURDAY, OCTOBER 1, 2016

349 15:07 Feasibility study of interleaved multi-nuclear acquisitions on a 3 T clinical NMR scanner without hardware modifications

A. Lopez Kolkovsky, B. Marty, B. Coppa, E. Giacomini, P. Carlier; *NMR laboratory, Association Institut of Myology, Paris/France*

13:50–14:50 50 Lightning Talks

Lehar 2

Brain and peripheral nerves

Moderators: M. van Osch, Leiden/NL
K. Uludag, Tübingen/DE

350 13:50 3T MR tractography of peripheral nerves

I. Ibrahim¹, J. Tintera¹, I. Humhej², F. Jiru¹, A. Skoch¹, J. Rydlo¹, M. Dezortova¹;
¹MR-Unit, Dept Diagnostic and Interventional Radiology, Institute for Clinical and Experimental Medicine, Prague/CZECH REPUBLIC, ²Department of Neurosurgery, Masaryk Hospital, Ústí Nad Labem/CZECH REPUBLIC

MEET THE AUTHOR in the ePoster Area at PC#1, on Oct. 1, 14:50–15:20

351 13:52 Simultaneous contrast-enhanced carotid MRA and MRI of carotid plaques with Mn-DCTA in patients with extensive atherosclerosis and decreased renal function

W.Y. Ussov¹, E. Bobrikova¹, A. Maksimova¹, M. Belyanin², N.L. Shimanovsky³, M. Plotnikov⁴;
¹Laboratory of Tomography, Tomsk Institute of Cardiology, Tomsk/RUSSIAN FEDERATION, ²Organic Chemistry, National Research Tomsk Polytechnic University, Tomsk/RUSSIAN FEDERATION, ³Molecular Pharmacology, Russian National Research Medical Nikolay I Pirogov University, Moscow/RUSSIAN FEDERATION, ⁴Cardiovascular Surgery, Tomsk Institute of Cardiology, Tomsk/RUSSIAN FEDERATION

MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 14:50–15:20
also available as ePoster

352 13:54 Feasibility of improved motion-sensitized driven-equilibrium (iMSDE) prepared contrast enhanced 3D T1-weighted image for the diagnosis of intracranial vertebrobasilar artery dissection: comparison with multi-contrast 2D spin echo image

J.W. Choi¹, M. Han², B. Kim¹; ¹Radiology, Ajou University School of Medicine, Suwon/KOREA, REPUBLIC OF, ²Department of Radiology, Ajou University Medical Center, Suwon/KOREA, REPUBLIC OF

MEET THE AUTHOR in the ePoster Area at PC#2, on Oct. 1, 14:50–15:20

353 13:56 MRI in leukemia after chemotherapy; 5 years assessment

M. Rezk¹, N. Eldeib¹, N. Mansour Khalifa¹, M. Maher¹, K. Gaber¹, E. Aboseif², O. Mokhtar¹; ¹Radiology Department, National Cancer Institute, Cairo/EGYPT, ²Radiology Department, Azhar University Hospital (Alzahraa), Cairo/EGYPT

MEET THE AUTHOR in the ePoster Area at PC#3, on Oct. 1, 14:50–15:20

- 354** 13:58 **MRI of infants after intranasal administration of Dexmedetomidine**
K. Johansson¹, T. Dorniok², J. Fenhammar³; ¹Dept. of Pediatric Radiology, Karolinska University Hospital, Astrid Lindgren Children's Hospital, Stockholm/SWEDEN, ²Dept. of Medical Physics, Karolinska University Hospital, Stockholm/SWEDEN, ³Dept. of Paediatric Anaesthesiology, Karolinska University Hospital, Astrid Lindgren Children's Hospital, Stockholm/SWEDEN
MEET THE AUTHOR in the ePoster Area at PC#4, on Oct. 1, 14:50–15:20
-
- 355** 14:00 **Probability to determine the 18 years age limit of living adolescents using 3T MR for age estimation**
T. Widek¹, P. Baumann², H. Merken¹, S. Grassegger³, K. Ogris⁴, A. Petrovic⁵, H. Sprenger¹, E. Scheurer⁶; ¹Clinical Forensic Imaging, Ludwig Boltzmann Institute, Graz/AUSTRIA, ²University Center of Legal Medicine Lausanne-Geneva, University Hospital of Lausanne, Lausanne/SWITZERLAND, ³Department of Radiology, LKH Rottenmann, Rottenmann/AUSTRIA, ⁴Institute of Forensic Medicine, Medical University of Graz, Graz/AUSTRIA, ⁵Institute of Medical Engineering, Graz University of Technology, Graz/AUSTRIA, ⁶Institute of Forensic Medicine, University of Basel - Health Department Basel, Basel/SWITZERLAND
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 14:50–15:20
-
- 356** 14:02 **The explorative analysis to revise fear network model for panic disorder: functional connectome statistics**
C.-H. Lai¹, Y.-T. Wu²; ¹Department of Psychiatry, Cardinal Tien Hospital, New Taipei/TAIWAN, ²Institute of Biophotonics, National Yang-Ming University, Taipei/TAIWAN
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 14:50–15:20
-
- 357** 14:04 **Neural correlates of possible mind wandering and attentional compensation during extended fMRI sessions**
M. Kiss¹, G. Rudas², L. Kozák²; ¹Mr Research Center, Semmelweis University, Budapest/HUNGARY, ²MR Research Center, Semmelweis University, Budapest/HUNGARY
MEET THE AUTHOR in the ePoster Area at PC#5, on Oct. 1, 14:50–15:20
-
- 358** 14:06 **Wavelet coherence-based classifier: fMRI study for high-functioning autism**
A. Bernas¹, S. Zinger¹, A. Aldenkamp²; ¹Electrical Engineering, Eindhoven University of Technology, Eindhoven/NETHERLANDS, ²Behavioral Science, Kempenhaeghe, Heeze/NETHERLANDS
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 14:50–15:20
also available as ePoster
-
- 359** 14:08 **Intrinsic functional connectivity of the language network in typically developing left- and right-handed children**
M. Verly¹, R. Gerrits¹, L. Lagae², I. Zink¹, S. Sunaert³, N. Rommel¹; ¹Dept. Neurosciences, ExpORL, KU Leuven, Leuven/BELGIUM, ²Dept. Pediatrics, UZ Leuven, Leuven/BELGIUM, ³Dept. Radiology - Translational MRI, UZ Leuven, Leuven/BELGIUM
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 14:50–15:20

Scientific Programme

SATURDAY, OCTOBER 1, 2016

- 360** 14:10 **Correlation between damages of the corpus callosum tracts and interhemispheric coherence of EEG during attention activation in patients with severe traumatic brain injury**
E. Sharova¹, **E. Pogosebikian**², E. Korobkova¹, N. Zakharova², L. Fadeeva², O. Zaitsev²; ¹Laboratory of General and Clinical Neurophysiology, Institute of Higher Nervous Activity and Neurophysiology RAS, Moscow/RUSSIAN FEDERATION, ²Neuroimaging, Burdenko Neurosurgery Institute RAS, Moscow/RUSSIAN FEDERATION
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 14:50–15:20
also available as ePoster
- 361** 14:12 **Medial Temporal Lobectomy in Patients With Unilateral Hippocampal Sclerosis Induce Fractional Anisotropy Alterations in The Cerebral White Matter**
A.C. Has¹, I. Tezer², B. Bilginer³, S. Saygi², K. Karli Oguz⁴; ¹National Magnetic Resonance Research Center, Bilkent University, Ankara/TURKEY, ²Faculty of Medicine, Department of Neurology, Hacettepe University, Ankara/TURKEY, ³Faculty of Medicine, Department of Neurosurgery, Hacettepe University, Ankara/TURKEY, ⁴Faculty of Medicine, Department of Radiology, Hacettepe University, Ankara/TURKEY
MEET THE AUTHOR in the ePoster Area at PC#6, on Oct. 1, 14:50–15:20
- 362** 14:14 **Distinction between neuromyelitis optica and multiple sclerosis - from a structural brain network perspective**
X. Xu¹, H.K. Mak¹, K.H. Chan², C.Y. Lee², **E. Hui**¹; ¹Department of Diagnostic Radiology, The University of Hong Kong, Hong Kong/HONG KONG PRC, ²Department of Medicine, The University of Hong Kong, Hong Kong/HONG KONG PRC
MEET THE AUTHOR in the ePoster Area at PC#7, on Oct. 1, 14:50–15:20
- 363** 14:16 **Non-Negative Matrix Factorizationfor for White-Matter Fiber-Bundles Longitudinal Analysis**
C. Stamile¹, G. Kocevar¹, F. Cotton¹, F. Maes², **D. Sappey-Marinier**¹, S. Van Huffel³; ¹CREATIS (CNRS UMR5220 & INSERM U1044), Université Claude Bernard Lyon 1, Villeurbanne/FRANCE, ²PSI, KU Leuven, Leuven/BELGIUM, ³ESAT/STADIUS, KU Leuven, Leuven/BELGIUM
MEET THE AUTHOR in the ePoster Area at PC#8, on Oct. 1, 14:50–15:20
- 364** 14:18 **Automatic Differentiation of Parkinsonian Syndromes Using Volumetric Image Analysis**
D. Pera¹, S. Reimão², D. Abreu³, J. Campos², J. Ferreira³, **R.G. Nunes**¹; ¹Instituto de Biofísica e Engenharia Biomédica, Faculdade de Ciências, Universidade de Lisboa, Lisboa/PORTUGAL, ²Serviço de Imagiologia Neurológica, Hospital de Santa Maria, Centro Hospitalar Lisboa Norte, Lisbon/PORTUGAL, ³Unidade de Farmacologia Clínica, Instituto de Medicina Molecular, Faculdade de Medicina, Universidade de Lisboa, Lisbon/PORTUGAL
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 14:50–15:20
also available as ePoster

- 365** 14:20 **Combined assessment of tumor oxygen metabolism and angiogenesis in glioma patients**
M. Zimmermann¹, K. Rössler¹, A. Mennecke¹, A. Dörfler², S. Oberndorfer³, M. Buchfelder¹, G. Heinz⁴, A. Stadlbauer¹; ¹Neurosurgery, University of Erlangen-Nürnberg, Erlangen/GERMANY, ²Neuroradiology, University of Erlangen-Nürnberg, Erlangen/GERMANY, ³Neurology, University Clinic of St. Pölten, St. Pölten/AUSTRIA, ⁴Radiology, University Clinic of St. Pölten, St. Pölten/AUSTRIA
MEET THE AUTHOR in the ePoster Area at PC#9, on Oct. 1, 14:50–15:20
- 366** 14:22 **Perfusion Imaging In Brain Tumour: Does the Mean Transit Time Have Added Value?**
S. Fallatah¹, E. De Vita², X. Golay¹, R. Jäger¹; ¹Brain Repair and Rehabilitation, UCL, Institute of Neurology, London/UNITED KINGDOM, ²Lyshold Department of Neuroradiology, The National Hospital for Neurology and Neurosurgery, London/UNITED KINGDOM
MEET THE AUTHOR in the ePoster Area at PC#10, on Oct. 1, 14:50–15:20
- 367** **WITHDRAWN**
- 368** **WITHDRAWN**
- 369** 14:24 **Investigating the feasibility of creating functional diffusion maps by registering the postoperative study to the preoperative study**
H. Shuaib¹, T. Booth², J. Ashmore²; ¹Department of Life Sciences & Medicine, King's College London, London/UNITED KINGDOM, ²Department of Neuroradiology, King's College Hospital, London/UNITED KINGDOM
MEET THE AUTHOR in the ePoster Area at PC#13, on Oct. 1, 14:50–15:20
- 370** **WITHDRAWN**
- 371** 14:26 **Value of High-resolution MR Imaging Compared with MR Angiography for the Follow-Up of Intracranial Vertebral Artery Dissection**
M. Han, J.W. Choi, S.Y. Kim; Department of Radiology, Ajou University Medical Center, Suwon/KOREA, REPUBLIC OF
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 14:50–15:20
- 372** 14:28 **MRI-based radiosurgical treatment planning in patients with motor symptoms of Parkinson's disease**
A. Fedorov¹, I. Zubatkina², P. Ivanov², M. Cherkashin³, N. Berezina⁴; ¹Radiology, TDC IIBS, Saint-Petersburg/RUSSIAN FEDERATION, ²Radiosurgery, TDC IIBS, Saint-Petersburg/RUSSIAN FEDERATION, ³Surgery, TDC IIBS, Saint-Petersburg/RUSSIAN FEDERATION, ⁴Administrative, TDC IIBS, Saint-Petersburg/RUSSIAN FEDERATION
MEET THE AUTHOR in the ePoster Area at PC#15, on Oct. 1, 14:50–15:20
- 373** 14:30 **Fast Automated Grey Matter Parcellation in T1 MRI**
C. Hoogendoorn¹, S. Murphy¹, B. Mohr¹, H. Yamagata², I. Poole¹, K. Goatman¹; ¹Image Analysis Research, Toshiba Medical Visualization Systems, Edinburgh/UNITED KINGDOM, ²CMRD, Toshiba Medical Systems, Otawara/JAPAN
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 14:50–15:20
also available as ePoster

Scientific Programme

SATURDAY, OCTOBER 1, 2016

374 WITHDRAWN

375 14:32 **Can 9.4 T MRI improve lesion visualization in epilepsy patients?**
P. Martin¹, G. Hagberg², J. Loureiro², J. Bause², H. Lerche¹, N. Focke¹,
K. Scheffler²; ¹Neurologie, Universitätsklinik Tübingen, Tübingen/GERMANY, ²High-field MR,
Max Planck Institute for Biological Cybernetics, Tübingen/GERMANY
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 14:50–15:20
also available as ePoster

376 14:34 **An Automatic Algorithm for MRI Anonymization Based on Face Features Detection**
D. Pezzoli¹, C. Stamile², F. Durand-Dubief², D. Sappey-Marini², F. Calimeri¹;
¹DEMACS, University of Calabria, Arcavacata/ITALY, ²CREATIS (CNRS UMR5220 & INSERM
U1044), Université Claude Bernard Lyon 1, Villeurbanne/FRANCE
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 14:50–15:20
also available as ePoster

377 14:36 **Evidence of radiation induced changes of cerebral blood volume (CBV) and cerebral blood flow (CBF) in bilateral normal appearing brain tissue**
M. Fahlström¹, P. Nyrén¹, E. Blomquist², T. Nyholm³, E.-M. Larsson¹; ¹Surgical
Sciences, Uppsala University, Uppsala/SWEDEN, ²Department of Immunology, Genetics and
Pathology, Uppsala University, Uppsala/SWEDEN, ³Biomedical Technology, Medical Physics and
IT, Uppsala University Hospital, Uppsala/SWEDEN
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 14:50–15:20
also available as ePoster

378 14:38 **Evaluation of brain tumors with 3 Tesla MRI using combination of proton MR spectroscopy, apparent diffusion coefficient and perfusion calculation**
D. Jain, S.b.s. Netam, V. Patre, V. Dutt, C.d. Sahu; *Department of Radiodiagnosis, Pt.
J N.M. Medical College, Raipur, Raipur/INDIA*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 14:50–15:20
also available as ePoster

379 14:40 **High Resolution MRI of the Human Radial Nerve – Preliminary Results**
M. Zalaudek¹, J. Friske¹, L. Hirtler², G. Riegler³, G. Dricek¹, S. Trattng¹;
¹Biomedical Imaging and Image Guided Therapy, High Field MR Center, Medical University of
Vienna, Vienna/AUSTRIA, ²Anatomy and Cell Biology, Medical University of Vienna, Vienna/
AUSTRIA, ³Biomedical Imaging and Image Guided Therapy, Medical University of Vienna,
Vienna/AUSTRIA
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 14:50–15:20
also available as ePoster



Certificate
of Merit

RF pulses

Moderators: J.M. Warnking, Grenoble/FR
J. Leupold, Freiburg/DE

-
- 380** 15:40 **Tailored RF pulses for optimized phase-constrained parallel imaging: initial experience on a clinical system**
A. Kettinger¹, S. Kannengiesser², F. Breuer³, Z. Vidnyanszky¹, M. Blaimer³; ¹Brain Imaging Centre, Hungarian Academy of Sciences, Research Centre for Natural Sciences, Budapest/HUNGARY, ²MR Application Predevelopment, Siemens Healthcare GmbH, Erlangen/GERMANY, ³Magnet-Resonanz und Röntgen Bildgebung, Fraunhofer IIS/MRB, Wuerzburg/GERMANY
also available as ePoster
-
- 381** 15:51 **On the performance of multi-spoke RF pulses in the presence of laminar flow - a simulation study**
S. Schmidt, S. Flassbeck, M. Breithaupt, M.E. Ladd, S. Schmitter; *Medical Physics in Radiology, German Cancer Research Center (DKFZ), Heidelberg/GERMANY*
also available as ePoster
-
- 382** 16:02 **Reduced peak power in paired excitation and refocusing multiband pulses by quadratic phase modulation in the spatial domain**
D. Norris, J. Schulz; *Donders Institute, Radboud University, Nijmegen/NETHERLANDS*
-
- 383** 16:13 **k_T -Points Pulse Design at 7T: Optimization of Pulse and Sub-Pulse Durations**
R. Tomi-Tricot, V. Gras, N. Boulant, A. Vignaud, A. Amadon; *DRF/I2BM/NeuroSpin/UNIRS, CEA, Gif-Sur-Yvette/FRANCE*
also available as ePoster
-
- 384** 16:24 **RF Pulse Design with local and global SAR and hardware constraints for parallel transmission at ultra-high fields**
B. Eberhardt, J. Felder, A.W. Magill, N.J. Shah; *Institute of Neuroscience and Medicine 4, Forschungszentrum Juelich, Juelich/GERMANY*
also available as ePoster
-
- 385** 16:35 **Fast Optimization of RF Excitation**
M. Bödenler¹, C.S. Aigner¹, A. Rund², C. Clason³, R. Stollberger⁴; ¹Institute of Medical Engineering, Graz University of Technology, Graz/AUSTRIA, ²Institute for Mathematics and Scientific Computing, University of Graz, Graz/AUSTRIA, ³University of Duisburg-Essen, Faculty of Mathematics, Essen/GERMANY, ⁴Institute of Medical Engineering, Graz University of Technology and Biotechmed-Graz, Graz/AUSTRIA
also available as ePoster

Scientific Programme

SATURDAY, OCTOBER 1, 2016

15:40–17:10 52 Scientific Session

Stolz 1

Motion, artefacts & quality control

Moderators: M. Viallon, Geneva/CH
R. Stollberger, Graz/AT

-
- 386** 15:40 **Prospectively motion-corrected QSM at 7 Tesla**
H. Mattern¹, J. Acosta-Cabronero², A. Sciarra¹, O. Speck¹; ¹*Biomedical Magnetic Resonance, Otto-von-Guericke-University, Magdeburg/GERMANY*, ²*Site Magdeburg, German Center for Neurodegenerative Disease, Magdeburg/GERMANY*
-
- 387** 15:51 **On the Impact of Flow on B₁⁺ Mapping in UHF MRI**
P. Schygulla, S. Flassbeck, M. Breithaupt, M.E. Ladd, S. Schmitter; *Medical Physics in Radiology, German Cancer Research Centre, Heidelberg/GERMANY*
also available as ePoster
-
- 388** 16:02 **Breathing-induced B₀ fields in the cervical spinal cord at 7T**
S.J. Vannesjo, S. Clare, K. Miller, I. Tracey; *Oxford Centre for Functional MRI of the Brain, Oxford University, Oxford/UNITED KINGDOM*
-
- 389** 16:13 **Automatic rejection of motion corrupted data in renal ASL**
F. Nery¹, E. De Vita², C.A. Clark¹, I. Gordon¹, D. Thomas³; ¹*Development Imaging and Biophysics Section, UCL Institute of Child Health, London/UNITED KINGDOM*, ²*Lyshold Department of Neuroradiology, The National Hospital for Neurology and Neurosurgery, London/UNITED KINGDOM*, ³*Department of Brain Repair and Rehabilitation, UCL Institute of Neurology, London/UNITED KINGDOM*
also available as ePoster
-
- 390** 16:24 **Respiratory Noise Reduction in fMRI Data Utilizing Phase Information**
V. Malekian¹, D. Gomez², A. Nasiraei Moghaddam¹, J.P. Marques², D.G. Norris²; ¹*Biomedical Engineering, Amirkabir University of Technology (Tehran Polytechnic), Tehran/IRAN*, ²*Donders institute of cognitive neuroimaging, Radboud University Nijmegen, Nijmegen/NETHERLANDS*
-
- 391** 16:35 **Goodness of fit factor in SENSE reconstruction: a tool for pseudolesion detection and fat unfolding**
L. Cordero-Grande, J. Hutter, A. Price, E. Hughes, J.V. Hajnal; *Department of Biomedical Engineering, King's College London, London/UNITED KINGDOM*

- 392** 16:46 **Self-gating with ZTE imaging for motion follow-up in PET-MRI**
T. Boucneau¹, M. Khalifé², B. Fernandez³, L. Kallou², F. Besson¹, V. Brulon², E. Durand¹, M. Soussan², L. Darrasse¹, X. Maître¹; ¹*Methodological and instrumental developments, Imagerie par Résonance Magnétique Médicale et Multi-Modalités, IR4M, CNRS, Orsay/France*, ²*Laboratoire Imagerie Moléculaire In Vivo (IMIV), Commissariat à l'Energie Atomique et aux Energies Renouvelables, Orsay/France*, ³*Applications and Workflow, GE Healthcare, Orsay/France*
also available as ePoster
-
- 393** **WITHDRAWN**
-
- 15:40–17:10** **53 Scientific Session** Stolz 2
Molecular and cellular imaging
Moderators: C. Arús, Cerdanyola del Vallès/ES
M. Hajek, Prague/CZ
-
- 394** 15:40 **Fast, Quantitative 19F MRI: Optimized Imaging Strategies**
C. Constantinides¹, M. Maguire¹, S. Malandraki-Miller¹, E. Swider², M. Srinivas², C. Carr¹, J. Schneider¹; ¹*Cardiovascular Medicine, U. Oxford, Oxford/UNITED KINGDOM*, ²*Department of Tumor Immunology, 278, Radboud University Medical Center (RadboudUMC), Nijmegen/NETHERLANDS*
also available as ePoster
-
- 395** 15:51 **Cellular labels based on Mn-Zn ferrite nanoparticles**
V. Herynek¹, A. Gálisová¹, O. Kaman², J. Kuličková², T. Dědourková³, J. Koktan⁴, L. Kosinová⁵, M. Hájek¹; ¹*Radiodiagnostic and Interventional Radiology Department, Institute for Clinical and Experimental Medicine, Prague/CZECH REPUBLIC*, ²*Department of Magnetism and Superconductors, Institute of Physics, AS CR, Prague/CZECH REPUBLIC*, ³*Faculty of Chemical Technology, University of Pardubice, Pardubice/CZECH REPUBLIC*, ⁴*Faculty of Chemical Engineering, University of Chemistry and Technology, Prague/CZECH REPUBLIC*, ⁵*Experimental Medicine Department, Institute for Clinical and Experimental Medicine, Prague/CZECH REPUBLIC*
also available as ePoster
-
- 396** 16:02 **Multiparametric characterization of murine Prostate Cancers by MRI**
G. Ferrauto¹, E. Di Gregorio¹, S. Lanzardo¹, M. Iezzi², S. Aime¹; ¹*molecular biotechnologies and health sciences, University of Torino, Torino/ITALY*, ²*Aging Research Centre, University of Chieti, Chieti/ITALY*
-
- 397** 16:13 **Anatomically specified measurement of the CK reaction forward rate in the human brain at 3T in a practicable acquisition time**
F. Kreis, P. Enggruber, U. Lindenberger, N. Bodammer; *Center of Lifespan Psychology (MR project), Max Planck Institute for Human Development, Berlin/GERMANY*
-
- 398** 16:24 **Hyperpolarization of fluorinated pyridine carboxylic acids**
M. Plaumann¹, F. Euchner¹, R. Ringleb¹, S. Hadjiali², J. Bargon³, G. Buntkowsky², J. Bernarding¹, U. Bommerich¹; ¹*Department for Biometrics and Medical Informatics, Otto-von-Guericke University, Magdeburg/GERMANY*, ²*Institute for Inorganic & Physical Chemistry, TU Darmstadt, Darmstadt/GERMANY*, ³*Institute of Physical Chemistry, University of Bonn, Bonn/GERMANY*
also available as ePoster

Scientific Programme

SATURDAY, OCTOBER 1, 2016

399 WITHDRAWN

400 16:35 **Novel smart MRI contrast agents based on nuclear quadrupole cross relaxation – pre-selection of promising compounds**
C. Gösweiner¹, R. Fischer², M. Schlögl², D. Kruk³, A. Petrovic¹, S. Spirk⁴, H. Scharfetter¹; ¹Institute of Medical Engineering, Graz University of Technology, Graz/AUSTRIA, ²Institute for Inorganic Chemistry, Graz University of Technology, Graz/AUSTRIA, ³Faculty of Mathematics and Computer Science, University of Warmia and Mazury in Olsztyn, Olsztyn/POLAND, ⁴Institute for Chemistry and Technology of Materials, Graz University of Technology, Graz/AUSTRIA

401 16:46 **Manganese enhanced MRI of the healthy rat myocardium: a comparison of two clinical-grade manganese based contrast agents**
D.M.I. Lilburn, R.J. Lennen, S.I. Semple, D.E. Newby, G.A. Gray, **M.A. Jansen**;
BHF/University Centre for Cardiovascular Science, University of Edinburgh, Edinburgh/
UNITED KINGDOM
also available as ePoster

15:40–17:10 **54 Scientific Session**

Lehar 1

Beyond anatomy in brain

Moderators: R. Nunes, Lisbon/ES
T.-A. Perles-Barbacaru, Marseille/FR

402 WITHDRAWN

403 15:40 **Regional differences of age-dependent changes in ADC histograms of the brain**
U. Klose¹, M. Batra¹, M. Erb², T. Nägele¹; ¹Neuroradiology, University of Tübingen, Tübingen/GERMANY, ²Biomedical Magnetic Resonance, University of Tübingen, Tübingen/GERMANY

404 15:51 **Functional alterations of the language connectome in children with specific language impairment**
M. Verly¹, R. Gerrits¹, L. Lagae², I. Zink¹, S. Sunaert³, N. Rommel¹; ¹Dept. Neurosciences, ExpORL, KU Leuven, Leuven/BELGIUM, ²Dept. Pediatrics, UZ Leuven, Leuven/BELGIUM, ³Dept. Radiology - Translational MRI, UZ Leuven, Leuven/BELGIUM

405 16:02 **High Signal Intensity of the dentate nucleus and globus pallidus after multiple injections of gadodiamide is influenced by age: a large population survey**
C.C. Quattrocchi¹, Y. Errante¹, L. Marinelli¹, G. Giannotti¹, D. Longo², S.W. Della Sala¹, B. Beomonte Zobel¹; ¹Unit of Diagnostic Imaging, Università Campus Bio-Medico di Roma, Rome/ITALY, ²Radiology, Ospedale Pediatrico Bambino Gesù, Rome/ITALY

406 16:13 **In-vivo Ultra-High Resolution Structural Imaging of the Human Superior Colliculus at 9.4T: Validation with ex-vivo measurements at 9.4T and 14T**
J. Loureiro¹, G. Hagberg¹, E. Tuzzi¹, M. Himmelbach², T. Ethofer³, W. Grodd¹, P. Martin⁴, M. Valverde¹, R. Pohmann³, K. Scheffler¹; ¹High-field MR, Max Planck Institute for Biological Cybernetics, Tuebingen/GERMANY, ²Center for Neurology, Cognitive Neurology, Hertie Institute for Clinical Brain Research, Tübingen/GERMANY, ³Department of Biomedical Magnetic Resonance, University Hospital Tübingen, Tuebingen/GERMANY, ⁴Neurologie, Universitätsklinik Tübingen, Tübingen/GERMANY

407 16:24 **CNR optimization for lateral geniculate nucleus volume determination at 3T and 7T**
N. Aldusary¹, M. Wyss², B. Keisker¹, A. Baeshen¹, A. Hendi¹, K.P. Pruessmann², K. Landau³, L. Michels¹, S. Kollias¹, M. Piccirelli¹; ¹Department of Neuroradiology, University Hospital Zurich, Zurich/SWITZERLAND, ²Institute for Biomedical Engineering, University of Zurich and ETH Zurich, Zurich/SWITZERLAND, ³Department of Ophthalmology, University Hospital Zurich, Zurich/SWITZERLAND
also available as ePoster

408 16:35 **Musical Training Reduces Structural Asymmetries in the Motor Cortex: An Analysis of Pianists**
L. Hou¹, **A. Harvey**², K. Kelly Davidson³, R. Schaefer⁴, S. Hong⁵, K. Overy³, N. Roberts¹; ¹Clinical Research Imaging Centre, The University of Edinburgh, Edinburgh/UNITED KINGDOM, ²School of Medicine, University of Edinburgh, Edinburgh/UNITED KINGDOM, ³Reid School of Music, University of Edinburgh, Edinburgh/UNITED KINGDOM, ⁴Faculteit der Sociale Wetenschappen, University of Leiden, Leiden/NETHERLANDS, ⁵School of Social and Political Science, University of Edinburgh, Edinburgh/UNITED KINGDOM

409 16:46 **Transcranial Magnetic Stimulation of External Digitorum Communis muscle in healthy subjects: MEP analysis in time- frequency domain**
N. Kumar¹, N. Singh², A.K. Godiyal², S. Anand², P. Srivastava³, A. Mehndiratta²; ¹Department of Psychiatry, All India Institute of Medical Sciences, Delhi/INDIA, ²Centre for Biomedical Engineering, Indian Institute of Technology, Delhi, Delhi/INDIA, ³Department of Neurology, All India Institute of Medical Sciences, Delhi/INDIA
also available as ePoster

15:40–16:40 55 Lightning Talks

Lehar 2

It's a no-brainer!

