ICMRI 2018

THE 6th INTERNATIONAL CONGRESS ON MAGNETIC RESONANCE IMAGING & 23rd ANNUAL SCIENTIFIC MEETING OF KSMRM

MARCH 29 - 31, 2018
Grand Hilton Hotel, Seoul, Korea

http://2018.ksmrm.org

Hosted by
Korean Society of Magnetic Resonance in Medicine

Supported by
Korea Tissue Bank Organization
Seoul Metropolitan Government
KOFST
Dear Colleagues and Friends,

It is my great pleasure to announce the 6th International Congress on Magnetic Resonance Imaging (ICMRI 2018) and 23rd Scientific Meeting of KSMRM will be held in Seoul, Korea from March 29-31, 2018. On behalf of the Organizing Committee of ICMRI 2018, I am pleased to invite you to participate in the meeting, which will be held at the Grand Hilton Seoul.

In the style of the 2017 Congress, ICMRI 2018 will continue to combine educational-scientific programs which mix basic educational lectures with cutting-edge scientific content. In addition, the Asian Forum at ICMRI 2018 will offer an increasingly enriching scientific program co-organized by several societies from the Asia Region including Japanese Society of Magnetic Resonance in Medicine (JSMRM), Chinese Society of Magnetic Resonance in Medicine (CSMRM), and additional Societies from the Asia Region. Furthermore, you will have a great opportunity to network through extensive discussions and informative exchanges with renowned experts.

I truly believe ICMRI 2018 will be a highly rewarding international event for all participants. On behalf of the Organizing Committee, I invite you to Seoul to join us for ICMRI 2018, where we will move forward together in this new tradition. I look forward to seeing you all in Seoul!

With best wishes,

Yongmin Chang, Ph.D
President of KSMRM
Chairperson of 6th ICMRI
Professor, Department of Molecular Medicine, Kyungpook National University School of Medicine
ORGANIZING COMMITTEE

President of KSMRM, 2018 Chairperson of 6th ICMRI
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Hak Hee Kim Asan Medical Center, University of Ulsan
Myung Kwan Lim Inha University Hospital
Kyung Jin Suh Doctors Radiology Clinic
Chi Woong Mun Inje University
In Chan Song Seoul National University Hospital
## PROGRAM AT A GLANCE
### MARCH 29 (Thu)-30 (Fri)

<table>
<thead>
<tr>
<th>Place</th>
<th>3F</th>
<th>4F</th>
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<tbody>
<tr>
<td></td>
<td>Lobby (3F)</td>
<td>Room A</td>
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<td>Emerald Hall (3F)</td>
<td>Peacock</td>
<td>Room A</td>
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</table>

**Registration**
- SY01 Neuro
- SY02 GU
- SY03 Abdomen
- SY04 Meet the New Investigators
- SY05 Advanced

**Exhibition / Poster**
- LS01 Siemens Healthineers
- LS02 Guerbet Korea
- LS03 Bayer Korea
- LS04 BRACCO

**Hands-on Session**
- SY07 Neuro
- SY08 MRE
- SY09 Abdomen
- SY10 Breast
- SY11 ISC (Neuro)
- SY12 (ISMRM-KSMRM) Joint Symposium

**Power Pitch**
- Power Pitch 01 Neuro
- Power Pitch 02 MRE
- Power Pitch 03 Abdomen
- Power Pitch 04 Molecular
- Power Pitch 05 Advanced

**Poster Q&A (15:30-17:30 / Emerald Hall, 3F)**
- Free beer and soft drinks will be available during poster Q&A time

**Closing**
- What's new in MRI by Canon
- What's new in MRI by Philips
- What's new in MRI by Siemens
- What's new in MRI by GE

**Banquet**
- Grand Ballroom (3F)

### MARCH 31 (Sat)

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<th>Place</th>
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<td>Lobby (3F)</td>
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<td>Emerald Hall (3F)</td>
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</table>

**Registration**
- SY14 Abdomen
- SY15 Cardiovascular
- SY16 Pediatric
- SY17 ISMRM-KSMRM Joint Symposium
- SY18 MRE
- SY19 ISMRM-KSMRM Joint Symposium

**Hands-on Session**
- SY13 Asian Forum I

**Closing**
- SS02 Advanced (15:45-17:30)
- SY29 MD-PhD

**Exhibition / Poster**
- LS05 Canon Medical Systems Korea
- LS06 Philips
- LS07 GE Healthcare Korea

**Power Pitch**
- SY25 Review process of ISMRM, MRM, and JMRI

**Poster Q&A (15:30-17:30 / Emerald Hall, 3F)**
- Free beer and soft drinks will be available during poster Q&A time

**Closing**
- Room A: Convention Hall A (4F)
- Room B: Convention Hall B (4F)
- Room D / E: Convention Hall C (4F)
- Room F: Diamond Hall (3F)

**Eng.** English
**Kor.** Korean
**Eng. Eng.** English
**Kor. Eng.** Korean
*Edu* Translational Session
## SESSION TIMETABLE

### MARCH 30 (Fri)

<table>
<thead>
<tr>
<th>Place</th>
<th>Lobby (3F)</th>
<th>Convention Center (4F)</th>
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<tr>
<td>Room A</td>
<td>Room B</td>
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</table>

- **08:00**
  - Registration
  - Plenary Lecture I, II
  - Coffee Break (3F, 4F Lobby) / 10:30-10:50
  - Hands-on Session

- **09:00**
  - SY01 Neuro: Advanced Neuroimaging
  - SY02 GU Recent Issues in Genitourinary MRI
  - SY03 Abdomen: EB-R-MRI Integration into Consensus Statements across the Globe (Special Focus Session)

- **10:00**
  - SY04 Meet the New Investigators
  - SY05 Advanced Frontier MR Technology

- **11:00**
  - Opening
  - CEST MRI: Principles and Application to Disease / Advances in the Assessment of Cerebrovascular Disease using Magnetic Resonance Imaging

- **12:00**
  - Exhibition / Poster
  - LS01 Sponsored by Siemens Healthineers
  - LS02 Sponsored by Guerbet Korea

- **13:00**
  - SY06 Neuro Basics of Advanced Neuroradiology Research for Beginners
  - SY07 MRE Medical Research in the 4th Industrial Revolution
  - SY08 Abdomen Enhancing throughput of Liver MRI and MRCP (Special Focus Session)

- **14:00**
  - SY09 Neuro: What’s new in MRI by Canon
  - SY10 GU What’s new in MRI by Philips

- **15:00**
  - SY11 ISC (Neuro) Cutting Edge MRI-based Neuroscience Research
  - SY12 ISC (Neuro) Joint Symposium Neuroradiology

- **16:00**
  - SY13 Asian Forum I Diffusion MRI

- **17:00**
  - Poster Q&A (15:30-17:30 / Emerald Hall, 3F)
  - What’s new in MRI by Siemens
  - What’s new in MRI by Bayer
  - What’s new in MRI by GE

- **18:00**
  - General Assembly

- **19:00**
  - Banquet (Grand Ballroom, 2F)

- **20:00**

- **21:00**

### MARCH 30 (Fri) - continued

<table>
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<th>Place</th>
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<td>Room D</td>
<td>Room E</td>
<td>Room F</td>
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</tbody>
</table>

- **08:00**
  - Registration
  - Break (15:30-15:45)
  - SY12 ISC (Neuro) Joint Symposium Neuroradiology

- **09:00**
  - SY04 Meet the New Investigators
  - SY05 Advanced Frontier MR Technology

- **10:00**
  - SY06 Neuro Basics of Advanced Neuroradiology Research for Beginners
  - SY07 MRE Medical Research in the 4th Industrial Revolution
  - SY08 Abdomen Enhancing throughput of Liver MRI and MRCP (Special Focus Session)

- **11:00**
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  - What’s new in MRI by Siemens
  - What’s new in MRI by Bayer
  - What’s new in MRI by GE

- **15:00**

- **16:00**

- **17:00**

- **18:00**

- **19:00**
  - Banquet (Grand Ballroom, 2F)
### SESSION TIMETABLE

#### MARCH 31 (Sat)

<table>
<thead>
<tr>
<th>Time</th>
<th>Place</th>
<th>Convention Center (4F)</th>
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<tr>
<td>08:00</td>
<td>Registration</td>
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<tr>
<td>09:00</td>
<td>Coffee Break (3F, 4F Lobby) / 10:30-11:00</td>
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<tr>
<td>10:00</td>
<td>Plenary Lecture III, IV</td>
<td>SY14 Abdomen Solving Conundrums of Hepatic Tumors with Updated Pathologic Knowledge &amp; Liver MRI</td>
<td>SY17 IBS CNIR-KSMRM Joint Symposium Human fMRI</td>
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<td>SY15 Cardiovascular Myocardial Perfusion Imaging and Quantification</td>
<td>SY18 MRE Engineering &amp; Technology in MR Research</td>
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<td>SY16 Pediatric Brain</td>
<td>SY19 CSMRM-KSMRM Joint Symposium Advanced MRI Techniques for Neuroimaging</td>
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<td>11:00</td>
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<td>12:00</td>
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<tr>
<td>13:00</td>
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<td>LS05 Sponsored by Canon Medical Systems Korea</td>
<td>LS06 Sponsored by Philips</td>
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<tr>
<td>14:00</td>
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<td>SY20 Cardiovascular Recent Updates of CMR Quantification</td>
<td>SY22 MSK Current Advanced Techniques for Musculoskeletal MR Imaging</td>
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<tr>
<td>15:00</td>
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<td>SY21 Chest More than Meets the Eye: See through Lymphatics by MR Imaging</td>
<td>SY23 Molecular Basics and Applications of Molecular MRI</td>
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<td>SY24 Asian Forum II Perfusion MRI</td>
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<tr>
<td>16:00</td>
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<td>SY25 Review Process of ISMRM, MRM, and JMRI</td>
<td>SY26 MSK Quantitative MR Imaging in Musculoskeletal Field: Where Are We?</td>
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<td>SY26 ISC (Cardiovascular) Cardiovascular Disease Screening</td>
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<td>SY27 Pediatric Body</td>
<td>SY27 MD-PhD Recent Update on MD-PhD Collaboration</td>
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<tr>
<td>18:00</td>
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<td>Closing</td>
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</table>

**Room A:** Convention Hall A (4F)  
**Room B:** Convention Hall B (4F)  
**Room C:** Convention Hall C (4F)  
**Room D:** Convention Hall D (3F)  
**Room E:** Convention Hall E (3F)  
**Room F:** Diamond Hall (3F)
Chemical Exchange Saturation Transfer (CEST) is a relatively new field that combines principles of MRS (chemical selectivity of proton pools) and MRI (imaging of water protons with high sensitivity). It is based on magnetization transfer, exploiting the interaction of exchangeable protons in probe molecules with the water protons to achieve large sensitivity enhancements (several orders of magnitude), allowing imaging of molecular information with MRI sensitivity. CEST MRI can use paramagnetic and diamagnetic probes, but the ultimate strength and hope for fast clinical translation lies in the use of diamagnetic agents, expected to have lower toxicity and to be more applicable for regulatory approval and patient acceptance.

After an introduction of the basic principles of CEST to provide insight into the type of molecules that can be studied and the sensitivity of this approach, several applications will be presented to illustrate its potential. 1) Imaging of endogenous proteins, carbohydrates, tissue metabolites, and pH, allowing fast translation to the clinic. 2) Use of simple sugar derivatives (e.g., D-glucose, dextran) as a probe for imaging tissue perfusion, membrane permeability, and metabolism. 3) Novel approaches for substrate binding, including targeted imaging of prostate-specific membrane antigen (PSMA) using CEST probes.


Cerebrovascular disease is a major area of healthcare burden and active research, spanning diseases such as stroke, transient ischaemic attack, vascular atherosclerosis and vascular dementia. Magnetic resonance imaging offers a unique tool to assess a number of manifestations of cerebrovascular disease, including vessel wall pathology, lumen status, tissue perfusion, collateral flow status and tissue metabolism. The talk will introduce new areas of active methodological research. These include developments in arterial spin labelling that provide information on lumen flow and collateral flow, as well as quantitative tissue perfusion; techniques to assess the stability of atherosclerotic plaque; and methods to assess tissue metabolism, including insights into pH via chemical exchange saturation transfer (CEST), and insights into oxygen metabolism via venous blood oxygenation. MRI may also have a role in assessing small vessel pulsatility, a possible additional marker for (small) vessel disease.

By use of pseudo-continuous arterial spin labelling (ASL) it is possible to gain valuable information about collateral flow by encoding signal from specific feeding arteries and by tracking the destination of signal as it moves from the large feeding arteries towards the tissue bed. Hybrid sequences can obtain information in both these phases via tailored post-hoc image reconstruction. Similar pulse sequence preparation modules, but designed instead to crush signal from lumen spins, are able to yield black-blood images that allow the vessel wall to be imaged. When combined with a quantitative T2 readout the image data is able to map unstable lipid-rich plaques that are at risk of rupture.

MRI measures of metabolic stress may also be useful, including measures of pH via CEST (albeit with confounds from other contributions to the CEST effect, such as protein concentration), and oxygen extraction fraction via measurement of venous blood T2.
Since the early days of nuclear magnetic resonance, it has been known that signal-to-noise increases with increasing magnetic field strength. In addition, for MR spectroscopy, the chemical shift dispersion (i.e. spectral resolution) also increases with higher fields. Therefore, over the last 3 decades, there has been a trend for MRS to be performed at higher and higher field strengths, ranging from 1.5, 3.0, 4.0, 7.0 to 9.4T (1-4).

However, increases in field strength are also accompanied by technical challenges, such as achieving sufficient B0 and B1 field homogeneity, minimization of chemical shift displacement effects, and other issues. These challenges need to be overcome before the expected improvements in spectral resolution and sensitivity are achieved. This presentation will review some recent technical advances and applications of proton MRS and the related technique of MR spectroscopic imaging (MRSI) of the human brain performed at 7T.

Improvements in spectral quality compared to lower field strengths are particularly beneficial for some of the smaller signals in the spectrum, such as glutamate and glutamine. It has been shown that as many as 17 metabolites can be reliably detected using MRS at 7T. 7T brain MRS is therefore particularly useful for investigating subtle spectral abnormalities, for instance as found in psychiatric diseases such as schizophrenia (5), or in non-lesional temporal lobe epilepsy. Other applications may take advantage of the higher spatial resolution available at 7T for MRSI (6).

This presentation will review techniques for high-field MRS and MRSI and discuss applications to psychiatric and other diseases.

Literature Cited
Molecular imaging is aimed at visualizing molecular or cellular events. There are several imaging modalities for molecular imaging: Optical imaging, radionuclide imaging, ultrasound imaging, and MR imaging and so on. It can provide plentiful information on cell, tissue, organ function beyond understanding anatomical structure, and it would help to guide diagnosis and treatment for individualized therapy.

With regard to MR molecular imaging, there are two main streams; cellular imaging and molecular targeted imaging. However, molecular targeted imaging has been demonstrating a limited role because of the low sensitivity of MR imaging probes. A lot of effort has been given to develop high-specificity/high-sensitivity MR imaging probes. As a first step, novel nanoparticle fabrication with optimal and tunable magnetism is required and notable advances in nanotechnology allowed it feasible. Secondly, surface coating is important for stabilization. Finally, for MR molecular targeted imaging, functionalization with ligand moiety should be well designed and selected for good affinity to the targets and also for proper circulation time in the blood. These targeted probes may be applicable for depiction of the tumor-cell membrane markers or endothelial markers of tumor angiogenesis. I present here examples of cancer targeting application of ultra-sensitive magnetic nanoparticles (Magnetism-engineered iron oxide; MEIO). In addition, I will briefly introduce new perspectives about multi-modal, activatable probe imaging as well as multifunctional imaging. For the success of cancer targeting molecular MR imaging, multidisciplinary approaches are required, involving imaging methodology and device, imaging probes, and biological models. I expect novel multifunctional probes for imaging and therapy in the not distant future.

For cellular MR imaging, I will briefly introduce in-vivo cellular labeling and in vitro labeling methods. In vitro labeling has been introduced with tissue engineering and cell-based therapy. Monitoring with stem cell labeling has been paid attention but not approved for medical application.

There are several challenges to translate these promising techniques to clinical application: Even though the proof of concept of new imaging probe has been well established in the laboratory environment, mass production and proper market are other issue for pharmaceutical companies to release a new drug for clinical practice.
VENUE MAP

Convention Center 4F
Room A: Convention Hall A
Room B / C: Convention Hall B
Room D / E: Convention Hall C

Convention Center 3F
Poster Session: Emerald Hall
Room F: Diamond Hall

SCIENTIFIC AWARDS
ICMRI 2018 will present the Best Oral/Poster Awards during the congress. The quality of the research presented at the meeting will be evaluated and scored by judges using standardized evaluation forms on site. Award certificates and prizes will be given at the Closing Ceremony on Saturday, March 31.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Best Oral Presentation Awards</th>
<th>Best Poster Presentation Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>USD 200 (KRW 200,000), 2 winners</td>
<td>USD 200 (KRW 200,000), 2 winners</td>
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<tr>
<td>2nd</td>
<td>USD 100 (KRW 100,000), 4 winners</td>
<td>USD 100 (KRW 100,000), 11 winners</td>
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PREVIEW ROOM
All speakers are requested to visit the preview room no later than 2 hours before their session. They will be assisted by our staff who will help upload the presentation files to the server before the session.

Time     March 30 (Fri)-31 (Sat), 08:00-18:00
Place    Emerald Hall (3F)

REGISTRATION
All participants are required to check in at the registration desk to pick up their name badge. Badges must be worn during all scientific sessions and social programs. Lost name badges will not be reissued.

Place    Convention Center (3F)
Operating Dates March 30 (Fri), 08:00-18:00
 & Times   March 31 (Sat), 08:00-17:30

On-site Registration Fees

<table>
<thead>
<tr>
<th>Category</th>
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<th>One-day</th>
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<tr>
<td>PhD / MD</td>
<td>USD 120</td>
<td>USD 80</td>
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<tr>
<td>Technician, Nurse, Student</td>
<td>USD 60</td>
<td>USD 40</td>
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<tr>
<td>Banquet (March 30)</td>
<td>USD 10</td>
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* Registration fees include: Participation in all scientific sessions, exhibition, luncheon symposia, coffee breaks, congress kit.
LUNCHEON SYMPOSIUMS

Lunch box will be provided to all participants at luncheon symposiums during the congress as followings.