Moderators: M. Smits, Rotterdam/NL
T. Leiner, Utrecht/NL

410 15:40 **Correlation of Cardiac Biomarkers with Turbulent Kinetic Energy Assessed by Multipoint 4D Flow MRI in Patients with Aortic Stenosis**
A. Gotschy¹, C. Binter¹, R. Manka², S. Kozerke¹; ¹Institute for Biomedical Engineering, University and ETH Zurich, Zurich/SWITZERLAND, ²Department of Cardiology, University Hospital Zurich, Zurich/SWITZERLAND
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10

411 15:42 **Magnetic resonance imaging – a useful imaging modality even in patients with Cardiac Implantable Electronic Devices – a review of the latest developments**

M. Fahlström¹, K. Åberg², T. Bjerner¹, P. Teder³, J. Olsrud⁴, C. Blomstrom-Lundqvist³, E.-M. Larsson¹; ¹*Surgical Sciences, Uppsala University, Uppsala/SWEDEN*, ²*Biomedical Technology, Medical Physics and IT, Uppsala University Hospital, Uppsala/SWEDEN*, ³*Cardiology Department, Uppsala University Hospital, Uppsala/SWEDEN*, ⁴*Department of Clinical Sciences, Lund University, Lund/SWEDEN*

MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10

also available as ePoster

412 15:44 **Retrospective-Gating Myocardial T1 Mapping and Left Ventricle Ejection Fraction in Rats with Doxorubicin Cardiomyopathy**

L. Dvorakova¹, R. Jiřík¹, E. Dražanová¹, P. Scheer², R. Panovsky³, J. Hložkova³, Z. Starcuk, Jr.¹; ¹*Magnetic Resonance and Cryogenics, Institute of Scientific Instruments of the CAS, v. v. i., Brno/CZECH REPUBLIC*, ²*Department of human pharmacology and toxicology, Pharmaceutical faculty, Veterinary and pharmaceutical University Brno, Brno/CZECH REPUBLIC*, ³*International Clinical Research Center – ICRC, St. Anne's Hospital, Masaryk University, First Department of Internal Medicine - Cardioangiology, Brno/CZECH REPUBLIC*

MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10

413 15:46 **Reduction in T2* relaxation time post ultra small particles of iron oxide administration in healthy volunteers**

C. Scally¹, **T. Ahearn**², A. Rudd¹, D. Dawson¹; ¹*Cardiology, Aberdeen University, Aberdeen/UNITED KINGDOM*, ²*Medical Physics, NHS Grampian, Aberdeen/UNITED KINGDOM*

MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10

also available as ePoster

414 15:48 **Myocardial T1-mapping of the right ventricle is improved by fat saturation**

J.T. Marcus¹, O. Spruijt², A. Vonk Noordegraaf²; ¹*Physics & Medical Technology, VU University Medical Center, Amsterdam/NETHERLANDS*, ²*Pulmonology, VU University Medical Center, Amsterdam/NETHERLANDS*

MEET THE AUTHOR in the ePoster Area at PC#1, on Oct. 1, 16:40–17:10

415 15:50 **Evaluation of ventricular function using MRI: comparison between cartesian k-space sampling and radial k-space sampling using different number of radial views**

C. Ferreira¹, C. Moreto², C. Campos², D. Gandarinho², M. Moura², P. Martins², M. Castelo-Branco³; ¹*University of Coimbra, ICNAS, Coimbra/PORTUGAL*, ²*University of Aveiro, ESSUA, Aveiro/PORTUGAL*, ³*Faculty of Medicine, University of Coimbra, IBILI, Coimbra/PORTUGAL*

MEET THE AUTHOR in the ePoster Area at PC#2, on Oct. 1, 16:40–17:10

416 15:52



Comparison of diameters of ipsilateral and contralateral internal mammary arteries by breast MRI in patients with unilateral breast cancer
K.J. Nam, K.S. Choo; *Radiology, Pusan National University Yangsan Hospital, Yansan-Si/Kyeongsangnamdo/KOREA, REPUBLIC OF*
MEET THE AUTHOR in the ePoster Area at PC#3, on Oct. 1, 16:40–17:10

417

WITHDRAWN

418 15:54

DWIBS in spine lesions; a comparative study to PET CT
M. Rezk¹, M. Kotb²; *¹Radiology Department, National Cancer Institute, Cairo/EGYPT, ²Nuclear Medicine, National Cancer Institute, Cairo/EGYPT*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10
also available as ePoster

419 15:56

³¹P MR spectroscopy findings in peripheral artery occlusive disease treatment
P. Sedivy¹, M. Drobny¹, M. Dezortova², V. Herynek², J. Ryclo², A. Nemcova³, J. Peregrin², M. Hajek²; *¹Dept. Diagnostic and Interventional Radiology, Institute for Clinical and Experimental Medicine; First Faculty of Medicine, Charles University in Prague, Prague/CZECH REPUBLIC, ²Dept. Diagnostic and Interventional Radiology, Institute for Clinical and Experimental Medicine, Prague/CZECH REPUBLIC, ³Department of Diabetology, Institute for Clinical and Experimental Medicine, Prague/CZECH REPUBLIC*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10
also available as ePoster

420 15:58

Feasibility of high-resolution non-contrast 3D TOF-MRA of a human index finger at 7 T
O. Ipek¹, R. Gruetter²; *¹CIBM-AIT, EPFL, Lausanne/SWITZERLAND, ²LIFMET, EPFL, Lausanne/SWITZERLAND*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10
also available as ePoster

421 16:00

Using Whole Body MRI as a Screening Tool for Suspected Malignancy in Comparison to Whole Body ¹⁸F-FDG-PET/CT
L. Brix¹, J.A. Ejlersen², J. Fledelius², I. Makieva¹, V. Haahr³, E. Sven Göran Thylin¹, J. Hansen¹, L. Kieu Ha¹, C. Isaksen¹; *¹Department of Radiology, Silkeborg Regional Hospital, Silkeborg/DENMARK, ²Department of Nuclear Medicine, Herning Regional Hospital, Herning/DENMARK, ³Department of Medicine, Silkeborg Regional Hospital, Silkeborg/DENMARK*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10
also available as ePoster

422 16:02



Influences on fracture healing of long bones analysed by qMRI
K. Baron¹, T. Widek¹, H. Sprenger¹, B. Neumayer¹, H. Hofer², E. Hassler³, E. Scheurer⁴; *¹Clinical Forensic Imaging, Ludwig Boltzmann Institute, Graz/AUSTRIA, ²Department of Trauma Surgery, Medical University of Graz, Graz/AUSTRIA, ³Division of Neuroradiology, Vascular and Interventional Radiology, Medical University of Graz, Graz/AUSTRIA, ⁴Institute of Forensic Medicine, University of Basel - Health Department Basel, Basel/SWITZERLAND*
MEET THE AUTHOR in the ePoster Area at PC#5, on Oct. 1, 16:40–17:10

Scientific Programme

SATURDAY, OCTOBER 1, 2016

423 16:04 Comparison of Spatial Anisotropy Measures from Ultrasound Imaging to Diffusion Tensor Imaging Based Measures

S. Shaw¹, D. Kumbhare², M. Noseworthy³; ¹*Biomedical Engineering, McMaster University, Hamilton/CANADA*, ²*Physical Medicine and Rehabilitation, University of Toronto, Toronto/ON/CANADA*, ³*Electrical and Computer Engineering, McMaster University, Hamilton/ON/CANADA*

MEET THE AUTHOR in the ePoster Area at PC#6, on Oct. 1, 16:40–17:10
also available as ePoster

424 WITHDRAWN

425 16:06 3T Magnetic Resonance Spectroscopy Reveals Subregional Variation in Bone Marrow Fat Composition in the Proximal Femur

D. Martel, M. Bruno, G. Chang; *Department of Radiology, Bernard and Irene Schwartz Center for Biomedical Imaging, New York City/NY/UNITED STATES OF AMERICA*

MEET THE AUTHOR in the ePoster Area at PC#8, on Oct. 1, 16:40–17:10

426 16:08 A fast method for quantification of fat-fraction and relaxation times: comparison of five bone marrow sites

C. Le Ster¹, J. Lasbleiz², S. Kannengiesser³, R. Guillin⁴, G. Gambarota², H. Saint-Jalmes²; ¹*Healthcare, Siemens, Saint-Denis/France*, ²*LTSI, INSERM UMR 1099, Rennes/France*, ³*GmbH, Siemens Healthcare, Erlangen/Germany*, ⁴*Department of Imaging, Rennes University Hospital, Rennes/France*

MEET THE AUTHOR in the ePoster Area at PC#9, on Oct. 1, 16:40–17:10

427 16:10 Correlation between proteoglycan concentration and disc thickness in intervertebral discs assessed by 1HMRS at 1.5T

L. Harris¹, E. Hodder², M. Cercignani³, J. Bush³, D. Covill², P. Colley¹, N. Dowell³; ¹*Radiological Science, Brighton and Sussex University Hospitals, Brighton/UNITED KINGDOM*, ²*Computing, Engineering and Mathematics, University of Brighton, Brighton/UNITED KINGDOM*, ³*Clinical Imaging Sciences Centre, Brighton and Sussex Medical School, Brighton/UNITED KINGDOM*

MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10

428 16:12 Imaging and 31P-spectroscopy one-year follow-up multi-center study of skeletal muscle lesions in dysferlin-deficient patients

N. Azzabou¹, H. Reyngoudt¹, F.E. Smith², H. Hilsden², A. Blamire², P. Carlier¹; ¹*NMR laboratory, Institute of Myology, Paris/France*, ²*Newcastle Magnetic Resonance Centre, Newcastle University, Newcastle Upon Tyne/UNITED KINGDOM*

MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10

- 429** 16:14 **Aging effect to prostate 1H MR metabolites analyzed by robust linear mixed effects model**
M. Dezortova, F. Jiru, V. Capek, Z. Ryznarova, A. Skoch, M. Hajek; *MR-Unit, Dept Diagnostic and Interventional Radiology, Institute for Clinical and Experimental Medicine, Prague/CZECH REPUBLIC*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10
also available as ePoster
- 430** 16:16 **Diffuse Liver Disease: Measurements of Liver Trace Metal Concentrations and R2* Relaxation Rates**
M. Karlsson, M. Forsgren, N. Dahlström, B. Norén, M. Ekstedt, S. Kechagias, P. Lundberg; *Department of Health and Medicine, Linköping University, Linköping/SWEDEN*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10
- 431** **WITHDRAWN**
- 432** 16:18 **Could Diffusion weighted MRI help in differentiation of abdomino-pelvic lymphadenopathy**
M. Rezk¹, **M. Essam**², H. Samy², M. Shaker²; ¹*Radiology Department, National Cancer Institute, Cairo/EGYPT*, ²*Radiology Department, Cairo University Hospital, Cairo/EGYPT*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10
also available as ePoster
- 433** **WITHDRAWN**
- 434** 16:20 **MR-spectroscopy in differential diagnosis of ovarian tumors**
A. Solopova¹, D. Ustyuzhanin², S. Ternovoy¹, A. Makatsaria³; ¹*Department of Radiology, I.M. Sechenov First Moscow State Medical University, Moscow/RUSSIAN FEDERATION*, ²*Department of Tomography, A.L. Myasnikov Institute of Clinical Cardiology, Moscow/RUSSIAN FEDERATION*, ³*Department of Obstetrics and Gynecology, I.M. Sechenov First Moscow State Medical University, Moscow/RUSSIAN FEDERATION*
MEET THE AUTHOR in the ePoster Area at PC#10, on Oct. 1, 16:40–17:10
- 435** 16:22 **Magnetic resonance enterography in paediatric patients with Crohn's disease. Methodology and our own experience**
E. Zawada, M. Marzec, G. Rusak, Z. Serafin; *Department of Radiology and Diagnostic Imaging, Nicolaus Copernicus University, Collegium Medicum, Bydgoszcz/POLAND*
MEET THE AUTHOR in the ePoster Area at PC#11, on Oct. 1, 16:40–17:10
- 436** 16:24 **The value of MRI in Manifestations and Complications of Endometriosis**
E. Yukhno¹, G. Trufanov², T. Gribanova³; ¹*Department of radiology, Institute of Perinatology and Pediatrics FSI "Almazov Federal Heart, Blood and Endocrinology Centre", Saint Petersburg/RUSSIAN FEDERATION*, ²*Department of radiology, Institute of Perinatology and Pediatrics FSI "Almazov Federal Heart, Blood and Endocrinology Centre", St. Petersburg/RUSSIAN FEDERATION*, ³*Department of radiology, Military Medical Academy named by S.M. Kirov, Saint Petersburg/RUSSIAN FEDERATION*
MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10

Scientific Programme

SATURDAY, OCTOBER 1, 2016

437 16:26 **Diagnostic Role of Diffusion Restriction in Intraductal Papillary Mucinous Neoplasm of the Pancreas in Comparison with “High-risk Stigmata” of the 2012 International Consensus Guidelines for Prediction of the Malignancy and Invasiveness**

J.E. Lee¹, K.M. Jang², M. Kim³, S.H. Kim², K.D. Song², W.K. Jeong², T.W. Kang², K.D. Kim⁴; ¹Department of Radiology, Samsung medical center, Seoul/KOREA, REPUBLIC OF, ²Radiology, Samsung Medical Center, Seoul/KOREA, REPUBLIC OF, ³Radiology, Hanyang university seoul hospital, Seoul/KOREA, REPUBLIC OF, ⁴Department of General surgery, Soon Chun Hyang University Hospital, Bucheon City/KOREA, REPUBLIC OF

MEET THE AUTHOR in the Paper Poster Area, on Oct. 1, 16:40–17:10

also available as ePoster

438 **WITHDRAWN**

439 16:28 **Variation of noise in multi-echo MRI acquisitions using parallel imaging**

I.M. Rabanillo Vioria¹, S. Aja Fernández¹, D. Hernando²; ¹Departamento de Teoría de la Señal y Comunicaciones e Ingeniería Telemática, Universidad de Valladolid, Valladolid/SPAIN, ²Department of Radiology, University of Wisconsin-Madison, Madison/AL/UNITED STATES OF AMERICA

MEET THE AUTHOR in the ePoster Area at PC#13, on Oct. 1, 16:40–17:10

17:20–18:20 **56 Roundtable Discussion**

Lehar 3-4

Is our DNA safe in our magnets?

Moderator: T. Leiner, Utrecht/NL

Panellist - genetics side

H. van Attikum; Leiden University Medical Center, Dept. of Human Genetics, Leiden/NETHERLANDS

Panellist - physics side

O. Speck; Otto-von-Guericke-University Magdeburg, Faculty of Natural Sciences, Dept. Biomedical Magnetic Resonance, Magdeburg/GERMANY

Panellist - clinics side

M. Gutberlet; Herzzentrum Leipzig, Leipzig/GERMANY

18:20–18:40 **57 Closing & Awards Ceremony**

Lehar 3-4

Scientific Programme

ePOSTERS

Animal models and molecular imaging

ePosters of this topic can be found in a Lightning Talks, page 60 – 64

Brain and peripheral nerves

ePosters of this topic can be found in a Lightning Talks, page 80 – 84

Clinical neuro applications

440 Comparison of 3D Fluid Attenuated Inversion Recovery (FLAIR) and 3D Double Inversion Recovery (DIR) MR pulse sequences for the imaging of multiple sclerosis at 3 Tesla

C. Tsiotsios¹, B. Nguyen², S. Kutsniashvili³, V. Syrgiamiotis⁴, S. Motska⁵, G. Dorovinis⁶;

¹MRI, CT, Conventional Radiography & Mammography, Diagnosis Medical Center, Athens/GREECE, ²MRI, Oslo University Hospital, Oslo/NORWAY, ³MRI, CT, Conventional Radiography & Mammography, Central Clinic of Athens, Athens/GREECE, ⁴MRI - CT, Pediatric Hospital of Athens, "Aghia Sophia", Athens/GREECE, ⁵MRI - Nuclear Medicine, Central Clinic of Athens, Athens/GREECE, ⁶MRI - Nuclear Medicine, Diagnosis Medical Center, Athens/GREECE

MEET THE AUTHOR in the ePoster Area at PC#1, on Sept. 30, 11:20–11:50

441 Assessment of the effect of stenosis on carotid and intracranial blood flow using Quantitative Magnetic Resonance Angiography

A. Sobieh¹, A. Hackbart², T.-K. Hauser¹, **U. Klose**¹; ¹Diagnostic and Interventional Neuroradiology, University of Tuebingen, Tuebingen/GERMANY, ²Technical Biomedicine, University of Stuttgart, Stuttgart/GERMANY

MEET THE AUTHOR in the ePoster Area at PC#2, on Sept. 30, 11:20–11:50

442 The inter-hemispheric coordination in prediabetes diagnosed by impaired fasting glucose: the alterations and diet impacts

Y.-C. Hou¹, C.-Y. Chen¹, C.-H. Lai², S.-H. Yang³; ¹Department of Nutrition, Taipei Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, New Taipei/TAIWAN, ²Department of Psychiatry, Cardinal Tien Hospital, New Taipei/TAIWAN, ³School of Nutrition and Health Sciences, College of Public Health and Nutrition, Taipei Medical University, Taipei/TAIWAN

MEET THE AUTHOR in the ePoster Area at PC#3, on Sept. 30, 11:20–11:50

443 Functional magnetic resonance imaging for assessing the effectiveness of surgical revascularization after stroke

S. Markdorf¹, A. Savelov¹, E. Petrovskiy¹, Y. Stankevich¹, L. Vasilkiv¹, E. Predtechenskaya², M. Amelin¹, **A. Tulupov**¹; ¹Laboratory of translational brain research, The Institute International Tomography Center of the Russian Academy of Sciences, Novosibirsk/RUSSIAN FEDERATION, ²Medicine department, Novosibirsk State University, Novosibirsk/RUSSIAN FEDERATION

MEET THE AUTHOR in the ePoster Area at PC#4, on Sept. 30, 11:20–11:50

Scientific Programme

ePOSTERS

444 WITHDRAWN

445 Application of fMRI in the assessment of the neuronal activity in patients with fragile X syndrome

E. Isanova¹, A. Savelov¹, E. Petrovskiy¹, D. Yudkin², **A. Tulupov¹**; ¹Laboratory of translational brain research, The Institute International Tomography Center of the Russian Academy of Sciences, Novosibirsk/RUSSIAN FEDERATION, ²Chromosome pathology group, Institute of Molecular and Cellular Biology SB RAS, Novosibirsk/RUSSIAN FEDERATION

MEET THE AUTHOR in the ePoster Area at PC#6, on Sept. 30, 11:20–11:50

446 WITHDRAWN

447 Comparison of patients with and without hemorrhagic transformation acute ischemic stroke using relative contrast recirculation

O. Marufo¹, P. Vazquez¹, R. Carrillo¹, F. Serrano¹, **A. Rodriguez²**; ¹Department of Neuroimaging, National Institute of Neurology and Neurosurgery MVS, Mexico City/MEXICO, ²Electrical Engineering Department, Universidad Autonoma Metropolitana Iztapalapa, Mexico City/MEXICO

MEET THE AUTHOR in the ePoster Area at PC#8, on Sept. 30, 11:20–11:50

Clinical non-neuro applications

448 Robust 3D ¹H MRSI of the prostate without endorectal coil at 3T

N. Tayari¹, I.K. Steinseifer¹, J.J.a. Asten Van¹, E. Weiland², T.W. Scheenen¹, A. Heerschap¹; ¹Department of Radiology and Nuclear Medicine, Radboud University Medical Center, Nijmegen/NETHERLANDS, ²MR Applications Development, Siemens Healthcare, Erlangen/GERMANY

MEET THE AUTHOR in the ePoster Area at PC#2, on Sept. 30, 11:20–11:50

449 WITHDRAWN

450 Comparison of the MRI sequences in ideal fiducial marker-based radiotherapy for prostate cancer

O. Tanaka¹, T. Iida², H. Kodeda³, K. Seike³, **S. Fujimoto³**; ¹Radiation Oncology, Gifu Municipal Hospital, -/JAPAN, ²Radiation Oncology, Gifu Municipal Hospital, Gifu/JAPAN, ³Urology, Gifu Municipal Hospital, Gifu/JAPAN

MEET THE AUTHOR in the ePoster Area at PC#3, on Sept. 30, 10:50–11:20

451 Capabilities of mpMRI in determining the histological grade of cervical cancer

M. Shorikov¹, E. Tarachkova¹, V. Panov², I. Tyurin²; ¹Department of radiology, radiotherapy and medical physics, Russian Medical Academy of Postgraduate Education, Moscow/RUSSIAN FEDERATION, ²Radiology, RCSC after N.N. Blohin, Moscow/RUSSIAN FEDERATION

MEET THE AUTHOR in the ePoster Area at PC#4, on Sept. 30, 10:50–11:20

452 The significance and indication of super-delayed phase image acquisition of Gd-EOB-DTPA enhanced MRI to improve poor contrast images on routine hepatobiliary phase images for detection of liver lesion

S. Kobayashi¹, K. Kozaka², T. Minami², A. Kitao², N. Yoneda², K. Yoshida², W. Koda², T. Gabata²; ¹Quantum Medical Technology, Kanazawa University Graduate School of Medical Sciences, Kanazawa/JAPAN, ²Radiology, Kanazawa University Graduate School of Medical Sciences, Kanazawa/JAPAN

MEET THE AUTHOR in the ePoster Area at PC#5, on Sept. 30, 10:50–11:20

453 Analysis of Kinetic Curve and model-based perfusion parameters on dynamic contrast enhanced MRI in breast cancer patients: Correlations with dominant stroma type

T.H. Kim, D.K. Kang, H. Yim; *Department of Radiology, Ajou University Hospital, Suwon/KOREA, REPUBLIC OF*

MEET THE AUTHOR in the ePoster Area at PC#6, on Sept. 30, 10:50–11:20

454 1H-MRS of the breast cancer: Comparison of value of choline peak before and after Gd-based MR contrast agent

S.Y. Nam, H.Y. Choi, E.Y. Yoo, M.J. Hong; *Radiology, Gachon university Gil hospital, Incheon/KOREA, REPUBLIC OF*

MEET THE AUTHOR in the ePoster Area at PC#7, on Sept. 30, 10:50–11:20

455 Evaluation of renal function - Comparative performance of 1.5 T DCE-MRI versus Nuclear Medicine: a clinical pilot study

R. Lopez Gonzalez¹, **S.L. Chang**², G. Roditi²; ¹Clinical Physics and Bioengineering, NHS Greater Glasgow and Clyde, Glasgow/UNITED KINGDOM, ²Radiology Department, NHS Greater Glasgow & Clyde, Glasgow/UNITED KINGDOM

MEET THE AUTHOR in the ePoster Area at PC#8, on Sept. 30, 10:50–11:20

456 Diagnostic value of combining different phases of Gd-EOB-DTPA contrast-enhanced MRI for focal liver lesions

Z. Luo¹, P. Sun², X. Zhuang¹; ¹Radiology, The First Affiliated Hospital, Xiamen University, Xiamen, PR China, Xiamen/CHINA, ²Radiology, The First Affiliated Hospital, Harbin Medical University, Harbin, PR China, Harbin/CHINA

MEET THE AUTHOR in the ePoster Area at PC#9, on Sept. 30, 10:50–11:20

457 Coccygeal anatomical variations on MRI

M. Yayla, **H.G. Hatipoglu**; *Radiology, Ankara Numune Training and Research Hospital, Ankara/TURKEY*

MEET THE AUTHOR in the ePoster Area at PC#10, on Sept. 30, 10:50–11:20

458 In vivo 1H magnetic resonance spectroscopy for predicting response to neoadjuvant chemotherapy of breast cancer

S.Y. Nam, H.Y. Choi, E.Y. Yoo, M.J. Hong; *Radiology, Gachon university Gil hospital, Incheon/KOREA, REPUBLIC OF*

MEET THE AUTHOR in the ePoster Area at PC#11, on Sept. 30, 10:50–11:20

Scientific Programme

ePOSTERS

Data processing and quantification

ePosters of this topic can be found in a Lightning Talks, page 51 – 55

Hardware, pulse sequences and diffusion

ePosters of this topic can be found in a Lightning Talks, page 24 – 29

Image analysis and reconstruction

ePosters of this topic can be found in a Lightning Talks, page 37 – 41

It's a no-brainer!