**March 30 (Fri) 12:30-13:30**

<table>
<thead>
<tr>
<th>Lunchbox Symposium</th>
<th>Place</th>
<th>Sponsor</th>
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<tr>
<td>I</td>
<td>Room A (4F)</td>
<td>Siemens Healthineers, Guerbet Korea, Bayer Korea, BRACCO</td>
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**March 31 (Sat) 12:30-13:30**

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<th>Lunchbox Symposium</th>
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<tr>
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<td>Room A (4F)</td>
<td>Canon Medical Systems Korea, Philips, GE Healthcare Korea</td>
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INTERNET

An Internet lounge will be located in the Emerald Hall (Convention Center 3F) during the congress. All participants will be able to use computers and internet from 08:00 to 18:30. Free wireless internet will be available in the Convention Center (3-4F). *Due to limited capacity, we kindly request domestic participants use mobile wifi.

FREE SHUTTLE SERVICE

A shuttle will operate between the venue and Hongje subway station (Line No. 3). There will be a banner for the congress at the bus stop located near gate 4.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Departure</th>
<th>Arrival</th>
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<tbody>
<tr>
<td>March 30</td>
<td>09:55</td>
<td>Hongje Station</td>
<td>Grand Hilton</td>
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<td></td>
<td>11:55</td>
<td>Subway Line 3</td>
<td>Hotel 1F</td>
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<tr>
<td>March 30</td>
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<td>Grand Hilton</td>
<td>Hongje Station</td>
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CERTIFICATE OF ATTENDANCE

Certificates of attendance and receipt will be issued by request at registration desk during the congress.

SOCIAL PROGRAM

Opening

All registered participants are invited to the Opening Ceremony. Please join and congratulate the official opening of ICMRI 2018.

**Date / Time**  March 30 (Fri) 10:50-11:10

**Place**  Room A-C (4F)

Banquet

An official Banquet, featuring a traditional and dynamic Korean performance, will be held to celebrate ICMRI 2018. Do not miss this special chance to meet participants from around the world. It will be surely the highlight of the social program and a memorable night, which we hope will leave you with fond memories to take home from Korea.

**Date / Time**  March 30 (Fri), 18:30-20:00

**Place**  Grand Ballroom (2F)

**Fee**  USD 10

Coffee/Tea

Coffee and tea will be served in the lobby of 3F and 4F during morning and afternoon breaks.
CONGRESS INFORMATION

Closing
A closing ceremony will be held to celebrate the success of programs and to cherish the memories from ICMRI 2018.

Date / Time       March 31 (Sat) 17:30-18:00
Place             Room A (4F)

LUCKY DRAW
The ICMRI 2018 Organizing Committee will award gifts by lottery twice at the Banquet and Closing. Please put your lucky draw coupon in the box before you enter the banquet and closing ceremony. Amazing presents like IPAD and a big variety of souvenirs will be given away. Give it a shot and test your luck!

CLOAK ROOM & LOST AND FOUND
You can store your luggage only on March 31 (Sat) at the Registration Desk in the lobby of Convention Center (3F). Lost items should be returned to the Registration Desk (3F). Should you lose anything, please report to the Registration Desk.

USEFUL WEBSITES & EMERGENCY PHONE NUMBERS

Useful Websites
- Korea Tourism Organization (http://english.visitkorea.or.kr/enu/index.kto)
- Seoul Convention Bureau (http://www.miceseoul.com)
- Visit Seoul (http://www.visitseoul.net)
- Incheon International Airport (http://www.airport.kr/pa/en/a/index.jsp)
- International Taxi (http://www.intltaxi.co.kr/?lang=en)
T. 1644-2255

Emergency Phone Numbers
- Emergencies for Fire / Rescue & Hospital Services 119
- Police 112
- Medical Room at Grand Hilton Seoul (09:00-18:00 / 3F, Main Building)
T. 02-2287-8325

SPONSORS

The ICMRI 2018 Organizing Committee greatly appreciates the generous support of our sponsors.

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Bayer Radiology as the worldwide market leader in diagnostic imaging, we continue to drive forward innovation in CT & MRI. We are providing Ultravist®, a well-balanced contrast medium for CT and X-ray, Gadovist® 1.0, 1.0 M MRI contrast agent with most up-to-date safety proven data for all age (incl. neonate), wholebody and Primovist®, a liver-specific MRI contrast medium.

From 2012, Bayer Radiology continuously evolves portfolio: including contrast media, we expand our business with Radiation Dose Management System, RadimetricsTM Enterprise Platform and medical devices, Medrad® for your daily clinical work, but also for your research. Through this combination, Bayer Radiology hopes to offer you innovative solutions in radiology to improve medical procedures and patient care.
Guerbet is a pharmaceutical group specialized in medical imaging providing contrast media for diagnostic purposes. The company's origin is linked to Marcel Guerbet's discovery of the first organic iodinated contrast medium in 1901, Lipiodol®. The Guerbet company was created in 1926 by Andre Guerbet. Since then, the company's significant growth has been driven by regular innovations in medical imaging technologies accompanied by the introduction of new contrast media.

Over the last 40 years, Guerbet's own research and development resulted in the launching of four major products: Dotarem®, Xenetix® And CT injector, Flowsens®

Our company motto is creation, harmony and trust. Creation means the origination of higher value added by development of the individual's abilities. Harmony means the harmonious teamwork of these abilities. Based on the principal above, the things gain from the fulfillment of customer expectation is the trust. In addition, our final goal – respect for life and healthy life of the nation – settled the policy of the company, Human & life.

The mostly widely used iopamidol (PAMIRAY®; X-ray contrast media) and gadoterate meglumine (UNIRAY®; MRI contrast media) product in Korea. Exporting contrast media to EU and Japan about 30 million US dollar in 2016.
SPONSORS

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ACCUZEN
6, Daesagwan-ro 31-gil, Yongsan-gu, Seoul, Korea
T. +82-2-799-0201  F. +82-2-798-6613
E. sypark@taejoon.co.kr  W. www.accuzen.com

EXHIBITION

OVERVIEW

Venue
Convention Center, Lobby 3-4F

Operation
March 30 (Fri) 09:00-18:30
March 31 (Sat) 09:00-17:30

EXHIBITION AREA

4F Lobby

EXHIBITION LIST

<table>
<thead>
<tr>
<th>Booth No.</th>
<th>Company</th>
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<tr>
<td>1</td>
<td>ACCUZEN</td>
<td>5</td>
<td>Bayer Korea</td>
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<tr>
<td>2</td>
<td>Canon Medical Systems Korea</td>
<td>6</td>
<td>Guerbet Korea</td>
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<td>3</td>
<td>Siemens Healthineers</td>
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<td>Dongkook Lifescience</td>
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EXHIBITION

EXHIBITION AREA

3F Lobby

EXHIBITION LIST

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<th>Booth No.</th>
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<td>Medivally</td>
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<td>Bracco Imaging Korea</td>
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<td>9</td>
<td>Bioimaging Translational Open Innovation Center</td>
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<td>Central Medical Service Co., Ltd.</td>
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<td>10</td>
<td>Korea Basic Science Institute</td>
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<td>GE Healthcare Korea</td>
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<td>Bruker Korea Co., Ltd.</td>
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<td>NordicNeuroLab LLC</td>
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### Daily Program March 29 (Thu)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>13:30-17:30</td>
<td><strong>KSMRM Educational Course (Kor.)</strong></td>
<td>Diamond Hall (3F)</td>
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<tr>
<td>13:30-14:15</td>
<td>What is it? (Overview of Deep Learning)</td>
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<tr>
<td></td>
<td>Namkug Kim (Asan Medical Center, Korea)</td>
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<tr>
<td>14:15-15:00</td>
<td>How to Start it? (In MR Research)</td>
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<td></td>
<td>Yoonho Nam (Seoul St. Mary's Hospital, The Catholic University of Korea, Korea)</td>
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<tr>
<td>15:00-15:45</td>
<td>Why it Works? (Detailed Explanation)</td>
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<td></td>
<td>Joon-Kyung Seong (Korea University, Korea)</td>
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<tr>
<td>15:45-16:00</td>
<td>Coffee Break</td>
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<tr>
<td>16:00-16:45</td>
<td>Where to Apply it? (Applications)</td>
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<td></td>
<td>Do Sik Hwang (Yonsei University, Korea)</td>
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<tr>
<td>16:45-17:30</td>
<td>When to Use it? (Generality, Overfitting)</td>
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<td></td>
<td>Ji Eun Park (Asan Medical Center, Korea)</td>
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### Daily Program March 30 (Fri)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>09:00-10:30</td>
<td><strong>SY01 Neuro MRI Symposium I</strong> (Eng.)</td>
<td>Room A (4F)</td>
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<tr>
<td></td>
<td>Advanced Neuroimaging</td>
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<td><strong>Chairs</strong></td>
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<td></td>
<td>Kee-Hyun Chang (Soonchunhyang University Hospital, Korea)</td>
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<td>Sang Joon Kim (University of Ulsan, Asan Medical Center, Korea)</td>
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<tr>
<td>09:00-09:30</td>
<td>Structural Changes in Top Athlete Brain</td>
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<td><strong>SY01-1</strong></td>
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<td>Osamu Abe (The University of Tokyo, Japan)</td>
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<td>09:30-10:00</td>
<td>Neuroimaging of Multiple Sclerosis: Disease Activity and Progression</td>
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<td><strong>SY01-2</strong></td>
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<td>In-Young Choi (University of Kansas Medical Center, USA)</td>
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<td>10:00-10:30</td>
<td>4D-Flow MRI for Brain Aneurysm</td>
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<td><strong>SY01-3</strong></td>
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<td>Yoshiyuki Watanabe (Osaka University Graduate School of Medicine, Japan)</td>
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<tr>
<td>09:00-10:30</td>
<td><strong>SY02 GU MRI Symposium</strong> (Eng.)</td>
<td>Room B (4F)</td>
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<td>Recent Issues in Genitourinary MRI</td>
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<td><strong>Chair</strong></td>
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<td>Sung Il Jung (Konkuk University Medical Center, Korea)</td>
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<td>09:00-09:30</td>
<td>Multiparametric Kidney MRI for Renal Tumor Evaluation</td>
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<td><strong>SY02-1</strong></td>
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<td>Sung Yoon Park (Samsung Medical Center, Korea)</td>
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<td>09:30-10:00</td>
<td>Prostate Imaging</td>
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<td><strong>SY02-2</strong></td>
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<td></td>
<td>Sung Il Hwang (Seoul National University Bundang Hospital, Korea)</td>
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<tr>
<td>10:00-10:30</td>
<td>Gynecologic Imaging</td>
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<td></td>
<td><strong>SY02-3</strong></td>
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<td>Myoung Seok Lee (SMG-SNU Boramae Medical Center, Korea)</td>
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<tr>
<td>09:00-10:30</td>
<td><strong>SY03 Abdomen MRI Symposium I</strong> (Eng.)</td>
<td>Room C (4F)</td>
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<td>EOB-MRI Integration into Consensus Statements across the Globe (Special Focus Session)</td>
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<td><strong>Chairs</strong></td>
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<td>Joon-Il Choi (Seoul St. Mary's Hospital, The Catholic University of Korea, Korea)</td>
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<td>Mi-Suk Park (Yonsei University Severance Hospital, Korea)</td>
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</tbody>
</table>
DAILY PROGRAM

March 30 (Fri)

09:00-09:20 LI-RADs v2017
SY03-1 Jin Joo (Seoul National University Hospital, Korea)

09:20-09:40 Japanese Society of Hepatology Consensus/Evidence-based Guidelines
SY03-2 Utaro Motosugi (University of Yamanashi, Japan)

09:40-10:00 2016 Consensus Recommendation by Korean Society of Abdominal Radiology
SY03-3 Jhii-Hyun Ahn (Wonju Severance Christian Hospital, Korea)

10:00-10:20 2018 Korean Liver Cancer Study Group-National Cancer Center Korea Practice Guidelines for the Management of Hepatocellular Carcinoma
SY03-4 So Yeon Kim (University of Ulsan College of Medicine, Asan Medical Center, Korea)

10:20-10:30 Panel Discussion

09:00-10:30 SY04 Meet the New Investigators (Kor.)
Room D (4F)
Chair Chulhyun Lee (Korea Basic Science Institute, Korea)

09:00-09:22 Imaging Biomarkers for Myelin
SY04-1 Se-Hong Oh (Hankuk University of Foreign Studies, Korea)

09:22-09:44 Experience in Deep Learning for MR Imaging
SY04-2 Ki Hwan Kim (Lunit, Korea)

09:44-10:06 Hierarchical Processing, Automaticity, and the Brain
SY04-3 Hyeon-Ae Jeon (DGIST, Korea)

10:06-10:28 Advanced Cardiovascular Magnetic Resonance Imaging Methods
SY04-4 Taehoon Shin (Ewha Womans University, Korea)

09:00-10:30 SY05 Advanced MRI Symposium (Eng.)
Room E (4F)
Frontier MR Technology

Chairs Geon-Ho Jahng (Kyung Hee University Hospital at Gangdong, Korea)
In Chan Song (Seoul National University Hospital, Korea)

09:00-09:30 Arterial Spin Labelling (ASL): Method and Applications
SY05-1 Linda Knutsson (Lund University, Sweden)

09:30-10:00 High-resolution fMRI in Animals at Ultra-high Fields
DAILY PROGRAM
March 30 (Fri)

12:30-13:30  **Gadovist® Luncheon Symposium III** (Eng.)  
Room D+E (4F)  
Sponsored by Bayer Korea  
Chair: Yeon Hyeon Choe (Samsung Medical Center, Korea)

12:30-13:30  Journey of Gd Safety with Clinical and Pre-Clinical Perspective: Focused on Brain Presence  
LS03  Seung Hong Choi (Seoul National University Hospital, Korea)

12:30-13:30  Luncheon Symposium IV (Eng.)  
Room F (3F)  
Sponsored by Bracco Imaging Korea  
Chair: Kook-Jin Ahn (Seoul St. Mary’s Hospital, The Catholic University of Korea, Korea)

13:30-15:30  **SY07 Neuro MRI Symposium II** (Kor.)  
Room A (4F)  
Basics of Advanced Neuroradiology Research for Beginners  
Chairs: Woong Yoon (Chonnam National University Hospital, Korea)  
Ji-hoon Kim (Seoul National University Hospital, Korea)

SY07-1  Bohyun Kim (Ajou University Hospital, Korea)

13:50-14:30  Faster T2WI and MRCP  
SY07-2  Joonsung Lee (GE Healthcare, Korea)

14:00-14:30  Basics of Deep Learning for Radiologists  
SY07-2  Leonard Sunwoo (Seoul National University Bundang Hospital, Korea)

14:30-15:00  Basics of Radiomics in Neuroradiologic Research  
SY07-3  Ji Eun Park (Asan Medical Center, Korea)

15:00-15:30  Basics of SWI and QSM for Neuroradiology Research  
SY07-4  Jinhee Jang (Seoul St. Mary’s Hospital, The Catholic University of Korea, Korea)

13:30-15:30  **SY08 MRE MRI Symposium I** (Kor.)  
Room B (4F)  
Medical Research in the 4th Industrial Revolution  
Chair: Chang Hyun Oh (Korea University, Korea)

13:30-14:05  The Korean “Connectome” Project - Microanalysis of Super Resolution MR Tractography  
SY08-1  Zang-Hee Cho (Neuro Science Institute, The University of Suwon, Korea)

14:05-14:40  Fusion of Medicine and Science in Medical Industrialization  
SY08-2  Kyung Sun (Korea University College of Medicine, Korea)

14:40-15:15  4th Industrial Revolution in Medical Research  
SY08-3  Min Hwa Lee (KCERN, Korea)

15:15-15:30  Panel Discussion

13:30-15:30  **SY09 Abdomen MRI Symposium II** (Eng.)  
Room C (4F)  
Enhancing throughput of Liver MRI and MRCP (Special Focus Session)  
Chairs: Chang-Hee Lee (Korea University Guro Hospital, Korea)  
Young Kon Kim (Samsung Medical Center, Korea)

SY09-1  Bohyun Kim (Ajou University Hospital, Korea)

13:50-14:10  Faster T2WI and MRCP  
SY09-2  Joonsung Lee (GE Healthcare, Korea)

14:10-14:30  Body DWI: Past and Future  
SY09-3  Marc Van Cauteren (Philips HealthTech, Japan)

14:30-14:50  Contrast-enhanced Sequence  
SY09-4  Yang Shin Park (Korea University Guro Hospital, Korea)

14:50-15:10  Future Directions to Enhancing throughput of Liver MRI and MRCP  
SY09-5  Panki Kim (Yonsei University, Korea)

15:10-15:30  Panel Discussion
DAILY PROGRAM
March 30 (Fri)

13:30-15:30
SY10 Breast MRI Symposium (Eng.) Room D (4F)

State-of-the-Art Breast MRI

Chairs
Nariya Cho (Seoul National University Hospital, Korea)
Eun Young Ko (Samsung Medical Center, Korea)

13:30-14:00
Breast DWI Potential and Pitfalls: Results of ACRIN 6702 and 6698 Multicenter Trials
SY10-1
Savannah Partridge (University of Washington, USA)

14:00-14:30
The Value of T2-weighted Imaging in Breast MRI
SY10-2
Fan Yang (Wuhan Union Hospital, Huazhong University of Science and Technology, China)

14:30-15:00
Role of Diffusion-weighted Imaging in Breast Cancer Screening
SY10-3
Hee Jung Shin (Asan Medical Center, Korea)

15:00-15:30
Q&A / Discussion

13:30-15:30
SY11 ISC Symposium I (Eng.) Room E (4F)

Cutting Edge MRI-based Neuroscience Research

Chairs
Ze Wang (Temple University, USA)
Jongho Lee (Seoul National University, Korea)

13:30-13:40
Opening Remark
Masafumi Harada (President of JSMRM)

13:40-14:00
High Resolution MRI for Intracranial Artery: Technique and Application
SY12-1
Seung Chai Jung (Asan Medical Center, Korea)

14:00-14:20
Whole-brain Vessel Wall Imaging: Initial Clinical Experience
SY12-2
Kazuhiro Tsuchiya (Saitama Medical Center, Saitama Medical University, Japan)

14:20-14:40
DCE-MRI in the Neuroimaging: Current Challenges and Future Perspectives
SY12-3
Sung-Hye You (Korea University Hospital, Korea)

14:40-15:00
IVIM Perfusion Imaging: Neuro Applications
SY12-4
Takashi Yoshiura (Kagoshima University, Japan)

15:00-15:20
Arterial Spin Labeling Perfusion Imaging: Can We Say it is Quantitative?
SY12-5
Hirohiko Kimura (University of Fukui, Japan)

15:20-15:30
Discussion

15:30-15:30
Poster Q&A (Emerald Hall, 3F)

* Free beer and soft drinks will be available during poster Q&A time

15:30-16:00
PP01 Neuro MRI Power Pitch (Eng.) Room A (4F)

Chair
Seung Chai Jung (Asan Medical Center, Korea)