ePosters of this topic can be found in a Lightning Talks, page 89 – 94

Perfusion, functional and MRS

ePosters of this topic can be found in a Lightning Talks, page 70 – 75

Preclinical and basic science: diffusion, perfusion and angiography

459 The dependence of IVIM outputs on experimental parameters

G. Fournet¹, J.R. Li², D. Le Bihan¹, L. Ciobanu¹; ¹Neurospin, CEA Saclay, Gif-Sur-Yvette/France, ²CMAP, INRIA Saclay, Palaiseau/France

MEET THE AUTHOR in the ePoster Area at PC#1, on Sept. 30, 11:50–12:20

460 The effect atherosclerotic lesion of the common and internal carotid arteries wall on the blood flow by quantitative 2D phase-contrast MRA

Y. Stankevich, S. Plegunova, A. Chupahin, M. Amelin, **A. Tulupov**; *Laboratory of translational brain research, The Institute International Tomography Center of the Russian Academy of Sciences, Novosibirsk/RUSSIAN FEDERATION*

MEET THE AUTHOR in the ePoster Area at PC#2, on Sept. 30, 11:50–12:20

461 Myocardial perfusion MRI using paramagnetic contrast enhancement with Mn-Metoxisobutylisonitrile (Mn-MIBI) in rats

W.Y. Ussov¹, M. Belyanin², N.L. Shimanovsky³, S.A. Afanasyev⁴, G.E. Kodina⁵; ¹Laboratory of Tomography, Tomsk Institute of Cardiology, Tomsk/RUSSIAN FEDERATION, ²Organic Chemistry, National Research Tomsk Polytechnic University, Tomsk/RUSSIAN FEDERATION, ³Molecular Pharmacology, Russian National Research Medical Nikolay I Pirogov University, Moscow/RUSSIAN FEDERATION, ⁴Molecular biology, Tomsk Institute of Cardiology, Tomsk/RUSSIAN FEDERATION, ⁵Radiochemistry, A.I. Burnzyan Federal medical and biophysics Center, Moscow/RUSSIAN FEDERATION

MEET THE AUTHOR in the ePoster Area at PC#3, on Sept. 30, 11:50–12:20

462 Fractional anisotropy trigeminal nerve changes in patients with trigeminal neuralgia, caused by compression with vessel

M. Amelin¹, A. Tulupov¹, J. Rzaev²; ¹Laboratory of Translational Brain Research, the Institute International Tomography Center of the Russian Academy of Sciences., Novosibirsk/RUSSIAN FEDERATION, ²Surgery, Federal Center for Neurosurgery, Novosibirsk/RUSSIAN FEDERATION
MEET THE AUTHOR in the ePoster Area at PC#4, on Sept. 30, 11:50–12:20

463 Evaluating role of Quantitative DCE MRI parameters and selection of ROI in Grading of Contrast Enhancing Glioma

A. Sengupta¹, P. Sahoo², S. Agarwal³, R. Gupta⁴, A. Singh⁵; ¹Centre for Biomedical Engineering, Indian Institute of Technology, New Delhi/INDIA, ²MRI, Philips, New Delhi/INDIA, ³Electrical Engineering, Indian Institute of Technology, New Delhi/INDIA, ⁴Radiology, FORTIS, New Delhi/INDIA, ⁵CBME, IIT Delhi, New Delhi/INDIA

MEET THE AUTHOR in the ePoster Area at PC#5, on Sept. 30, 11:50–12:20

464 Mood-related changes of cerebral perfusion in humans using arterial spin labeling

P. Clement¹, N. Vanlessen², H. Mutsaerts³, S. Bogaert⁴, G. Pourtois⁵, **E. Achten**⁶;
¹Department of Radiology and Nuclear Medicine, Ghent University, Ghent/BELGIUM, ²Department of Experimental Psychology, Ghent University, Ghent/BELGIUM, ³Medicine, Sunnybrook Research Institute, Toronto/CANADA, ⁴Department of Radiology, Ghent University Hospital, Ghent/BELGIUM, ⁵Psychopathology & Affective Neuroscience Laboratory, Department of Experimental, Clinical and Health Psychology, Ghent University, Ghent/BELGIUM, ⁶Department of Radiology and Nuclear Medicine, Ghent University, Ghent/BELGIUM

MEET THE AUTHOR in the ePoster Area at PC#6, on Sept. 30, 11:50–12:20

Preclinical and basic science: functional imaging

465 Muscle BOLD respons to brief contraction and reactive hypermia: Effects of eccentric exercise

R.G. Larsen¹, J.F. Thomsen¹, R.P. Hirata¹, J.B. Frøkjær², T. Graven-Nielsen¹; ¹Health Science and Technology, Aalborg University, Aalborg/DENMARK, ²Radiology, Aalborg University Hospital, Aalborg/DENMARK

MEET THE AUTHOR in the ePoster Area at PC#7, on Sept. 30, 11:50–12:20

466 Dynamic Causal Modeling Evaluation of Multidimensional Model Space Using High Performance Computing

S.C. Aranyi¹, G. Opposits¹, M. Nagy¹, E. Berényi², M. Emri¹; ¹Department of Nuclear Medicine, University of Debrecen, Debrecen/HUNGARY, ²Department of Biomedical Laboratory and Imaging Science, University of Debrecen, Debrecen/HUNGARY

MEET THE AUTHOR in the ePoster Area at PC#8, on Sept. 30, 11:50–12:20

467 Subthalamic nucleus activation under audio-motor transformation in lateralized Parkinson's disease

O. Omelchenko¹, **Z. Rozhkova**², I. Iryna Karaban³; ¹Human and Animal Physiology, Taras Shevchenko National University of Kyiv, Kyiv/UKRAINE, ²Radiology, Medical Clinic BORIS, Kyiv/UKRAINE, ³Center for Parkinsonian Studies, D. F. Chebotarev Institute of Gerontology, Kyiv/UKRAINE

MEET THE AUTHOR in the ePoster Area at PC#9, on Sept. 30, 11:50–12:20

Scientific Programme

ePOSTERS

Preclinical and basic science: hardware, motion, artefacts and QA

468 LEGO - based programmable system to create defined movements of objects in the MR scanner

A. Boese, **A. Illanes**, M. Friebe; *Chair Cathter Technologies, Otto-von-Guericke University Magdeburg, Magdeburg/GERMANY*

MEET THE AUTHOR in the ePoster Area at PC#12, on Sept. 30, 10:50–11:20

469 Numerical study of SAR produced by a parallel-plate waveguide and Maxwell coils for travelling-wave MRI at 0.5 Tesla

S. Solis¹, F. Vazquez¹, R. Martin¹, **A. Rodriguez**²; *¹Physics Department, Faculty of Sciences, UNAM, Mexico City/MEXICO, ²Electrical Engineering Department, Universidad Autonoma Metropolitana Iztapalapa, Mexico City/MEXICO*

MEET THE AUTHOR in the ePoster Area at PC#13, on Sept. 30, 10:50–11:20

470 Comparative analysis of sense on GPU and multicore CPU using pre-scan and eigen-value sensitivity profiles

H. Shahzad, A. Nisar, F. Sadaqat, **H. Omer**; *Electrical Engineering, COMSATS Institute of Information Technology, Islamabad/PAKISTAN*

MEET THE AUTHOR in the ePoster Area at PC#14, on Sept. 30, 10:50–11:20

471 One wire matching and detuning 14T receive coil

Y. Pilloud¹, M. Dehghani¹, R. Gruetter²; *¹CIBM, EPFL, Lausanne/SWITZERLAND, ²Department of Radiology, CHUV / HUG, Lausanne / Geneva/SWITZERLAND*

MEET THE AUTHOR in the ePoster Area at PC#15, on Sept. 30, 10:50–11:20

472 Design of a geometric distortion characterization method in 3D MRI : application to stereotaxy

A. Sewonu¹, O. Meyrignac², F. Carbillet¹, H. Rousseau², R. Moreno¹; *¹Medical physics, ALARA Expertise, Strasbourg/FRANCE, ²Radiologie - Hôpital Rangueil, CHU Toulouse, Toulouse/FRANCE*

MEET THE AUTHOR in the ePoster Area at PC#16, on Sept. 30, 10:50–11:20

473 Experimental B1 mapping to measure performance of RF coil arrays for accelerated brain MRI at 3 T

O. Marrufo¹, F. Vazquez², R. Martin², **A. Rodriguez**³; *¹Department of Neuroimaging, National Institute of Neurology and Neurosurgery MVS, Mexico City/MEXICO, ²Physics Department, Faculty of Sciences, UNAM, Mexico City/MEXICO, ³Electrical Engineering Department, Universidad Autonoma Metropolitana Iztapalapa, Mexico City/MEXICO*

MEET THE AUTHOR in the ePoster Area at PC#17, on Sept. 30, 10:50–11:20

Preclinical and basic science: MR spectroscopy

474 Phosphorus Echo Planar Spectroscopic Imaging (EPSI) of the Brain using Flyback Readout Gradients

A. Santos Diaz¹, A. Akbari¹, M. Noseworthy²; ¹School of Biomedical Engineering, McMaster University, Hamilton/ON/CANADA, ²Electrical and Computer Engineering, McMaster University, Hamilton/ON/CANADA

MEET THE AUTHOR in the ePoster Area at PC#9, on Sept. 30, 11:20–11:50

475 Comparison of PACE-navigated and breath-hold triggered ¹H MRS for the assessment of pancreatic fat fraction

I. Just Kukurova¹, J. Harreiter², S. Trattnig¹, A. Luger², A. Kautzky-Willer², **M. Krššák**²; ¹High Field Magnetic Resonance Centre, Department of Biomedical Imaging and Image-guided Therapy, Medical University of Vienna, Vienna/AUSTRIA, ²Division of Endocrinology and Metabolism, Department of Internal Medicine III, Medical University of Vienna, Vienna/AUSTRIA

MEET THE AUTHOR in the ePoster Area at PC#10, on Sept. 30, 11:20–11:50

476 Assessment of Neurometabolic Alterations Induced by Repeated Exposure to MK-801 on Prefrontal Cortex of Schizophrenic Animal Model: In Vivo Proton Magnetic Resonance Spectroscopy Study

C.-H. Yoo, K.-H. Song, S.-I. Lim, B.-Y. Choe; Department of Biomedical Engineering, The Catholic University of Korea, Seoul/KOREA, REPUBLIC OF

MEET THE AUTHOR in the ePoster Area at PC#11, on Sept. 30, 11:20–11:50

477 An alternative method to analyze in vivo ¹³C MR spectra by LCModel

M. Burian¹, M. Cahová², M. Hájek³; ¹MR Unit, Department of Diagnostic and Interventional Radiology, Institute for Clinical and Experimental Medicine, Prague/CZECH REPUBLIC, ²Dept. of Metabolism and Diabetes, Centre for Experimental Medicine, Institute for Clinical and Experimental Medicine, Prague/CZECH REPUBLIC, ³MR-Unit, Dept Diagnostic and Interventional Radiology, Institute for Clinical and Experimental Medicine, Prague/CZECH REPUBLIC

MEET THE AUTHOR in the ePoster Area at PC#12, on Sept. 30, 11:20–11:50

478 Biochemical correlates of developmental dyslexia

B. Kossowski¹, K. Chyl², K. Jednoróg², P. Bogorodzki³; ¹Laboratory of Brain Imaging, Nencki Institute of Experimental Biology, Warsaw/POLAND, ²Laboratory of Psychophysiology, Nencki Institute of Experimental Biology, Warsaw/POLAND, ³Faculty of Electronics and Information Technology, Warsaw University of Technology, Warsaw/POLAND

MEET THE AUTHOR in the ePoster Area at PC#13, on Sept. 30, 11:20–11:50
also available as ePoster

479 Quantification of metabolite relaxation rates using STEAM

A. Tisell, P. Lundberg; Institutionen för medicin och hälsa, Linköpings Universitet, Linköping/SWEDEN

MEET THE AUTHOR in the ePoster Area at PC#14, on Sept. 30, 11:20–11:50

480 Forward modeling approach to overcome B₀ field inhomogeneity in NMR spectroscopy

D. Hong¹, J.J.a. Asten Van², S. Rohani Rankouhi¹, J.-W. Thielen¹, D. Norris³; ¹Erwin L. Hahn Institute for Magnetic Resonance Imaging, University of Duisburg-Essen, Essen/GERMANY, ²Department of Radiology and Nuclear Medicine, Radboud University Medical Center, Nijmegen/NETHERLANDS, ³Donders Institute, Radboud University, Nijmegen/NETHERLANDS

MEET THE AUTHOR in the ePoster Area at PC#15, on Sept. 30, 11:20–11:50

Preclinical and basic science: new pulse sequences and techniques

481 Macrocyclic paramagnetic agents for magnetic resonance imaging: an analysis of the mechanisms of relaxivity

S. Colombo Serra¹, A. Fringuello Mingo¹, S. Baroni², C. Cabella¹, F. Tedoldi¹, S. Aime²;

¹Centro Ricerche Bracco, Bracco Imaging SpA, Colletterto Giacosa/ITALY, ²Dipartimento di Biotecnologie Molecolari e Scienze per la Salute, Università degli Studi di Torino, Torino/ITALY

MEET THE AUTHOR in the ePoster Area at PC#10, on Sept. 30, 11:50–12:20

482 FGATIR combined with Dual Spin Echo Contrast applied to in vivo Non Human Primate on 3T clinical MRI Scanner for Subcortical Structures targeting

H. Mathieu¹, I. Tropres¹, B. Piallat², A. Sherdil², S. Michallat², S. Boulet²; ¹UMS IRMaGe,

Université Grenoble Alpes, Grenoble/France, ²U1216, INSERM, Grenoble/France

MEET THE AUTHOR in the ePoster Area at PC#11, on Sept. 30, 11:50–12:20

483 Automated segmentation of Left ventricle contours for the measurement of Cardiac Ejection Fraction using MRI

A. Nasir, M. Qureshi, **H. Omer**; Electrical Engineering, Comsats Institute of Information Technology, Islamabad/PAKISTAN

MEET THE AUTHOR in the ePoster Area at PC#12, on Sept. 30, 11:50–12:20

484 PARCEST MRI sequence development suitable for the detection of monoaminergic neurons

I. Filipiak¹, L. Barantin², F. Oukhatar³, H. Adriaensen⁴, E. Toth³, Y. Tillet¹; ¹UMR85, PRC, CNRS, IFCE, INRA, Université de Tours, Nouzilly/France, ²NeuroAnatomie neuroImagerie, Université François Rabelais de Tours, INSERM Imagerie et Cerveau UMR U930, Tours/France, ³Centre de Biophysique Moléculaire, CNRS, Université d'Orléans, Orleans, Cedex/France, ⁴Plateforme CIRE, PRC, CNRS, IFCE, INRA, Université de Tours, Nouzilly/France

MEET THE AUTHOR in the ePoster Area at PC#13, on Sept. 30, 11:50–12:20

485 Comparison between standard and MAR (Metal artifact reduction) FSE T2w sequences in reduction of metallic susceptibility artifacts in patients treated with wrist volar plating

A. Stecco¹, M. Leighheb², **F. Buemi**¹, G. Parziale¹, R. Arioli¹, A. Carrero¹; ¹SCDU Radiologia,

AOU Maggiore della Carità, Novara/ITALY, ²SCDU Traumatologia, AOU Maggiore della Carità, Novara/ITALY

MEET THE AUTHOR in the ePoster Area at PC#14, on Sept. 30, 11:50–12:20

486 Investigation of the applicability of brain atlas technique in patients with intracranial space occupying lesions

M. Nagy¹, S.C. Aranyi¹, G. Opposits¹, E. Tarjány², K. Kovács², L.I. Láncki², E. Berényi²,

M. Emri¹; ¹Department of Nuclear Medicine, University of Debrecen, Debrecen/HUNGARY, ²Department of Biomedical Laboratory and Imaging Science, University of Debrecen, Debrecen/HUNGARY

MEET THE AUTHOR in the ePoster Area at PC#15, on Sept. 30, 11:50–12:20

Scientific Programme

PAPER POSTERS

Animal models and molecular imaging

Paper Posters of this topic can be found in a Lightning Talks, page 60 – 64

Brain and peripheral nerves

Paper Posters of this topic can be found in a Lightning Talks, page 80 – 84

Clinical neuro applications

487 TDI provides additional information for the detection of mistracking in DTI

E. Hassler¹, R. Schoepflin², H. Deutschmann¹, G. Reishofer¹; ¹Division of Neuroradiology, Vascular and Interventional Radiology, Department of Radiology, Medical University Graz, Graz/AUSTRIA, ²Institute for Radiotechnology, FH Joanneum Graz, Graz/AUSTRIA

MEET THE AUTHOR in the Paper Poster Area at PC#1, on Sept. 30, 10:50–11:20

488 Importance of early spectral variations during 36 months of longitudinal follow MRI and MRS in 70 patients treated glioblastomes

J.-M. Constans¹, A. Heintz¹, O. Seloï¹, N. Deleval¹, M. Beauvois¹, R. Hanafi¹, W. Dou², S. Ruan³, J. Prades¹, D. Le Gars¹, H. Deramond¹, A. Fichten¹, M. Lefranc¹, J. Peltier¹, A. Coutte¹, P. Toussaint¹, C. Desenclos¹, B. Chauffert¹, M. Boone¹; ¹Radiology Department, University Hospital of Picardy, Amiens/FRANCE, ²Electronic Department, Tsinghua University, Beijing/CHINA, ³Imaging Department, University of Rouen, Rouen/FRANCE

MEET THE AUTHOR in the Paper Poster Area at PC#2, on Sept. 30, 11:20–11:50
also available as ePoster

489 T₂ relaxation times of the main cerebral metabolites, and ADC coefficients for differentiation of Parkinson's disease (PD), Multiple System Atrophy (MSA), and Progressive Supranuclear Palsy (PSP)

Z. Rozhkova¹, I. Karaban¹*, N. Karasevich²; ¹Radiology, Medical Clinic BORIS, Kiev/UKRAINE, ²Neurology, Medical Clinic BORIS, Kiev/UKRAINE

MEET THE AUTHOR in the Paper Poster Area at PC#3, on Sept. 30, 10:50–11:20
also available as ePoster

490 Spectral variations and MRI in cerebral necrotic masses help in the diagnosis of brain abscess and metastasis

R. Hanafi, A. Heintz, O. Seloï, R. Laborde, A. Fichten, M. Lefranc, J. Peltier, C. Capel, A. Coutte, B. Chauffert, H. Deramond, D. Le Gars, J.-L. Schmidt, M. Boone,

J.-M. Constans; Radiology Department, University Hospital of Picardy, Amiens/FRANCE

MEET THE AUTHOR in the Paper Poster Area at PC#4, on Sept. 30, 11:20–11:50
also available as ePoster

Scientific Programme

PAPER POSTERS

491 Advanced MRI sequences interest in the evaluation of response to bevacizumab

O. Seloi¹, A. Heintz¹, R. Hanafi¹, R. Laborde¹, W. Dou², S. Ruan³, J. Prades¹, D. Le Gars¹, H. Deramond¹, M. Lefranc¹, A. Coutte¹, P. Toussaint¹, C. Desenclos¹, B. Chauffert¹, M. Boone¹, J.-M. Constans¹; ¹Radiology Department, University Hospital of Picardy, Amiens/FRANCE, ²Electronic Department, Tsinghua University, Beijing/CHINA, ³Imaging Department, University of Rouen, Rouen/FRANCE

MEET THE AUTHOR in the Paper Poster Area at PC#5, on Sept. 30, 10:50–11:20
also available as ePoster

Clinical non-neuro applications

492 WITHDRAWN

493 WITHDRAWN

494 Automatic Separate Quantification of Mammary Adipose Tissue and Subcutaneous Adipose Tissue in the Female Breast using Fat-Water MR Imaging at 3 Tesla

F. Fallah¹, P. Martirosian², J. Machann³, F. Schick², B. Yang⁴; ¹Section on Experimental Radiology, Department of Diagnostic and Interventional Radiology, University Hospital Tübingen, Germany, Institute of Signal Processing and System Theory, University of Stuttgart, Germany, Stuttgart/GERMANY, ²University Hospital Tübingen, Germany, Section on Experimental Radiology, Department of Diagnostic and Interventional Radiology, Tübingen/GERMANY, ³Institute for Diabetes Research and Metabolic Diseases (IDM) of the Helmholtz Center Munich at the University of Tübingen, Germany, Section on Experimental Radiology, Department of Diagnostic and Interventional Radiology, University Hospital Tübingen, Germany, Tübingen/GERMANY, ⁴University of Stuttgart, Germany, Institute of Signal Processing and System Theory, Stuttgart/GERMANY

MEET THE AUTHOR in the Paper Poster Area at PC#3, on Sept. 30, 11:20–11:50
also available as ePoster

495 Stroke volume of left ventricle measured with CMR 4D flow

R. Chelu¹, M. Ouhous², A. Coenen², S. Boccalini², M. Tezza², P. Wielopolski², M. Vogel³, J. Roos-Hesselink⁴, A. Van Den Hoven¹, G. Krestin², A. Hsiao⁵, S. Vasanaawala⁶, K. Nieman¹; ¹Radiology, Erasmus Medical Center, Rotterdam/NETHERLANDS, ²Radiology, Erasmus MC, Rotterdam/NETHERLANDS, ³Nuclear Medicine and Radiology, Erasmus MC, Rotterdam/NETHERLANDS, ⁴Cardiology, Erasmus Medical Center, Rotterdam/NETHERLANDS, ⁵Radiology, University of California, San Diego/CA/UNITED STATES OF AMERICA, ⁶Radiology, Stanford Medical Center, Palo Alto/CA/UNITED STATES OF AMERICA

MEET THE AUTHOR in the Paper Poster Area at PC#4, on Sept. 30, 10:50–11:20

496 MRI in assessment of endometrial carcinoma; comprehensive study

M. Rezk¹, A. Nazeer², A. Okasha², K. Saied Karam², A. Mohamed A. Fotoh²; ¹Radiology Department, National Cancer Institute, Cairo/EGYPT, ²Radiology Department, Azhar University Hospital (Alhussein), Cairo/EGYPT

MEET THE AUTHOR in the Paper Poster Area at PC#5, on Sept. 30, 11:20–11:50
also available as ePoster

Data processing and quantification

Paper Posters of this topic can be found in a Lightning Talks, page 51 – 55

Hardware, pulse sequences and diffusion

Paper Posters of this topic can be found in a Lightning Talks, page 24 – 29

Image analysis and reconstruction

Paper Posters of this topic can be found in a Lightning Talks, page 37 – 41

It's a no-brainer!

Paper Posters of this topic can be found in a Lightning Talks, page 89 – 94

Perfusion, functional and MRS

Paper Posters of this topic can be found in a Lightning Talks, page 70 – 75

Preclinical and basic science: diffusion, perfusion and angiography

497 Registration of ROI-labels on Population Atlas for the analysis of young population brain with Diffusion MRI: effect of the choice transformations and registration space

T.V. Phan¹, A. Brys¹, W. Van Hecke¹, M. Vandermosten², D. Smeets¹; ¹Research and Development, Icometrix, Leuven/BELGIUM, ²Parenting and Special Education Research Unit, KU Leuven, Leuven/BELGIUM

MEET THE AUTHOR in the Paper Poster Area at PC#1, on Sept. 30, 10:50–11:20
also available as ePoster

498 Design of a diffusion phantom for quality control of spinal cord DTI

B. Robalo¹, F. Odille¹, J. Felblinger², G. Hossu³, B. Chen³; ¹INSERM U947, INSERM, IADI, Imagerie Adaptative Diagnostique et Interventionnelle, Nancy/France, ²INSERM U947, Université de Lorraine, IADI, Imagerie Adaptative Diagnostique et Interventionnelle, Nancy/France, ³CHRU-Nancy, CIC-IT 1433, INSERM, Nancy/France

MEET THE AUTHOR in the Paper Poster Area at PC#2, on Sept. 30, 11:20–11:50
also available as ePoster

499 Comparison of the ATH and 2CXM Models Using Low- and High-Molecular-Weight Contrast Agents in DCE-MRI

R. Jiřík¹, T. Taxt², K. Soucek³, J. Kratochvíla¹, O. Macíček¹, E. Dražanová¹, Z. Starcuk, Jr.¹; ¹Magnetic Resonance and Cryogenics, Institute of Scientific Instruments of the CAS, v. v. i., Brno/CZECH REPUBLIC, ²The Department of Biomedicine, University of Bergen, Bergen/NORWAY, ³Department of Cytokinetics, Institute of Biophysics of the CAS, v.v.i, Brno/CZECH REPUBLIC

MEET THE AUTHOR in the Paper Poster Area at PC#3, on Sept. 30, 10:50–11:20
also available as ePoster

Scientific Programme

PAPER POSTERS

500 The influence of chronic application of olanzapin on brain perfusion in rat

E. Dražanová¹, J. Rudá², L. Grossova¹, K. Horská³, H. Kotolova³, Z. Babinska², Z. Starcuk, Jr.¹; ¹Magnetic Resonance and Cryogenics, Institute of Scientific Instruments CAS, v. v. i., Brno/CZECH REPUBLIC, ²Department of Pharmacology, Faculty of Medicine, Masaryk University, Brno/CZECH REPUBLIC, ³Department of Pharmacology, Faculty of Pharmacy, University of Veterinary and Pharmaceutical Sciences, Brno/CZECH REPUBLIC

MEET THE AUTHOR in the Paper Poster Area at PC#4, on Sept. 30, 11:20–11:50

Preclinical and basic science: hardware, motion, artefacts and QA

501 Development of a head coil system with integrated transmission source for accurate attenuation correction in PET/MRI: RF coil design considerations

L. Navarro De Lara, J. Sieg, M. Pichler, R. Kriegl, T. Bogner, A. Renner, E. Moser, T. Beyer, W. Birkfellner, M. Figl, **E. Laistler**; Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Wien/AUSTRIA

MEET THE AUTHOR in the Paper Poster Area at PC#1, on Sept. 30, 10:50–11:20

502 Magnetic Characterization of a Compact Biplanar Permanent Magnet for Intraoperative Biopsy Analysis

J.P. Rigla Perez¹, E. Diaz-Caballero², D. Grau Ruiz¹, A. Nacev³, P. Stepanov³, R. Hilaman³, L. Mair³, I.N. Weinberg³, J.M. Benlloch¹, C.D. Vera-Donoso⁴, A.J. Gonzalez¹, L.F. Vidal¹, A. Aguilar¹, P. Bellido¹, A. Iborra¹, P. Conde¹, L. Hernandez¹, M.J. Rodriguez-Alvarez¹, S. Sanchez¹, F. Sanchez¹, M. Seimetz¹, A. Soriano¹, L. Moliner¹; ¹Detectores para Imagen Molecular, Instituto de Instrumentacion Para Imagen Molecular, Valencia/SPAIN, ²Development, Tesoro Imaging S.L., Alicante/SPAIN, ³Engineering, Weinberg Medical Physics, Bethesda/MD/UNITED STATES OF AMERICA, ⁴Department of Urology, La Fe University and Polytechnic Hospital, Valencia/SPAIN

MEET THE AUTHOR in the Paper Poster Area at PC#2, on Sept. 30, 11:20–11:50

also available as ePoster

503 Comparison of passive RF phase shimming methods on the human brain at 7T using particle-swarm optimization

J. Clément¹, R. Gruetter¹, O. Ipek²; ¹CIBM-LIFMET, EPFL, Lausanne/SWITZERLAND, ²CIBM-AIT, EPFL, Lausanne/SWITZERLAND

MEET THE AUTHOR in the Paper Poster Area at PC#3, on Sept. 30, 10:50–11:20

also available as ePoster

504 All-in-one test phantom for assessment of essential magnetic resonance (MR) image quality parameters according to IEC 62464-1