15:30-15:33
Anomaly Detection from High school Football Players: A Longitudinal DTI study with a Large Cohort
PP01-01
Ikbeom Jang, Victoria Poole, Trey Shenk, Diana Svaldi, Eric Nauman, Thomas Talavage
How can Musical training Affect Individuals’ emotional Response to Different Rhythm tempos during Musical Listening

Ying Liu¹, Guangyuan Liu²

PP01-06

DAILY PROGRAM

March 30 (Fri)

15:33-15:36
PP01-02
Advanced Neurochemical Profiling in Mouse Models of Human Neurological Disorders
Ivan Tkac
Center for Magnetic Resonance Research, University of Minnesota, Minneapolis, MN, USA

15:36-15:39
PP01-03
Diagnostic Performance of Three-dimensional High Resolution Magnetic Resonance Imaging for Intracranial Aneurysms: Comparison with Digital Subtraction Angiography.
Younghee Yin, Seung Chai Jung, Ho Sung Kim, Choong Gon Choi, Ji Eun Park
Department of Radiology, Asan Medical Center, Seoul, Korea

15:39-15:42
PP01-04
Abnormal Effective Connectivity of the Anterior Forebrain Regions in Disorders of Consciousness
Ping Chen¹, Quyou Xie¹, Xiaoyan Wu¹, Ruiwang Huang¹, Ronghao Yu¹
'School of Psychology, South China Normal University, Center for Studies of Psychological Application, Guangdong Key Laboratory of Mental Health and Cognitive Science, Institute for Brain Research and Rehabilitation, Guangzhou, China, 'Institute for Hyperbaric Oxygen and Neurorehabilitation, Institute of Neuroscience, Guangzhou General Hospital of Guangzhou Military Command, Guangzhou, China

15:42-15:45
PP01-05
Comprehensive Evaluation of Single-subject Morphological Brain Networks in Brain Surface Space
Yinzi Lee¹, Hao Wang¹, Ningkai Wang¹, Jinhui Wang¹
'Department of Psychology, Hangzhou Normal University, Hangzhou, China, 'Institute of Fundamental and Frontier Science, University of Electronic Science and Technology of China, Chengdu, China

15:45-15:48
PP01-06
How can Musical training Affect Individuals’ emotional Response to Different Rhythm tempos during Musical Listening
Ying Liu¹, Guangyuan Liu²

Room B (4F)

Chair
Yoonho Nam (Seoul St. Mary's Hospital, The Catholic University of Korea, Korea)

15:45-15:47
PP02-01
Development of Methodology for Measuring Magnetic Susceptibility of Arbitrarily Shaped Materials by MRI
Seon-Ha Hwang, Seung-Kyun Lee
Department of Biomedical Engineering, Sungkyunkwan University, Suwon, Korea

15:48-16:11
PP02 MRE MRI Power Pitch

Room B (4F)

Chair
Yoonho Nam (Seoul St. Mary's Hospital, The Catholic University of Korea, Korea)
DAILY PROGRAM
March 30 (Fri)

15:47-15:49  
**Potentials of Deep Learning Based Motion Correction: Simulation Results for a Single Step Translational Motion**  
PP02-02  
Jingyu Ko, Jingu Lee, Jaeyeon Yoon, Dohee Lee, Woojin Jung, Jongho Lee  
Department of Electrical and Computer Engineering, Seoul National University, Seoul, Korea

15:49-15:51  
**Endorectal RF Coil Design for Prostate HIFU: Acoustic Simulation and Experimental Study**  
PP02-03  
Yoo-Jin Jeong1, Jong-Min Kim3, Han-Jae Chong1, Jae-Won Yoo1, Chulhyun Lee2, Jongho Lee1, Chang-Hyun Oh1  
1Department of Electronics and Information Engineering and Korea Artificial Organ Center, Korea University, Seoul, Korea, 2Clinical Research Institute, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, 3Department of Computer Science and Engineering, Sungkyunkwan University, Seoul, Korea

15:51-15:53  
**A Novel Myocardial Segmentation Method using a Combination of CNN and Bidirectional RNN**  
PP02-04  
Khu Rai Kim1, Yoon-Chul Kim2, Il Kyu Lee3, Yeon Hyeon Choe4  
1Department of Electronics Engineering, Sogang University, Seoul, Korea, 2Clinical Research Institute, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, 3Department of Computer Science and Engineering, Seoul National University, Seoul, Korea, 4Department of Radiology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea

15:53-15:55  
**Ophthalmic Magnetic Resonance Imaging using a 7-Channel Receive-only Phased Array Coil: Quantitative Image Evaluation of Anatomical Orbital Structures at 3.0 T**  
PP02-05  
Kyu-Ho Song1, Young Han Lee2, Jin-Suck Suh3, Min Jung Kim4, Bo-Young Choe1  
1Department of Biomedical Engineering, College of Medicine, The Catholic University of Korea, Seoul, Korea, 2Department of Radiology, Research Institute of Radiological Science, Severance Hospital, Yonsei University College of Medicine, Seoul, Korea

15:55-15:57  
**A Novel Array Coil Design for Knee Imaging at 3 Tesla**  
PP02-06  
Woojin Jung, Jongho Lee  
Department of Electrical and Computer Engineering, Seoul National University, Seoul, Korea

15:57-15:59  
**DW MR Imaging Biomarker for Therapeutic Response in Lung Cancer: IVIM Approach**  
PP02-07  
Jae-Hun Kim, Ehwa Yang, Jungwon Moon, Chin A Yi  
Radiology, Samsung Medical Center, Seoul, Korea

15:59-16:01  
**Novel Python GUI for Efficient Labeling of Myocardial Contours in Cardiac Cine MRI**  

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DAILY PROGRAM
March 30 (Fri)

16:01-16:03  
**Comparison of Fourier-transform-based Susceptibility-induced B0 Calculation Methods**  
PP02-09  
Seung Kyun Lee, Seok Jin Yeo, Ji Seong Barg  
Global Bio Medical Engineering, Sungkyunkwan University, Suwon, Korea

16:03-16:05  
**Respiration-induced Dynamic B0 Shifts in the Head: Numerical Simulation Based on Generalized Susceptibility Voxel Convolution (gSVC)**  
PP02-10  
Seung Kyun Lee1, Ji Seong Barg, Seok Jin Yeo  
Global Biomedical Engineering, Sungkyunkwan University, Suwon, Korea

16:05-16:07  
**Enhancement of Shear Wave Fields using Toggled MR Viscoelastography**  
PP02-11  
Jong-Min Kim1, Han-Jae Chung1, You-Jin Jeong1, Jae-Won Yoo1, Jeong-Hee Kim1, Chulhyun Lee1, Chang-Hyun Oh1  
1Department of Electronics and Information Engineering and Korea Artificial Organ Center, Korea University, Seoul, Korea, 2Clinical Research Institute, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, 3Department of Radiology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea

16:07-16:09  
**B1 Field Improvement of TEM RF Coil using High Dielectric Pad at 7T**  
PP02-12  
Sana Ullah, Youngdae Cho, Hyounsuk Yoo  
Biomedical Engineering, University of Ulsan, Ulsan, Korea

16:09-16:11  
**Investigation of Receive-only Top-Hat Dipole RF Coil for Brain Imaging at 7 Tesla MRI**  
PP02-13  
Suchit Kumar1, Jong-Min Kim3, Jeong-Hee Kim4, Jun-Sik Yoon5, Chul-Hyun Lee5, Christian Bruns6, Tim Herman6, Johannes Bernarding7, Chang-Hyun Oh7  
1Department of Biomicrosystem Technology, Korea University, Seoul, Korea, 2Department of Electronics and Information Engineering, Korea University, Seoul, Korea, 3Research Institute for Advanced Industrial Technology, Korea University, Sejong, Korea, 4Bioimaging Research Team, Korea Basic Science Institute, Cheongju, Korea, 5Department of Biomedical Engineering, Sungkyunkwan University, Suwon, Korea

16:16-16:18  
**Investigation of Radiofrequency Heating at 7 tesla MRI:**  
Eugenia Salameh, Jong-Min Kim, Jeong-Hee Kim, Christian Bruns, Young-mo Lee, Tim Herman, Johannes Bernarding, Chang-Hyun Oh  
1Department of Biomicrosystem Technology, Korea University, Seoul, Korea, 2Department of Electronics and Information Engineering, Korea University, Seoul, Korea, 3Research Institute for Advanced Industrial Technology, Korea University, Sejong, Korea, 4Bioimaging Research Team, Korea Basic Science Institute, Cheongju, Korea, 5Department of Electrical and Computer Engineering, Seoul National University, Seoul, Korea, 6Department of Bio-Analytical Science, University of Science and Technology, Daejeon, Korea, 7Department for Biometrics And Medical Informatics, Department for Bio-Analytical Science, University of Science and Technology, Daejeon, Korea, 8Department of Biometrics And Medical Informatics, Otto-von-Guericke University, Magdeburg, Germany, 9Department of Electronics and Information Engineering, Korea University, Seoul, Korea, 10And ICT Convergence Technology for Health & Safety, Korea University, Sejong, Korea
### PP03 Abdomen MRI Power Pitch (Eng.) Room C (4F)

**Chair:** So Yeon Kim (University of Ulsan College of Medicine, Asan Medical Center, Korea)

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<th>Time</th>
<th>Title</th>
<th>Speaker(s)</th>
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</thead>
<tbody>
<tr>
<td>15:30-16:17</td>
<td>PP03 Abdomen MRI Power Pitch</td>
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</tr>
<tr>
<td>15:30-15:33</td>
<td>Feasibility of Gadoxetate-enhanced Dynamic Contrast-enhanced MRI for Liver Function and Fibrosis Evaluation in Preclinical Trial</td>
<td>Jimi Huh, Su Jung Ham, Young Chul Cho, Seul-I Lee, Jisuk Park, Chul Woong Woo, Yoonseok Choi, Dong-Cheol Woo, Kyung Won Kim</td>
</tr>
<tr>
<td>15:33-15:35</td>
<td>Validation of the Liver Imaging Reporting and Data System with Gadoxetic Acid-enhanced MRI Imaging in a Prospective Surveillance Cohort: Evaluation of LI-RADS Category 4 and 5: Substudy of PRIUS Study</td>
<td>So Hyun Park, So Yeon Kim, So Jung Lee, Seong Ho Park, Young-Suk Lim, Ji Hyun An, Hyung Jin Won, Jae Ho Byun</td>
</tr>
<tr>
<td>15:36-15:39</td>
<td>Clinical Feasibility of Implementing DCE-MRI in Routine Liver MRI using GRASP: Preliminary Results</td>
<td>Jeong Hee Yoon, Mi Hye Yu, Bo-Yun Hur, Robert Grimm, Hersh Chandarana, Kai Tobias Block, Berthold Kiefer, Yohan Son, Jeong Min Lee</td>
</tr>
<tr>
<td>15:42-15:45</td>
<td>Water-Fat Resolved Abdominal Multi-parametric Imaging</td>
<td>Young-Joong Yang, Jong-Hyun Yoon, Jin-Su Kim, Chang-Beom Ahn</td>
</tr>
</tbody>
</table>

### PP03 Molecular MRI Power Pitch (Eng.) Room D (4F)

**Chair:** Dong-Cheol Woo (Asan Medical Center, Korea)

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<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker(s)</th>
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<tr>
<td>15:30-15:54</td>
<td>PP03 Molecular MRI Power Pitch</td>
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</tbody>
</table>

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**March 30 (Fri)**

**ICMRI 2018**

Healthcare Korea, Seoul, Korea

**Category 4 and 5: substudy of PRIUs study**

**Optimal Lexicon of Major Image Findings for Gadoxetic acid-enhanced MRI for Diagnosis of HCC: LI-RADS versus the Korean Guideline**

Seungwoo Kim, Youree Kim, Younghwan Lee, Kwonha Yoon

Department of Radiology, Wonkwang university hospital, Iksan, Korea

**Utility of Dynamic MRI Liver for Interventional Oncoradiology: What Do the Images Tell Us?**

Sushil Panbudde, Suyash Kulkarni, Arneya Kawthalkar, Nitin Shetty, Kunal Gala, Meenakshi Thakur

Radiodiagnosis, Tata Memorial Hospital, Mumbai, India

**Quantitative Evaluation of Liver Function using Coefficient of Variation Value and Contrast Enhancement Index (CEI) on Gadoxetic Acid-enhanced MR Imaging in Preoperative Evaluation for Hepatic Tumors**

Seongwoo Kim, Youree Kim, Younghwan Lee, Kwonha Yoon

Department of Radiology, Wonkwang university hospital, Iksan, Korea

**The Role of MRI in Assessing Response to Neoadjuvantchemoradiotherapy in Locally Advanced Rectal Cancers**

Suman Kumar Ankathi, Anurima Patra, Akshay Baheti, Avanish Saklani

Radiodiagnosis, Tata Memorial Centre, Mumbai, India

**The Quantitative Study of Dynamic Contrast-Enhanced MRI with Exchange Pharmacokinetic Model in Liver Fibrosis**

Lan Zhang

Department of MRI, the First Affiliated Hospital of Henan University of Traditional Chinese Medicine, Zhengzhou, China

**Motion Artifact Reduction in Abdominal MR Imaging using the U-NET Network**

Daiki Tamada, Hiroshi Onishi, Utaroh Motosugi

Department of Radiology, University of Yamanashi, Chuo, Yamanashi, Japan
DAILY PROGRAM
March 30 (Fri)

15:30-15:32 MRI-guided Breast Cancer Stem Cell Therapy in Mouse Model using Multifunctional Magnetic Nanoparticle
PP04-01
Yujin Sun,1 Hoe Suk Kim,1 Sukmo Kang2, Yin Ji Piao,1 Sangyong Jon1, Woo Kyung Moon1
1Radiology, Seoul National University Hospital, Seoul, Korea, 2Biological Sciences, Korea Advanced Institute of Science and Technology, Daejeon, Korea

15:32-15:34 Quantitative Assessment of Alcohol Hepatitis and Alcoholic Steatohepatitis using Magnetic Resonance Imaging/Spectroscopy
PP04-02
Jeeheon Kang, Su Jung Ham, Jae Im Kwon, Youngjin Kim, Kyung Won Kim, Jinil Kim, Do-Wan Lee, Yoon Seok Choi, Dong-Cheol Woo
C-BIND, Asan Medical Center, Seoul, Korea

15:34-15:36 Biomedical Dual Imaging: Dye-coated Gadolinium Oxide Nanoparticles as Magnetic Resonance Imaging (MRI) Contrast Agent
PP04-03
Xu Miao1, Yongmin Chang2, Gang Ho Lee1
1Department of Chemistry, Kyungpook National University, Daegu, Korea, 2Department of Molecular Medicine and Medical & Biological Engineering, Kyungpook National University, Daegu, Korea

15:36-15:38 Water Soluble Ultrasmall Gadolinium Europium Oxide Nanoparticles as Dual Imaging Agents: T1 MRI Fluorescence Imaging Agent
PP04-04
Shanti Marasini1, Yongmin Chang2, Gang Ho Lee1
1Department of Chemistry, Kyungpook National University, Daegu, Korea, 2Department of Molecular Medicine and Medical & Biological Engineering, School of Medicine, Kyungpook National University, Daegu, Korea

15:38-15:40 Ultrasmall Gadolinium Oxides Nanoparticles as Multifunctional Agent: MRI, Tumor Detection and Gadolinium Neutron Capture Therapy
PP04-05
Son Long Ho1, Gang Ho Lee1, Yongmin Chang2
1Department of Chemistry, Kyungpook National University, Daegu, Korea, 2Department of Molecular Medicine and Medical & Biological Engineering, Kyungpook National University, Daegu, Korea

15:40-15:42 Synthesis and Characterization of TAT-peptide conjugated Ultrasmall Gadolinium Oxide Nanoparticles (TAT-GNPs) and its enhanced Cancer-imaging Application
PP04-06
Mohammad Yaseen Ahmad1, Yongmin Chang2, Gang Ho Lee1
1Department of Chemistry, Kyungpook National University, Daegu, Korea, 2Department of Molecular Medicine and Medical & Biological Engineering and DNN, School of Medicine and Hospital, Kyungpook National University, Daegu, Korea

DAILY PROGRAM
March 30 (Fri)

15:42-15:44 Bovine Serum Albumin (BSA) and Cleaved-BSA conjugated Ultrasmall Gd2O3 Nanoparticles
PP04-07
Adibehalsadat Ghazanfari1, Yongmin Chang2, Gang Ho Lee1
1Chemistry, Kyungpook National University, Daegu, Korea, 2Molecular Medicine and Medical & Biological Engineering School of Medicine, Kyungpook National University, Daegu, Korea

15:44-15:46 Targeted Detection of Blood-Brain Barrier Endothelial Cells through Hyper-CEST MRI with Size-optimized Nanoparticles
PP04-08
Matthias Schnurr1, Ines Volk1, Heike Nikolkenko1, Margitta Dathe1, Leif Schroeder1
1Molecular Imaging, Leibniz-Forschungsinstitut fuer Molekulare Pharmakologie (FMP), Berlin, Germany, 2Peptide-Lipid Interaction / Peptide Transport, Leibniz-Forschungsinstitut fuer Molekulare Pharmakologie (FMP), Berlin, Germany

15:46-15:48 Manganese Complex of EDTA-EOB Conjugate as a Highly Stable Hepatobiliary MRI Contrast Agent
PP04-09
Md Kamrul Islam1, Soyeon Kim1, Hee-Kyung Kim2, Young-Mi Lee3, Ah Rum Baek1, Heejin Seo1, Yongmin Chang2
1Department of Medical & Biological Engineering, Kyungpook National University, Daegu, Korea, 2Department of Molecular Medicine & BK21 Plus KNU Biomedical Convergence Program, Kyungpook National University, Daegu, Korea, 3Institute of Biomedical Engineering Research, Kyungpook National University, Daegu, Korea, 4Department of Radiology, Kyungpook National University, Daegu, Korea

15:48-15:50 Macroyclic Xenon Hosts: Potenal Inhibitors and Reporters Forprotein Aggregaon in Hyper-CEST MRI
PP04-10
Jan Oliver Jost, Christopher Witte, Leif Schroeder
Molecular Imaging, Leibniz-Forschungsinstitut fuer Molekulare Pharmakologie (FMP), Berlin, Germany

15:50-15:52 Acidosis Imaging by Chemical Exchange Saturation Transfer (CEST) Imaging
PP04-11
Yu-Wen Chen, Chia-Huei Lin, Yu-Ying Tung, Dennis W Hwang
Institute of Biomedical Sciences, Academia Sinica, Taipei, Taiwan