W. Görtz¹, D. Schalla², **J. Kreutner²**, G. Schaeffers³; ¹Test Laboratory, MR:c528omp, Gelsenkirchen/GERMANY, ²Research, MR:comp GmbH, Gelsenkirchen/GERMANY, ³Research, MR:comp GmbH / MRI-StaR, Gelsenkirchen/GERMANY

MEET THE AUTHOR in the Paper Poster Area at PC#4, on Sept. 30, 11:20–11:50

505 The encoder as leading part of detecting torque on implants for a fully automated test method in accordance to ASTM F 2213 standard to improve MR-Safety
R. Ringler, K. Schuller, D. Suess, M. Stich; *Medical Engineering, Technical University of Amberg-Weiden, Weiden/GERMANY*
MEET THE AUTHOR in the Paper Poster Area at PC#5, on Sept. 30, 10:50–11:20

506 Low-Pass Shielding Design for MRI Applications Optimized for Strong RF Shielding Effectiveness
A. Berneking¹, **R. Trincherio**², P. Cerello², C. Lerche¹, N..J. Shah¹; *¹Institute of Neuroscience and Medicine - Medical Imaging Physics (INM-4), Forschungszentrum Juelich GmbH, Juelich/GERMANY, ²Sezione di Torino, Istituto Nazionale di Fisica Nucleare (INFN), Torino/ITALY*
MEET THE AUTHOR in the Paper Poster Area at PC#6, on Sept. 30, 11:20–11:50
also available as ePoster

Preclinical and basic science: MR spectroscopy

507 Towards a model-free separation of intra- and extra-myocellular lipids (IMCL/EMCL)
B. Pouymayou¹, R. Kreis¹, F. Amati², C. Boesch¹; *¹Radiology and Clinical Research, University of Bern, Bern/SWITZERLAND, ²Institut des sciences du sport de l'UNIL (ISSUL), University of Lausanne, Lausanne/SWITZERLAND*
MEET THE AUTHOR in the Paper Poster Area at PC#1, on Sept. 30, 10:50–11:20

508 Metabolic Images: Fatty acids quantification from multi-echo images in a digital fat phantom
D.F. Aguirre-Reyes¹, P. Irarrazaval², C. Tejos², S. Uribe², M. Andia²; *¹Computational Science and Electronics, Universidad Técnica Particular de Loja, Loja/ECUADOR, ²Engineering, Pontificia Universidad Católica de Chile, Santiago/CHILE*
MEET THE AUTHOR in the Paper Poster Area at PC#2, on Sept. 30, 11:20–11:50

Preclinical and basic science: new pulse sequences and techniques

509 Optimizing T2FFE pulse sequence for evaluation of knee cartilage at low field MRI
O. Seraydarmansour; *MRI, Dr. Athari Imaging Center, Tehran/IRAN*
MEET THE AUTHOR in the Paper Poster Area at PC#1, on Sept. 30, 10:50–11:20
also available as ePoster

Preclinical and basic science: processing and quantification

510 Gridding: a highly parallel implementation
L. Lamalle; *Université Grenoble Alpes & CHU de Grenoble, UMS IRMaGe, Inserm US 17 & CNRS UMS 3552, Grenoble/France*
MEET THE AUTHOR in the Paper Poster Area at PC#1, on Sept. 30, 11:20–11:50

511 Bhattacharyya-distance in Diffusion Weighted MRI Identifies Pathological Changes in the Brain White Matter Microstructure in Alzheimer's disease
G. Gyebnár, B. Powell, Z. Klimaj, G. Rudas, L. Kozák; *MR Research Center, Semmelweis University, Budapest/HUNGARY*
MEET THE AUTHOR in the Paper Poster Area at PC#2, on Sept. 30, 10:50–11:20

Scientific Programme

PAPER POSTERS

512 Gridding: finite kernel support extent implies multiple local data sample weights in convolution estimation

L. Lamalle; *Université Grenoble Alpes & CHU de Grenoble, UMS IRMaGe, Inserm US 17 & CNRS UMS 3552, Grenoble/FRANCE*

MEET THE AUTHOR in the Paper Poster Area at PC#3, on Sept. 30, 11:20–11:50

513 QR Decomposition based SENSE Implementation on Central Processing Unit (CPU) and Graphical Processing Unit (GPU)

I. Ullah, **M.M. Qasim**, H. Raza, H. Nisar, S. Qazi, H. Omer; *Electrical Engineering, COMSATS Institute of Information Technology, Islamabad/PAKISTAN*

MEET THE AUTHOR in the Paper Poster Area at PC#4, on Sept. 30, 10:50–11:20

514 WITHDRAWN



Scientific Programme

CLINICAL REVIEW POSTERS

MEET THE AUTHOR time slot:

Friday, September 30, 11:50–12:20

Case reports, small clinical series, pictorial reviews

515 Comparison of SPM8 and Philips i-view BOLD for the assessment of Language Lateralisation based on Functional Magnetic Resonance Imaging

S. Davies¹, M. Likeman², I. Wright³, C. Doody¹; ¹Medical Physics, Southmead Hospital, Bristol/ UNITED KINGDOM, ²Imaging, Southmead Hospital, Bristol/UNITED KINGDOM, ³Neuropsychology, Southmead Hospital, Bristol/UNITED KINGDOM
also available as ePoster

516 Parametric modulation of working load during the n-back task using fMRI: behavioral and functional correlation

T. Rumetshofer, K. Nussbaumer, R. Kleiser; *Institute of Neuroradiology, Kepler University Klinikum, Linz/AUSTRIA*
also available as ePoster

517 Pre-operative assessment of cerebrovascular reserve in moyamoya disease using ASL perfusion with automatic cortical segmentation

M. Fahlström¹, K. Lindskog², A. Lewén³, P. Enblad³, E.-M. Larsson¹; ¹Surgical Sciences, Uppsala University, Uppsala/SWEDEN, ²Biomedical Technology, Medical Physics and IT, Uppsala University Hospital, Uppsala/SWEDEN, ³Department of Neuroscience, Uppsala University, Uppsala/SWEDEN
also available as ePoster

518 MR Imaging for Orbital Apex Syndrome

H. Lee, M. Koh; *Radiology, Jeju National University Hospital, Jeju-Si/KOREA, REPUBLIC OF*

519 Osmotic demyelination syndrome – case report

T. Tvrdík¹, L. Melicherčík¹, S. Kasparová²; ¹Faculty of Chemical and Food Technology, Slovak University of Technology in Bratislava, Bratislava/SLOVAK REPUBLIC, ²Department of NMR Spectroscopy and Mass Spectroscopy, Faculty of Chemical and Food Technology, Slovak University of Technology, Bratislava/SLOVAK REPUBLIC
also available as ePoster

520 Non-neoplastic Myelopathy of the Spinal Cord: Differential Diagnosis focused on MR Imaging Pattern

H. Lee, M. Koh; *Radiology, Jeju National University Hospital, Jeju-Si/KOREA, REPUBLIC OF*

521 WITHDRAWN

522 WITHDRAWN

523 Preliminary results of hepatic steatosis and iron deposition in volunteers using LiverLab

A. Glińska, A. Sabisz, E. Szurowska; *Department of Radiology, University Clinical Centre, Gdańsk/
POLAND*

524 Quantitative Assessment of Liver Fibrosis on Various Radiologic Modality: Focusing on MR Techniques

B. Kim; *Radiology, Ajou University Medical Center, -/KOREA, REPUBLIC OF
also available as ePoster*

525 WITHDRAWN

526 Manganese Enhanced MRI investigations of tinnitus in rodent

M. Cardoso¹, A. Marie², A. Laboulais³, P. De Pellegars¹, G. Dupont¹, C. Coillot⁴, Y. Cazals⁵, S. Cosnier-Pucheu², C. Belline², C. Goze-Bac¹; *¹Plateforme BioNanoNMRI, University of Montpellier, Montpellier/FRANCE, ²CILcare, CILcare, Montpellier/FRANCE, ³BioNanoNMRI, Université de Montpellier, Montpellier/FRANCE, ⁴Laboratoire Charles Coulomb, University of Montpellier, Montpellier/FRANCE, ⁵UMR 7260, Université Aix Marseille, Marseille/FRANCE
also available as ePoster*

527 Quality Assurance of Clinical in Vivo Proton Magnetic Resonance Spectroscopy

O. Engelsen; *Radiology, University Hospital of North Norway, Tromsø/NORWAY
also available as ePoster*

Scientific Programme

SOFTWARE EXHIBITS

MEET THE AUTHOR time slots:

Thursday, September 29, 14:00–15:00

Friday, September 30, 10:50–11:50

Data analysis: MR imaging

528 Automatic quantification of left ventricular myocardial scarring and of viable myocardium from contrast - enhanced heart studies as efficient prognostic tool in patients with severe ischaemic cardiomyopathy

W.Y. Ussov¹, A.N. Dymchenko², A. Oferkin², E.A. Aleksandrova¹, A.A. Trubcheninova¹, A.A. Shelupanov³;

¹Laboratory of Tomography, Tomsk Institute of Cardiology, Tomsk/

RUSSIAN FEDERATION, ²Software Engineering, Biotok plc., Tomsk/RUSSIAN FEDERATION, ³Department

of Information Protection, Tomsk University of Automated Systems and Radioelectronics, Tomsk/

RUSSIAN FEDERATION

MEET THE AUTHOR on desk 1

also available as ePoster

529 “Frontier MRCardiacECV” – A Tool for Quantification of T1 and ECV in Myocardial Tissue Characterization Supporting Synthetic Multi-Inversion-Time Inversion Recovery Image Analysis

A. Greiser¹, S. Devdas², B. Spottiswoode³, F. Muehlberg⁴, S. Huwer¹, M.-P. Jolly⁵,

J. Schulz-Menger⁴, E. Mueller¹; ¹MR Product Definition & Innovation, Siemens Healthcare GmbH,

Erlangen/GERMANY, ²Product Definition & Innovation, Siemens Healthcare Pvt. Ltd., Bangalore/INDIA,

³MR Research and Development, Siemens Healthcare USA, Chicago/IL/UNITED STATES OF AMERICA,

⁴Working Group Cardiac MR, Charité, ECRC Humboldt-University, Berlin and HELIOS Clinics,

Berlin-Buch/GERMANY, ⁵Medical Imaging Technologies, Siemens Healthcare, Princeton/NJ/

UNITED STATES OF AMERICA

MEET THE AUTHOR on desk 2

530 BASIL: Bayesian Inference for Quantitative Arterial Spin Labelling Perfusion

M. Chappell; Institute of Biomedical Engineering, University of Oxford, Oxford/UNITED KINGDOM

MEET THE AUTHOR on desk 3

also available as ePoster

531 Fast estimation of relaxometry times using CUDA

C. Tinauer¹, A. Petrovic², S. Ropele¹, L. Pirpamer¹; ¹Department of Neurology, Medical University

of Graz, Graz/AUSTRIA, ²Institute of Medical Engineering, Graz University of Technology, Graz/AUSTRIA

MEET THE AUTHOR on desk 4

also available as ePoster

532 Quantitative multi-parametric analysis with ImageJ: recent updates of qMapIt

M. Kaul, G. Adam; Diagnostic and Interventional Radiology and Nuclear Medicine, University Medical

Center Hamburg-Eppendorf, Hamburg/GERMANY

MEET THE AUTHOR on desk 5

533 Neuroimaging Center Python Pipelines: a web-based image processing framework

D.K. Müller, R. Hannig, J.H. Müller, M. Marxen; Department of Psychiatry and Neuroimaging

Center, Technische Universität Dresden, Dresden/GERMANY

MEET THE AUTHOR on desk 6

Data analysis: MR spectroscopy

534 Educational simulator app and web page for exploring Nuclear and Compass Magnetic Resonance

L.G. Hanson; Danish Research Centre for MR, Centre for Functional and Diagnostic Imaging and Research; Centre for MR, DTU Elektro, Copenhagen University Hospital Hvidovre; Technical University of Denmark, Copenhagen/DENMARK

MEET THE AUTHOR on desk 7

also available as ePoster

Decision-support systems

535 ConnectData: A platform for curation of Alzheimer's Disease Neuroimaging Initiative data

R. Almeida¹, C.M. Quintão², H. Ferreira¹; ¹Instituto de Biofísica e Engenharia Biomédica, Faculdade de Ciências da Universidade de Lisboa, Lisboa/PORTUGAL, ²Departamento de Física, Faculdade de Ciências e Tecnologia, Universidad de Lisboa, Monte Da Caparica/PORTUGAL

MEET THE AUTHOR on desk 8

also available as ePoster

Scientific Programme

NEWS & VIEWS

MEET THE AUTHOR time slot:

Thursday, September 29, 14:00–15:00

NEWS: Late-breaking results

NEWS 1 **Added value of FLAIR images in the evaluation of brain anomalies in fetal MRI**

Mariana Diogo (*Centro Hospitalar de Lisboa Central, Lisbon/Portugal*), Gerlinde M. Gruber (*Medical University of Vienna, Vienna/Austria*), Peter C. Brugger (*Medical University of Vienna/Austria*), Michele Weber (*Medical University of Vienna, Vienna/Austria*), Gregor Kasprian (*Medical University of Vienna, Vienna/Austria*), **Daniela Prayer** (*Medical University of Vienna, Vienna/Austria*)

Topic: Clinical Applications: Brain (excluding functional and MRS)

NEWS 3 **A novel index indicating pituitary insufficiency: Pons ratio**

Özüm Tunçyürek (*Adnan Menderes University, Aydin/Turkey*), Mehmet Turgut (*Adnan Menderes University, Aydin/Turkey*), Tolga Unuvar (*Adnan Menderes University, aydin/Turkey*), R. Shane Tubbs (*Seattle Science Foundation, seattle/USA*), **Yelda Ozsunar** (*Adnan Menderes University, Aydin/Turkey*)

Topic: Clinical Applications: Brain (excluding functional and MRS)

NEWS 4 **One-year follow-up study detecting myocardial changes with cardiovascular magnetic resonance in patients with active rheumatoid arthritis**

Lauri Lehmonen (*HUS Medical Imaging Center/University of Helsinki and Helsinki University Hospital, Helsinki/Finland*), Aino-Maija Vuorinen (*HUS Medical Imaging Center, University of Helsinki and Helsinki University Hospital, Helsinki/Finland*), Miia Holmström (*HUS Medical Imaging Center, University of Helsinki and Helsinki University Hospital, Helsinki/Finland*), Sari Kivistö (*HUS Medical Imaging Center, University of Helsinki and Helsinki University Hospital, Helsinki/Finland*), Touko Kaasalainen (*HUS Medical Imaging Center, University of Helsinki and Helsinki University Hospital, Helsinki/Finland*)

Topic: Clinical Applications: Cardiac

NEWS 6 **Human olfactory cortex stimulation by color arrangements visualization: a functional MRI study.**

Gabriela Hossu (*CHU Nancy-Brabois, Vandoeuvre/France*), Céline Charroud (*IADI, U947, INSERM, Université de Lorraine, CHRU Nancy, Nancy/France*), Muriel Jacquot, Romain Tonnelet, Julie Boyer, Léa Nehmé, Faustine Noël

Topic: Clinical Applications: Brain: focus on fMRI

NEWS 7 **Comparative Analysis of Sparsifying Transforms for Sparse Recovery using L+S Model**

Anam Fatima (*COMSATS Institute of Information Technology, Islamabad, Islamabad/Pakistan*), **Sohaib Ayaz Qazi** (*COMSATS Institute of Information Technology, Islamabad, Islamabad/Pakistan*), Hammad Omer (*COMSATS Institute of Information Technology, Islamabad, Islamabad/Pakistan*)

Topic: Clinical Applications: Cardiac

- NEWS 8 Clinical comparison of 3D Silent ultrashort TE MRA with 3D TOF MRA in patients with coil treated intracranial aneurysm**
Aad van der Lugt (*Erasmus MC, Rotterdam/Netherlands*), Taihra Zadi (*Erasmus Medical Center, Rotterdam/The Netherlands*), Piotr Wielopolski (*Erasmus Medical Center, Rotterdam/The Netherlands*), Juan Hernandez Tamames (*Erasmus Medical Center, Rotterdam/The Netherlands*), Mika Vogel (*GE Healthcare/The Netherlands*), Bart Emmer (*Erasmus Medical Center, Rotterdam/The Netherlands*), Ad van Es (*Erasmus Medical Center, Rotterdam/The Netherlands*)
Topic: Clinical Applications: Head and Neck
-
- NEWS 9 Transmit-/Receive System for Hi-res Micro Imaging with 19F Contrast Agent at 7 T UHF MRI**
Christian Bruns (*Otto-von-Guericke University, Magdeburg/Germany*), Tim Herrmann (*Otto-von-Guericke University, Magdeburg/Germany*), Chang-Hyun Oh (*Korea University, Seoul/South Korea*), Suchit Kumar (*Korea University, Seoul/South Korea*), Markus Plaumann (*Otto-von-Guericke University, Magdeburg/Germany*), Chulhyun Lee (*Korea Basic Science Institute, Ochang/South Korea*)
Topic: Preclinical Studies and Basic Science: MR hardware (RF, magnets, gradients)
-
- NEWS 10 A fast, robust quantification of diaphragm motion using free breathing gradient echo MRI at 7T**
Tito Körner (*Center for Medical Physics and Biomedical Engineering, Vienna/Austria*), Martin Meyerspeer (*Center for Medical Physics and Biomedical Engineering, Vienna/Austria*), Ewald Moser (*Center for Medical Physics and Biomedical Engineering, Vienna/Austria*), Albrecht Ingo Schmid (*Center for Medical Physics and Biomedical Engineering, Vienna/Austria*)
Topic: Preclinical Studies and Basic Science: Motion, artefacts, quality control
-
- NEWS 11 Assessment of Treatment Response in Osteosarcoma: Use of Additive Diffusion-weighted MR - Imaging including ADC Histogram to Standard MR Imaging at 3T**
Seul Ki Lee (*Seoul St. Mary's Hospital, Seoul/South Korea*), Won-Hee Jee (*Seoul St. Mary's Hospital, Seoul/South Korea*), Joon-Yong Jung (*Seoul St. Mary's Hospital, Seoul/South Korea*), Chan Kwon Jung (*Seoul St. Mary's Hospital, Seoul/South Korea*), Yohan Son (*Siemens Healthcare, Seoul/South Korea*), Seung Han Shin (*Seoul St. Mary's Hospital, Seoul/South Korea*)
Topic: Clinical Applications: Musculoskeletal
-
- NEWS 12 In vivo morphometry study in a DBA/2J mouse, a model of spontaneous glaucoma**
Michal Fiedorowicz (*Mossakowski Medical Research Centre, PAS, Warsaw/Poland*), Jaroslaw Orzel (*Mossakowski Medical Research Centre, PAS, Warsaw/Poland*), Kossowski Bartosz (*Nencki Institute of Experimental Biology, PAS, Warsaw/Poland*), Marlena Welniak-Kaminska (*Mossakowski Medical Research Centre, PAS, Warsaw/Poland*), Maciej Swiatkiewicz (*Mossakowski Medical Research Centre, PAS, Warsaw/Poland*), Piotr Bogorodzki (*Warsaw University of Technology, Warsaw/Poland*)
Topic: Preclinical Studies and Basic Science: Animal models: brain
-
- NEWS 13 Quantification of brain alterations in a mouse model (MAP6-KO) of schizophrenia using microscopic 3D DTI and 3D T1w MRI: validation by fluorescent microscopy on cleared brains**
Hana Lahrech (*INSERM U 1205, Grenoble/France*)
Topic: Preclinical Studies and Basic Science: Animal models: brain

Scientific Programme

NEWS & VIEWS

MEET THE AUTHOR time slot:

Thursday, September 29, 14:00–15:00

NEWS 15 Effects of subanesthetic ketamine dose in rats:
Proton Magnetic Resonance Spectroscopy study

Marlena Welniak-Kaminska (*Mossakowski Medical Research Centre Polish Academy of Science, Warsaw/Poland*), **Jarosław Orzel** (*Mossakowski Medical Research Centre, Polish Academy of Sciences, Warsaw/Poland*), **Michał Fiedorowicz** (*Mossakowski Medical Research Centre, Polish Academy of Sciences, Warsaw/Poland*), **Malgorzata Zaremba** (*Mossakowski Medical Research Centre, Polish Academy of Sciences, Warsaw/Poland*), **Piotr Bogorodzki** (*Warsaw University of Technology, Warsaw/Poland*), **Paweł Grieb** (*Mossakowski Medical Research Centre Polish Academy of Sciences, Warsaw/Poland*)

Topic: Preclinical Studies and Basic Science: MR spectroscopy applications (preclinical and basic science focus)

NEWS 16 Proton magnetic resonance spectroscopy reveals exercise-induced metabolic changes in the brain

Maciej Swiatkiewicz (*Polish Academy of Sciences, Warsaw/Poland*), **Michał Fiedorowicz** (*Polish Academy of Sciences, Warsaw/Poland*), **Jarosław Orzel** (*Polish Academy of Sciences, Warsaw/Poland*), **Piotr Bogorodzki** (*Warsaw University of Technology, Warsaw/Poland*), **Jozef Langfort** (*Polish Academy of Sciences, Warsaw/Poland*), **Paweł Grieb** (*Polish Academy of Sciences, Warsaw/Poland*)

Topic: Preclinical Studies and Basic Science: MR spectroscopy applications (preclinical and basic science focus)

NEWS 17 Magnetic resonance imaging reveals adipose-derived mesenchymal stem cells efficacy in the amyotrophic lateral sclerosis murine model

Pietro Bontempi (*University of Verona, Verona/Italy*)

Topic: Preclinical Studies and Basic Science: Processing and quantification

NEWS 18 Joint Reconstruction for Phase-Cycled Balanced SSFP

Berkin Bilgic (*Martinos Center for Biomedical Imaging, Charlestown/USA*), **Thomas Witzel** (*Martinos Center for Biomedical Imaging, Charlestown/USA*), **Himanshu Bhat** (*Siemens Medical Solutions, Charlestown/USA*), **Lawrence L Wald** (*Martinos Center for Biomedical Imaging, Charlestown/USA*), **Kawin Setsompop** (*Martinos Center for Biomedical Imaging, Charlestown/USA*)

Topic: Preclinical Studies and Basic Science: Novel contrasts and methods

NEWS 19 Modified POCS Based Reconstruction for Compressed Sensing in MRI

Hammad Omer (*COMSATS Institute of Information Technology, Islamabad/Pakistan*), **Zoona Javed** (*COMSATS ISLAMABAD, Islamabad/Pakistan*)

Topic: Preclinical Studies and Basic Science: Functional imaging

NEWS 20 WITHDRAWN

NEWS 21 MR Microscopy using Lenz Lenses

Robert Kamberger (*University of Freiburg, Freiburg/Germany*), Oliver Gruschke (*Karlsruhe Institute of Technology, Karlsruhe/Germany*), Jan Korvink (*Karlsruhe Institute of Technology, Karlsruhe/Germany*)

Topic: Preclinical Studies and Basic Science: MR hardware (RF, magnets, gradients)

NEWS 23 Left Atrial Cardiomyopathy Characterized with Cardiac MRI Feature Tracking

Adrian Huber (*Institut National de la Santé et de la Recherche Médicale (INSERM), Paris/France*), Jérôme Lamy, Amer Rahhal, Morgane Evin, Fabrice Atassi, Carine Defrance

Topic: Clinical Applications: Cardiac

NEWS 24 Fast fMRI in nonhuman primates at 4.7T with multiband EPI and a 4 Tx/Rx + 1 Rx phased-array concept

Dávid Balla (*Max Planck Insitute for Biological Cybernetics, Tübingen/Germany*), Hellmut Merkle (*Max Planck Institute for Biological Cybernetics, Tübingen/Germany*), Franek Hennel (*ETH, Zürich/Switzerland*), Thomas Steudel (*Max Planck Institute for Biological Cybernetics, Tübingen/Germany*), Yusuke Murayama (*Max Planck Institute for Biological Cybernetics, Tübingen/Germany*), Rolf Pohmann (*Max Planck Institute for Biological Cybernetics, Tübingen/Germany*)

Topic: Preclinical Studies and Basic Science: Imaging pulse sequences and techniques

NEWS 25 Diffusion of Gln and NAA in the mouse brain in vivo at 14.1T

Masoumeh Dehghani (*Ecole Polytechnique Fédérale de Lausanne, Lausanne/Switzerland*), Hongxia Lei (*Ecole Polytechnique Fédérale de Lausanne, Lausanne/Switzerland*), Nicolas Kunz (*Ecole Polytechnique Fédérale de Lausanne, Lausanne/Switzerland*), Rolf Gruetter (*Ecole Polytechnique Fédérale de Lausanne, Lausanne/Switzerland*)

Topic: Preclinical Studies and Basic Science: MR spectroscopy applications (preclinical and basic science focus)

NEWS 26 Toward Better Understanding of Signal Intensity Changes in the Globus Pallidus in Patients with Repeated Application of Gadolinium-Based Contrast Agents

Josef Vymazal (*Na Homolce Hospital, Prague/Czech Republic*), Mohan Pingle (*Na Homolce Hospital, Prague/Czech Republic*), Aaron Rulseh (*Na Homolce Hospital, Prague/Czech Republic*)

Topic: Clinical Applications: Brain (excluding functional and MRS)

NEWS 27 Accurate quantification of shear wave velocity using Microscopic Magnetic Resonance Elastography

Felicia Julea (*University Paris Sud 11, Orsay/France*), Jin Long Yue (*University Paris Sud 11, Orsay/France*), Tanguy Boucneau (*University Paris Sud 11, Orsay/France*), Marion Tardieu (*Univ. Pierre et Marie Curie, Paris/France*), Benoit Larrat (*CEA / DRF / I2BM / NEUROSPIN / UNIRS, Gif sur Yvette/France*), Claire Pellot - Barakat (*University Paris Sud 11, Orsay/France*)

Topic: Preclinical Studies and Basic Science: Processing and quantification

Scientific Programme

NEWS & VIEWS

MEET THE AUTHOR time slot:

Thursday, September 29, 14:00–15:00

NEWS 28 Magnetic Resonance Elastography of Emphysematous Rat Lung in vivo

Hongchen Wang (*Imagerie par Résonance Magnétique Médicale et Multi-Modalités (UMR8081), CNRS, Univ Paris-Sud, Univ Paris-Saclay, Orsay/France*), Catherine Sebré (*Imagerie par Résonance Magnétique Médicale et Multi-Modalités (UMR8081), CNRS, Univ Paris-Sud, Univ Paris-Saclay, Orsay/France*), Georges Willoquet (*Imagerie par Résonance Magnétique Médicale et Multi-Modalités (UMR8081), CNRS, Univ Paris-Sud, Univ Paris-Saclay, Orsay/France*), Jinlong Yue (*Imagerie par Résonance Magnétique Médicale et Multi-Modalités (UMR8081), CNRS, Univ Paris-Sud, Univ Paris-Saclay, Orsay/France*), Felicia Julea (*Imagerie par Résonance Magnétique Médicale et Multi-Modalités (UMR8081), CNRS, Univ Paris-Sud, Univ Paris-Saclay, Orsay/France*), Rose-Marie Dubuisson (*Imagerie par Résonance Magnétique Médicale et Multi-Modalités (UMR8081), CNRS, Univ Paris-Sud, Univ Paris-Saclay, Orsay/France*)

Topic: Preclinical Studies and Basic Science: Processing and quantification

VIEWS: Opinion and Discussion Section

VIEWS 1 WITHDRAWN

VIEWS 2 Record Keeping in Radiology. Are We Doing Enough?