15:52-15:54 Photothermal-modulated Drug Delivery and Magnetic Relaxation using Injectable Hydrogel
PP04-12
Sun-Hee Cho1, Kwan Soo Hong1, Jee-Hyun Cho1, Yong Taik Lim1
1Department of Radiology, Kyungpook National University, Daegu, Korea
DAILY PROGRAM
March 30 (Fri)

15:30-15:54 PP05 Advanced MRI Power Pitch (Eng.) Room E (4F)
Chair
Taekwan Lee (DGMIF, Korea)

15:30-15:32 High Resolution Magnetic Resonance Imaging using Compressed Sense for Intracranial and Extracranial Arteries: Comparison with Conventional Parallel Imaging
Chong Hyun Suh¹, Seung Chai Jung²
¹Department of Radiology, Namwon Medical Center, Namwon-Si, Korea, ²Department of Radiology and Research Institute of Radiology, Asan Medical Center, Seoul, Korea

15:32-15:34 Mapping Cerebral Blood Volume from Dynamic MR Angiographic Data
Muhammad Asaduddin¹, Won-Joon Do¹, Eung Yeop Kim², Sung-Hong Park¹
¹Bio and Brain Engineering, KAIST, Daejeon, Korea, ²Radiology, Gachon University Medical Center, Incheon, Korea

15:34-15:38 Systematic Development of a Sequence for Gradient-echo-based Myelin Water Imaging (GRE-MWI)
Hyeong-Geol Shin¹, Se-Hong Oh², Kyeongseon Min¹, Jongho Lee¹
¹Electrical Engineering and Computer Science, Seoul National University, Seoul, Korea, ²Biomedical Engineering, Hankuk University of Foreign Studies, Seoul, Korea

15:36-15:38 Combination of T2 and T2* Maps to Differentiate the Distributions of Neuromelanin-Iron Complex and Ferric Iron within Human Postmortem Substantia Nigra
Hansol Lee, Hyungjoon Cho
Department of Biomedical Engineering, UNIST, Ulsan, Korea

15:38-15:40 Automated Pattern Recognition Analysis of Intravoxel Incoherent Motion (IVIM)-diffusion to Segment Hypo-perfused Stroke Region
Min Jung Jang¹, So Hyun Han¹, Hyung Joon Cho¹
¹Biomedical Engineering, Ulsan National Institute of Science and Technology, Ulsan, Korea, ²Biomedical Imaging, Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Cambridge, USA

15:40-15:42 The Change of Blood-brain Barrier Disruption Level depending on Reperfusion Time with Temporal Middle Carotid Artery Occlusion Model
Soonji Lee, Seokha Jin, Hyungjoon Cho
Department of Biomedical Engineering, Ulsan National Institute of Science and Technology, Ulsan, Korea

15:42-15:44 The Comparisons of T2, T2* and Quantitative Susceptibility Mapping (QSM) from 4 and 20 Months Old Rat Brain.
Hwa Pyeong Cho, Hyung Joon Cho
Biomedical Engineering, Ulsan National Institute of Science and Technology (UNIST), Ulsan, Korea

Sangwoo Kim¹, Yeongjae Jeon¹, Chulhyun Lee²
¹Bio-Analytical Science, University of Science and Technology, Daejeon, Korea, ²Bioimaging Research Team, Korea Basic Science Institute, Cheongju, Korea

15:46-15:50 Comparison of Resting State EEG-fMRI Method in Reproducibility: EEG-triggered fMRI vs. EEG Power-based fMRI
Dae Guk Do¹, Min Woo Lee¹, Sol-A Seo¹, Song-I Chun¹, Kang Min Park³, Chi-Woong Mun¹, Sung-Eun Kim¹, Byeon-In Lee³
¹Department of Biomedical Engineering, Inje University, Gimhae, Korea, ²Department of Biomedical Engineering and uHARC, Inje University, Gimhae, Korea, ³Department of Neurology, Haeundae Paik Hospital, Inje University College of Medicine, Busan, Korea

15:48-15:52 Susceptibility Map Weighted Imaging with Automatized Zero Referencing Method
Hyunsung Eun¹, Hyeong-Geol Shin¹, Eungyeop Kim², Jongho Lee¹
¹Department of Electrical and Computer Engineering, Seoul National University, Seoul, Korea, ²Department of Radiology, Gachon University Gil Medical Center, Incheon, Korea

15:50-15:52 How to Combine Signals from Multi-channel Phased Array Coils
Jin-Soo Kim, Jong-Hyeon Yoon, Young-Joong Yang, Chang-Beom Ahn
Electrical Engineering, Kwangwoon University, Seoul, Korea

15:52-15:54 MR Image Interpolation using Convolutional Neural Network
Yoonho Nam¹, Jinhee Jang¹, Kang-Hyun Kim², Dong-Hyun Kim²
¹Department of Radiology, Seoul St. Mary’s Hospital, Seoul, Korea, ²Electrical and Electronic Engineering, Yonsei University, Seoul, Korea
Simulation Study for Effects of Cylindrical Excitation on QSM values of Substantia Nigra at 7T

Contrast Correction of MAGIC Synthetic T2 FLAIR Images using Deep Learning

Monitoring for Dual Inhibition of Energy Budget in Triple-Negative Breast Cancer via High-Resolution Diffusion-Weighted MR Imaging

Preliminary Study of Multi-echo-time in Vivo Proton Magnetic Resonance Spectroscopy for Simultaneous Quantification and T2 Measurement of Glutamate

An Implementation of Pinwheel Excitation Pulses for MRS at 7T

A Robust Self-navigation for Retrospective Respiratory Gating in 3D Radial Ultrasound Echo-time Pulmonary Imaging

Super-ASL: Improving SNR and Temporal Resolution of ASL MRI Using Deep Learning

**SY13 Asian Forum I (Eng.)**

**Diffusion MRI**

**Chairs**
Mamoru Niitsu (Saitama Medical University, Japan)
Xiaoliang Zhang (University of California San Francisco, USA)
Seung-Koo Lee (Severance Hospital, Korea)

**SY13-1**
Diffusion Physics for Clinical MRI
Kiichi Oshio (Keio University School of Medicine, Japan)

**SY13-2**
Recent Advances in Psychoradiology
Qiuyong Gong (West China Hospital of Sichuan University, China)

**SY13-3**
Clinical Application of Diffusion-weighted Imaging in Breast
Ji Hyun Youk (Gangnam Severance Hospital, Korea)

**SY13-4**
Imaging of Bone Metastases using Whole Body MRI Including Whole Body Diffusion Weighted Images (DWI)
Katsuyuki Nakanishi (Osaka International Cancer Institute, Japan)

**SY13-5**
DWI Application for Glioma Prognosis Prediction
Yoon Seong Choi (Severance Hospital, Korea)

**What's new in MRI** by Canon Medical Systems Korea

**What's new in MRI** by Philips
High Resolution MRI: Applications to Neuro- oncology

**What's new in MRI** by Siemens Healthineers
Fast Scan for Brain Imaging using Wave-CAIPI
Blood Vascular and Blood Perfusion MRI: Application of Deep Learning
DAILY PROGRAM
March 30 (Fri)

17:30-18:30  **What's new in MRI** by Bayer Korea  Room E (4F)
New Generation of MRI Injector is coming!! MEDRAD® MRXperion Launch Event

17:30-18:30  **What's new in MRI** by GE Healthcare Korea  Room F (3F)
Novel MRI Technology: SIGNA Works in Musculoskeletal MR Imaging

18:30-21:00  **Banquet (Grand Ballroom, Hotel Main Building 2F)**
DAILY PROGRAM
March 31 (Sat)

09:00-10:30  SY14 Abdomen MRI Symposium III (Kor)  Room A (4F)
Solving Conundrums of Hepatic Tumors with Updated Pathologic Knowledge & Liver MRI
Chairs
Myeong-Jin Kim (Yonsei University, Severance Hospital, Korea)
Jae Ho Byun (Asan Medical Center, Korea)

09:00-09:20  Latest Pathologic Updates of Primary Hepatic Tumor  SY14-1
Young Nyun Park (Yonsei University, Severance Hospital, Korea)

09:20-09:40  Latest MRI Updates on Combined HCC-CC  SY14-2
Seung Soo Lee (University of Ulsan College of Medicine, Asan Medical Center, Korea)

09:40-10:00  Noninvasive Diagnosis of Cholangiocarcinoma: Recent Dilemma in MRI  SY14-3
Ji Soo Song (Chonbuk National University Hospital, Korea)

10:00-10:20  Beware of Pitfalls in the Diagnosis of HCC in EOB MRI  SY14-4
Yedaun Lee (Haeundae Paik Hospital, Korea)

10:20-10:30  Panel Discussion

09:00-10:30  SY15 Cardiovascular MRI Symposium I (Eng.)  Room B (4F)
Myocardial Perfusion Imaging and Quantification
Chair  Yeon Hyeon Choe (Samsung Medical Center, Korea)

09:00-09:25  CMR Perfusion in CAD and Non-ischemic Heart Disease  SY15-1
Yoshitaka Goto (Mie University Hospital, Japan)

09:25-09:50  Why Should We Quantify Myocardial Perfusion? Lessons from PET  SY15-2
Jin Chul Paeng (Seoul National University Hospital, Korea)

09:50-10:15  How We Can Measure Absolute Quantification of Myocardial Perfusion using CMR: A to Z  SY15-3
Masaki Ishida (Mie University Hospital, Japan)

10:15-10:30  Panel Discussion
Panel
Whal Lee (Seoul National University Hospital, Korea)
Ki Seok Choo (Pusan National University Yangsan Hospital, Korea)
Seong Min Ko (Konkuk University School of Medicine, Korea)

09:00-10:30  SY16 Pediatric MRI Symposium I (Eng.)  Room C (4F)
Brain
Chairs
In One Kim (Seoul National University College of Medicine, Korea)
Ji Hye Kim (Samsung Medical Center, Sungkyunkwan University, Korea)

09:00-09:30  Susceptibility Imaging in Pediatric Neuroradiology  SY16-1
Hyun Gi Kim (Ajou University Hospital, Korea)

09:30-10:00  Neonatal Brain Imaging  SY16-2
Ah Young Jung (Asan Medical Center, Korea)

10:00-10:30  Diffusion and Perfusion Imaging in Brain MRI  SY16-3
Seung Hong Choi (Seoul National University Hospital, Korea)

09:00-10:30  SY17 IBS CNIR-KSMRM Joint Symposium on Human fMRI (Eng.)  Room D (4F)
* Co-organized with
Chairs
Seong-Gi Kim (Center for Neuroscience Imaging Research, IBS, Korea)
Hyun Wook Park (KAIST, Korea)

09:00-09:30  An fMRI Connectivity-based Signature for Pain  SY17-1
Choong-Wan Woo (Sungkyunkwan University, Korea)

09:30-10:00  Nonlinear System Identification for Unraveling Neural Mechanisms of Natural Cognition  SY17-2
Tolga Cukur (Bilkent University, Turkey)

10:00-10:30  MR Physics Demands of High-Resolution fMRI  SY17-3
R. Allen Waggoner (RIKEN - Brain Science Institute, Japan)

09:00-10:30  SY18 MRE MRI Symposium II (Eng.)  Room E (4F)
Engineering & Technology in MR Research
Chairs
Jaeseok Park (Sungkyunkwan University, Korea)
Bum-soo Kim (Seoul St. Mary’s Hospital, The Catholic University of Korea, Korea)
DAILY PROGRAM

March 31 (Sat)

09:00-09:30  The Development of a Man-portable MRI Imager
SY18-1  Shaoying Huang (Singapore University of Technology and Design, Singapore)

09:30-10:00  Theory of Gradient-induced Surface Eddy Current in Cylindrical Geometry
SY18-2  Seung-Kyun Lee (Sungkyunkwan University, Korea)

10:00-10:30  Extracting and Analyzing the Human Brain Networks from MR Neuroimages
SY18-3  Cheol E. Han (Korea University, Korea)

09:00-10:30  SY19 CSMRM-KSMRM Joint Symposium
 От Advanced MRI Techniques for Neuroimaging

Chairs  Jingliang Cheng (The First Affiliated Hospital of Zhengzhou University, China)
        Ho Sung Kim (Asan Medical Center, Korea)

Opening Remark
Jingliang Cheng (The First Affiliated Hospital of Zhengzhou University, China)

09:00-09:20  LOVARS in Central Nervous System Diseases
SY19-1  Meiyun Wang (Henan Provincial People's Hospital, China)

SY19-2  Roh-Eul Yoo (Seoul National University Hospital, Korea)

09:40-10:00  Printing Technology in MR Signal Detection and Device Tracking
SY19-3  Xiaoliang Zhang (University of California San Francisco, USA)

10:00-10:20  Fast MR Technology for Cerebral Vessel Wall Imaging
SY19-4  Chao Zou (Shenzhen Institutes of Advanced Technology, CAS, China)

10:20-10:30  Discussion

10:30-11:00  Coffee Break (3F, 4F Lobby)

11:00-12:20  Plenary Lecture III & IV
Chairs  Qiyong Gong (West China Hospital, Sichuan University, China)
        Chang-Beom Ahn (Kwangwoon University, Korea)

11:00-11:40  MRS of the Human Brain at High Magnetic Field Strengths
PL3  Peter B. Barker (Johns Hopkins University School of Medicine, USA)

11:40-12:20  MR Molecular Imaging: Current Promises and Challenges
PL4  Jin-Suck Suh (Yonsei University, Korea)

12:30-13:30  Luncheon Symposium V
Sponsored by Canon Medical Systems Korea
Room A (4F)

12:30-13:30  Magnetic Resonance Imaging in the Era of Machine Learning: An Update from Canon Medical
LS05  Guy Umberto Poloni (Canon Medical Systems Corporation, Japan)

12:30-13:30  Luncheon Symposium VI
Sponsored by Philips
Room D+E (4F)

12:30-13:30  Advanced Imaging at 3Tesla
LS06  Peter van Zijl (Johns Hopkins University School of Medicine, USA)

12:30-13:30  Luncheon Symposium VII
Sponsored by GE Healthcare Korea
New Chapter of MR Imaging: AIR Technology & SIGNA Works
Room F (3F)

12:30-13:30  The Future of MR: AIR Technology and SIGNA Works
LS07-1  Mark Stoesz (GE Healthcare)

12:30-13:30  AIR Technology: The Next Breakthrough in MRI
LS07-2  Fraser Robb (GE Healthcare)

12:30-13:30  Body MRI Update: Clinical Applications of SINGA Works in Abdominal Imaging
LS07-3  Utaroh Motosugi (University of Yamanashi, Japan)
**DAILY PROGRAM**

March 31 (Sat)

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<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Room A (4F)</th>
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<tbody>
<tr>
<td>13:30-15:30</td>
<td>SS01 Neuro Scientific Session (Eng.)</td>
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<td>Chairs</td>
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<td>Kook-Jin Ahn (Seoul St. Mary's Hospital, The Catholic University of Korea, Korea)</td>
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<td>Sang-Hoon Cha (Chungbuk National University Hospital, Korea)</td>
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<tr>
<td>13:30-13:38</td>
<td>Whole-Tumor Histogram and Texture Analyses of Diffusion Tensor Imaging for Evaluation of IDH1 Mutation and 1p/19q Codeletion Status in WHO Grade II Gliomas</td>
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<tr>
<td>SS01-01</td>
<td>Yae Won Park1, Kyunghwa Han2, Sung Soo Ahn3, Yoon Seong Choi4, Se Hoon Kim5, Seok-Gu Kang6, Eui Hyun Kim7, Seung-Koo Lee8</td>
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<tr>
<td></td>
<td>1Department of Radiology, Ewha Womans University College of Medicine, Seoul, Korea,</td>
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<td>2Department of Radiology and Research Institute of Radiological Science, Yonsei University College of Medicine, Seoul, Korea,</td>
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<td>3Department of Neurosurgery, Yonsei University College of Medicine, Seoul, Korea,</td>
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<td>4Department of Pathology, Yonsei University College of Medicine, Seoul, Korea</td>
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<td>13:38-13:46</td>
<td>Amide Proton Transfer Weighted MRI Can Reflect Tissue Acidosis and Its Reversal: Demonstration with Transient Occlusion to Permanent Occlusion in A Rat Middle Cerebral Artery Occlusion Model</td>
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<tr>
<td>SS01-02</td>
<td>Ji Eun Park, Seung Chai Jung, Ho Sung Kim, Ji Yeon Suh, Dong Cheol Woo, Jin Hee Baek</td>
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<td></td>
<td>Radiology and Research Institute of Radiology, Asan Medical Center, Seoul, Korea</td>
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<td>13:46-13:56</td>
<td>Nitroxoline Exhibits an Antiproliferative Effect in Temozolomide-Resistant Glioblastoma: Preclinical Study in a Mouse Model</td>
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<td>SS01-03</td>
<td>Nisha Kumari, Hye Rim Cho, Hyejin Jeon, Nishant Thakur, Hyeonjin Kim, Seung Hong Choi</td>
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<td></td>
<td>Department of Radiology, Seoul National University, Seoul, Korea</td>
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<tr>
<td>13:54-14:02</td>
<td>In vivo Assessment of Signal Characteristics of Normal Nigrosome 1 Regions on High-spatial-resolution Neuromelanin-sensitive MRI</td>
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<td>SS01-04</td>
<td>Eung Yeop Kim1, Young Hee Sung2, Young Noh3, Jaeseok Park4, Jongho Lee5</td>
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<tr>
<td></td>
<td>1Department of Radiology, Gachon University Gil Medical Center, Incheon, Korea,</td>
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<td>2Department of Neurology, Gachon University Gil Medical Center, Incheon, Korea,</td>
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<td></td>
<td>3Department of Biomedical Imaging and Engineering Lab., Department of Biomedical Engineering, Sungkyunkwan University, Suwon, Korea,</td>
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<td></td>
<td>5Laboratory for Imaging Science and Technology, Department of Electrical and Computer Engineering, Seoul National University, Seoul, Korea</td>
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<tr>
<td>14:02-14:10</td>
<td>Effect of Donepezil Treatment on White Matter Connectivity in Patients with Alzheimer’s Disease using A Probabilistic Tractography</td>
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<tr>
<td>SS01-05</td>
<td>Gwang-Won Kim1, Gwang-Woo Jeong2</td>
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<td>1Advanced Institute of Aging Science, Chonnam National University, Gwangju, Korea,</td>
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<td></td>
<td>2Department of Radiology, Chonnam National University Medical School, Gwangju, Korea</td>
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**DAILY PROGRAM**

March 31 (Sat)