Edward Walton (*North Bristol NHS Trust, Bristol/United Kingdom*)

VIEWS 3 Is it time for an International Consortium to evaluate epidemiology and clinical impact of Gadolinium retention in the body and the brain?

Carlo Cosimo Quattrocchi (*Università Campus Bio-Medico di Roma, Rome/Italy*), Aart J. van der Molen (*Leiden University Medical Center, Leiden/The Netherlands*), Alexander Radbruch (*Deutsches Krebsforschungszentrum, Heidelberg/Germany*), Robert McDonald (*Mayo Clinic, Rochester (MN)/USA*), Richard C Semelka (*UNC, Chapel Hill (NC)/USA*), Emanuel Kanal (*University of Pittsburgh, Pittsburgh (PA)/USA*)

VIEWS 4 Radiology and nuclear medicine should work together for a common goal to maximize the benefits of PET/MR to the patients

Toni Ihalainen (*HUS Medical Imaging Center and Helsinki University Hospital, Helsinki/Finland*)

VIEWS 5 Solution or Elusion?

What Purpose does a Head Wrap serve during Cochlear Implant Patient MRI?

Johannes Erhardt (*University of Freiburg, Freiburg/Germany*), Thomas Stieglitz (*University of Freiburg, Freiburg/Germany*)

VIEWS 8 To model or to represent? (Pitfalls and opportunities in quantifying tissue microstructure)

Valerij Kiselev (*University Medical Center Freiburg, Freiburg/Germany*), Dmitry S Novikov (*New York University School of Medicine, New York/USA*), Sune Jespersen (*Aarhus University, Aarhus/Denmark*)

Author Index

A

A. Qazi, S.; . . . **74, 114, 116, 119, 120, 122, 126**
Aarnink, K.; 66
Abdul Samad, A.; 200
Abdurakman, E.; **156**
Åberg, K.; 411
Aboseif, E.; 353
Abraham, C.; **36, 90**
Abreu, D.; 364
Abreu, R.; **30**
Achten, E.; 229, **464**
Acosta-Cabronero, J.; 386
Acou, M.; **229**
Adalid, V.; **219**
Adam, G.; 532
Adriaensen, H.; 484
Adriaenssen, H.; 236
Afanasyev, S.A.; 461
Agarwal, S.; 463
Aguilar, A.; 502
Aguirre-Reyes, D.F.; **508**
Ahearn, T.; **413**
Aigner, C.S.; 302, 385
Aime, S.; **11, 249, 251, 396, 481**
Aja Fernández, S.; 439
Akbar, F.; 113
Akbari, A.; 341, 474
Akhadov, T.; 222
Akin, B.; 149
Aksoy, S.; 345
Al-Helli, O.; **28**
Albers, F.; 340
Albers, M.; 186
Aldenkamp, A.; 358
Aldusary, N.; **407**
Aleksandrova, E.A.; 528
Alghamdi, J.; 199
Alhazmi, F.; **199**
Allam, K.; **16**
Almeida, R.; **535**
Amadon, A.; 383
Amati, F.; 507
Amelin, M.; 443, 460, **462**
Anand, S.; 409
Andia, M.; 508
Andreisek, G.; 215
Andronesi, O.; 143
Aranyi, S.C.; **466, 486**

Araujo, E.C.A.; 151
Arcuri, P.P.; **288**
Arias-Ramos, N.; **314**
Arioli, R.; 485
Aristokleous, N.; **193**
Arslan, D.B.; 25, 27
Arús, C.; 314
Ashmore, J.; 369
Aslam, I.; 116, 119, 122, 126
Asllani, I.; 65
Assländer, J.; 82
Asten Van, J.J.A.; 448, 480
Atalar, E.; 81, **86**
Aumann, N.; 186
Axer, M.; 174
Azzabou, N.; 23, **428**

B

Babinska, Z.; 500
Bachert, P.; 153, 154, 201, 281, 282
Baciak, L.; **235, 241**
Baeshen, A.; 407
Balasubramanian, M.; 14, **189**
Balchandani, P.; 321
Balla, D.; 150
Balédent, O.; 181, 296
Bamberg, F.; 183
Barantin, L.; 484
Bargallo Alabart, N.; 230
Bargon, J.; 155, 398
Barnhill, E.; 152
Baron, K.; **422**
Baroni, S.; 481
Barth, M.; 107, 190, 334, 335, 337
Barth, P.; 200
Bartoš, M.; 306
Bashir, M.; 116
Bastos Leite, A.; **264**
Batra, M.; 403
Baud, O.; 91
Baudin, P.-Y.; 23, 151
Bauer, C.; 281
Bauer, J.; **294, 312**
Baumann, P.; 355
Baur-Melnyk, A.; 212
Bause, J.; 203, 375
Beaujoin, J.; **174**
Beaumont, M.; 185

Beauvieux, M.-C.; 240
Beauvois, M.; 488
Becker, A.; **68**
Beerepoot, L.V.; 227
Behl, N.G..R.; 333
Behr, M.; **341**
Beisteiner, R.; 297
Belguerras, L.; 135
Bell, J.; **59**
Bellido, P.; 502
Belline, C.; 526
Belyanin, M.; 351, 461
Bencsik, M.; 156
Bendahan, D.; **342**
Benedyk, A.; 54
Benkhedah, N.; 333
Benlloch, J.M.; 502
Beomonte Zobel, B.; 405
Berezina, N.; 372
Berg, A.; **89**
Berg, C.; 40
Bernard, J.; 174
Bernard, M.; 161, 231, 243
Bernarding, J.; 155, 398
Bernas, A.; **358**
Berneking, A.; 506
Berényi, E.; 466, 486
Besson, F.; 392
Beuf, O.; 19, 88, 316
Beveridge, E.; 180
Beyer, T.; 84, 501
Bhatia, K.; **259**
Bickelhaupt, S.; 154
Bidinosti, C.; **37**
Bieri, O.; 273, 346
Bifone, A.; **10**
Bilgic, B.; 25, 27
Bilginer, B.; 361
Biller, H.; 245
Binter, C.; 410
Birkfellner, W.; 84, 501
Bjerner, T.; 411
Blaimer, M.; 176, **269, 380**
Blamire, A.; 428
Blanc, J.; 240
Bley, T.; 163
Blokhuis, C.; 65
Blomquist, E.; 377
Blomstrom-Lundqvist, C.; 411
Bobrikova, E.; 351

Boccalini, S.;	495	Buntkowsky, G.;	398	Chatterjee, S.;	18
Bock, M.;	80, 86, 224	Burchert, W.;	200	Chauffert, B.;	488, 490, 491
Bodammer, N.;	397	Burguete, J.;	42	Chauffert, N.;	127
Boehm-Sturm, P.;	94	Burian, M.;	21, 477	Chelu, R.;	495
Boesch, C.;	507	Burkart, V.;	310	Chemineau, P.;	236
Boese, A.;	468	Busato, A.;	244	Chen, B.;	498
Bogaert, J.;	70	Buschle, L.R.;	191	Chen, C.-Y.;	442
Bogaert, S.;	464	Bush, J.;	427	Chepied, A.;	22, 234
Bogner, T.;	501	Buter, J.;	227	Cherkashin, M.;	372
Bogner, W.;	143, 220	Bydder, M.;	161	Chiew, M.;	336
Bogorodzki, P.;	478	Bår, S.;	248	Chirizzi, C.;	256
Boland, M.;	63	Bódis, K.;	310	Chmelík, M.;	143, 218, 220
Bolcaen, J.;	229	Bödenler, M.;	385	Chmielewski, A.;	73
Bolliger, C.S.;	219	Böll, K.;	255	Cho, J.;	83
Bollmann, S.;	107, 190,	Bøjsøe, C.;	20	Choe, B.-Y.;	317, 318,
334, 337				319, 476	
Bollondi, L.;	278	C		Choi, C.-H.;	35, 160
Bommerich, U.;	155, 398	Cabella, C.;	481	Choi, H.Y.;	454, 458
Bonekamp, D.;	154	Cahová, M.;	477	Choi, J.W.;	275, 352 , 371
Bonnemains, L.;	185	Calimeri, F.;	376	Choo, K.S.;	416
Boone, M.;	488, 490, 491	Callaghan, M.;	128	Chrysanthou, S.;	312
Booth, T.;	369	Cameron, D.;	71	Chupahin, A.;	460
Bosnell, R.;	239	Campos, C.;	415	Chyl, K.;	478
Boss, A.;	68, 215	Campos, J.;	364	Ciobanu, L.;	459
Boubertakh, R.;	167	Canaple, L.;	88, 316	Cioffi Squitieri, N.;	347
Bouchaud, V.;	240	Candiota, A.P.;	314	Ciuciu, P.;	127
Boucneau, T.;	208, 392	Cantarini, L.;	347	Claassen, J.;	66
Boulant, N.;	383	Cao, W.;	83	Clare, S.;	388
Bouldi, M.;	165	Capek, V.;	429	Clark, C.A.;	304, 389
Boulet, S.;	482	Capel, C.;	490	Clarke, N.;	271
Boult, J.;	271	Carbillet, F.;	472	Clarke, W.;	217
Boumezbeur, F.;	174	Cardoso, M.;	526	Clason, C.;	385
Bouzier-Sore, A.-K.;	95, 240	Carlier, P.;	23, 151, 349, 428	Clatworthy, P.;	239
Bovenkamp, P.;	177	Carr, C.;	394	Clement, P.;	464
Bowtell, R.;	156	Carrero, A.;	485	Clément, J.;	503
Brandejsky, V.;	219	Carrillo, R.;	447	Coenen, A.;	495
Braun, J.;	152	Casella, G.;	256	Cohen, S.;	65
Bredies, K.;	104, 290	Cash, D.;	26	Coillot, C.;	526
Breithaupt, M.;	252, 381, 387	Caspers, S.;	79	Colley, P.;	427
Breitling, J.;	282	Castelo-Branco, M.;	415	Colombo Serra, S.;	481
Brenner, D.;	112	Cave, G.;	156	Comi, G.;	256
Breuer, F.;	176, 380	Cavusoglu, M.;	327	Comment, A.;	138
Breukels, V.;	142	Cazals, Y.;	526	Comtat, C.;	196
Brix, L.;	421	Cedersund, G.;	24, 292	Conde, P.;	502
Brix, T.;	177	Cengiz, S.;	25, 27	Constans, J.-M.;	296, 488,
Broche, L.;	41	Cercignani, M.;	427	490, 491	
Broderick, S.;	193	Cerdán, S.;	57	Constantinides, C.;	394
Brown, C.;	152	Cerello, P.;	506	Coppa, B.;	23 , 349
Browne, J.E.;	277	Chaabane, L.;	256	Cordero-Grande, L.;	391
Browne, L.;	193	Chabanova, E.;	20	Cortes-Dominguez, I.;	42
Brulon, V.;	196, 392	Chabrand, P.;	342	Cosnier-Pucheu, S.;	526
Brunner, D.O.;	87	Champsaur, P.;	342	Coste, A.;	127
Bruno, M.;	425	Chan, K.H.;	362	Cottier, J.-P.;	98
Brusseau, E.;	46	Chanet, N.;	242	Cotton, F.;	363
Brys, A.;	497	Chang, G.;	425	Coutte, A.;	488, 490, 491
Buchfelder, M.;	103, 365	Chang, S.L.;	455	Covill, D.;	427
Buckley, C.;	128	Chappell, M.;	64, 78 , 299,	Cristobal Huerta, A.;	49
Budde, T.;	340	300, 301, 530		Cristobal-Huerta, A.;	50
Buemi, F.;	485	Chateil, J.-F.;	95, 240	Cronenberg, T.;	283

Author Index

Crowe, L.A.; 73
Cudalbu, C.; **157**
Cunnington, R.; . . . 334, 337
Curiel, L.; 36, 90
Czisch, M.; 338

D

Dadakova, T.; **80**
Dahlqvist Leinhard, O.; . . . 292
Dahlström, N.; 292, 430
Dakpé, S.; 296
Darrasse, L.; 85, 392
David, T.; 26, 28
Davies, S.; **515**
Dawson, D.; 413
Daňková, M.; 206
De Battista, D.; 256
De Groot, J.C.; 227
De Jong, D.; **66**
De Lathauwer, L.; 311
De Pellegars, P.; 526
De Rochefort, L.; . . . **166**, 242,
247, 272
De Vita, E.; 26, 65, 226,
304, 366, 389
Dean, J.; 210
Defamie, N.; 22, 234
Dehghani, M.; 471
Deichmann, R.; 169
Deistung, A.; 97, **194**, **250**
Deleval, N.; 488
Delgadillo, J.; 236
Deligianni, X.; 21, 346
Della Sala, S.W.; 405
Demiralp, T.; 25, 27
Depeursinge, A.; 278
Deramond, H.; 488, 490, 491
Desarnaud, S.; 196
Desenclos, C.; 488, 491
Desouza, N.; 17
Desrois, M.; 243
Deutschmann, H.; 487
Devauchelle, B.; 296
Devdas, S.; 529
Dezortova, M.; 21, 147,
350, 419, **429**
Di Franco, D.; 183
Di Gregorio, E.; **249**, 251, 396
Diaz, S.; 13
Diaz-Caballero, E.; 502

Dick, K.; 26
Dietrich, O.; 212
Dijhuizen, R.M.; 232
Dirnagl, U.; 94
Dobrynina, L.; 99, 102
Domsch, S.; **295**
Dona, O.; **101**
Donahue, M.; **77**
Doneva, M.; **130**
Doody, C.; 515
Dorez, H.; **88**, **316**
Dornick, T.; 354
Dorovinis, G.; 440
Dou, W.; **109**, 488, 491
Douiri, A.; 44, 45
Dovey, O.; 141
Dowell, N.; 427
Dragoni, I.; 128
Dražanová, E.; 307, 412,
499, **500**
Dresselaers, T.; **70**
Dresslaers, T.; 148
Drlicek, G.; 379
Drobny, M.; **21**, 419
Dubuisson, R.-M.; 166, 247
Duchesnay, E.; 211
Dumont, U.; 240
Dupont, G.; 526
Durand, E.; 392
Durand-Dubief, F.; 376
Dutt, V.; 378
Dvorakova, L.; **412**
Dymchenko, A.N.; 528
Dymerska, B.; **297**, **335**
Dyrby, T.; 322
Dyverfeldt, P.; **131**
Dyvorne, H.; 321
Dörfler, A.; 103, 365
Döring, A.; 219
Dürr, H.R.; 212
Dédourková, T.; 395

E

Eberhardt, B.; **384**
Eberhardt, C.; 215
Edelhoff, D.; 53, 258
Egger, M.; 104
Ehammer, T.; 111, 343, 344
Ehnes, P.; 162, **203**, 280
Ejlensen, J.A.; 421

Ekstedt, M.; 292, 430
El Hamrani, D.; **22**, **234**
Elahi, S.; 115, 117, 125
Eldar, Y.; 336
Eldeib, N.; 353
Ella, A.; **236**
Emri, M.; 466, 486
Enblad, P.; 517
Endmayr, V.; 194, 250
Engelsen, O.; **527**
Enggruber, P.; 397
Er, F.; **106**
Erb, M.; 403
Erdogdu, E.; 25, 27
Erni, D.; 330
Errante, Y.; 405
Ertan, K.; **81**
Esmann Fonvig, C.; 20
Essam, M.; **432**
Ethofer, T.; 406
Euchner, F.; **155**, 398

F

Fabbroni, M.; 347
Faber, C.; 294, 340
Fadeeva, L.; 360
Fagan, A.J.; 277
Fahlström, M.; **377**, **411**, **517**
Fairhurst, D.; 156
Fall, S.; 296
Fallah, F.; **72**, **183**, **348**, **494**
Fallatah, S.; **226**, **366**
Fares, G.; 58
Fedorov, A.; **372**
Felblinger, J.; **135**, 185, 498
Felder, J.; 384
Fellah, L.; 278
Feng, X.; 250
Fenhammar, J.; 354
Fernandez, B.; **338**, 392
Fernandez-Seara, M.; 42, 298
Ferrauto, G.; 249, 251, **396**
Ferreira, C.; **415**
Ferreira, H.; 535
Ferreira, J.; 364
Fery, P.; 185
Fichten, A.; 488, 490
Fiebach, J.B.; 94, 96
Fiedler, G.B.; 144, **145**, 216
Figl, M.; 84, 501

Figueiredo, P.;	30, 299	Glemser, P.;	252	Gálisová, A.;	254 , 395
Filipiak, I.;	98, 484	Glińska, A.;	523	Göksu, C.;	162
Fillmer, A.;	71	Goatman, K.;	373	Görtz, W.;	44, 45, 504
Finger, E.;	26	Godiyál, A.K.;	409	Gösweiner, C.;	400
Finkenstaedt, T.;	215	Goerke, S.;	282	Göttler, J.;	67
Fischer, R.;	400	Goethals, I.;	229	Günther, M.;	64, 186
Flach, Z.;	227	Golay, X.;	226, 366		
Flamini, V.;	56	Goluch, S.; . 31 , 144, 216, 326		H	
Flasbeck, S.;	381, 387	Gomez, D.;	390	Ha, Y.;	35
Fledelius, J.;	421	Gonzalez, A.J.;	502	Haahr, V.;	421
Focke, N.;	375	Gordon, I.;	304, 389	Hachulla, A.-L.;	73
Foddis, M.;	94	Gosselink, M.;	331	Hackbart, A.;	441
Fodero, G.;	288	Gotschy, A.;	410	Hadjiali, S.;	398
Forsgren, M.;	292, 430	Goudot, P.;	296	Hagberg, G.;	150, 375, 406
Foure, A.;	342	Goularas, D.;	106	Hagen, C.;	207
Fournet, G.;	459	Gowland, P.;	156, 286	Hager, B.;	346
Fourny, N.;	243	Goze-Bac, C.;	526	Haghnejad, A.A.;	331
Frediani, B.;	347	Grabner, G.;	104, 194, 250	Haider, T.;	194, 250
Freitas, A.C.;	167	Graff, C.;	26	Haimburger, E.;	104, 194, 250
Friebe, M.;	187, 468	Grant, E.;	14	Hajek, M.;	21, 147, 419, 429
Fringuello Mingo, A.;	481	Gras, V.;	383	Hajnal, J.V.;	391
Friske, J.;	379	Grassegger, S.;	355	Halandur Nagaraja, B.;	311
Froidevaux, R.;	87	Grau Ruiz, D.;	502	Haldorsen, I.S.;	276
Frollo, I.;	143, 217	Graven-Nielsen, T.;	465	Hametner, S.;	194, 250
Fromont-Hankard, G.;	98	Gray, G.A.;	401	Han, H.;	83
Frydrychowicz, A.;	132	Greiser, A.;	529	Han, M.;	275 , 352, 371
Fryer, B.;	301	Grenier, D.;	46	Hanafi, R.;	488, 490, 491
Frøkjær, J.B.;	465	Gribanova, T.;	436	Hanagasi, H.;	25, 27
Fujimoto, S.;	450	Griswold, M.;	110	Hangal, G.;	220
Furlan, R.;	256	Grodd, W.;	406	Hannig, R.;	533
		Grodzki, D.M.;	2	Hanse, M.;	227
G		Grossova, L.;	307 , 500	Hansen, J.;	421
Gabata, T.;	452	Gruber, S.;	220	Hanson, L.G.;	162, 322, 534
Gaber, K.;	353	Gruetter, R.;	246, 339, 420, 471, 503	Harreiter, J.;	475
Gagoski, B.;	14, 143	Gruwel, M.;	47	Harris, L.;	427
Gahrmann, R.;	227	Gröger, A.;	315	Harvey, A.;	408
Gaillard, S.;	88, 316	Guadilla, I.;	57	Harvey, P.;	137
Gajdošik, M.;	31, 143, 147 , 209, 218	Gubskiy, I.;	237	Has, A.C.;	361
Galeazzi, M.;	347	Gubskiy, L.;	237	Hassler, E.;	422, 487
Galiano Millan, A.;	298	Guenoun, D.;	342	Hatay, G.H.;	25, 27
Galimberti, D.;	26	Guerrini, S.;	347	Hatipoglu, H.G.;	457
Gambarota, G.;	426	Guibon, R.;	98	Hauser, T.-K.;	441
Gandarinho, D.;	415	Guillin, R.;	426	Heerschap, A.;	109, 142, 159 , 448
García De Eulate, R.;	298	Guillot, G.;	166, 242	Heil, M.;	258
Gasparova, Z.;	235	Guillé, M.J.;	57	Heiland, D.H.;	224
Gatehouse, P.;	323	Guis, S.;	342	Heintz, A.;	488, 490, 491
Gatidis, S.;	168	Gunn, A.;	210	Heinz, G.;	100, 103, 365
Gaul, R.;	56	Gupta, P.;	202	Heinze, S.;	252
Geith, T.;	212	Gupta, R.;	202, 463	Hejlova, I.;	21
Gentili, F.;	347	Gupta, R.K.;	18	Helle, M.;	175, 182
Gerhalter, T.;	151	Gurumurthy, P.;	207	Hendi, A.;	407
Gerrits, R.;	359, 404	Gurvit, H.;	25, 27	Hennig, J.;	38, 248
Giacomini, E.;	151, 349	Gutberlet, M.;	245	Henning, A.;	71, 329
Giannotti, G.;	405	Gutmann, I.;	100	Henriksen, O.M.;	300
Gianolio, E.;	251	Gutzeit, A.;	171	Hernandez, L.;	502
Gieseke, J.;	200	Guye, M.;	161, 342	Hernandez-Tamames, J.A.;	49, 50
Ginefri, J.-C.;	85	Gvozdev, A.;	291	Hernando, D.;	439
Glaser, S.J.;	141	Gyebnár, G.;	511		

Author Index

Herrmann, K.-H.; 179
Herynek, V.; **395**, 419
Hesse, L.; **257**
Hetterich, H.; **60**
Heule, R.; 273
Hilaman, R.; 502
Hilsden, H.; 428
Himmelbach, M.; 406
Himmelreich, U.; 148, 311
Hingerl, L.; 147, 220
Hinrichs, K.; 177
Hirata, R.P.; 465
Hirsch, J.G.; **186**
Hirtler, L.; 379
Hlozkova, J.; 412
Hoad, C.; 156, 286
Hocaoglu, E.; 345
Hock, A.; 71
Hodder, E.; 427
Hoeller, J.; 343
Hoerr, V.; 177, 179
Hofer, H.; 422
Hofheinz, F.; 65
Hohlfeld, J.M.; 245
Hoinkiss, D.C.; **170**, 186
Holler, M.; 290
Holm, J.-C.; 20
Hong, D.; 321, **480**
Hong, M.J.; 454, 458
Hong, S.; 408
Hoogduin, H.; 331
Hoogendoorn, C.; **373**
Horska, K.; 500
Hosseinnhezadian, S.; **85**
Hossu, G.; 498
Hou, L.; 408
Hou, Y.-C.; **442**
Houston, J.G.; 180, 193
Hrubý, M.; 254
Hsiao, A.; 495
Hughes, E.; 391
Hui, E.; **362**
Humhej, I.; 350
Hunter, A.; 152
Hutter, J.; 391
Huwer, S.; 529
Hájek, M.; 254, 395, 477
Hüppi, P.; 91, 210

I
Iborra, A.; 502
Ibragimova, D.; 291
Ibrahim, I.; **350**
Iezzi, M.; 396
Iida, T.; 450
Illanes, A.; **187, 468**
Incekara, F.; 225
Inci, E.; 345
Ingrisch, M.; 255
Ipek, O.; **420**, 503
Irrarrazaval, P.; 508
Iryna Karaban, I.; 467
Isaksen, C.; 421
Isanova, E.; 445
Italiaander, M.; 331
Ivanov, P.; 372

J
Jablonski, M.; **223**
Jacquier, A.; 161
Jain, D.; **378**
Jakob, P.; 176
Jamin, Y.; 271
Janeczko, K.; 92
Jang, K.M.; 437
Janot, K.; **98**
Jansen, C.J.; 142
Jansen, M.A.; **401**
Jansen, O.; 175, 182
Jasinski, K.; 92
Jasperse, B.; 227
Jednoróg, K.; 478
Jelescu, I.; **339**
Jeong, G.-W.; **105, 108**
Jeong, W.K.; 437
Jia, F.; **38, 82**
Jiru, F.; 350, 429
Jirák, D.; 21, 254
Jiřík, R.; 305, **306**, 307,
412, **499**
Johansson, K.; **354**
Jolly, M.-P.; 529
Jonuscheit, M.; 146
Jourdain, L.; 242
Joëls, M.; 232
Julea, F.; 208
Julià-Sapé, M.; 314
Jung, B.; **6**
Juranek, I.; 235

Juras, V.; 273, 346
Just Kukurova, I.; 475
Jäger, H.R.; **140**
Jäger, R.; 226, 366

K
Kaczmarz, S.; **67**
Kadykov, A.; 99
Kaleem, M.; 113, **115, 117**,
118, 123, 124, 125
Kalita, K.; 92
Kallou, L.; 196, 392
Kaman, O.; 395
Kampf, T.; 191
Kang, D.K.; 453
Kang, T.W.; 437
Kannengiesser, S.; 380, 426
Karaban', I.; 489
Karaminos, D.; 67
Karasevich, N.; 489
Karger, C.; 201
Karli Oguz, K.; 361
Karlsson, M.; **292**, 322, **430**
Karmonik, C.; 177
Kasparova, S.; 241, 519
Kasten, J.; 221
Kaul, M.; **532**
Kauppinen, R.A.; **239**
Kautzky-Willer, A.; 475
Kay, T.; 199
Kazimierski, K.S.; 302
Kašparová, S.; 238
Kechagias, S.; 292, 430
Keisker, B.; 407
Keller, M.; 236
Kelly Davidson, K.; 408
Kemp, G.J.; 145, 199
Kennedy, P.; 152
Kern, A.L.; **245**
Kerskens, C.; 56
Kettinger, A.; **380**
Khalaf, A.; **286**
Khalifé, M.; **196**, 392
Khalil, A.A.; **94, 96**
Khandelwal, P.; 107
Kicik, A.; 25, 27
Kieu Ha, L.; 421
Kießling, F.; **12**
Kim, B.; 352, **524**
Kim, G.-W.; 105, 108

Kim, K.D.;	437	Krauskopf, A.;	252	Larsen, R.G.;	465
Kim, M.;	437	Krebs, M.;	218	Larsson, E.-M.; .377, 411, 517	
Kim, S.H.;	437	Kreis, F.;	397	Lasbleiz, J.;	426
Kim, S.Y.;	275, 371	Kreis, R.;	219, 507	Laser, K.T.;	200
Kim, T.H.;	453	Kremneva, E.;	99	Laske, C.;	150
Kindvall, S.;	13	Krestin, G.;	495	Lassmann, H.;	194, 250
Kirginekov, D.;	237	Kreutner, J.;	43, 504	Latta, P.;	47, 48
Kirilina, E.; . . . . .	.96	Kriegel, R.;	31, 32, 84, 85, 216, 326, 328, 501	Laville, M.; . . . . .	.19
Kiss, M.;	357	Kroboth, S.;	38, 82	Layton, K.;	38, 82
Kitao, A.;	452	Krug, J.;	187	Layton, K.J.;	112
Kitzer, S.;	346	Kruk, D.;	400	Lazarus, C.;	127
Klarhoefer, M.;	215	Krämer, M.;	179	Lazeyras, F.;	221
Klauser, A.;	221	Krššák, M.;	31, 143, 147, 209, 218, 475	Le Bihan, D.; . . . . .	.211, 272, 459
Kleiser, R.;	516	Kubala, E.;	141	Le Corroller, T.;	342
Klika, K.D.;	282	Kubikova, L.;	241	Le Gars, D.; . . . . .	.488, 490, 491
Klimaj, Z.;	511	Kuehne, A.;	326	Le Ster, C.;	426
Klomp, D.;	331	Kugel, H.;	312	Leal, A.; . . . . .	.30
Klose, U.;	313, 315 , 403, 441	Kuhn, F.;	149	Leconte, I.;	278
Knight, J.; . . . . .	.26	Kukuk, G.M.;	289	Lee, C.Y.;	362
Knight, M.;	239	Kulikova, S.;	102	Lee, E.; . . . . .	.14
Knight, S.P.;	277	Kuličková, J.;	395	Lee, H.;	518, 520
Knopf, A.-C.;	9	Kumar, N.;	409	Lee, J.E.;	437
Kobayashi, S.;	452	Kumaragamage, S.; . . . . .	.37	Lefebvre, P.;	46
Kober, F.;	161	Kumbhare, D.;	423	Lefranc, M.; . . . . .	.488, 490, 491
Kocevar, G.;	363	Kupriyanov, D.;	291	Lefranc, S.;	211
Koch, M.A.;	54, 173, 207	Kupriyanova, Y.;	310	Lei, H.;	93, 246
Kocinski, M.;	97, 276	Kurilo, V.;	237	Leigheb, M.;	485
Koda, W.;	452	Kurz, F.T.;	191	Lenich, T.;	253
Kodeda, H.;	450	Kutasheva, A.;	237	Lennen, R.J.;	401
Kodina, G.E.;	461	Kutsniashvili, S.;	440	Lepore, M.G.; . . . . .	.93
Koehler, C.;	154	Kyathanahally, S.P.;	219	Leporq, B.; . . . . .	.19
Koh, M.;	518, 520	Köhn, A.;	186	Lerche, C.;	506
Kohlhauer, M.;	247	Körperich, H.;	200	Lerche, H.;	375
Kokkalis, E.;	193	Köstler, H.;	163	Lerche, M.;	322
Koktan, J.;	395			Leroi, L.;	272
Kolb, R.;	313, 315			Lesch, A.;	205
Kollias, S.;	407			Leuchs, L.;	338
Kompan, I.N.;	308	L		Leupold, J.;	5, 248, 257
Kononov, R.;	99, 102	Laborde, R.;	490, 491	Lewén, A.;	517
Kooijman, H.; . . . . .	.67	Laboulais, A.;	526	Li, D.; . . . . .	.83
Koopmans, P.;	268	Ladd, M.E.;	153, 154, 201, 281, 333, 381, 387	Li, J.R.;	459
Korga, K.; . . . . .	.92	Laforce Jr., R.; . . . . .	.26	Li, Z.; . . . . .	.83, 85
Korinek, R.;	209	Lagae, L.;	359, 404	Liao, Y.;	197
Korobkova, E.;	360	Lahrech, H.; . . . . .	.58	Lidouren, F.;	247
Korvink, J.G.;	257	Lai, C.-H.;	356, 442	Liedler, A.;	100
Korzowski, A.;	153, 154, 281	Laistler, E.;	31, 32, 84, 85, 145, 293, 326, 328, 501	Likeman, M.;	515
Kosinová, L.;	395	Lally, C.; . . . . .	.56	Lilburn, D.M.L.;	401
Kossowski, B.;	478	Lamalle, L.;	510, 512	Lim, S.-I.;	317, 318, 319, 476
Kotb, M.;	418	Lan, C.;	243	Lima Cardoso, P.;	297
Kotolova, H.;	500	Landau, K.;	407	Limonova, A.;	102
Kousi, E.;	17	Landmesser, R.; . . . . .	.54	Lindemann, M.E.;	332
Kovács, K.;	486	Lang, M.; . . . . .	.37	Lindenberger, U.;	397
Kozaka, K.;	452	Langs, G.;	260	Lindner, T.;	175, 182
Kozerke, S.;	76, 213, 410	Lanz, T.;	332, 333	Lindskog, K.;	517
Kozák, L.;	357, 511	Lanzardo, S.;	396	Liptaj, T.;	235
Kraiger, M.;	302	Lanzman, R.S.;	146, 172	Littin, S.;	38, 82
Kranz, A.;	253	Larsen, N.;	175, 182	Little, R.;	271
Kratochvíla, J.;	306, 499			Ljmani, A.;	172
				Loi, M.;	232

Author Index

Lommen, J.M.; 333
 Longo, D.; 405
 Lope-Piedraffita, S.; 314
 Lopes Da Silva, F.; 30
 Lopez Gonzalez, R.; 455
 Lopez Kolkovskiy, A.; **349**
 Louis, J.S.; **185**
 Loureiro, J.; 150, 375, **406**
 Lu, H.; 271
 Luca, D.; 255
 Luger, A.; 475
 Luijten, P.; 40, 331
 Lukacova, K.; **241**
 Lundberg, P.; 24, 292, 320, 430, 479
 Lundbom, J.O.J.; 310
 Lundervold, A.; **3**, 276
 Luo, Z.; **29**, **456**
 Lurie, D.; 41
 Lánctzi, L.I.; 486
 Lächelt, U.; 255
 López-Gil, X.; 55
 López-Larrubia, P.; 57, **233**
 Lüttjohann, A.; 340

M

M. Buzug, T.; 207
 M. Sima, D.; 311
 Maatoq, M.; 187
 Macdougall, R.; 14
 Macgregor, L.; 152
 Machann, J.; 72, 494
 Macicek, O.; **305**, 499
 Macintosh, B.; 26
 Mackenzie, I.; 199
 Mader, I.; 224
 Maennlin, S.; **313**, 315
 Maes, F.; 363
 Magill, A.W.; 35, 384
 Magnusson, P.O.; **322**
 Maguire, M.; 394
 Maher, M.; 353
 Mahr, N.; 297
 Maier, O.; **205**
 Mair, L.; 502
 Mak, H.K.; 362
 Makatsaria, A.; 287, 434
 Makieva, I.; 421
 Maksimova, A.; 351
 Malandraki-Miller, S.; 394

Malekian, V.; **390**
 Malik, S.J.; **136**, 327
 Manasseh, G.; 73
 Mandija, S.; **40**
 Mangin, J.-F.; 174, 211
 Manka, R.; 410
 Mann, P.; 201
 Mann, R.; 308
 Manoliu, A.; 68
 Mansour Khalifa, N.; 353
 Manzhurtsev, A.; 222
 Marchi, A.; 70
 Marciani, L.; 286
 Marcus, J.T.; **414**
 Marhold, F.; 100
 Marie, A.; 526
 Marik, W.; 346
 Marinelli, L.; 405
 Markdorf, S.; 443
 Markl, M.; **133**
 Marques, J.P.; 390
 Marrufo, O.; 34, 447, 473
 Marsteller, L.; 190
 Martel, D.; **425**
 Martin, P.; **375**, 406
 Martin, R.; 33, 34, 469, 473
 Martinez Vera, N.P.; **343**
 Martins, P.; 415
 Martirosian, P.; 51, 52, 72, 168, **303**, 494
 Marty, B.; 23, 151, 349
 Marxen, M.; 533
 Marzec, M.; 435
 Marzola, P.; 244
 Masellis, M.; 26
 Masselter, T.; 257
 Mastrogiacomo, S.; 109
 Materka, A.; 97, 276
 Mathieu, H.; **482**
 Matt, E.; 297
 Mattei, J.P.; 342
 Mattern, H.; **386**
 Mauconduit, F.; 272
 Maximov, I.I.; 53
 Mazuel, L.; 95, 240
 Mazzei, F.G.; 347
 Mazzei, M.A.; 347
 Maître, X.; 208, 392
 Mcelroy, S.; **69**
 Mcnabb, E.; **164**

Meaney, J.F.; 277
 Medonça, A.; 26
 Mehndiratta, A.; 409
 Meissner, J.-E.; **153**, **281**
 Melicherck, L.; **238**, 519
 Menard, C.; 194, 250
 Mennecke, A.; 103, 365
 Menshchikov, P.; **222**
 Menys, A.; 286
 Menzel, M.I.; 141
 Merkens, H.; 355
 Mesnil, M.; 22, 234
 Metere, R.; **192**
 Methot, V.; **173**
 Meulenbroek, O.; 66
 Meyer, H.; 128
 Meyerspeer, M.; **144**, 145, 216
 Meyrignac, O.; 472
 Michallat, S.; 482
 Michels, L.; 407
 Michoux, N.; **278**
 Miller, K.; 336, 388
 Minami, T.; 452
 Miquel, M.E.; 167
 Mirza, S.S.; 26
 Mocioiu, V.; 314
 Mohamed A. Fotoh, A.; 496
 Mohr, B.; 373
 Mokhtar, O.; 353
 Molica, S.; 288
 Moliner, L.; 502
 Moran, G.; 286
 Moreno, R.; 472
 Moreto, C.; 415
 Morgan, V.; 17
 Moser, E.; 32, 84, 85, 144, 145, 216, 293, 326, 328, 501
 Motaal, A.G.; 179
 Motska, S.; 440
 Moura, M.; 415
 Moussata, D.; 88, 316
 Movassat, J.; 243
 Muehlberg, F.; 529
 Mueller, E.; 529
 Mueller, S.; 94, 201
 Mulkern, R.; **14**, 189
 Muller, H.; 73
 Mundiyanapurath, S.; 154
 Murphy, S.; 373

Mutsaerts, H.;	26, 65, 464
Muñoz Álvarez, K.A.;	141
Muñoz-Moreno, E.;	55
Même, S.;	22, 234
Même, W.;	22, 234
Möller, H.E.;	192, 253
Müller, D.K.;	533
Müller, H.;	278
Müller, J.H.;	533
Müller-Lutz, A.;	283
Mürle, B.;	295
Mürtz, P.;	289
Müssig, K.;	310
<hr/>	
N	
Nacev, A.;	502
Nagel, A.M.;	333
Nagy, M.;	466, 486
Naish, J.;	271
Nalbant, M.O.;	345
Nam, K.J.;	416
Nam, S.Y.;	454, 458
Namestnikova, D.;	237
Nanz, D.;	149
Narata, A.P.;	98
Nasir, A.;	483
Nasir, S.;	114
Nasiraei Moghaddam, A.;	390
Navarro De Lara, L.;	32, 84, 293, 328, 501
Navarro-Hernanz, T.;	233
Navon, G.;	279
Nazarova, M.;	102
Nazeer, A.;	496
Neggers, S.;	40
Nemcova, A.;	419
Nemeth, A.;	19
Nemtanu, T.;	165
Nery, F.;	304, 389
Netam, S.B.S.;	378
Neubauer, H.;	163
Neumann, M.;	150
Neumayer, B.;	111, 343, 344, 422
Newby, D.E.;	401
Nguyen, B.;	440
Nicol, P.;	296
Nieman, K.;	495
Nierhaus, T.;	96
Niess, F.;	144, 145, 216
Nikolaou, K.;	168, 303
Nioche, C.;	196
Nisar, A.;	470
Nisar, H.;	513
Nittka, M.;	134
Nohava, L.;	32
Norris, D.;	268
Norris, D.; 261, 321, 382, 480	
Norris, D.G.;	390
Norton, T.;	239
Norén, B.;	292, 430
Noseworthy, M.;	101, 164, 341, 423, 474
Notohamiprodjo, M.;	4, 168
Nowak, A.;	286
Nunes, R.G.;	270, 364
Nussbaumer, K.;	516
Nyholm, T.;	377
Nyrén, P.;	377
Nägele, T.;	403
Nöth, U.;	169
<hr/>	
O	
O'Brien, K.;	190
O'Connor, J.;	271
O'Flynn, E.;	17
O'Neil, A.;	180
Oberndorfer, S.; 100, 103, 365	
Odille, F.;	498
Oehmigen, M.;	332
Oeltzschner, G.;	146
Oferkin, A.;	528
Ogris, K.;	355
Ohrmann, P.;	312
Okanovic, M.;	176
Okasha, A.;	496
Okell, T.W.;	301
Olde Rikkert, M.;	66
Olstrud, J.;	411
Olsson, L.E.;	13, 188
Omelchenko, O.;	467
Omer, H.;	74, 110, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 204, 470, 483, 513
Opposits, G.;	466, 486
Ormezi, B.;	106
Oros-Peusquens, A.-M.;	197
Ostapchuk, D.;	37
Oudkerk, M.;	75
Ouhlous, M.;	495
Oukhatar, F.;	484
Ourselin, S.;	26
Overy, K.;	408
Özbay, P.S.;	149
Ozen, A.C.;	86
Ozturk-Isik, E.;	25, 27
<hr/>	
P	
Paech, D.;	154
Pagé, G.;	181
Pajkrt, D.;	65
Palermo, S.;	288
Pampel, A.;	253
Panov, V.;	451
Panovsky, R.;	412
Papp, D.;	128
Parker, G.;	271
Parziale, G.;	485
Pasquier, C.;	135
Patre, V.;	378
Pavukova, E.;	241
Payer, C.;	111, 344
Pecchi, E.;	231
Peller, M.;	255
Pellot-Barakat, C.;	208
Peltier, J.;	488, 490
Pera, D.;	364
Peregrin, J.;	419
Pereyra, M.;	239
Perez-Fernandez, N.;	42
Perles-Barbacaru, T.-A.;	231
Perrins, M.;	152
Petersen, E.;	62
Peterson, P.;	188, 198
Petr, J.;	26, 65
Petrov, P.;	40
Petrovic, A.;	205, 274, 355, 400, 531
Petrovskiy, E.;	443, 445
Pezzolla, D.;	376
Pfleger, L.;	218
Pfrommer, A.;	329
Ph. S. Fischmeister, F.;	297
Phan, T.V.;	497
Piallat, B.;	482
Picciarelli, M.;	407
Pichardo, S.;	36
Pichler, B.;	8
Pichler, M.;	31, 328, 501
Pieper, C.C.;	289
Pilloud, Y.;	471
Pinto, J.;	299
Piradov, M.;	102
Pirpamer, L.;	531
Pithioux, M.;	342
Piędzia, W.;	92
Plaumann, M.;	155, 398
Plegunova, S.;	460
Plotnikov, M.;	351
Pogosbekian, E.;	360
Pohmann, R.;	150, 303, 406
Poirier-Quinot, M.;	85
Polimeni, J.;	189
Poole, I.;	180, 373
Porter, D.A.;	170
Poser, B.A.;	335, 337
Poujol, J.;	185
Poupon, C.;	174, 211, 272
Poupon, F.;	211
Pourtois, G.;	464
Pouymayou, B.;	507
Považan, M.;	220
Powell, B.;	511
Prades, J.;	488, 491
Prakken, N.H.J.;	75

Author Index

Predtechenskaya, E.; 443
 Preibisch, C.; 67
 Price, A.; 391
 Prieto, C.; **266**
 Pruessmann, K.P.; **7**,
 87, 149, 327, 407
 Pucket, A.; 334, 337
 Purvis, L.; 217

Q

Qasim, M.M.; **513**
 Qasim, R.; 113
 Qazi, S.; 513
 Qing, K.; 245
 Quattrocchi, C.C.; **405**
 Quick, H.; 332
 Quintão, C.M.; 535
 Qureshi, M.; 118, 483

R

Raajmakers, A.; 331
 Rabanillo Viloria, I.M.; **439**
 Rachid, K.; **178**
 Rad, R.; 141
 Radbruch, A.; 154
 Rajmic, P.; **206**
 Ramos-Murguialday, A.; 52
 Rapacchi, S.; **161**
 Ratiney, H.; 19, 88, 316
 Ratz, V.; 163
 Rauscher, A.; 104
 Raza, H.; 513
 Razavi, R.; 76
 Recio, M.; 298
 Reichardt, W.; 224
 Reichenbach, J.R.; 97, 179,
 194, 250
 Reimão, S.; 364
 Reischauer, C.; 171
 Reiser, M.; 212
 Reisert, M.; 82
 Reishofer, G.; 104, 487
 Renne, J.; 245
 Renner, A.; **84**, 501
 Rennings, A.; 330
 Resmer, F.; 333
 Restivo, M.; **331**
 Reynaud, O.; 339
 Reyngoudt, H.; 428
 Reynolds, A.; 271

Rezk, M.; **353, 418**, 432, **496**
 Riccio, R.; 288
 Rideau, A.; 91
 Riedl, M.; 346
 Riegler, G.; 379
 Rigla Perez, J.P.; **502**
 Ringleb, R.; 398
 Ringler, R.; **505**
 Ripoll Fuster, M.A.; 211
 Riverol, M.; 298
 Rivlin, M.; **279**
 Robalo, B.; **498**
 Roberts, N.; 152, 408
 Robinson, S.; 190, 194,
 250, 271, 297, 335
 Robson, M.; 217
 Roccia, S.; 288
 Rockel, C.; 341
 Roden, M.; 310
 Rodgers, C.; 143, 217
 Roditi, G.; 455
 Rodriguez, A.; **33, 34**,
447, 469, 473
 Rodriguez, D.; 178
 Rodriguez-Alvarez, M.J.; 502
 Rohani Rankouhi, S.; **321**, 480
 Rohrer, J.; 26
 Rommel, N.; 359, 404
 Roos-Hesselink, J.; 495
 Ropele, S.; 531
 Rose Jensen, P.; 322
 Rossi, C.; 149, **215**
 Rostrup, E.; 300
 Rousseau, H.; 472
 Rowe, J.; 26
 Rozhkova, Z.; **467, 489**
 Ruan, S.; 488, 491
 Rudas, G.; 357, 511
 Rudd, A.; 413
 Rudá, J.; 500
 Rumetshofer, T.; **516**
 Rund, A.; 385
 Rusak, G.; 435
 Ruthven, M.; 167
 Rydlo, J.; 350, 419
 Ryznarova, Z.; 429
 Rzaev, J.; 462
 Röhrich, S.; **273**
 Rösler, M.B.; **87**
 Rössler, K.; 103, 365

S

S. Thomsen, H.; 20
 Sabisz, A.; 523
 Sablong, R.; 88, 316
 Sack, I.; 152
 Sadaqat, F.; 470
 Sadeghi, A.; 81
 Saeed, A.; 114
 Sahoo, P.; 202, 463
 Sahu, C.D.; 378
 Saied Karam, K.; 496
 Saint-Jalmes, H.; 88, 316, 426
 Saleem, M.A.; **308**
 Salim, M.; 86
 Salomir, R.; **73**
 Salsac, A.-V.; 181
 Salvesen, H.B.; 276
 Sammut, E.; 76
 Samy, H.; 432
 Sanchez, F.; 502
 Sanchez, S.; 95, 240, 502
 Sanchis, F.; 233
 Sanders, P.; 43
 Santin, M.; 272
 Santos Diaz, A.; **474**
 Sappey-Marinier, D.; **363**, 376
 Sarabdjitsingh, R.A.; 232
 Sarraf, M.; **58**
 Sarwar, S.-U.; 118
 Satoer, D.; 225
 Sauer, M.; 332, 333
 Sauwen, N.; 229, 311
 Savelov, A.; 443, 445
 Saygi, S.; 361
 Sbrizzi, A.; **262**
 Scally, C.; 413
 Schad, L.; 295
 Schaefer, R.; 408
 Schaefers, G.; 43, 44, 45, 504
 Schalken, J.A.; 142
 Schalla, D.; 504
 Schaller, B.; 217
 Scharfetter, H.; 400
 Scheenen, T.W.; 448
 Scheer, P.; 412
 Scheffler, K.; 39, 150, 162,
 203, 280, 303, 375, 406
 Scherzinger, A.; 177
 Scheurer, E.; 355, 422

Schick, F.;	51, 52, 61 , 72, 303, 348, 494	Shahid, F.;	110	Srivastava, P.;	409
Schild, H.H.;	289	Shahid, S.S.;	56	Stabinska, J.;	283
Schlemmer, H.-P.;	154, 191, 252	Shahzad, H.;	110, 120, 204, 470	Stadlbauer, A.;	103, 365
Schlögl, M.;	111 , 205, 290 , 344, 400	Shahzadi, I.;	119, 120, 122, 126	Stager, J.; . . . . .	. 83
Schmid, A.I.;	144, 145, 216	Shaker, M.;	432	Stamile, C.;	363, 376
Schmid, F.;	340	Sharova, E.;	360	Standara, M.;	306
Schmid, S.;	62	Shaw, S.;	423	Stankevich, Y.;	443, 460
Schmid, T.; . . . . .	. 87	Shelupanov, A.A.;	528	Starcuk, Jr., Z.;	47, 305, 306, 307, 412, 499, 500
Schmidt, H.;	303	Sherdil, A.;	482	Starcuk, Z.;	223
Schmidt, J.-L.;	490	Shimanovsky, N.L.;	351, 461	Starcuk Jr., Z.;	48
Schmidt, M.; . . . . .	. 17	Shimekaw, S.; . . . . .	. 24	Staszewski, O.;	224
Schmidt, S.;	381	Shirzadi, Z.; . . . . .	. 65	Stecco, A.;	485
Schmitter, S.;	381, 387	Shorikov, M.;	451	Steidle, G.; . . . . .	. 51, 52
Schmitz, I.;	258	Shrestha, M.;	169	Steinseifer, I.K.;	448
Schnabel, J.;	259	Shuaib, H.;	369	Stellwag, A.-C.;	212
Schneider, J.;	394	Shymanskaya, A.;	160	Stemmer, A.;	168
Schoelkopf, B.; . . . . .	. 39	Sieg, J.;	31, 84, 328, 501	Stepanov, P.;	502
Schoepflin, R.;	487	Sijens, P.E.; . . . . .	. 75	Stich, M.;	505
Scholten, M.; . . . . .	. 43	Sima, D.;	148, 229	Stirnberg, R.; . . . . .	. 53, 63
Scholz, S.;	44, 45	Singe, J.;	186	Stoeck, C.T.;	76, 213
Schraml, C.;	303	Singh, A.;	18, 202, 463	Stoiber, M.; . . . . .	. 89
Schranzer, R.;	104	Singh, N.;	409	Stollberger, R.;	111, 205, 274, 290, 302, 344, 385
Schreiner, M.;	273	Singhal, M.; . . . . .	. 18	Strasser, B.;	220
Schuenke, P.;	154, 201	Sizonenko, S.;	91, 210	Strijkers, G.J.;	179
Schuller, K.;	505	Skoch, A.;	147, 350, 429	Strumia, M.;	224
Schulte, R.F.;	141	Skorokhod, O.;	251	Stöcker, T.;	53, 63, 112
Schulz, J.;	382	Slawig, A.;	163	Suess, D.;	505
Schulz-Menger, J.;	529	Sluming, V.;	199	Sun, P.;	456
Schwaiger, M.;	141	Smeets, D.;	497	Sunaert, S.;	359, 404
Schwartz, M.;	51, 52 , 303	Smit, J.; . . . . .	. 66	Suter, D.;	53, 258
Schwarz, J.M.;	112	Smith, F.E.;	428	Svejda, J.T.;	330
Schwarzer, E.;	251	Sobieh, A.;	441	Sven Göran Thylin, E.;	421
Schwarzl, A.;	290	Sohail, S.;	123, 124	Svensson, J.;	13, 188, 198
Schwenzer, N.;	303, 348	Solis, S.;	33, 34, 469	Swider, E.;	394
Schygulla, P.;	387	Solopova, A.;	287, 434	Syrgiamiotis, V.;	440
Schäfer, A.;	192	Song, K.-H.;	317, 318, 319 , 476	Szendrödi, J.;	310
Sciarra, A.;	386	Song, K.D.;	437	Szomolanyi, P.;	273
Sedivy, P.;	21, 147, 419	Soria, G.; . . . . .	. 55	Szurowska, E.;	523
Sedláček, O.;	254	Soriano, A.;	502	Sámann, P.;	338
Seethamraju, R.; . . . . .	. 14	Soucek, K.;	307, 499		
Segrestin, B.; . . . . .	. 19	Soussan, M.;	196, 392	T	
Sehrawat, S.;	18	Spann, S.M.;	302	Taal, W.;	227
Seiberlich, N.;	110	Speck, O.;	386	Tagliavini, F.; . . . . .	. 26
Seike, K.;	450	Speck, T.;	257	Tallat, S.;	110
Seimetz, M.;	502	Spengler, N.;	257	Tambalo, S.;	244
Seloi, O.;	488, 490, 491	Spiller, R.;	286	Tanaka, O.;	450
Semenova, N.;	222	Spinner, G.;	213	Taphoorn, M.J.B.;	227
Semple, S.I.;	401	Spirk, S.;	400	Tapper, S.;	320
Sengupta, A.;	202, 463	Spitzer, D.;	294	Tarachkova, E.;	451
Serafin, Z.;	435	Spoormaker, V.;	338	Taraghinia, S.; . . . . .	. 81
Seraydarmansour, O.;	509	Spottiswoode, B.;	529	Tardieu, M.;	208
Serrano, F.;	447	Sprenger, H.;	355, 422	Tarjányi, E.;	486
Sewonu, A.;	472	Sprinkart, A.M.;	289	Taxt, T.;	306, 499
Seysse, K.; . . . . .	. 19	Spruijt, O.;	414	Tayari, N.;	448
Shah, N.J.;	35, 160, 197, 384, 506	Srinivas, M.;	394	Taylor, S.;	286
				Teder, P.;	411

Author Index

Tedoldi, F.; 481
 Teillac, A.; **211**
 Tejos, C.; 508
 Tereshchenko, G.; **291**
 Ternovoy, S.; 287, 434
 Tezer, I.; 361
 Tezza, M.; 495
 Thielen, J.-W.; 480
 Thielscher, A.; 162, 293
 Thomas, D.; 304, 389
 Thomsen, J.F.; 465
 Thornton, J.; 28
 Thust, S.C.; 230
 Tik, M.; 293
 Tillet, Y.; 484
 Tinauer, C.; **531**
 Tintera, J.; 350
 Tisell, A.; **24, 320, 479**
 Tissier, R.; 247
 Tolstikhin, I.; 39
 Tomanek, B.; 47, 90
 Tomas, E.L.; 59
 Tomi-Tricot, R.; **383**
 Toth, E.; 484
 Toussaint, P.; 488, 491
 Tracey, I.; 388
 Trantschel, T.; 155
 Trattnig, S.; 143, 147,
 194, 209, 218, 220, 250,
 273, 297, 335, 346, 379,
 475
 Trauner, M.; 218
 Traxler, H.; 194, 250
 Triadyaksa, P.; **75**
 Trincherio, R.; **506**
 Tropes, I.; 482
 Trubcheninova, A.A.; 528
 Trufanov, G.; 436
 Truncka, P.; 21
 Tse Ve Koon, K.; 46
 Tsiotsios, C.; **440**
 Tudela, R.; **55**
 Tufekcioglu, Z.; 25, 27
 Tulupov, A.; **443, 445,**
460, 462
 Turkay, R.; 345
 Tuzzi, E.; **150, 406**
 Tvrdik, T.; 238
 Tvrdik, T.; **519**
 Tyler, B.; 341