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<tr>
<th>Time</th>
<th>Session Title</th>
<th>Room A (4F)</th>
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<tbody>
<tr>
<td>14:10-14:18</td>
<td>Quasi-lesional White Matter Integrity in Different Grades of Glioma: A Rotational Invariants-based Study</td>
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<tr>
<td>SS01-06</td>
<td>Pohchoo Seo1, Aditya Tri Hernowo2, Vairavan Narayanan3, Jeannie Hsiu Ding Wong4, Norlisah Ramli5</td>
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<tr>
<td></td>
<td>1Biomedical Imaging, University of Malaya, Kuala Lumpur, Malaysia, 2Surgery, University of Malaya, Kuala Lumpur, Malaysia</td>
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<td>14:18-14:26</td>
<td>Radiomics utilizing Fractional Anisotropy in Peritumoral Nonenhancing Region Predicts Local Progression and Overall Survival in Patients with Glioblastoma</td>
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<tr>
<td>SS01-07</td>
<td>Eun-Jung Choi1, Min Jae Yoon2, Ho Sung Kim3, Jongho Lee4, Ji Eun Park5</td>
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<td>1Laboratory for Imaging Science and Technology, Department of Electrical and Computer Engineering, Seoul National University, Seoul, Korea,</td>
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<td>2Department of Radiology and Research Institute of Radiology, University of Ulsan College of Medicine, Asan Medical Center, Seoul, Korea</td>
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<td>14:26-14:34</td>
<td>Associations of Functional, Morphometric and Metabolic Abnormalities with Working Memory Dysfunction in Obsessive–compulsive Disorder</td>
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<td>SS01-08</td>
<td>Chung Man Moon1, Gwang Woo Jeong2</td>
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<td></td>
<td>1Advanced Institute of Aging Science, Chonnam National University, Gwangju, Korea,</td>
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<td>2Radiology, Chonnam National University Medical School, Gwangju, Korea</td>
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<td>14:34-14:42</td>
<td>Comparison of CEST and DWI MRI to Evaluate Early Response of Nitroxoline Treatment in Temozolomide-resistant Glioblastoma Model</td>
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<tr>
<td>SS01-09</td>
<td>Nishant Thakur, Nisha Kumari, Hyejin Jeon, Hye Rim Cho, Seung Hong Choi</td>
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<td></td>
<td>Department of Radiology, Seoul National University Hospital, Seoul, Korea</td>
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<td>14:42-14:50</td>
<td>Human Habenula Volume and Location Change Through Adult Lifespan</td>
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<td>SS01-10</td>
<td>Joo-Won Kim1, Junqian Xu</td>
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<td></td>
<td>Translational and Molecular Imaging Institute, Icahn School of Medicine at Mount Sinai, New York, NY, USA</td>
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<td>14:50-14:58</td>
<td>Lipid Mapping for Grading of Gliomas</td>
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<tr>
<td>SS01-11</td>
<td>Pohchoo Seo1, Aditya Tri Hernowo2, Jeannie Hsiu Ding Wong3, Vairavan Narayanan4, Norlisah Ramli5</td>
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<tr>
<td></td>
<td>1Biomedical Imaging, University of Malaya, Kuala Lumpur, Malaysia, 2Surgery, University of Malaya, Kuala Lumpur, Malaysia</td>
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<tr>
<td>14:58-15:06</td>
<td>Topological Changes of Morphological Brain Networks Across the Life Span</td>
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</table>
DAILY PROGRAM

March 31 (Sat)

**SS01-12**  Ningkai Wang1, Yinzhi Lee1, Hao Wang2, Jinhui Wang1

1Department of Psychology, Zhejiang Normal University, Hangzhou, China, 2Institute of Fundamental and Frontier Science, University of Electronic Science and Technology of China, Chengdu, China

15:06-15:14  Direct Myelin Imaging using Inversion Recovery Hybrid Encoded Ultrashort Echo Time Imaging

**SS01-13**  Hyungseok Jang, Jiang Du

Department of Radiology, University of California San Diego, San Diego, CA, USA

15:14-15:22  Simultaneous Acquisition of Multiple Contrast Images by Analyzing mGesFIDE Signal

**SS01-14**  Dongmyung Shin1, Se-Hong Oh2, Doohoe Lee1, Jingu Lee1, Jongho Lee3

1Department of Electrical and Computer Engineering, Seoul National University, Seoul, Korea, 2Department of Biomedical Engineering, Hankuk University of Foreign Studies, Gyeonggi-do, Korea

13:30-15:30  **SY20 Cardiovascular MRI Symposium II (Kor.)**  Room B (4F)

**Recent Updates of CMR Quantification**

**Chair**  Bae Young Lee (The Catholic University of Korea, St. Paul's Hospital, Korea)

13:30-13:55  **CMR Techniques: Recent Updates and Future Direction**

**SY20-1**  Panki Kim (Yonsei University, Korea)

13:55-14:20  **Parametric Mapping (T1, T2 and ECV) in CAD and Non-ischemic Heart Disease**

**SY20-2**  Chul Hwan Park (Yonsei University, Gangnam Severance Hospital, Korea)

14:20-14:45  **4D Flow: Visualization and Quantification**

**SY20-3**  Dong Hyun Yang (Asan Medical Center, Korea)

14:45-15:10  **Myocardial Strain: Quantification and Application**

**SY20-4**  Eun-Ah Park (Seoul National University Hospital, Korea)

15:10-15:30  **Panel Discussion**

Sung Ho Hwang (Korea University Anam Hospital, Korea)
Kwang Nam Jin (SMG-SNU Boramae Medical Center, Korea)
Eun Ju Kang (Dong-A University Medical Center, Korea)

DAILY PROGRAM

March 31 (Sat)

**SY21 Chest MRI Symposium (Kor.)**  Room C (4F)

**More than Meets the Eye: See through Lymphatics by MR Imaging**

**Chairs**  Woocheol Kwon (Yonsei University Wonju College of Medicine, Korea)
Ji Hoon Shin (Asan Medical Center, Korea)

13:30-13:50  **Operation-related Lymphatic Injury and Surgical Management**

**SY21-1**  Hong Kwan Kim (Samsung Medical Center, Sungkyunkwan University School of Medicine, Korea)

13:50-14:10  **Overview of Lymphatic Imaging**

**SY21-2**  Ho Yun Lee (Samsung Medical Center, Sungkyunkwan University School of Medicine, Korea)

14:10-14:30  **Noninvasive & Invasive MR Lymphangiography**

**SY21-3**  So Hyeon Bak (Kangwon National University Hospital, Korea)

14:30-14:50  **SNUH Experience: Role of CT/MR Lymphangiography in Non-traumatic Lymphatic Leakage**

**SY21-4**  Saebeom Hur (Seoul National University Hospital, Korea)

14:50-15:10  **SMC Experience: Focus on Noninvasive MRL**

**SY21-5**  Dongho Hyun (Samsung Medical Center, Korea)

15:10-15:30  **AMC Experience: Focus on Invasive MR Lymphangiography**

**SY21-6**  Ji Hoon Shin (Asan Medical Center, Korea)

13:30-15:30  **SY22 MSK MRI Symposium I (Eng.)**  Room D (4F)

**Keynote Lectures: Current Advanced Techniques for Musculoskeletal MR Imaging**

**Chair**  Sungjun Kim (Yonsei University, Gangnam Severance Hospital, Korea)

13:30-14:00  **Advances in MSK Imaging**

**SY22-01**  Clemens Bos (University Medical Center Utrecht, The Netherlands)

14:00-14:30  **Advanced MR Imaging in Osteoporosis**

**SY22-02**  Xiaoguang Cheng (Beijing Jishuitan Hospital, China)

14:30-15:30  **Scientific Session**

**Chairs**  Clemens Bos (University Medical Center Utrecht, The Netherlands)
Xiaoguang Cheng (Beijing Jishuitan Hospital, China)
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March 31 (Sat)

14:30-14:36  Diffusion Tensor Imaging (DTI) of the Sciatic Nerve: A Prospective Case-Control Study between Patients with Charcot-Marie-Tooth Disease and Normal Volunteers
SY22-03  Hyun Su Kim, Young Cheol Yoon
Department of Radiology, Samsung medical center, Seoul, Korea

14:36-14:42  Development and Validation of Nomogram for Predicting Malignancy in Soft Tissue Tumor Using Conventional and Diffusion-weighted MR Imaging Parameters
SY22-04  Ji Hyun Lee, Young Cheol Yoon, Wook Jin, Jang Gyu Cha, Seon Woo Kim
1Department of Radiology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea
2Department of Radiology, Kyung Hee University Hospital at Gangdong, Kyung Hee University School of Medicine, Seoul, Korea
3Department of Radiology, Soonchunhyang University Bucheon Hospital, Bucheon, Korea
4Biostatic and Clinical Epidemiology, Samsung Medical Center, Seoul, Korea

14:42-14:48  Dynamic Contrast-enhanced MR Imaging: Differentiation of Malignant from Benign Soft Tissue Tumors
SY22-05  Jimin Yoon, Won-Hee Jee, Jun-Pyo Myong, Joon-Yong Jung, Yohan Son, Chan Kwon Jung, Yang-Guk Chung
1Department of Radiology, Seoul St. Mary's Hospital, The Catholic University of Korea, Seoul, Korea
2Department of Occupational and Environmental Medicine, Seoul St. Mary's Hospital, The Catholic University of Korea, Seoul, Korea
3MR, Siemens Healthcare Korea, Seoul, Korea
4Department of Pathology, Seoul St. Mary's Hospital, The Catholic University of Korea, Seoul, Korea
5Department of Orthopedic Surgery, Seoul St. Mary's Hospital, The Catholic University of Korea, Seoul, Korea

14:48-14:54  Three-dimensional Isotropic T1-weighted MR Lymphangiography of T1-weighted Volumetric Interpolated Breath-hold Examination (VIBE) Sequence and Fast Low Angle Shot (FLASH) Sequence in Patients with Lymphedema
SY22-06  Jae Sung Yun, Min Hee Lee, Hye Won Chung, Myung Jin Shin, Sang Hoon Lee
Department of Radiology, Asan Medical center, Seoul, Korea

14:54-15:00  Aging of the Achilles Tendon Insertion - an MRI-based Study
SY22-07  Przemyslaw Pekala, Anna Drzymala, Ewa Mizia, Wadim Wojciechowski, Tomasz Rok, Brandon Henry, Krzysztof Tomaszewski
1Department of Anatomy, Jagiellonian University Medical College, Kraków, Poland
2Department of Radiology, Jagiellonian University Medical College, Kraków, Poland
3Department of Biophysics, Jagiellonian University Medical College, Kraków, Poland

15:00-15:08  Quantitative and Qualitative Analysis of Paraspinous Back Muscle with Focus on Fat Content using CT and MRI in Asymptomatic Volunteers
SY22-08  Fun Kyung Khil, Jung-Ah Choi, Eunjin Hwang, Seon Ah Lee, Il Choi
1Department of radiology, Hallym University Dongtan Sacred Heart Hospital, Hwaseong-si/Gyeonggi-do, Korea
2Department of neurosurgery, Hallym University Dongtan Sacred Heart Hospital, Hwaseong-si/Gyegonggi-do, Korea

15:06-15:12  Quantitative and Qualitative Analysis of Fatty Degeneration of Paraspinous Back Muscle using CT and MRI and their Correlation Analysis with Disc Pathologies
SY22-09  Eunjin Hwang, Eun Kyung Khil, Jung-Ah Choi, Il Choi
Department of Radiology, Dongtan Sacred Heart Hospital, Hwaseong, Korea

13:30-13:30  SY23 Molecular MRI Symposium (Eng.) Room E (4F)
Chairs
Yong Yeon Jeong (Chonnam National University Medical School, Korea)
Jung Hee Lee (Sungkyunkwan University School of Medicine, Korea)

13:30-14:00  Assessment of early Cerebrovascular Alterations and β-amyloid Accumulation in Alzheimer's Disease
SY23-1  Tae Kim (University of Pittsburgh, USA)

14:00-14:30  Translational and Applied MR Research in Neuro-oncologic Imaging
SY23-2  Hye Rim Cho (Seoul National University Hospital, Korea)

14:30-15:00  Application of Size-controlled Melanin Nanoparticles as T1 MRI Contrast Agent
SY23-3  Kuk-Youn Ju (Yonsei University, Korea)

15:00-15:30  Fluorine MRI and Focused Ultrasound
SY23-4  Daehong Kim (National Cancer Center, Korea)
DAILY PROGRAM
March 31 (Sat)

13:30-15:30  SY24 Asian Forum II (Eng.)  Room F [3F]
Perfusion MRI
Chairs: Ying Han (Xuanwu Hospital, Capital University of Medical Sciences, China)
Masafumi Harada (Tokushima University, Japan)
S. Sendhil Velan (Singapore Bioimaging Consortium, A*STAR, Singapore)

13:30-13:50  Perfusion Physics
SY24-1  Hiroyuki Kabasawa (GE Healthcare, Japan)

13:50-14:10  Advances in Preclinical Alzheimer's Disease Alliance of China
SY24-2  Ying Han (Xuanwu Hospital, Capital University of Medical Sciences, China)

14:10-14:30  DCE-MRI in Breast Cancer
SY24-3  Nariya Cho (Seoul National University Hospital, Korea)

14:30-14:50  Introduction to DCE Tracer Kinetic Modelling
SY24-4  Choon Hua Thng (National Cancer Centre, Singapore, Singapore)

14:50-15:10  DCE (Dynamic Contrast Enhancement) Scan of Bone Sarcoma (Osteosarcoma)
SY24-5  Hung Ta Wu (Taipei Veterans General Hospital, Taiwan)

SY24-6  Henry Mak (The University of Hong Kong, Hong Kong)

15:30-16:00  Coffee Break (3F, 4F Lobby)

16:00-17:30  SY25 Review Process of ISMRM, MRM, and JMRI (Kor.)  Room A [4F]
Chairs: Hyun Wook Park (KAIST, Korea)
Se-Hong Oh (Hankuk University of Foreign Studies, Korea)

16:00-16:45  What Happens to Your ISMRM Abstracts after Submission – Tips for Good Abstract Writing
SY25-1  Jongho Lee (Seoul National University, Korea)
Dong-Hyun Kim (Yonsei University, Korea)
Jung-Ah Choi (Hallym University, Korea)

16:45-17:30  Editors' Suggestions for MRM and JMRI Papers
SY25-2  Seung-Kyun Lee (Sungkyunkwan University, Korea)
Jeong Hee Yoon (Seoul National University, Korea)

16:00-17:30  SY26 ISC Symposium II (Eng.)  Room B [4F]
Cardiovascular Disease Screening
Chairs: Mitsue Miyazaki (University of California, San Diego, USA)
Jung Im Jung (The Catholic University of Korea, Seoul St. Mary's Hospital, Korea)

16:00-16:25  Cardiovascular Specialized Imaging Center in Japan: Challenges and Future Potential
SY26-1  Masahiro Terashima (Cardiovascular Imaging Clinic Iidabashi, Japan)

16:25-16:50  Non-Contrast MRA Techniques for Whole Body Cardiovascular Screening
SY26-2  Mitsue Miyazaki (University of California, San Diego, USA)

16:50-17:15  Potential Role of CMR Screening for Asymptomatic Subjects with Cardiovascular Risk Factors
SY26-3  Sung Mok Kim (Samsung Medical Center, Korea)

17:15-17:30  Panel Discussion
Yoo Jin Hong (Severance Hospital, Korea)
Hwanseok Yong (Korea University Guro Hospital, Korea)
Eun Ju Chun (Seoul National University Bundang Hospital, Korea)

16:00-17:30  SY27 Pediatric MRI Symposium II  Room C [4F]
Chairs: Young Seok Lee (Dankook University Hospital, Korea)
Hee Jung Lee (Keimyung University Dongsan Medical Center, Korea)

16:00-16:40  Keynote Lectures: Body (Kor.)
16:00-16:20  Advanced MRI in Pediatric Musculoskeletal Imaging
SY27-01  Jung-Eun Cheon (Seoul National University College of Medicine, Korea)

16:20-16:40  Advanced MR Techniques in Pediatric Liver Imaging
SY27-02  Hyun Joo Shin (Yonsei University College of Medicine, Korea)
### DAILY PROGRAM