Tyurin, I.; 451

U

Ublinskiy, M.; 222
 Uecker, M.; **129**
 Ullah, I.; 74, 110, **121,**
204, 513
 Ulliers, D.; 251
 Ulloa, P.; **54, 207**
 Ulug, A.M.; 25, 27
 Umathum, R.; 333
 Ungersböck, K.; 100
 Uribe, S.; 508
 Urschler, M.; 111, 343, 344
 Ussov, W.Y.; **351, 461, 528**
 Ustyuzhanin, D.; 434

V

Valabregue, R.; 166, 272
 Valente, E.; 251
 Valette, P.-J.; 19
 Valkovic, L.; **143, 217**
 Vallée, J.-P.; 73
 Valverde, M.; 150, 406
 Van Beek, E.J.R.; 152
 Van Damme, P.; 148
 Van De Looij, Y.; **91, 210**
 Van De Ven, K.; 67
 Van De Ville, D.; 221
 Van Den Bent, M.; 227
 Van Den Berg, C.; 331
 Van Den Brink, J.; 43
 Van Den Hoff, J.; 65
 Van Den Hoven, A.; 495
 Van Der Holt, B.; 227
 Van Der Toorn, A.; **232**
 Van Ginneken, B.; **267**
 Van Hecke, W.; 497
 Van Heeswijk, R.B.; **324**
 Van Heijster, F.H.A.; **142**
 Van Huffel, S.; 148, **158,**
 229, 311, 363
 Van Osch, M.; 62, 66, **139**
 Van Reeth, E.; 46
 Van Swieten, J.; 26
 van Zijl, P.; 188
 Vandermosten, M.; 497
 Vanlessen, N.; 464
 Vannesjo, S.J.; **388**
 Vasanawala, S.; 495

Vasilkiv, L.; 443
 Vassiliou, G.S.; 141
 Vazquez, F.; 33, 34, 469,
 473
 Vazquez, P.; 447
 Vellmer, S.; **53**
 Veltien, A.; 109
 Vera-Donoso, C.D.; 502
 Verly, M.; **359, 404**
 Vernhout, R.; 227
 Vernooij, M.; 230
 Versluis, M.; 70
 Viallon, M.; **325**
 Vicari, M.; 308
 Vidal, H.; 19
 Vidal, L.F.; 502
 Vidnyanszky, Z.; 380
 Vidorreta, M.; 298
 Vignaud, A.; 127, 272, 383
 Villringer, A.; 94, 96
 Villringer, K.; 96
 Vincent, A.; 225
 Viola, A.; 231
 Visch-Brink, E.; 225
 Vogel, M.; 49, 50, 495
 Vogel-Claussen, J.; 245
 Volterrani, L.; 347
 Von Deuster, C.; **76, 171,** 213
 Von Elverfeldt, D.; 248
 Von Samson-Himmelstjerna, F.;
 **64**
 Vonk Noordegraaf, A.; 414
 Voskrebenez, A.; 245
 Vovas, G.; 70
 Vreemann, S.; 308

W

Wachsmuth, L.; 340
 Wachter, J.; 194, 250
 Wacker, F.; 245
 Walboomers, X.F.; 109
 Walsh, M.; 193
 Wang, F.; 82
 Wang, Y.; 83
 Warnking, J.M.; **165**
 Warnock, G.; 149
 Waterton, J.; 271
 Wattenberg, M.; 200
 Weber, M.; 346
 Wech, T.; 163

Weerasekera, A.; **148**
Weigel, M.; 5, 248
Weiger, M.; **1**, 87
Weiland, E.; 448
Weinberg, I.N.; 502
Weingärtner, S.; 295
Weiskopf, N.; 128, **265**
Weiss, J.; 168
Weizman, L.; 336
Wenz, F.; 295
Weyerbrock, A.; 224
While, P.T.; **214**
Widek, T.; 111, 343, 344,
355, 422
Wielopolski, P.; 495
Wiesinger, F.; 196
Wight, R.; 301
Willoquet, G.; 242
Windischberger, C.; 293, 328
Windschuh, J.; 154, 280, 282
Witte, M.; 201
Wittsack, H.-J.; 146, 172,
283
Woletz, M.; 293
Wollmer, P.; 13
Wolzt, M.; 144, 145, 216
Wong, R.; 164
Worthoff, W.A.; 160
Wright, I.; 515
Wu, Y.-T.; 356
Wuttke, S.; 255
Wyss, M.; 407
Węglarz, W.P.; **92**

X

Xu, X.; 188, 362

Y

Yamagata, H.; 373
Yang, B.; 51, 52, 72, 183,
348, 494
Yang, S.-H.; 442
Yayla, M.; 457
Yen, K.; 252
Yim, H.; 453
Yoneda, N.; 452
Yoo, C.-H.; 317, 318, 319,
476
Yoo, E.Y.; 454, 458
Yoshida, K.; 452
Yousry, T.; 28, 230
Ytre-Hauge, S.; 276
Yu, H.; 38, 82
Yudkin, D.; 445
Yue, C.; 29
Yue, J.; **208**
Yukhno, E.; **436**

Z

Zaiss, M.; 153, 154, 201,
280, 281, 282
Zaitsev, M.; 38, 82, 112
Zaitsev, O.; 360
Zakharova, N.; 360
Zalaudek, M.; **346**, **379**
Zampetoulas, V.; **41**
Zapp, J.; 295
Zawada, E.; **435**
Zhao, M.Y.; **300**
Zhou, D.; 83
Zhuang, X.; 29, 456
Zia, U.; 118, 123, 124
Ziener, C.H.; 191
Zimmer, C.; 67
Zimmermann, M.; **103**, **365**
Zimpel, A.; 255
Zinger, S.; 358
Zink, I.; 359, 404
Zinne, N.; 245
Zivkovic, I.; **39**
Zubatkina, I.; 372
Zubieta, J.L.; 298
Zöllner, H.J.; **146**

Topic Index

- Scientific Session
- ePoster or Paper Poster
- ePoster or Paper Poster incl. Lightning Talk

Clinical Applications

Abdomen, including pelvis and GU

- Abdominal clinical applications . . . 287, 289, 292
- Clinical non-neuro applications . . . 448, 450-452, 456, 496
- It's a no-brainer! . . . 429, 430, 432, 434, 436, 437, 439
- Lipids in many shades . . . 19-21

Brain

(excluding functional and MRS)

- Beyond anatomy in brain . . . 403, 405-407, 409
- Brain and peripheral nerves . . . 351, 362-366, 369, 371-373, 375-378
- Brain tumors . . . 224-227, 230
- Clinical neuro applications . . . 440, 447
- Diffusion methods for microstructure assessment . . . 173
- Epilepsy and degenerative brain disorders . . . 27-29
- Flow and angiography . . . 175
- Pulse sequences . . . 166
- Quantitative imaging biomarkers . . . 272
- Vascular and head injury . . . 99, 100, 103

Brain: focus on fMRI

- Beyond anatomy in brain . . . 404
- Brain and peripheral nerves . . . 356-359
- Clinical neuro applications . . . 442, 443, 445, 487
- Diffusion measurements applied to tissue . . . 211
- Epilepsy and degenerative brain disorders . . . 26, 30
- Vascular and head injury . . . 96, 101

Brain: focus on MR spectroscopy

- Brain tumors . . . 229
- Clinical neuro applications . . . 488-491
- Epilepsy and degenerative brain disorders . . . 25
- Perfusion, functional and MRS . . . 311-313

Breast

- Clinical non-neuro applications . . . 453, 454, 458, 494
- It's a no-brainer! . . . 416
- MRI of the chest and the breast . . . 16-18

Cardiac

- Cardiac MRI: Getting to the heart of the matter . . . 69-75
- Clinical non-neuro applications . . . 495
- Data processing and quantification . . . 204
- It's a no-brainer! . . . 410, 413, 415

Head and neck

- Clinical neuro applications . . . 441
- Hardware, pulse sequences and diffusion . . . 53
- Perfusion imaging of human brain & head . . . 68
- Quantitative imaging biomarkers . . . 275
- RF transmission and reception . . . 333

Interventional (including invasive MRA)

- Flow and angiography . . . 182
- Vascular and head injury . . . 98

Musculoskeletal

- Brain and peripheral nerves . . . 379
- Clinical non-neuro applications . . . 457
- It's a no-brainer! . . . 418, 419, 421-423, 425, 426, 428
- MSK MRI: more than bones . . . 342-349

Paediatric

- Abdominal clinical applications 291
- Brain and peripheral nerves 353-355
- It's a no-brainer! 435

Spine and spinal cord

- Brain and peripheral nerves 350
- Diffusion measurements applied to tissue 212
- It's a no-brainer! 427

Thorax and lung

- Abdominal clinical applications 288
- MRI of the chest and the breast 13, 14

Vasculature / Angiography (excluding brain and coronaries)

- Brain and peripheral nerves 352
- Clinical non-neuro applications 455
- Flow and angiography 180

Clinical Review Poster

- **Case reports, small clinical series, pictorial reviews (neuro)** 515-520, 526
- **Case reports, small clinical series, pictorial reviews (non-neuro)** 523, 524, 527

Preclinical Studies and Basic Science

Angiography and blood flow

- Animal models and molecular imaging 246
- Flow and angiography 176-178, 181
- It's a no-brainer! 420
- Preclinical and basic science: diffusion, perfusion and angiography 460

Animal models (excluding brain)

- Animal models 88, 89
- Animal models and molecular imaging 243, 245
- Lipids in many shades 22

Animal models: brain

- Animal models 91-93, 95
- Animal models and molecular imaging 231-241
- Preclinical and basic science: diffusion, perfusion and angiography 500

Diffusion imaging

- Brain and peripheral nerves 360, 361
- Cardiac MRI: Getting to the heart of the matter 76
- Diffusion measurements applied to tissue 210, 213-215
- Diffusion methods for microstructure assessment 168-172, 174
- Hardware, pulse sequences and diffusion 51, 52, 54-58
- Preclinical and basic science: diffusion, perfusion and angiography 462, 497, 498
- Vascular and head injury 102

Functional imaging

- Abdominal clinical applications 290
- Functional MRI 334-341
- Perfusion, functional and MRS 293-297
- Preclinical and basic science: functional imaging 465-467

Image analysis

- Abdominal clinical applications 286
- Animal models 90
- Animal models and molecular imaging 258
- Beyond anatomy in brain 408
- Data processing and quantification 193, 194
- Image analysis and reconstruction 104-126
- Preclinical and basic science: new pulse sequences and techniques 483, 486
- Preclinical and basic science: processing and quantification 513
- Quantitative imaging biomarkers 271, 278

Topic Index

- Scientific Session
- ePoster or Paper Poster
- ePoster or Paper Poster incl. Lightning Talk

Image pulse sequences and techniques

- Animal models and molecular imaging 247, 248
- CEST: state of the art and beyond 280
- Data processing and quantification 189
- Flow and angiography. 179
- Hardware, pulse sequences and diffusion 46-50
- It's a no-brainer! 412, 414
- Preclinical and basic science: new pulse sequences and techniques 484, 485, 509
- Pulse sequences 160-165, 167
- RF pulses 380-385

Interventional, safety, bioeffects

- Hardware, pulse sequences and diffusion 42-44
- It's a no-brainer! 411
- Novel hardware concepts. 80
- RF transmission and reception 326

Molecular and cellular imaging

- Animal models and molecular imaging 254-257
- CEST: state of the art and beyond 279, 283
- Molecular and cellular imaging. 394-397

Motion, artefacts, quality control

- Data processing and quantification 187
- Image analysis and reconstruction 128
- Motion, artefacts & quality control 386-389, 391, 392
- Preclinical and basic science: hardware, motion, artefacts and QA 468, 472, 473, 504

MR hardware (RF, magnets, gradients)

- Hardware, pulse sequences and diffusion 31-39, 45
- Novel hardware concepts. 81-87
- Preclinical and basic science: hardware, motion, artefacts and QA 469-471, 501-503, 505, 506
- RF transmission and reception. 327-332

MR spectroscopy applications (preclinical and basic science focus)

- ¹³C, ³¹P and ¹H MRS 141-148
- Perfusion, functional and MRS 310, 314-319
- Preclinical and basic science: MR spectroscopy 476, 478

MR spectroscopy methods

- Methods for brain and body MRS 216-223
- Perfusion, functional and MRS 320-322
- Preclinical and basic science: MR spectroscopy 474, 475, 479, 480, 507, 508

Novel contrasts and methods

- Animal models. 94
- Animal models and molecular imaging 242, 244, 249-253
- CEST: state of the art and beyond 281, 282
- Data processing and quantification 191, 197, 205
- Hardware, pulse sequences and diffusion 40, 41
- Molecular and cellular imaging 398, 400, 401
- Novel contrasts and methods. 149-156
- Preclinical and basic science: new pulse sequences and techniques 482

Perfusion imaging

- Perfusion imaging of human brain & head 62-67
- Perfusion, functional and MRS. . . 298-308
- Preclinical and basic science: diffusion, perfusion and angiography . . . 459, 461, 463, 464, 499

Processing and quantification

- Data processing and quantification 183, 185, 186, 188, 190, 192, 196, 198-203, 206-209
- Image analysis and reconstruction . . . 127
- Lipids in many shades 23, 24
- Motion, artefacts & quality control . . . 390
- Preclinical and basic science: MR spectroscopy 477
- Preclinical and basic science: new pulse sequences and techniques 481
- Preclinical and basic science: processing and quantification 510-512
- Quantitative imaging biomarkers . . . 273, 274, 276, 277
- Vascular and head injury 97

Software Exhibit

Data analysis: MR imaging

- 528-533

Data analysis: MR spectroscopy

- 534

Decision-support systems

- 535

ESMRMB NETWORKING EVENTS

MEET THE EXPERT:

Thursday, September 29, 2016 17:35
Level 1 – Restaurant Brasserie

You have burning questions about MR you never dared to ask?

Now is your chance! We invited experts from all over Europe to offer their insights to anybody interested. Groups of 2-6 experts will be formed for a selection of topics ranging from basic MR physics to clinical application and they will answer all your questions personally.

Come and say hello at this informal event, where you're guaranteed to broaden your network and learn something new about MR!

Body & CV Radiology

T. Leiner, Utrecht/NL
H.S. Thomsen, Herlev/DK

Molecular and Preclinical MR

S. Aime, Torino/IT
A. Bifone, Rovereto/IT
U. Himmelreich, Leuven/BE
R. Kauppinen, Bristol/UK

MR Physics, Sequences, Hardware

P. Figueiredo, Lisbon/PT
M. Günther, Bremen/DE
B. Jung, Freiburg/DE
K.P. Pruessmann, Zurich/CH
O. Speck, Magdeburg/DE

Neuroradiology

E.-M. Larsson, Uppsala/SE
D. Prayer, Vienna/AT
M. Smits, Rotterdam/NL

Processing, image analysis, machine learning

M. Ladd, Tübingen/DE
J. Schnabel, London/UK
K. Uludag, Tübingen/DE

Spectroscopy

C. Arús, Cerdanyola del Vallès/ES
C. Boesch, Bern/CH
E. Danielsen, Copenhagen/DK

GRANT & CAREER SESSION:

Friday, September 30, 2016 15:40–17:10
Stolz 1

Applying for a new job? Stuck with grant writing?

This is the session for you! Mag. Therese Lindahl will start you off with her talk about the **“Dos and Don’ts of Grant Writing: in particular in view of Individual Fellowships within the EU’s Marie Skłodowska-Curie Actions Program”**.

Then, a panel of experts will take the stage to talk about **“The Art of Recruiting: Panel discussion on which factors on a CV weight most”** and answer audience questions.

Take this chance to ask anything you have always wanted to know about job applications, CVs, grant writing and more!

Panelists

P.J. Cozzone, Marseille/FR & Singapore/SGP

M.E. Ladd, Heidelberg/DE

E.-M. Larsson, Uppsala/SE

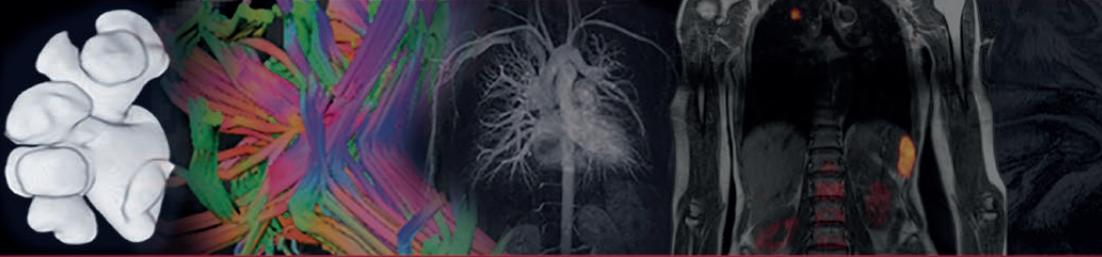
J.A. Schnabel, London/UK

A. van der Lugt, Rotterdam/NL

ESMRMB

European Society for Magnetic Resonance in Medicine and Biology

School of MRI



EDUCATIONAL COURSES FOR PHYSICIANS AND MR TECHNOLOGISTS/RADIOGRAPHERS

The following courses will again be offered in 2017

Advanced MR Imaging of the Abdomen

Body Diffusion-weighted MRI: From Theory to Practice

Advanced Breast & Female Pelvis MR Imaging

Advanced Cardiac MR Imaging

Clinical fMRI & DTI - Theory and Practice

Advanced Head & Neck MR Imaging

Advanced MR Imaging of the Musculoskeletal System

Advanced Neuro Imaging: Diffusion, Perfusion, Spectroscopy

Advanced MR Imaging in Paediatric Radiology

MR Safety

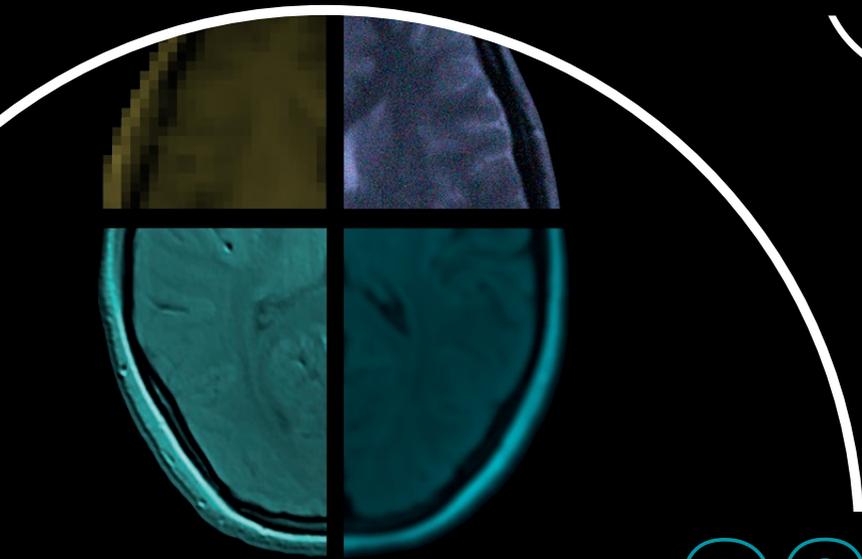


Find out more about dates and venues at www.esmrmb.org

*Education in
partnership*

ESMRMB

European Society for Magnetic Resonance in Medicine and Biology



Lectures on MR 2017

Educational courses, exercises, and practical demonstrations on MR physics and engineering

RF simulation for MR systems: Coil design and safety

February 22–24, Utrecht/NL

RF-Coils: Design and build your own

June 20–22, L'Aquila/IT

Measurement of perfusion and capillary exchange

June 21–23, Bremen/DE

MRI simulation for sequence development, protocol optimisation and education

June 28–30, Eindhoven/NL

Parallel imaging:

Basic and advanced reconstruction concepts

July 20–22, Göttingen/DE

Small animal MR imaging

October 17–18, Barcelona/ES

Susceptibility weighted imaging and quantitative susceptibility mapping

November 6–8, Graz/AT



Important Addresses



St. Stephen's cathedral

Congress Venue

Messe Wien Congress Center
Messeplatz 1
1020 Vienna, Austria
www.messecongress.at

Organising Office

ESMRMB Office
Neutorgasse 9
1010 Vienna, Austria
Phone: (+43) 1 535 13 06
Fax: (+43) 1 533 40 64 448
E-Mail: office@esmrmmb.org
Web: www.esmrmmb.org

Technical Exhibition Management

MAW-Medizinische Ausstellungs- und Werbegesellschaft
International Exhibitions & Advertising
Mr. Dominik Udolf / Ms. Sonja Leibrecht
Freyung 6
1010 Vienna, Austria
Phone: (+43) 1 536 63 64
Fax: (+43) 1 535 60 16
E-Mail: maw@media.co.at

ESMRMB 2016 – Travel Partner

Mondial Congress & Events Vienna (HQ)
Mrs. Christiane Tronigger
Operngasse 20b
1040 Vienna, Austria
E-Mail: tronigger@mondial-congress.com
Web: www.mondial-reisen.com

Vienna, September 2016

Coordination: Denise Cosulich, Verena Dür, Angelika Zech

ESMRMB Office, Vienna/AT

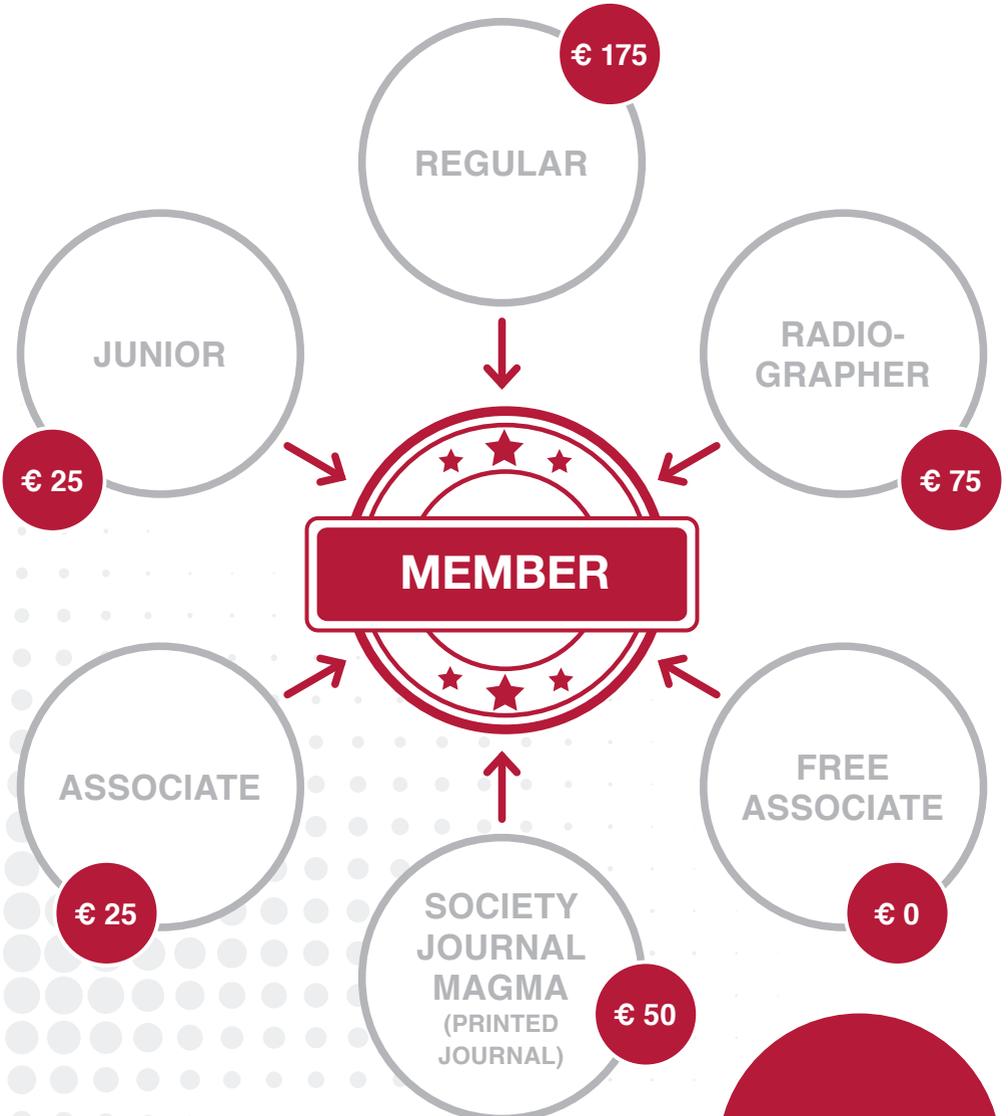
Layout: Barbara Biegl

Printed by: Robitschek, Vienna/AT

Vienna photos: depositphotos.com, fotolia.com, istockphoto.com, shutterstock.com



Join the European Forum for MR Research and Clinical Practice





Floorplans

booth # Exhibitor

sorted by booth number

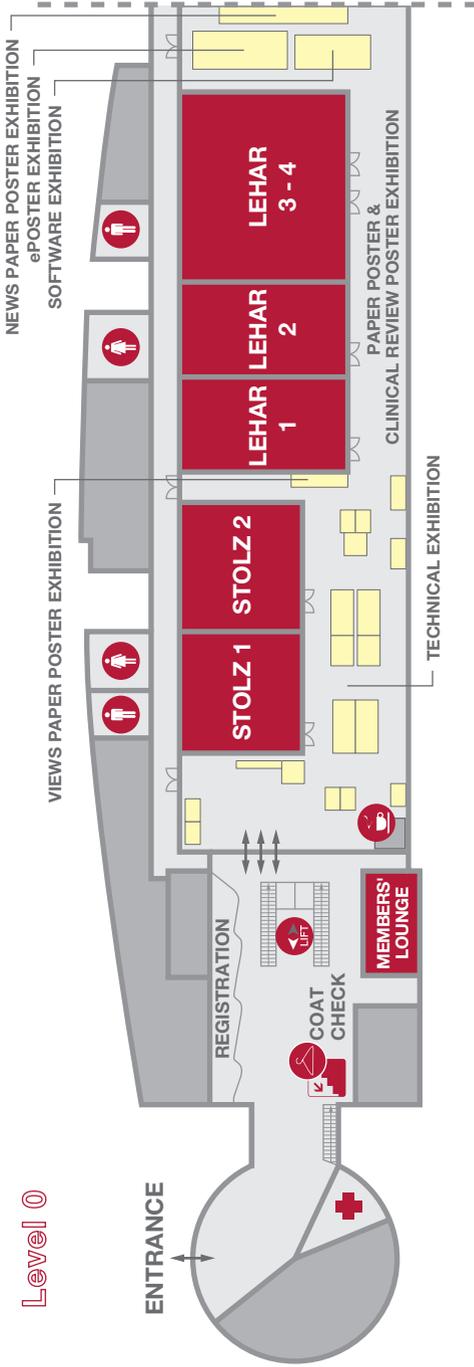
1	ISMRRM	10	Bracco Suisse
2	ESMRMB	11	Bayer Radiology
3	Wisepress Medical Bookshop	12	Toshiba Medical Systems Europe BV
4	Philips Medical Systems	13	GE Healthcare
5	Rapid Biomedical GmbH	14	NordicNeuroLab
6	Pure Devices GmbH	15	Grouleff DK
7	MRI-Tec / MR:comp	16	PulseTeq Limited
8	Siemens Healthcare GmbH	17	Mediso Ltd.
9	Bruker BioSpin	18	Aspect Imaging

Level 0

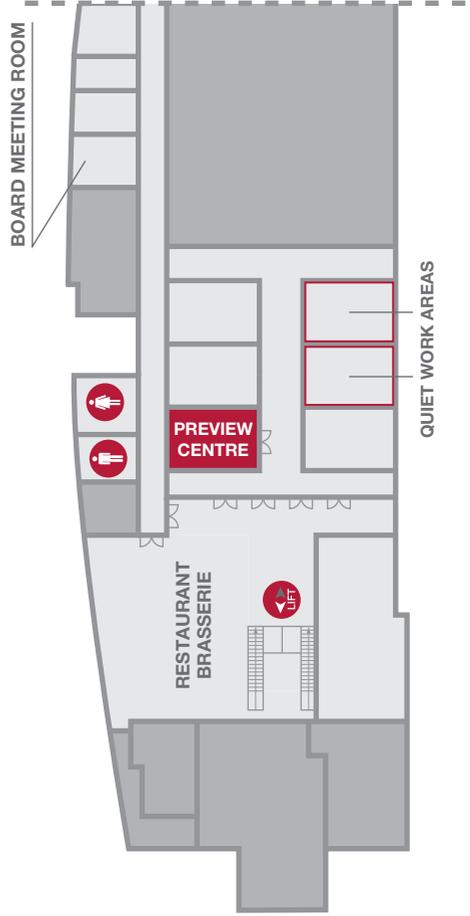




Level 0



Level 1



Learn wherever you are eLearning by ESMRMB NEW in 2016

ESMRMB

European Society for Magnetic Resonance in Medicine and Biology

Education
made easy

This year, the School of MRI programme is offering its first online educational course!