**March 31 (Sat)**

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<th>Time</th>
<th>Session/Topic</th>
<th>Speakers/Authors</th>
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<td>16:40-17:30</td>
<td><strong>Scientific Session (Eng.)</strong></td>
<td><strong>SY27-03 Intracranial Hemorrhage in Term Neonates</strong>&lt;br&gt;<strong>Jae Gu Oh</strong>, <strong>Hyun Sook Hong</strong>, <strong>Ji Ye Lee</strong>, <strong>Sung-Shin Kim</strong>, <strong>Ga-Young Park</strong>&lt;br&gt;<strong>Department of Radiology, Soochunhyang University Bucheon Hospital, Bucheon, Korea,</strong> <strong>Department of Pediatrics, Soochunhyang University Hospital, Bucheon, Korea</strong></td>
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<td>16:50-17:00</td>
<td><strong>Twin-to-Twin Transfusion Syndrome: Postnatal Brain MRI Features</strong></td>
<td><strong>SY27-04 Technical Failure of Echo-planar Imaging MR Elastography in Pediatric Liver</strong>&lt;br&gt;<strong>Jin Kyem Kim</strong>, <strong>Myung-Joon Kim</strong>, <strong>Haesung Yoon</strong>, <strong>Mi-Jung Lee</strong>, <strong>Kyungwha Han</strong>, <strong>Hyun Joo Shin</strong>&lt;br&gt;<strong>Department of Radiology, Yonsei university health system severance hospital, Seoul, Korea,</strong> <strong>Department of Radiology and Research Institute of Radiological Science, Severance Children's Hospital, Yonsei University College of Medicine, Seoul, Korea,</strong> <strong>Department of Radiology, Research Institute of Radiological Science, Yonsei University College of Medicine, Seoul, Korea</strong></td>
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<td>17:00-17:10</td>
<td><strong>Technical Failure of Echo-planar Imaging MR Elastography in Pediatric Liver</strong></td>
<td><strong>SY27-05 Estimating Optimal Minimum Number of B-values in Monoexponential, Biexponential and Stretched Exponential Diffusion-weighted MR Imaging in Pediatric Liver</strong>&lt;br&gt;<strong>Haesung Yoon</strong>, <strong>Myung-Joon Kim</strong>, <strong>Mi-Jung Lee</strong>, <strong>Hyun Joo Shin</strong>&lt;br&gt;<strong>Department of Radiology and Research Institute of Radiological Science, Yonsei University College of Medicine, Seoul, Korea</strong></td>
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<td>17:10-17:20</td>
<td><strong>Estimating Optimal Minimum Number of B-values in Monoexponential, Biexponential and Stretched Exponential Diffusion-weighted MR Imaging in Pediatric Liver</strong></td>
<td><strong>SY27-06 Technical Failure of Echo-planar Imaging MR Elastography in Pediatric Liver</strong>&lt;br&gt;<strong>Jin Kyem Kim</strong>, <strong>Myung-Joon Kim</strong>, <strong>Haesung Yoon</strong>, <strong>Mi-Jung Lee</strong>, <strong>Kyungwha Han</strong>, <strong>Hyun Joo Shin</strong>&lt;br&gt;<strong>Department of radiology, Yonsei university health system severance hospital, Seoul, Korea,</strong> <strong>Department of Radiology and Research Institute of Radiological Science, Severence Children's Hospital, Yonsei University College of Medicine, Seoul, Korea,</strong> <strong>Department of Radiology, Research Institute of Radiological Science, Yonsei University College of Medicine, Seoul, Korea</strong></td>
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<tr>
<td>16:00-17:30</td>
<td><strong>SY28 MSK MRI Symposium II (Kor.)</strong></td>
<td><strong>Room D (4F)</strong></td>
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<tr>
<td>16:00-17:30</td>
<td><strong>Quantitative MR Imaging in Musculoskeletal Field: Where Are We?</strong></td>
<td><strong>Wor-Hee Jee</strong> (The Catholic University of Korea, Korea), <strong>Jang Gyu Cha</strong> (Soochunhyang University, Korea)**</td>
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<td>16:40-16:50</td>
<td><strong>Dynamic Contrast Enhanced (DCE) MR Image</strong></td>
<td><em><em>SY28-1 T2, T2</em>, uTE</em>*&lt;br&gt;<strong>Yeo Ju Kim</strong> (Inha University, Korea)**</td>
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<tr>
<td>16:50-17:10</td>
<td><strong>Diffusion-weighted Imaging in Musculoskeletal System</strong></td>
<td><strong>SY28-3 Joon-Yong Jung</strong> (The Catholic University of Korea, Korea)**</td>
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<td>17:10-17:30</td>
<td><strong>Fat Quantification</strong></td>
<td><strong>SY28-4 Hye Jin Yoo</strong> (Seoul National University, Korea)**</td>
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<td>15:45-17:30</td>
<td><strong>SS02 Advanced Scientific Session (Eng.)</strong></td>
<td><strong>Room E (4F)</strong></td>
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<td>15:45-16:25</td>
<td><strong>Keynote Lectures</strong></td>
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<td>15:45-16:05</td>
<td><strong>Analysis of Fluctuation in Cerebral Venous Oxygenation Using MR Imaging: Quantitative Evaluation of Vasomotor Function of Arterioles</strong></td>
<td><strong>Toru Yamamoto</strong> (Hokkaido University, Japan)**</td>
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<tr>
<td>16:05-16:25</td>
<td><strong>Compartment-based Spatial Localization in Quantitative MRI and MRS</strong></td>
<td><strong>Phil Lee</strong> (University of Kansas Medical Center, USA)**</td>
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<td>16:25-17:30</td>
<td><strong>Scientific Session</strong></td>
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<td>16:25-16:30</td>
<td><strong>Improved Reconstruction of 2D Navigated iEPI DWI Using Pre-processed Navigator</strong></td>
<td><strong>Erpeng Dai</strong>, <strong>Zhe Zhang</strong>, <strong>Xiaodong Ma</strong>, <strong>Yuhui Xiong</strong>, <strong>Hua Guo</strong>&lt;br&gt;<strong>Center for Biomedical Imaging Research, Department of Biomedical Engineering, School of Medicine, Tsinghua University, Beijing, China</strong></td>
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<td>16:30-16:35</td>
<td><strong>MR Neurography: See the Nerves like Never Before!</strong></td>
<td><strong>Khusboo Pilania Agrawal</strong>, <strong>Bhavin Jankharia</strong>, <strong>Shilpa Sankhe</strong>, <strong>Aamish Kazi</strong>&lt;br&gt;<strong>Department of Radiodiagnosis, Picture This By Jankharia, Mumbai, Maharashtra, India</strong></td>
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<td>16:35-16:40</td>
<td><strong>Reducing Slab Boundary Artifacts of 3D Multi-band, Multi-slab Imaging</strong></td>
<td><strong>Yuhuan Wu</strong>, <strong>Erpeng Dai</strong>, <strong>Chun Yuan</strong>, <strong>Hua Guo</strong></td>
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<td><strong>Estimating Optimal Minimum Number of B-values in Monoexponential, Biexponential and Stretched Exponential Diffusion-weighted MR Imaging in Pediatric Liver</strong></td>
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<td>16:30-16:50</td>
<td><strong>Dynamic Contrast Enhanced (DCE) MR Image</strong></td>
<td><strong>SY28-2 In Sook Lee</strong> (Pusan National University, Korea)**</td>
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<tr>
<td>16:50-17:10</td>
<td><strong>Diffusion-weighted Imaging in Musculoskeletal System</strong></td>
<td><strong>SY28-3 Joon-Yong Jung</strong> (The Catholic University of Korea, Korea)**</td>
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<td>17:10-17:30</td>
<td><strong>Fat Quantification</strong></td>
<td><strong>SY28-4 Hye Jin Yoo</strong> (Seoul National University, Korea)**</td>
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**ICMRI 2018**

**Room E (4F)**

**Chairs**

**Hyungjun Cho** (UNIST, Korea), **Taekwan Lee** (DGMIF, Korea)

**15:45-16:25**

**Keynote Lectures**

**15:45-16:05**

**Analysis of Fluctuation in Cerebral Venous Oxygenation Using MR Imaging: Quantitative Evaluation of Vasomotor Function of Arterioles**

**SS02-01**

**Toru Yamamoto** (Hokkaido University, Japan)

**16:05-16:25**

**Compartment-based Spatial Localization in Quantitative MRI and MRS**

**SS02-02**

**Phil Lee** (University of Kansas Medical Center, USA)

**16:25-17:30**

**Scientific Session**

**16:25-16:30**

**Improved Reconstruction of 2D Navigated iEPI DWI Using Pre-processed Navigator**

**SS02-03**

**Erpeng Dai**, **Zhe Zhang**, **Xiaodong Ma**, **Yuhui Xiong**, **Hua Guo**

**Center for Biomedical Imaging Research, Department of Biomedical Engineering, School of Medicine, Tsinghua University, Beijing, China**

**16:30-16:35**

**MR Neurography: See the Nerves like Never Before!**

**SS02-04**

**Khusboo Pilania Agrawal**, **Bhavin Jankharia**, **Shilpa Sankhe**, **Aamish Kazi**

**Department of Radiodiagnosis, Picture This By Jankharia, Mumbai, Maharashtra, India**

**16:35-16:40**

**Reducing Slab Boundary Artifacts of 3D Multi-band, Multi-slab Imaging**

**SS02-05**

**Yuhuan Wu**, **Erpeng Dai**, **Chun Yuan**, **Hua Guo**
DAILY PROGRAM
March 31 (Sat)

16:40-16:45  A Robust Inflow Blood Signal Suppression for ViSTA Myelin Water Weighted Imaging: Simulation and In-vivo Results
SS02-06  Joon Yul Choi, Hyunsung Eun, Jingu Lee, Hyoong-Geol Shin, Jongho Lee, Se-Hong Oh
\'Department of Electrical and Computer Engineering, Seoul National University, Seoul, Korea, \'Division of Biomedical Engineering, Hankuk University of Foreign Studies, Yongin, Korea

16:45-16:50  Clinical Application of Deep Neural Network based QSM
SS02-07  Jaeyeon Yoon, Jingu Lee, Jingu Ko, Jongho Lee
Department of Electrical and Computer Engineering, Seoul National University, Seoul, Korea

16:50-16:55  Phase Unwrapping of Psoas Major Muscle MR Elastography by Minimum-Discontinuity and Laplacian-Based-Estimate
SS02-08  Surendra Maharjan, Tomokazu Numang, Tetsushi Habe, Daiki Ito, Takamichi Ueki, Keisuke Igarashi, Toshiki Maeno
Department of Radiological Sciences, Graduate School of Human Science, Tokyo Metropolitan University, Tokyo, Japan

16:55-17:00  The Robustness of T2 Relaxation Time as a Trabecular Structural Index at Multiple Spatial Resolution of T2
SS02-09  Dong Kyu Lee, Young Kyu Song, Bum Woo Park, Hwa Pyeong Cho, Hyung Joon Cho
\'Department of Biomedical Engineering, Ulsan National Institute of Science and Technology, Ulsan, Korea, \'Division of Magnetic Resonance, Korea Basic Science Institute, Ochang, Korea, \'Department of Orthopedic Surgery, Seoul National University, Seoul, Korea

17:00-17:05  Effect of Fitting Models and Its Error Analysis in GRE Based MRI
SS02-10  Junh Hyeob Kim, Hong Pyo Lee, Dong-Hyun Kim
Electrical and Electronic Engineering, Yonsei University, Seoul, Korea

17:05-17:10  DCE MRI Application for Prognosis Prediction of non-enhancing T2 Hyperintense Area in Patients after Completion of Standard Treatment in Glioblastoma
SS02-11  Se Woo Kim, Seunghong Choi, Roh-Eul Yoo, Kyoung Mi Kang, Tae Jin Yun, Joon Kim, Chul Ho Sohn
Department of Radiology, Seoul National University, Seoul, Korea

DAILY PROGRAM
March 31 (Sat)

17:10-17:15  A Fast and Whole-brain Quantitative Mapping of T1 using Inversion Recovery EPIK: Method Evaluation with TAPIR
SS02-12  Seong Dae Yun, Namil Jon Shah
Institute of Neuroscience and Medicine - 4, Forschungszentrum Juelich, Juelich, Germany

17:15-17:20  Comparison of Regional Perfusion Assessment and Postoperative Lung Function Prediction Abilities among Blood Volume-Based MR Imaging with Ultra-Short TE, Thin-Section CT and Perfusion SPECT in NSCLC Patients
SS02-13  Yoshiharu Ohno, Masao Yui, Yu Chen, Shigeharu Ohyu, Yuji Kishida, Shinichiro Seki, Toshiki Yoshikawa
\'Division of Functional and Diagnostic Imaging Research, Department of Radiology, Kobe University Graduate School of Medicine, Kobe, Japan, \'Canon Medical Systems Corporation, Otawara, Japan, \'Canon Medical Systems (China) Co., Ltd, Beijing, China, \'Division of Radiology, Kobe University Graduate School of Medicine, Kobe, Japan

17:25-17:30  Improved Quantitative Bone Imaging using Single Point Dixon Fat-Water Separation
SS02-15  Hyungseok Jang, Jiang Du
Department of Radiology, University of California San Diego, San Diego, CA, USA

16:00-17:30  SY29 Recent Update on MD-PhD Collaboration (Kor.)
Room F (3F)
Chairs  Youngseob Seo (Korea Research Institute of Standards and Science, Korea), Kyung Won Kim (Asan Medical Center, Korea)

16:00-16:20  QSM: Technical Considerations
SY29-1  Yoonho Nam (Seoul St. Mary's Hospital, The Catholic University of Korea, Korea)

16:20-16:40  QSM: Clinical Applications
SY29-2  Jinhee Jang (Seoul St. Mary's Hospital, The Catholic University of Korea, Korea)
DAILY PROGRAM
March 31 (Sat)

16:40-17:00  Dynamic Contrast-enhanced Liver MRI- Clinical Perspectives
SY29-3  Young Kon Kim (Samsung Medical Center, Korea)

17:00-17:20  Dynamic Contrast-enhanced Liver MRI: technical overview
SY29-4  Yoon-Chul Kim (Samsung Medical Center, Korea)

17:30-18:00  Closing Ceremony (Room A, 4F)
* Best Oral/Poster Presentation Awards certificates will be given at the Closing Ceremony.
Posters will be displayed in the Emerald Hall (3F) from March 30(Fri) to 31(Sat). All poster presenters are encouraged to be at their poster panels or E-Poster area for discussion with participants during the poster Q&A time.

Install
March 30 (Fri) 08:00-09:00
Poster Q&A
March 30 (Fri) 15:30-17:30
Dismantle
March 31 (Sat) 17:30-

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P001 - P004 Abdomen

P001 Validation of the Liver Imaging Reporting and Data System with Gadoxetic Acid-enhanced MRI Imaging in a Prospective Surveillance Cohort: Evaluation of LI-RADS Category 4 and 5: Substudy of PRIUS Study
So Hyun Park1, So Yeon Kim2, So Jung Lee3, Seong Ho Park4, Young-Suk Lim5, Jihyun An6, Hyung Jin Won7, Jae Ho Byun1
1Radiology, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea; 2Radiology, Gil Medical Center, Gachon University, Incheon, Korea; 3Incheon, Korea; 4Incheon, Korea; 5Gastroenterology, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea

P003 Improved Quantitative Fatty Acid Values with Correction of T2 Relaxation Time in Terminal Methyl Group: In Vivo Proton MRS at Ultra High Field in Hepatic Steatosis
Kyu-Ho Song, Min-Young Lee, Chi-Hyeon Yoo, Sing-I Lim, Bo-Young Choe
Department of Biomedical Engineering, College of Medicine, The Catholic University of Korea, Seoul, Korea

P004 A Meta-Analysis Study of Non-invasive MR Imaging Methods for Diagnosis of Non-alcoholic Steatohepatitis
Tae-Hoon Kim1, Chang-Won Jeong1, Hong Yong Jun1, Si-Hyeong No1, Ji-Eon Kim1, Kwon-Ha Yoon1
1Medical Convergence Research Center, Wonkwang University School of Medicine, Iksan, Korea; 2Radiology, Wonkwang University School of Medicine, Iksan, Korea

P005 - P033 Advanced MRI

P005 High Resolution Magnetic Resonance Imaging using Compressed sense for Intracranial and Extracranial Arteries: Comparison with Conventional Parallel Imaging
Chong Hyun Suh1, Seung Chai Jung2
1Department of Radiology, Namwon Medical Center, Namwon-Si, Korea; 2Department of Radiology and Research Institute of Radiology, Asan Medical Center, Seoul, Korea

P006 Mapping Cerebral Blood Volume from Dynamic MR Angiographic Data
Muhammad Asaduddin1, Won-Joon Do2, Eung Yeop Kim1, Sung-Hong Park1
1Bio and Brain Engineering, KAIST, Daejeon, Korea; 2Radiology, Gachon University medical center, Incheon, Korea

P007 Systematic Development of a Sequence for Gradient-echo-based Myelin Water Imaging (GRE-MWI)
Hyeong-Geol Shin1, Se-Hong Oh2, Kyeongseon Min1, Jongho Lee1
1Biomedical Engineering, UNIST, Ulsan, Korea; 2Biomedical Engineering, Hankuk University of Foreign Studies, Seoul, Korea

P008 Combination of T2 and T2* Maps to Differentiate the Distributions of Neurou melanin-iron Complex and Ferric Iron within Human Postmortem Substantia Nigra
Hansol Lee, Hyungjoon Cho
Department of Biomedical Engineering, UNIST, Ulsan, Korea

P009 Automated Pattern Recognition Analysis of Intravoxel Incoherent Motion (IVIM)-diffusion to Segment Hypo-perfused Stroke Region
Min Jung Jang1, So Hyun Han2, Hyung Joon Cho3
1Biomedical Engineering, Ulsan National Institute of Science and Technology, Ulsan, Korea; 2Biomedical Imaging, Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Cambridge, USA
P010  The Change of Blood-brain Barrier Disruption Level depending on Reperfusion Time with Temporal Middle Carotid Artery Occlusion Model  
Soonji Lee, Seokha Jin, Hyungjoon Cho  
Department of Biomedical Engineering, Ulsan National Institute of Science and Technology, Ulsan, Korea

P011  The Comparisons of T2, T2* and Quantitative Susceptibility Mapping (QSM) from 4 and 20 Months Old Rat Brain  
Hwa Pyeong Cho, Hyung Joon Cho  
Biomedical Engineering, Ulsan National Institute of Science and Technology (UNIST), Ulsan, Korea

P012  Advanced in Venous Saturation Pulses at 7T Time-of-Flight Magnetic Resonance Angiography  
Sangwoo Kim,1, Yeongjae Jeon,1, Chulhyun Lee2  
1Bio-Analytical Science, University of Science and Technology, Daejeon, Korea, 2Bioimaging Research Team, Korea Basic Science Institute, Cheongju, Korea

P013  Comparison of Resting State EEG-fMRI Method in Reproducibility: EEG-triggered fMRI vs. EEG Power-based fMRI  
Dae-Guk Do1, Min-Woo Lee1, Sol-A Seo1, Song-I Chun1, Kang Min Park1, Chi-Woong Mun2, Sung-Eun Kim1, Byeong-In Lee1  
1Department of Biomedical Engineering, Inje University, Gimhae, Korea, 2Department of Biomedical Engineering and uHARC, Inje University, Gimhae, Korea

P014  Susceptibility Map Weighted Imaging with Automatized Zero Referencing Method  
Hyunsung Eun1, Hyong-Geol Shin1, Eungyeop Kim2, Jongho Lee1  
1Department of Electrical and Computer Engineering, Seoul National University, Seoul, Korea, 2Department of Radiology, Gacheon University Gil Medical Center, Incheon, Korea

P015  How to Combine Signals from Multi-channel Phased Array Coils  
Jin-Soo Kim, Jong-Hyeon Yoon, Young-Joong Yang, Chang-Beom Ahn  
Electrical Engineering, Kwangwoon University, Seoul, Korea

P016  MR Image Interpolation using Convolutional Neural Network  
Yoonho Nam1, Jinhee Jang1, Kang-Hyun Kim1, Dong-Hyun Kim2  
1Department of Radiology, Seoul St. Mary’s Hospital, Seoul, Korea, 2Department of Radiology and Nuclear Medicine, Seoul National University College of Medicine, Seoul, Korea

P017  Monitoring for Dual Inhibition of Energy Budget in Triple-Negative Breast Cancer via High-Resolution Diffusion-Weighted MR Imaging  
Minhee Ku, Nara Yoon, Yun-Jae Kim, Jin-Suck Suh, Jaemoon Yang  
Radiology, Yonsei University, Seoul, Korea

P018  Assessment of Combination Therapy by High-Resolution Diffusion-Weighted Imaging in BRAF(V600E) Mutant Thyroid Cancer  
Minhee Ku, Yun-Jae Kim, Nara Yoon, Jin-Suck Suh, Hyung Kwon Byeon, Jaemoon Yang  
Department of Radiology, Yonsei University, Seoul, Korea

P019  Preliminary Study of Multi-echo-time in Vivo Proton Magnetic Resonance Spectroscopy for Simultaneous Quantification and T2 Measurement of Glutamate  
Chi-Hyeon Yoo1, Kyu-Ho Song1, Song-I Lim1, Dong-Chool Woo1, Bo-Young Choe1  
1Department of Biomedical Engineering, The Catholic University of Korea, College of Medicine, Seoul, Korea, 2Asan Institute for Life Sciences, Asan Medical Center, Seoul, Korea