The School of MRI has been offering successful advanced clinical training for many years. This year, the programme will be complemented by an online course in basic applied MR techniques. The course is aimed at those with little physical and mathematical background but keen to understand the process of image formation and the sequences of usual clinical MR imaging.

Course programme:

- The physical basis of Nuclear Magnetic Resonance
- Magnetic Resonance Imaging: formation of the image
- Basic clinical sequences, tissue contrast and image quality
- Basic methods of contrast enhancement
- MR Hardware and safety aspects

Outlines of the training:

- 8 modules à 45-60 minutes
- 1 module per week (8 weeks, starting on Oct. 17, 6 - 7:30pm)
- Interaction with speakers (question/answer time at the end of each module)

interactivity

high-level training
for everyone

no travel

comfortable learning
from home

live discussions

Further information on the dates, registration, programme and speakers can be found online at
www.school-of-mri.org

Congress Sponsors



MR ENTERPRISE MEMBERS

Bayer Pharma AG
Bracco
Bruker
GE Healthcare
Hitachi
Philips Medical Systems
Siemens Healthineers
Toshiba



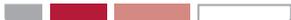
SPONSOR ACKNOWLEDGEMENT

The ESMRMB Local Organising Committee would like to thank the following companies for their support:

Platinum Sponsor: 

Silver Sponsor: 

Bronze Sponsors: 





ESMRMB 2016 – Industry-sponsored Symposia

Thursday, September 29

12:50–13:50



Lehar 3-4

Siemens

Translating MRI research power into clinical care. Together.

Translating MRI research power into clinical care. Together.

Andreas Schneck
Siemens Healthineers

How to improve time efficiency in Cardiac MRI: Clinical experience with Compressed Sensing

François Pontana
Lille University

7T and MRF – will they shape the future of clinical MR?

Siegfried Trattnig
University of Vienna

Friday, September 30

12:30–13:30



Lehar 3-4

GE

Imagine what MR can be.

MR Vision

Ioannis Panagiotelis, MR Chief Marketing Officer, GE

PET/MR in Body Oncology - Clinical perspectives

Michael Soussan, MD, PhD
CEA-SHFJ, Orsay/FR

Benefits and challenges of Neuro MRI at 7.0T

Prof. Michela Tosetti, PhD
Fondazione Stella Maris
University of Pisa/IT





Saturday, October 1

12:30–13:30

PHILIPS

Philips

Lehar 1

Innovation for you. Innovation with you.

Introduction

Alan Huang, PhD
Marketing MRI, Philips
Best/NL

Clinical Applications of MR Neurography

Dr. med. Jan S. Kirschke
Department of Neuroradiology,
Klinikum rechts der Isar
Technical University Munich
Munich/DE

The growing role of MRI in Radiation

Therapy – clinical experiences

Rasmus Lübeck Christiansen, MSc
Odense University Hospital
Odense/DK





Innovation for you. Innovation **with you.**

At Philips, we have a long history of converting research into meaningful innovation, improving the lives of clinicians and patients. We look beyond technology to the experiences of the people at the heart of care – patients, clinicians and care givers – to unlock insights across the patient journey. We are dedicated to helping you address your challenges by partnering to create meaningful innovations.

For more information see www.philips.com/MRI

PHILIPS

Exhibition Guide



Exhibitor

sorted by company name

Aspect Imaging
 Bayer Radiology
 Bracco Suisse
 Bruker BioSpin
 ESMRMB
 GE Healthcare
 Grouleff DK
 ISMRM
 Mediso Ltd.
 MRI-Tec / MR:comp
 NordicNeuroLab
 Philips Medical Systems
 PulseTeq Limited
 Pure Devices GmbH
 Rapid Biomedical GmbH
 Siemens Healthcare GmbH
 Toshiba Medical Systems Europe BV
 Wisepress Medical Bookshop

booth

18
 11
 10
 9
 2
 13
 15
 1
 17
 7
 14
 4
 16
 6
 5
 8
 12
 3

booth # Exhibitor

sorted by booth number

1 ISMRM
 2 ESMRMB
 3 Wisepress Medical Bookshop
 4 Philips Medical Systems
 5 Rapid Biomedical GmbH
 6 Pure Devices GmbH
 7 MRI-Tec / MR:comp
 8 Siemens Healthcare GmbH
 9 Bruker BioSpin
 10 Bracco Suisse
 11 Bayer Radiology
 12 Toshiba Medical Systems Europe BV
 13 GE Healthcare
 14 NordicNeuroLab
 15 Grouleff DK
 16 PulseTeq Limited
 17 Mediso Ltd.
 18 Aspect Imaging





Exhibition Guide

Aspect Imaging

**27 Shaked St. Industrial Park
Hevel Modiin
POB 926, Shoham 6085001
ISRAEL**

**Dr. Andrew Lonergan
info@aspectimaging.com**

booth #18

Aspect Imaging is a life science company offering unique preclinical and medical MRI Systems which are environmentally friendly, simple to use with a low cost of ownership. Our latest game changing WristView™ is a point-of-care dedicated hand and wrist MRI system, CE and FDA approved, that can be placed in a doctor's office, clinic or hospital. Aspect's Embrace™ (work-in-progress) is a Neonatal MRI System installed inside the NICU that provides all the imaging needs for neonatal head scanning. Our M-Series™ compact One-Touch MRI systems for preclinical research enable rapid in vivo drug efficacy studies, saving time and money. We are now offering an innovative solution for BLI/Optical 3D tomographic co-registration that makes it simpler and more affordable than ever to enhance preclinical research. Aspect's SimPET, the world's first Simultaneous PET/MRI system based on our patented permanent magnet technology, is offered at a special launch price of \$499K (valid until 31st December 2016). Whether you are in the realm of Medical or Preclinical research, stop by the Aspect booth and see how our easy to use, cost effective products can help you!

Aspect is bringing accessible MRI to everyone. Everywhere.

Bayer Radiology

**Müllerstrasse 178
13353 Berlin
GERMANY**

**Phone: +49 304 681 16 28
Beatrice.odelli@bayer.com
www.radiology.bayer.com**

booth #11

As a true life science company, Bayer understands where treatment starts: With an early and precise diagnosis. Radiologists have a unique ability to provide clear direction during moments of uncertainty in a patient's clinical journey. That's why, for more than 100 years, we have created high-quality imaging products, tools and services to ensure confidence on the path to better health. With the integration of its injector business, Bayer offers now the full range of products and services to ensure high quality contrast enhanced imaging in CT and MR.





Bracco Suisse

**Centro Galleria 2,
Via Cantonale
6928 Manno
SWITZERLAND**

**Phone: +41 916 11 53 45
www.bracco.com**

booth #10

Bracco Imaging S.p.A., part of the Bracco Group, is one of the world's leading companies in the diagnostic imaging business. Headquartered in Milan, Italy, Bracco Imaging develops, manufactures and markets diagnostic imaging agents and solutions that meet medical needs. Bracco Imaging offers a products and solutions portfolio for all key diagnostic imaging modalities: X-ray Imaging (including Computed Tomography-CT, Interventional Radiology, and Cardiac Catheterization), Magnetic Resonance Imaging (MRI), Contrast Enhanced Ultrasound (CEUS), Nuclear Medicine through radioactive tracers, and Gastrointestinal Endoscopy. The diagnostic imaging portfolio is completed by a range of medical devices, advanced administration systems and informatics solutions.

The company operates in over 100 markets worldwide, either directly or indirectly, through subsidiaries, joint ventures, licenses and distribution partnership agreements.

To learn more about Bracco Imaging, visit www.braccoimaging.com

Bruker BioSpin

**Rudolf-Plank Strasse 23
76275 Ettlingen
GERMANY**

**Phone: +49 721 5161 6500
www.bruker.com/mri**

booth #9

Bruker BioSpin is the worldwide technology and market leader in preclinical Magnetic Resonance Imaging MRI. Bruker BioSpin provides animal MRI and small animal imaging solutions for the emerging market of preclinical and molecular MR imaging. By combining state-of-the-art rf coil and gradient technology with ultra-high field magnets, our systems deliver high spatial resolution inside living organisms. We enable you to come closer to the molecular and cellular level research you are aiming at. Thanks to the innovative modular concept of our products, virtually any small animal MR imaging application in life science, biomedical and preclinical research can be conducted.





Exhibition Guide

ESMRMB

**European Society
for Magnetic Resonance
in Medicine and Biology
Neutorgasse 9
1010 Vienna
AUSTRIA**

**Phone: +43 1 535 13 06
Fax: +43 1 5334064-448
office@esmrm.org
www.esmrm.org**

booth #2

The European Society for Magnetic Resonance in Medicine and Biology (ESMRMB) is a non-profit Society, founded in 1984 as a platform for clinicians, physicists and basic scientists with an interest in the field of MR and currently counts around 1,100 active members. Apart from its annual meeting, the ESMRMB organises the School of MRI educational courses on applied MR techniques and clinical MR imaging and Lectures on Magnetic Resonance courses, designed to provide the physical fundamentals of MR imaging and spectroscopy, as well as aspects of applications of these techniques in clinical and biochemical research and development. In 2009 the Hands-On MRI course programme, aimed at MR technologists, radiographers and interested physicians, was successfully introduced. Each Hands-On MRI course is held on equipment of different vendors with 50% lectures and 50% hands-on training at the MRI console and/or post-processing software. In 1994, MAGMA was introduced as the official journal (also included in the membership) and has since become well-established, with a remarkably high impact factor.

GE Healthcare

**Pollards Wood,
Nightingales Lane
Chalfont, St Giles
HP8 4SP Bucks
UNITED KINGDOM**

**Phone: + 44 1494 544000
www.gehealthcare.com**

booth #13

GE Healthcare provides medical technologies and services to help solve the challenges facing healthcare providers around the world. From medical imaging, software, patient monitoring and diagnostics, to biopharmaceutical manufacturing technologies, GE Healthcare solutions are designed to help healthcare professionals deliver better, more efficient and more effective outcomes for more patients.

GE Healthcare is betting big on digital; not just connecting hospital departments and physicians more effectively, but utilizing the masses of data from its equipment and the collaboration between hardware and software – “digital industrial” – to help clinicians make better care decisions. Sensors, software and smart data analytics are converging to enhance GE Healthcare’s offerings not just in diagnostics, but also pathology, gene sequencing and even hospital asset tracking.





Grouleff DK

**Korshøjvej 2A
8600 Silkeborg
DENMARK**

**Phone: +45 7023 6765
info@grouleff-dk.com
www.grouleff-dk.com**

booth #15

Grouleff DK are driven by the passion and desire to create value-added conceptual solutions with streamlined design and creativity. Grouleff.dk offers innovative solutions and services to the international health care sector. Our customers range from dealers to OEM production adopted by the largest players in the market. At Grouleff.dk we design, develop and manufacture our products ourselves, this with dedicated focus on constantly improving the workflow for the users with considerable benefits for the patients. Based on customer feedback Grouleff.dk uses our experience as a significant player within the health care industry, to integrate proven technologies and design into working products. We are simplifying and improving our products by focusing on the users and care providers. With the combination of clinical experience, knowledge and customer feedback we strive to improve patient outcome and thereby offering financial attractive products for the clinics. At Grouleff.dk we possess the enthusiasm in offering optimal solutions based on the needs and wishes from our users and patients. We truly believe that we minimize thresholds and create remarkable differences in the health care system with our innovative and affordable products. Using state-of-the-art components makes our products technologically advanced and durable, yet affordable. With more than 36 years of market experience, we have developed and manufactured several pioneer breakthroughs to our customers, we are delivering worldwide.

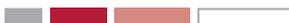
ISMRM

**International Society
for Magnetic Resonance
in Medicine
2300 Clayton Road,
Suite 620
CA 94520 Concord
UNITED STATES**

**Phone: +1 510 841 1899
Fax: +1 510 841 2340
info@ismrm.org
www.ismrm.org**

booth #1

The International Society for Magnetic Resonance in Medicine (ISMRM) is the foremost international, interdisciplinary community promoting discovery, innovation and clinical translation, as well as providing education, in the field of magnetic resonance. The ISMRM membership is comprised of over 8,000 professionals from over 60 countries, including clinicians, physicists, engineers, biochemists and technologists from academia, private practice, regulatory and governmental agencies and industry. The ISMRM organizes the largest annual meeting dedicated to magnetic resonance, other major educational and scientific workshops, as well as publishes a basic science as well as a clinical science journal.





Mediso Ltd.

**Alsótörökvész út 14.
1022 Budapest
HUNGARY**

**Phone: +36 (1) 3993046
info@mediso.com
www.mediso.com**

booth #17

Mediso have been working in the field of nuclear and molecular medicine since 1990 with a profile of development, manufacturing, sales and servicing of multi-modality in-vivo imaging systems. The company offers complete solutions from hardware design to evaluation and quantification software, both for clinical patient care and high-level life science research into all animal models in between rodents and primates. Besides the unique triple-modality clinical SPECT-CT-PET hybrid AnyScan® system, Mediso launched the world's first pre-clinical integrated PET-MRI and SPECT-MRI cameras as members of the nanoScan® high-end small animal imager family, consisting of SPECT, PET, CT and MRI modalities. Mediso runs successfully two complex clinical diagnostic, research and educational centres and offers clinical and evaluation software trainings for the international medical community.

MRI-Tec / MR:comp

**Buschgrundstrasse 23
45894 Gelsenkirchen
GERMANY**

**Phone: +49 209 60489385
Fax: +49 209 60489386
info@mri-tec.com
www.mri-tec.com
www.mrcomp.com**

booth #7

www.MRI-Tec.com is your provider for all products and services for the MRI environment. Benefit from our strength the competence of our strong partners and central information ONE-STOP SHOP Platform. MRI-Tec is distributing worldwide:

- MR:comp's MR image quality phantom and testing of essential MR image quality parameters according to IEC 62464-1
- MR Safe and MR Conditional products like equipment, tools and accessories.
- MR:comp's MR safety seminars in USA, Europe, Asia for several occupational groups concerning MR Safety and Compatibility as well as
- MR:comp's consulting, simulation and ISO 17025 accredited testing services for R&D and MRI safety of implants, instruments and other devices acc. to ASTM, IEC, ISO.
- MRI-STaR's research and development service in the field of MR safety, RF coils and innovative devices technology
- MagResource, EU, the most complete and up-to-date online database of MRI implant safety information in the world, www.MagResource.eu, provides MRI safety information for medical implants.





NordicNeuroLab

**Møllendalsveien 65 C
5009 Bergen
NORWAY**

**Phone: +47 557 070 95
Fax: +47 557 070 96
info@nordicneurolab.com
www.nordicneurolab.com**

booth #14

With more than 15 years of experience, NordicNeuroLab provides products and solutions that define the field of functional MR imaging. From state-of-the-art post-processing and visualization software for BOLD, Diffusion/DTI and Perfusion imaging to fMRI hardware for audio and visual stimulation, eye tracking, and patient response collection, NordicNeuroLab products are used around the world by researchers and clinicians alike.

We understand the growing need for reliable and innovative tools in this emerging field. As a result, we closely collaborate with research and clinical teams from both academic and medical centers, MRI system manufacturers and third party vendors. Ultimately, we are dedicated to bringing the most advanced neuroimaging tools to market while making functional MRI programs easy to implement. NordicNeuroLab takes pride in providing excellent service and support for our customers. Whether you are working with our team directly or through local partners and distributors we are prepared to support you any way we can. We offer extensive warranty and service agreements, software maintenance solutions and professional installations and training.

Philips Medical Systems

**PO Box 80029
5600 JZ Eindhoven
THE NETHERLANDS**

**Phone: +31 620 601 809
Fax: +31 40 276 2500
www.philips.com**

booth #4

Royal Philips of the Netherlands is a leading health technology company focused on improving people's health and enabling better outcomes across the health continuum from healthy living and prevention, to diagnosis, treatment and home care. Philips leverages advanced technology and deep clinical and consumer insights to deliver integrated solutions. The company is a leader in diagnostic imaging, image-guided therapy, patient monitoring and health informatics, as well as in consumer health and home care. At Philips, we strive to make the world healthier and more sustainable through innovation. Our goal is to improve the lives of 3 billion people a year by 2025. We will be the best place to work for people who share our passion. Together we will deliver superior value for our customers and shareholders. New about Philips can be found at <http://www.philips.com/a-w/about/news.html>





PulseTeq Limited

**64-66 High St. Chobham
GU24 8AA Surrey
UNITED KINGDOM**

**Phone: +44 1276 8568 49
sales@pulseteq.com
www.pulseteq.com**

booth #16

PulseTeq offers a wide range of RF coils for clinical research and pre-clinical applications along with phantoms, test methods and support for your research programmes. These include coils for hyperpolarised applications and coils that are compatible with PET/MRI.

The company will be featuring its dual tuned head coil with removable upper section and its multi-element body coil for X-nuclei applications on the lungs, heart, liver, kidneys and abdomen. The company also offers a range of coils for clinical research including custom multi-element 1H receive coils and designs for multinuclear applications. The latter cover the full range of MR nuclei including ^{31}P , ^{13}C , ^{23}Na , ^{19}F , ^3He and ^{129}Xe . These coils can be offered for customised to a range of applications including in the brain, calf, thigh, liver, and heart. Coils for pre-clinical applications cover both birdcage coils and surface coils for hydrogen imaging along with a range of multinuclear coils, both single and dual frequency configurations. This now includes our new four-channel coil for rat brain and rat body. Designed for imaging and spectroscopy, available for 1H or X-nuclei.

PulseTeq offers a complete service, not just our RF coils but also phantoms, calibration methods, QA methods, installation options and advice on getting the best from your product.

Pure Devices GmbH

**Eisenbahnstrasse 53
97084 Würzburg
GERMANY**

**Phone: +49 931-71053590
Fax: +49 931-71053595
info@pure-devices.com
www.pure-devices.com**

booth #6

Pure Devices is a manufacturer of state-of-the-art benchtop MRI scanners. Since 2011, the headquarters is located in Würzburg in the heart of Europe. From here the research and development, project planning, construction, testing and finally sale takes place. All our products are designed and made in Germany. Our company is known for our benchtop MRI scanners research lab and portable lab which are optimized for scientific as well as educational use. Their compact design and the easy-to-use software offer great opportunities in the scientific laboratory setting. Especially teaching and learning laboratory classes will profit from the hands-on examples made possible with the portable lab. Scientists familiar to Matlab will enjoy the use of the research lab. Furthermore Pure Devices provides external gradient and RF amplifiers especially for applications in bench-top MRI.





Rapid Biomedical GmbH

**Kettelerstrasse 3-11
97222 Rimpar
GERMANY**

**Phone: +49 9365 8826-0
Fax: +49 9365 8826-99
info@rapidbiomed.de
www.rapidbiomed.de**

booth #5

RAPID Biomedical stands for customized RF coils that are individually designed to the need of the scientific MR community. Through the high level RF expertise and attentive alliances with the MR system manufacturers we offer full compatibility for our coil solutions whether standard or customized. In almost 20 years of company history RAPID Biomedical has delivered over 1200 different coil designs into more than 30 countries all over the world. We have thorough experience in designing coils from low field (from 0.2 T) to UHF human and animal scanners up to 21 T NMR systems. The range of non-proton solutions delivered by RAPID Biomedical includes 11 different nuclei (and counting) manufactured in Rimpar near Würzburg, Germany. The current R&D work concentrates on PET/MR compatible coils, coil packages for hyperpolarized nuclei, human 7 T coils, dual tuned coils and multi array coils for parallel MRI both for human as well as for animal studies. Our sister company RAPID MR International, LLC (www.rapidmri.com), situated in Columbus, Ohio, is contact partner for customers from the United States, Canada and South America. We cordially invite you to visit our booth on the exhibition floor. Come and see RAPID products and scientific results first hand.

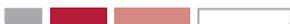
Siemens Healthcare GmbH

**Allee am Röthelheimpark 2
91052 Erlangen
GERMANY**

**www.siemens.com/mri
www.healthcare.siemens.com**

booth #8

At Siemens Healthineers, we are passionate about enabling healthcare providers worldwide to deliver high-quality patient care, and to do so affordably. As a leading global healthcare company, we at Siemens Healthineers continuously develop our portfolio further, from medical imaging and laboratory diagnostics, to adding managed services, consulting, and healthcare IT services – as well as further technologies for therapeutic and molecular diagnostics. Managing rapid procedure growth and minimizing costs, while at the same time achieving clinical excellence are some of the central challenges affecting healthcare around the globe. Magnetic Resonance, a Business Line at Siemens Healthineers, turns these challenges into opportunities. Four unique technologies, Tim, Dot, Trendsetting Applications, and Life Design, offer our customers exceptional image quality, efficiency & speed, and patient friendliness, while at the same time providing investment protection. Equipped with these technologies and a very strong global collaboration network, we enable our customers to lead MRI. www.siemens.com/mri





Exhibition Guide

Toshiba Medical Systems Europe BV

**Zilverstraat 1
2718 RP Zoetermeer
THE NETHERLANDS**

**Phone: +31 79 368 9222
jack.hoogendoorn@toshiba-
medical.eu
www.toshiba-medical.eu**

booth #12

Toshiba Medical is a leading worldwide provider of medical diagnostic imaging systems and comprehensive medical solutions, including CT, X-ray and vascular, ultrasound and MRI systems. Toshiba MR systems are unique in the industry in considering all aspects of patient care. The wide field of view and extensive range of standard and specialty coils ensure accurate diagnosis. The systems' ultra-short open bores, feet-first imaging and the quietest operation thanks to our patented Pianissimo technology support patient comfort. And a variety of non-contrast angiography techniques simplify examination and enhance patient safety. Toshiba Medical's mission is to provide medical professionals with solutions that support their efforts in contributing to the health and wellbeing of patients worldwide. A shared dedication in providing quality products and support enables them to deliver a seamless service of patient care, now and for future generations. With a rich history of collaboration and engaging the brilliant minds of many Toshiba Medical will continue to set the benchmark for another 100 years and beyond.

More about Toshiba Medical MR at: <http://tinyurl.com/j9aq62b>

Wisepress Medical Bookshop

**25 High Path
Merton Abbey
SW19 2JL London
UNITED KINGDOM**

**Phone: +44 20 8715 1812
marketing@wisepress.com
www.wisepress.com**

booth #3

Wisepress.com, Europe's leading conference bookseller, has a range of books and journals relevant to the themes of the meeting. In addition to attending 200 conferences per year, Wisepress has a comprehensive medical and scientific bookshop online with great offers. Follow us on Twitter for the latest news @WisepressBooks.



ESMRMB

European Society for Magnetic Resonance in Medicine and Biology

Willkommen!

Join us at the **ESMRMB 2016 Welcome Reception!**

Thursday, September 29, 18:00

Congress center, Level 1
Restaurant Brasserie

Please present your badge at the main entrance!

The ESMRMB Local Organising Committee would like to thank the following companies for their support:

Platinum Sponsor:

SIEMENS
Healthineers

Silver Sponsor:

PHILIPS

Bronze Sponsors:

MeMed
MENGES MEDICAL

NOVARTIS



Improved diagnosis for life™

Regentis
Biomaterials

magma

Magnetic Resonance Materials In Physics, Biology And Medicine

ESMRMB

European Society for Magnetic Resonance in Medicine and Biology

• **2016 MAGMA Special issues !**

“Tissue segmentation in MRI“

with Fritz Schick as Guest-Editor
(13 papers, including 6 Review articles, 220 pages)

“Ultrahigh Field MR:

Cutting Edge Technologies Meet Clinical Practice”

with Thoralf Niendorf, Markus Barth, Frank Kober,
Siegfried Trattnig as Guest-Editors
(27 papers, 347 pages)

• **2014 MAGMA Special issue:**

“X-nuclei magnetic resonance imaging”

with Simon Konstantin and Lothar Schad
as Guest-editors

• **2013 MAGMA Special issue:**

“MRI and PET together: friends or foes”

with Thomas Beyer and Ewald Moser
as Guest-editors

2014 Impact Factor : 9 / 2015 Impact Factor : 7

(2 papers have been awarded the “Highly Cited Paper” distinction)

2014
Impact Factor : 2.869
(rank 30 / 125)

2015
Impact Factor : 2.638
(rank 35 / 124)

Average reviewing cycle
(first answer to authors):
5 weeks

Time to publication on-line
after acceptance:
3 weeks

Editor in Chief:
Patrick J. Cozzone

**Online manuscript submission
and peer-review process via**
<http://www.editorialmanager.com/mrmp>

ESMRMB 2017

OCT. 19 – OCT. 21

BARCELONA/ES

ESMRMB

European Society for Magnetic Resonance in Medicine and Biology

34TH ANNUAL SCIENTIFIC MEETING

MARK
YOUR
CALENDAR!

The European Forum for MR research
and clinical practice
www.esmrmb.org