P020  An Implementation of Pinwheel Excitation Pulses for MRS at 7T  
Yeong-Jae Jeon1, Chulhyun Lee2  
1Department of Bio-Analytical Science, University of Science and Technology, Daejeon, Korea, 2Bioimaging Research Team, Korea Basic Science Institute, Cheongju, Korea

P021  A Robust Self-navigation for Retrospective Respiratory Gating in 3D Radial Ultrafast Echo-time Pulmonary Imaging  
Jinil Park, Seok Won Lee, Jang-Yeon Park  
Department of Biomedical Engineering, Sungkyunkwan University, Suwon, Korea

P022  Super-ASL: Improving SNR and Temporal Resolution of ASL MRI Using Deep Learning  
Danfeng Xie, Yiran Li, Li Bai, Ze Wang  
Electrical and Computer Engineering, Temple University, Philadelphia, USA

P023  Improvement of B0 homogeneity in the Prefrontal Cortex by Head Tilted Imaging  
Seulki Yoo1, Seung-Kyun Lee2  
1Global Biomedical Engineering, Sungkyunkwan University, Suwon, Korea, 2Center for Neuroscience Imaging Research, Institute for Basic Science, Suwon, Korea

P024  The Cell Activity Distribution of Glioblastoma by Frequency Lock-In Enhanced Imaging  
Yu Wen Chen, Dennis W Hwang  
Academia Sinica, Institute of Biomedical Sciences, Taipei, Taiwan
P025  Visuomotor Expressway Associated with Efficient Transmission in Elite Athletes

Hua Zhu, Xuheng Wu, Jian Zhang
School of Kinesiology, Shanghai University of Sport, Shanghai, China

P026  Evaluation of a DO3A Conjugated Gadolinium Complex for Beta-amyloid MR Imaging

Garam Choi1, Soyeon Kim1, Byeongwoo Yang1, Seonghwan Hwang1, Hee-Kyung Kim12, Yeoun-Hee Kim1, Taekwan Lee1, Hoesu Jung1, Seungtae Woo1, Seonguk Jin1, Yongmin Chang1,2,3,4
1Department of Medical &Biological Engineering, Kyungpook National University, Daegu, Korea, 2Department of Molecular Medicine & BK21 Plus KNU Biomedical Convergence Program, Kyungpook National University, Daegu, Korea, 3Institute of Biomedical Engineering Research, Kyungpook National University, Daegu, Korea, 4Laboratory Animal Center, Daegu-Gyeongbuk Medical Innovation Foundation, Daegu, Korea, 5Department of Radiology, Bayer Korea, Seoul, Korea, 6Department of Radiology, Kyungpook National University, Daegu, Korea

P027  Free-breathing Ultrashort Echo Time Lung Magnetic Resonance Imaging using Stack-of-spirals Acquisition: A Feasibility Study in Oncology Patients

Min Jae Cha1, Hyun Jeong Park1, Eun Sun Lee1, Mun Young Paek2, Alto Stemmer1, Berthold Kiefer1, Yang Soo Kim1
1Department of Radiology, Chung-Ang University Hospital, Seoul, Korea, 2Magnetic Resonance, Diagnostic Imaging, Siemens Healthcare, Seoul, Korea, 3Magnetic Resonance, Diagnostic Imaging, Siemens Healthcare, Erlangen, Germany

P028  High Resolution UTE-MRAs for Longitudinal Visualization of Revascularization and Blood-Brain Barrier Disruption on a Rat Transient Middle Cerebral Artery Occlusion Model

Mung Soo Kang, Hyung Joon Cho
Department of Biomedical Engineering, Ulsan National Institute of Science and Technology, Ulsan, Korea

P029  Time of Flight Effects on Water Exchange Index: Comparison Study between Simulation and in Vivo Experiment

Seokha Jin, Hyungjooon Cho
Bioengineering, UNIST, Ulsan, Korea

P030  Parameter Estimation Error Analysis in High-resolution MRF with Respect to the Reduction Factor and the Number of TRs

Taehwa Hong, Dongyeob Han, Dong-Hyun Kim
Department of Electrical and Electronic Engineering, Yonsei University, Seoul, Korea

P031  Usefulness of DWI and FDG-PET as a Biomarker for Radiation Exposure

Kyung Jun Kang1, Ki Hye Jung1, Mi Hyun Kim1, In Ok Ko1, In Sup Noh1, Jung Young Kim1, Yong Jin Lee1, Ji Ae Park1
1Division of RI-Convergence Research, Korea Institute Radiological and Medical Sciences, Seoul, Korea, 2Department of Chemical & Biomolecular Engineering, Seoul National University of Science & Technology, Seoul, Korea

P032  Automatic Localization of Volume of Interest and Saturation Band for Single Voxel MRS

Yi Chuan Lin1, Yi-Ru Lin1, Shang-Yueh Tsai1,4
1Department of Electronic and Computer Engineering, Taiwan Tech, Taipei, Taiwan, 2Department of Electronic and Computer Science Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan, 3Graduate Institute of Applied Physics, National Chengchi University, Taipei, Taiwan, 4Research Center for Mind, Brain and Learning, National Chengchi University, Taipei, Taiwan

P033  Feasibility of fMRS Study using Visual Stimulation at 3T MR system

Jun-Wei Ye1, Yi-Ru Lin1, Shang-Yueh Tsai1,4
1Department of Electronic and Computer Engineering, Taiwan Tech, Taipei, Taiwan, 2Department of Electronic and Computer Science Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan, 3Graduate Institute of Applied Physics, National Chengchi University, Taipei, Taiwan, 4Research Center for Mind, Brain and Learning, National Chengchi University, Taipei, Taiwan

P034 - P046 Cardiovascular

P034  ECG-Triggered Non-Contrast Enhanced MR Angiography (TRANCE) versus Digital Subtraction Angiography (DSA) in Patients with Arteriosclerosis Obliterans of Lower Extremities

Lan Zhang
Department of MRI, the First Affiliated Hospital of Henan University of Traditional Chinese Medicine, Zhengzhou, China

P035  U-net Segmentation Model Applied to In-house User Interfaces of Cardiac Cine and Perfusion Analysis

Yoon-Chul Kim1, Kwanghee Choi1, Yeon Hyeon Choe3
1Clinical Research Institute, Samsung Medical Center, Sungkyunkwan Univ. School of Medicine, Seoul, Korea, 2Department of Computer Science and Engineering, Sogang University, Seoul, Korea, 3Department of Radiology, Samsung Medical Center, Seoul, Korea

P036  Golden Angle Radial Chemical Exchange Saturation Transfer for the Rat Heart

Pan Ki Kim1, Chul Hwan Park2, Yoo Jin Hong1, Byoung Wook Choi1
1Department of Radiology, Samsung Medical Center, Seoul, Korea, 2Department of Radiology, Kyungpook National University Hospital, Daegu, Korea
P037 Second-Order Motion Compensated Diffusion Tensor Echo Planar Imaging of the Rat Heart
Pan Ki Kim1, Chul Hwan Park1, Yoo Jin Hong1, Jin Hur2, Byoung Wook Choi1
1Department of Radiology and Research Institute of Radiological Science, Yonsei University Medical Center, Seoul, Korea
2Department of Radiology and Research Institute of Radiological Science, Gangnam Severance Hospital, Yonsei University Medical Center, Seoul, Korea

P038 Can Cardiac Magnetic Resonance Feature Tracking Predict Clinical Cardiovascular Events in Asymptomatic Aortic Stenosis Patients with Normal Ejection Fraction?
Moon Young Kim1, Eun-Ah Park1, Whal Lee1, Seung-Pyo Lee2
1Department of Radiology, Seoul National University Hospital, Seoul, Korea
2Department of Internal Medicine, cardiology division, Seoul National University Hospital, Seoul, Korea

P039 CMR-derived Pericardial Fat Volume in Ex Vivo of Pig’s Hearts: Validation with CT Images
Kuei-Yuan Hou1, Ming-Hung Liu1, Tien-Min Lin1, Tzu-Chun Lin1, I-Rong Lai1, Yuan-Heng Mo1, Mao-Yuan Su1
1Radiology, Cathay General Hospital, Taipei, Taiwan
2Medical Imaging, National Taiwan University Hospital, Taipei, Taiwan

P040 Simultaneous T1 and T2 Mapping of the Carotid Plaque (SIMPLE) with T2 and Inversion Recovery Prepared 3D Radial Imaging
Haikun Qi, Huiyu Qiao, Rui Guo, Huijun Chen
Department of Biomedical Engineering, Tsinghua University, Beijing, China

P041 Automatic Myocardial Segmentation in LGE using Cardiac Cine Myocardial Boundaries predicted by a CNN Model
Yoon-Chul Kim1, Il Kyu Lee1, Yeon Hyeon Choe1
1Clinical Research Institute, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea
2Department of Computer Science and Engineering, Seoul National University, Seoul, Korea
3Department of Radiology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea

P042 Assessment of Left Ventricular Function by Compressed Sensing Cardiac CINE MRI
Jong-Hyun Yoon1, Young-Joong Yang2, Pan-Ki Kim1, Jin-Soo Kim1, Byoung Wook Choi1, Chang-Beom Ahn1
1Department of Radiology and Research Institute of Radiological Science, Severance Hospital, Yonsei University Medical Center, Seoul, Korea
2Department of Radiology, Research Institute of Radiological Science, Gangnam Severance Hospital, Yonsei University Medical Center, Seoul, Korea

P043 Qualitative MR Imaging in Arrhythmogenic Right Ventricular Cardiomyopathy
Radiology, Sevenhills Hospital, Mumbai, India

P044 Radiological Assessment of Effects of Soluble RAGE for Cardiac Function onto Angiotensin II-induced Left Ventricular Hypertrophy Mice Model
Dan Heo, Young Han Lee, Jin-Suck Suh, Jaemoon Yang
Department of Radiology, Yonsei University College of Medicine, Seoul, Korea

P045 Comparison of Cardiac MRI and Serum Biomarkers for Evaluation of Acute Myocardial Infarction in a Permanent Ligation Mouse Model
Cheongsoo Park, Kwan Soo Hong
Bio-Imaging Research Team, Korea Basic Science Institute, Cheongju, Korea

P046 Carotid Plaque Distribution in Subjects with Extremely Asymmetric Bilateral Bifurcation
Shuo Chen1, Mi Shen2, Rui Li3
1Center for Biomedical Imaging Research, Department of Biomedical Engineering, Tsinghua University, Beijing, China
2Department of Radiology, Beijing Tiantan Hospital, Beijing, China
3Department of Radiology, Beijing Tiantan Hospital, Beijing, China

P047 - P062 Molecular MRI
P049 Ultrasound Gadolinium Oxides Nanoparticles as Multifunctional Agent: MRI, Tumor Detection and Gadolinium Neutron Capture Therapy

Son Jeong Ho1, Gang Ho Lee2, Yongmin Chang2
1Department of Chemistry, Kyungpook National University, Daegu, Korea; 2Department of Molecular Medicine and Medical & Biological Engineering, Kyungpook National University, Daegu, Korea

P050 Synthesis and Characterization of Tat-peptide conjugated Ultrasound Gadolinium Oxide Nanoparticles (TAT-GNPs) and its enhanced Cancer-imaging Application

Mohammad Yaseen Ahmad1, Yongmin Chang2, Gang Ho Lee1
1Department of Chemistry, Kyungpook National University, Daegu, Korea; 2Department of Molecular Medicine and Medical & Biological Engineering and DNN, School of Medicine and Hospital, Kyungpook National University, Daegu, Korea

P051 Bovine Serum Albumin (BSA) and Cleaved-BSA conjugated Ultrasound Gd2O3 Nanoparticles

Arelibehalsadat Ghazanfari1, Yongmin Chang2, Gang Ho Lee1
1Chemistry, Kyungpook National University, Daegu, Korea; 2Molecular Medicine and Medical & Biological Engineering School of Medicine, Kyungpook National University, Daegu, Korea

P052 Targeted Detection of Blood-Brain Barrier Endothelial Cells through Hyper-CEST MRI with Size-optimized Nanoparticles

Matthias Schnurr1, Ines Volz1, Heike Nikolkenko1, Margitta Dathe1, Leif Schroeder1
1Molecular Imaging, Leibniz-Forschungsinstitut für Molekulare Pharmakologie (FMP), Berlin, Germany; 2Peptide-Lipid Interaction / Peptide Transport, Leibniz-Forschungsinstitut fuer Molekulare Pharmakologie (FMP), Berlin, Germany

P053 Manganese Complex of EDTA-EOB Conjugate as a Highly Stable Hepatobiliary MRI Contrast Agent

Md Kamrun Islam1, Soyeon Kim1, Hee-Kyung Kim1, Young-Mi Lee1, Ah Rum Baek1, Heejin Seo1, Youngmin Chang1
1Department of Medical & Biological Engineering, Kyungpook National University, Daegu, Korea; 2Department of Molecular Medicine & BK21 Plus KNU Biomedical Convergence Program, Kyungpook National University, Daegu, Korea; 3Institute of Biomedical Engineering Research, Kyungpook National University, Daegu, Korea; 4Department of Radiology, Kyungpook National University, Daegu, Korea

P054 Macrocyclic Xenon Hosts: Potential Inhibitors and Reporters Forprotein Aggregation in Hyper-CEST MRI

Jan Oliver Jost, Christopher Witte, Leif Schroeder
**P060**  Lanthanide Complex based Small Molecular T2 Agent in Ultra-high Field MRI  
Ahnum Baek1, Heekyung Kim2, Garam Choi3, Bokyung Sung1, Byeongwoo Yang1, Seonghwan Hwang1, Seungtae Woo1, Seonguk Jin3, Hoesu Jung1, Taekwan Lee4, Yongmin Chang5  
1Department of Medical & Biological Engineering, Kyungpook National University, Daegu, Korea, 2Department of Molecular Medicine & BK21 Plus KNU Biomedical Convergence Program, Kyungpook National University, Daegu, Korea, 3Department of Radiology, Kyungpook national university, Daegu, Korea, 4Department of Internal Medicine, Bayer, Seoul, Korea, 5Laboratory Animal Center, Daegu-Gyeongbuk Medical Innovation Foundation, Daegu, Korea

**P061**  NASH-related Hepatocarcinogenesis Inhibition of Shikonin in a Murine Model: DW-MRI Study  
Hong Young Jun1, Tae-Hoon Kim1, Chang-Won Jeong1, Si-Hyeong No1, Ji-Eon Kim1, Tae-Yang Yu1, Kwon-Ha Yoon1  
1Medical Convergence Research Center, Wonkwang University Hospital, Iksan, Korea, 2Department of Internal Medicine, Wonkwang University School of Medicine, Iksan, Korea, 3Department of Radiology, Wonkwang University School of Medicine, Iksan, Korea

**P062**  Gadolinium Complexes of DO3A-NSAIDs (Nonsteroidal Anti-Inflammatory Drugs) Conjugates as Potential Theragnostic MRI Contrast Agents  
Hee-Kyung Kim1, Bokyung Sung2, Youngmi Lee2, Yeoun-Hee Kim2, Heejin Seo2, Ji-Ae Park1, Md Kamrul Islam3, Seungtae Woo1, Seonguk Jin1, Yongmin Chang5  
1Division of Biomedical Science & BK21 Plus KNU Biomedical Convergence Program, Kyungpook National University, Daegu, Korea, 2Department of Medical & Biological Engineering, Kyungpook National University, Daegu, Korea, 3Division of RI-Convergence Research, Korea Institute of Radiological and Medical Science, Seoul, Korea, 4Department of Radiology, Bayer Korea, Seoul, Korea, 5Department of Radiology, College of Medicine, Kyungpook National University, Daegu, Korea

**P063**  Development of Methodology for Measuring Magnetic Susceptibility of Arbitrarily Shaped Materials by MRI  
Seon-Ha Hwang, Seung-Kyun Lee  
Department of Biomedical Engineering, Sungkyunkwan University, Suwon, Korea

**P064**  Potentials of Deep Learning Based Motion Correction: Simulation Results for a Single Step Translational Motion  
Jingyu Ko, Jingu Lee, Jaeyeon Yoon, Doohye Lee, Woojin Jung, Jongho Lee

**P065**  Endorectal RF Coil Design for Prostate HIFU: Acoustic Simulation and Experimental Study  
You-Jin Jeong1, Jong-Min Kim1, Han-Jae Chung1, Jae-Won Yoo1, Chulhyun Lee2, Jongho Lee1, Chang-Hyun Oh1  
1Department of Electronics and Information Engineering and Korea Artificial Organ Center, Korea University, Seoul, Korea, 2Bioimaging Research Team, Korea Basic Science Institute, Cheongju, Korea

**P066**  A Novel Myocardial Segmentation Method using a Combination of CNN and Bidirectional RNN  
Khu Rai Kim1, Yoon-Chul Kim2, Il Kyu Lee1, Yeon Hyeon Choe4  
1Department of Electronics Engineering, Sogang University, Seoul, Korea, 2Clinical Research Institute, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea, 3Department of Computer Science and Engineering, Seoul National University, Seoul, Korea, 4Department of Radiology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea

**P067**  Ophthalmic Magnetic Resonance Imaging using a 7-Channel Receive-only Phased Array Coil: Quantitative Image Evaluation of Anatomical Orbital Structures at 3.0 T  
Kyu-Ho Song1, Young Han Lee1, Jin-Suck Suh2, Min Jung Kim1, Bo-Young Choe3  
1Department of Biomedical Engineering, College of Medicine, The Catholic University of Korea, Seoul, Korea, 2Department of Radiology, Research Institute of Radiological Science, Severance Hospital, Yonsei University College of Medicine, Seoul, Korea

**P068**  A Novel Array Coil Design for Knee Imaging at 3 Tesla  
Woojin Jung, Jongho Lee  
Department of Electrical and Computer Engineering, Seoul National University, Seoul, Korea

**P069**  DW MR Imaging Biomarker for Therapeutic Response in Lung Cancer: IVIM Approach  
Jae-Hun Kim1, Ewha Yang, Jungwon Moon, Chin A Yi  
1Department of Radiology, Samsung Medical Center, Seoul, Korea

**P070**  Novel Python GUI for Efficient Labeling of Myocardial Contours in Cardiac Cine MRI  
Younjooon Chung1, Yoon-Chul Kim2, Yeon Hyeon Choe3
P071 Comparison of Fourier-transform-based Susceptibility-induced B0 Calculation Methods
Seung Kyun Lee, Seok Jin Yeo, Ji Seong Barg
Global Bio Medical Engineering, Sungkyunkwan University, Suwon, Korea

P072 Respiration-induced Dynamic B0 Shifts in the Head: Numerical Simulation Based on Generalized Susceptibility Voxel Convolution (gSVC)
Seung Kyun Lee, Ji Seong Barg, Seok Jin Yeo
Global Biomedical Engineering, Sungkyunkwan University, Suwon, Korea

P073 Enhancement of Shear Wave Fields using Toggled MR Viscoelastography
Jong-Min Kim1, Han-Jae Chung1, You-Jin Jeong1, Jae-Won Yoo1, Jeong-Hee Kim2, Chulhyun Lee3, Chang-Hyun Oh4
1Department of Electronics and Information Engineering and Korea Artificial Organ Center, Korea University, Seoul, Korea, 2Research Institute for Advanced Industrial Technology, Korea University, Sejong, Korea, 3Bioimaging Research Team, Korea Basic Science Institute, Cheongju, Korea

P074 B1 Field Improvement of TEM RF Coil using High Dielectric Pad at 7T
Sana Ullah, Youngdae Cho, Hyoysung Yoo
Biomedical Engineering, University of Ulsan, Ulsan, Korea

P075 Investigation of Receive-only Top-Hat Dipole RF Coil for Brain Imaging at 7 Tesla MRI
Suchit Kumar1, Jong-Min Kim1, Jeong-Hee Kim1, Jun-Sik Yoon1, Chul-Hyun Lee1, Christian Bruns3, Tim Hermann4, Johannes Bernarding4, Chang-Hyun Oh6
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P077 Abnormal Effective Connectivity of the Anterior Forebrain Regions in Disorders of Consciousness
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Kyung-Mi Lee1, Hyug-Gi Kim1, Jang-Hoon Oh1, Mi-Hyun Kim1, Eui Jong Kim1, Woo Suk Choi1, Soonchan Park2, Chang-Woo Ryu2
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Lingyu Li1, Yulin Song2, Yu Han1, Chengshu Zhou1, Dan Zhou1, Fuding Zhang1, Qiming Xue1, Jinling Liu1, Liujuan Zhao1, Caorong Zhang2, Yufeng Zang1, Xiuje Han1, Yating Lv1
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P082 Predicting Chinese Learning Ability of Indians based on Patterns of Intrinsic Brain Connectivity
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P095 Increasing Neural Efficiency by Working Memory Test in Mild Cognitive Impairment using Computer-assisted Rehabilitation
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P107 Cortical Surface Measures, Tractography, and Neuropsychological Data in Specific Language Impairment

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P110 Putaminal Hyperintensity Grade Classification about MSA Patients using GLCM Technique with Convolutional Neural Network on R2* Images

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P111 Diffusion tensor imaging and Voxel-based Morphometry Correlates with the CTG Repeats and Motor Function in Adult Onset Myotonic Dystrophy Type 1

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Myong Hun Hamh, Hui Joong Lee, Sung Jun Moon
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Graph Theory Analysis of Brain Connectivity in Stroke Patients before and after Rehabilitation
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Kyung Min Nam¹, Nam Gyun Lee¹, Anouk Marsman¹, Vincent Oltman Boer¹, Chulhyun Lee¹, Esben Thade Petersen¹
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Taehoon Ahn, Hye-Won Kim
Radiology, Wonkwang university hospital, Iksan, Korea

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EP19  Breast Oncology Imaging-Understanding Perfusion Parameters on MRI and CT
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EP20  Breast Oncology Imaging-Tumor Perfusion and Heterogeneity on MRI in Breast Cancers
Myoungae Kwon¹, Bo Kyoon Seo¹, Eun Kyung Park¹, Chang Sub Ko¹, Young Ju Son²
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EP21 - EP29 GU

EP21 Preoperative MRI detecting the Incidental Prostate Cancer in Urinary Bladder (UB) Cancer Patients using PI-RADS v 2.0: A Preliminary Study
Byung Chul Kang, Sang Eun Yoon
Department of Radiology, Ewha Womans University, Seoul, Korea

EP22 Usefulness of Testicular Volume, Apparent Diffusion Coefficient, and Normalized Apparent Diffusion Coefficient in the Magnetic Resonance Imaging in Evaluation of Infertile Men with Azoosperma
Sung Bin Park1, Byoung Hee Han2, Young Hwa Kim1
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EP23 Comparison of Prostate Volume Measured by TRUS and MRI with the Actual Prostate Volume Measured after Radical Prostatectomy
Sung Bin Park1, Haesun Choi1
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EP24 Assessing the Results of Oblique Incision during the MRI Examination of the Pelvis
Otgontuul Sugarbaatar, Bayarmagnai Altansedeg
Radiology, Mungunguur Hospital, Ulaanbaatar, Mongolia

EP25 Comparison of Transrectal Photoacoustic Imaging of Prostate Cancer with MR Images
Miya Ishihara1, Akio Horiguchi2, Hiroshi Shinmoto1, Hitoshi Tsuda1, Tomohiko Asano1
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EP26 Verrucous Carcinoma of the Vulva on MR Imaging
Jongchul Kim
Department of Radiology, Chungnam National University Hospital, Daejeon, Korea

Chenjiang Wu, Haibin Shi, Yudong Zhang

EP30 - EP35 Molecular MRI

EP30 MRI-guided Breast Cancer Stem Cell Therapy in Mouse Model using Multifunctional Magnetic Nanoparticle
Yujin Sun1, Hoe Suk Kim1, Sukmo Kang2, Yin Ji Piao1, Sangyong Jon3, Woo Kyung Moon1
1Radiology, Seoul National University Hospital, Seoul, Korea, 2Biological Sciences, Korea Advanced Institute of Science and Technology, Daejeon, Korea

EP31 Quantitative Assessment of Alcoholic Hepatitis and Alcoholic Steatohepatitis using Magnetic Resonance Imaging/Spectroscopy
Jeeheon Kang, Su Jung Ham, Jae Im Kwon, Youngjin Kim, Kyung Won Kim, Jinil Kim, Do-Wan Lee, Yoon Seok Choi, Dong-Cheol Woo
C-BiND, Asan Medical Center, Seoul, Korea

EP32 Albumin-conjugated Gadoteric Acid for the Targeted T1-weighted MR Imaging of Tumor
Dan Heo, Minhee Ku, Jaemoon Yang, Jin-Suck Suh
Department of Radiology, Yonsei University College of Medicine, Seoul, Korea

EP33 Study on the Quantification of Gene Expression Levels with Doxycycline-inducible MR Reporter Gene
Jeeheon Kang, Seul-I Lee, Dong-Cheol Woo
Center for Bio-imaging of New Drug Development, Asan Medical Center, Seoul, Korea

EP34 Efficacy Study of Oral CKD-516 on Hepatocellular Carcinoma using MRI
Jeeheon Kang, Su Jung Ham, Dong-Cheol Woo
**EP35**  The Phenomenon of Non-exponential T2 Decay on Triglyceride Quantified with MRS  
Ho Hsin Yang1, Yi-Ru Lin1, Shang-Yueh Tsai1,2  
1Department of Electronic and Computer Science Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan; 2Graduate Institute of Applied Physics, National Chengchi University, Taipei, Taiwan; 3Research Center for Mind, Brain and Learning, National Chengchi University, Taipei, Taiwan

**EP36**  Changes in Vertebral Body Height and Spinal Canal Diameter due to Aging and BMI  
Nomuundari Ganbat1, Bolortuya Khurelbaatar2, Tuvshinjargal Dashjamts2, Tugsjargal Purevsukh2  
1Department of Radiology, Mungun Guur Hospital, Ulaanbaatar, Mongolia; 2Department of Radiology, Mongolian National University of Medical Science, Ulaanbaatar, Mongolia

**EP37**  Magnetic Resonance Study of Plantar Fascia and Its Relation to the Achilles Tendon  
Przemysław Pekala, Anna Dzrymala, Ewa Miżia, Jakub Pekala, Agata Marcinow, Jerzy Walocha, Krzysztof Tomaszewski  
Department of Anatomy, Jagiellonian University Medical College, Kraków, Poland

**EP38**  A Comparative Study of the Relative Value and Absolute Value for Diagnosis Spinal Epidural Lipomatosis with Magnetic Resonance Imaging  
Gen Yan  
Department of Radiology, Affiliated Hospital, Jiangnan University, Wuxi, China

**EP39**  Benign Soft Tissue and Bone Pathology on MRI that May Simulate Aggressive Disease  
Michael Jinpyo Lee, Sung Moon Kim, Jon Jacobson, Monica Kalume Brigido  
Department of Radiology, University of Michigan, Ann Arbor, USA

**EP40**  Complications of T1 Effect affected by TR for Measurement of T2  
Noriyuki Tawara1, Patompong Polharn2, Kanokvalee Ponkanist2, Anchali Krisanachinda2  
1Department of Radiological Sciences, Faculty of Health Sciences, Japan health Care College, Sapporo, Japan; 2Department of Radiology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand; 3Department of Radiology, King Chulalongkorn Memorial Hospital, Bangkok, Thailand

**EP41**  Plantar Fibromatosis (Ledderhose Disease): A Case Report  
Bolortuya Khurelbaatar1, Nomuundari Ganbat2, Tuvshinjargal Dashjamts1, Tugsjargal Purevsukh1  
1Department of Radiology, Mongolian National University of Medical Science, Ulaanbaatar, Mongolia; 2Department of Radiology, Mungun Guur Hospital, Ulaanbaatar, Mongolia

**EP42**  Patients with Guillain-Barré Syndrome Variant Involving the Finger Extensor Muscles: When Should We Examine the MRI?  
Bo Ra Kim, Dong Ho Ha  
Radiology, Dong-A University, Busan, Korea

**EP43**  Magnetic Resonance Imaging in Hyperintense Bone Marrow Lesions  
Vivek Pai, Devendra Lokhande, Kanchan Gupta, Pradip Singh, Anupkumar Agrawal, Chintan Trivedi, Sanaa Nadkami, Bhujang Pai  
Radiology, Sevenhills Hospital, Mumbai, India

**EP44**  Association of Subtendinous Bursa of Gastrocnemius Detected in Knee Magnetic Resonance Imaging with Osteoarthritis  
Ji Young Hwang, Hyun Hae Cho, Hyein Yun  
Department of Radiology, Ewha Womans University College of Medicine, Seoul, Korea

**EP45**  Pigmented Villonodular Synovitis of the Knee Joint: A Case Report  
Densmaa Khurelbaatar1, Bolorbuya Khurelbaatar2, Garamjav Khishigdavaa1  
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**EP46**  Comparative Study between the Typical and Coronal sagittal PD Sequences and Oblique Sagittal and Coronal Sequences for Detection ACL and PCL Tears of the Traumatic Knee Joint Patients.  
Batsugar Munkhbat, Munkh-Od Enkhjargal, Lkhagvasuren Dorjynambuu  
Radiology, Medtrauma Hospital, Ulaanbaatar, Mongolia

**EP47**  The Acute Effect of Running on Knee Articular Cartilage Post Meniscectomy on MRI T2 Mapping  
Yigal Chechik, Dror Lindner, Yiftah Beer, Gavriel Agar  
Orthopedics, Assaf Harofeh, Be’er Ya’acob, Israel

**EP48**  Clinical Case: Huge Sacral Chordomas with Multifocal Metastasis in the Sacrum, the Iliac and Ischial Bones  
Ariunjargal Sumiyadorj, Solongo Erdenesaikhan, Lkhagvasuren Jagai  
Department of Radiology, Military Hospital, Ulanbator, Mongolia
EP49 - EP68 Neuro

EP49  Advanced Neurochemical Profiling in Mouse Models of Human Neurological Disorders
Ivan Tkac
Center for Magnetic Resonance Research, University of Minnesota, Minneapolis, MN, USA

EP50  Diagnostic Performance of Three-dimensional High Resolution Magnetic Resonance Imaging for Intracranial Aneurysms: Comparison with Digital Subtraction Angiography
Younghye Kim, Seung Chai Jung, Ho Sung Kim, Choong Gon Choi, Sang Joon Kim, Ji Eun Park
Department of Radiology, Asan Medical Center, Seoul, Korea

EP51  Prediction of Genetic Profiles and Prognosis using Quantitative and Qualitative MR Imaging Features in Grade III Gliomas: A Comparative Study with Glioblastoma
Eun Kyuung Hong, Seung Hong Choi
Department of Radiology, Seoul National University Hospital, Seoul, Korea

EP52  Application of 3D Fast Spin-echo T1 Black-blood Imaging in the Diagnosis and Prognostic Prediction of Patients with Leptomeningeal Carcinomatosis
Jiseon Oh, Seung Hong Choi, Eun Jung Lee, Dong Jae Shin, Sang Won Jo, Roh-Eul Yoo, Koung Mi Kang, Tae Jin Yun, Ji-Hoon Kim, Chul-Ho Sohn
Department of Radiology, Seoul National University Hospital, Seoul, Korea

EP53  PICA Termination of Vertebral Artery; Perfusion Abnormality on ASL and DSC Perfusion MRI
Dong Woo Park, Tae Yoon Kim
Radiology, Hanyang University Guri Hospital, Guri, Korea

EP54  Establishment of Cranial Large Vessel Changes in Encephalopathy Circulatory Disorder (ECD) Stages through the Non-contrast MR Angiography
Myagmarjalb Buu Bolormaa
Diagnostic Imaging Center, The First Central Hospital of Mongolia, Ulaanbaatar, Mongolia

EP55  The Magnetic Resonance Tomography signs in III Stage of Encephalopathy due to Circulatory Dysfunction
Javzmaa Divaa, Badamsed Tserendorj
Department of Radiology, The First Central Hospital of Mongolia, Ulaanbaatar, Mongolia

EP56  Establishment of Cranial Large Vessel Changes in Chronic Circulatory Disorder (CCD) Stages through the Non-contrast MR Angiography

EP57  Metabolic Effects of Light Deprivation in the Prefrontal Cortex of the Depression-like Rats: In Vivo Proton Magnetic Resonance Spectroscopy at 7T
Chi-Hyeon Yoo, Kyu-Ho Song, Song-I Lim, Dong-Cheol Woo, Bo-Young Choe
Department of Biomedical Engineering, The Catholic University of Korea college of medicine, Seoul, Korea

EP58  The Effects of Basketball Playing on Multiple Object Tracking: An fMRI Study
Fanghui Qiu, Xuepei Li, Yin Wu, Jian Zhang
School of Kinesiology, Shanghai University of Sport, Shanghai, China

EP59  Cerebral Venous Thrombosis – What the Resident needs to Know
Vivek Pai, Devendra Lokhande, Kanchan Gupta, Pradip Singh, Anupkumar Agrawal, Chintan Trivedi, Sanaa Nadkarni, Bhujang Pai
Radiology, Sevenhills Hospital, Mumbai, India

EP60  The Neurophsygnomanometer – Magnetic Resonance Imaging Manifestations of Systemic Arterial Pressure Fluctuations
Vivek Pai, Devendra Lokhande, Kanchan Gupta, Pradip Singh, Anupkumar Agrawal, Chintan Trivedi, Sanaa Nadkarni, Bhujang Pai
Radiology, Sevenhills Hospital, Mumbai, India

EP61  Role of MRI in the Evaluation of the Intracranial Meninges
Vivek Pai, Devendra Lokhande, Kanchan Gupta, Anupkumar Agrawal, Chintan Trivedi, Pradip Singh, Ritesh Kharche, Bhujang Pai
Radiology, Sevenhills Hospital, Mumbai, India

EP62  Visualization of Sinonasal and Skull Base Bony Structures with Ultrashort Echo Time Imaging: A Preliminary Feasibility Study
Miran Han, Jin Wook Choi, Eun Ju Ha, Sungmin Gho
Radiology, Ajou University Hospital, Suwon, Korea, 3MR Clinical Research & Development, GE Healthcare, Seoul, Korea

EP63  The Diffusion Kurtosis Imaging in Evaluating the Infarction Core of Acute Ischemic Stroke
Jianzhong Yin
Radiology, Tianjin First Central Hospital, Tianjin, China
EP64  Evaluation of Tumor Blood Flow by using Alternate Ascending/Descending Directional Navigation in Primary Brain Tumors: Comparison Study with Dynamic Susceptibility Contrast MRI
Hyeree Park1, Joonhyuk Lee1, Sung-Hong Park2, Seung Hong Choi3
1Department of Medicine, Seoul National University College of Medicine, Seoul, Korea, 2Magnetic Resonance Imaging Laboratory, Department of Bio and Brain Engineering, Korea Advanced Institute of Science and Technology, Daejeon, Korea, 3Department of Radiology, Seoul National University Hospital, Seoul, Korea

Eun Jung Lee, Seung Hong Choi, Soon Tae Lee, Chul Kee Park, Tae Min Kim, Choil Ho Sohn, Ji Hoon Kim, Sung Hye Park, Il Han Kim, Tae Jin Yun, Koung Mi Kang, Roh Eul Yoo, Dong Jae Shin, Sang Won Cho
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EP66  Periventricular White Matter Diffusion Tensor Abnormalities in Postural Instability Gait Disorders
Shawn Tan, Nicole Keong, Hui-Hua Li, Helmut Rumpel, Eng-King Tan, Ling-Ling Chan
Singapore General Hospital, National Neuroscience Institute and Duke-NUS Medical School, Outram Road, Singapore

EP67  Nostalgia Modulates Neural Responses to Mortality Threat
Ziyan Yang, Huajian Cai
Institute of Psychology, Chinese Academy of Sciences, Beijing, China

EP68  Role of MRI in Characterization of Parasellar Masses
Abhijeet Balbhim Ghaytidak
Radiodiagnosis, Tata Memorial Hospital, Mumbai, India

EP69 - EP70  Pediatric

EP69  Imaging Features of Hepatic Nodules in Pediatric Cancer Survivors: Focusing on FNH with Gadoxetic Acid-enhanced MRI
Kyowon Gu, So-Young Yoo, Ji Hye Kim, Tae Yeon Jeon, Se-Rin Oh
Department of Radiology, Samsung Medical Center, Seoul, Korea

EP70  Role of MRI in Imaging of Retinoblastoma
Sushil Panbudde, Seema Kembhavi, Suyash Kulkami, Nitin Shetty, Meenakshi Thakur
Radiodiagnosis, Tata Memorial Hospital, Mumbai, India

EP71  Others

EP71  Reduction of Involuntary Movement Artifacts with Macco Cushion
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Luncheon Symposium

“Magnetic Resonance Imaging in the era of Machine Learning: an update from Canon Medical”
Guy Umberto Poloni, Ph.D.
Director, Global MRI Clinical Research
(Canon Medical Systems Corporation)

- Date: Mar. 31(Sat.), 12:30-13:30
- Place: Room A(4F)

What’s new in MRI by Canon

Youngha Kim, MR Business Manager
Juho Kim Ph.D., MR Clinical Scientist
(Canon Medical Systems Korea)

- Date: Mar. 30(Fri.), 17:30-18:30
- Place: Room B(4F)

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