

# Conference on Magnetic Resonance in Medicine & 25<sup>th</sup> National Magnetic Resonance Society Meeting

**Venue: Auditorium, Indian National Science Academy (INSA)  
Bahadur Shah Zafar Marg (Near ITO)  
New Delhi – 110 002**

## Pre-Conference Workshop

<b>Date: February 13, 2019</b>		
<b>Time</b>	<b>Title</b>	<b>Speaker</b>
9:00 – 09:30 - <b>Registration</b>		
<i>Venue: Main Auditorium, INSA</i>		
09:30 – 09:40	Welcome Message	<b>Dr. Ruediger Weisemann &amp; Mr. Jayant Nagavkar</b>
09:40 – 10:00	Bruker News	<b>Dr Ruediger Weisemann</b>
10:00 – 10:20	Highlights on the Bruker Biospin - Mestrelab strategic collaboration and scientific partnership	<b>Mr. Guy Desmarquets</b>
10:20 – 10:50	<b>Tea</b>	
10:50 – 11:10	Application talk on Solids	<b>Dr. Sebastian Wegner</b>
11:10 – 11:30	CryoProbe and Probe News for High Resolution NMR	<b>Dr. Aitor Moreno</b>
11:30 – 11:50	GxP compliance & Topspin	<b>Raghav G Mavinkurve</b>
11:50 – 12:10	NMR based metabolomics (Metabolic profile of body fluids tissues etc.)	<b>Dr. Ruediger Weisemann</b>
12:10 – 12:30	Potency determination by qNMR	<b>Dr. Chandrashekhar</b>
12:30 – 12:50	Small volume NMR probes applications	<b>Dr. Aitor Moreno</b>
12:50 – 13:10	Focus improvement area: Services for Indian customers	<b>Dr. Andreas Kamlowski &amp; Mr. Andreas Rimensberger</b>
13:10 – 13:20	Bruker Biospin - Consumables Portfolio	<b>Mr. Vincent Raja</b>
13:20 – 13:30	<b>Q &amp; A</b>	
13:30 – 14:15	<b>Lunch</b>	
14:15 – 15:15	Trendsetting applications in MRI – an interactive session	<b>Dr. Rajesh Kumar,</b> Siemens Health Care
15:15 – 16:15	Advanced clinical image processing using ISP and introduction to the AI enabled advanced research image processing infrastructure using IS-Discovery	<b>Mr. Stanley Pichai and Mr. Nikhil Samar,</b> Philips Health Systems, Philips India Ltd
16:15 – 16:45	<b>Tea</b>	

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## Inaugural Programme

<b>Date: February 13, 2019</b>	
17:00 to 17:40 pm: <b>Inauguration</b>	
<b>Chief Guest: Prof. Balram Bhargava, DG, ICMR</b>	
<b>Prof. Randeep Guleria, Director, AIIMS, New Delhi will Preside</b>	
<i>Session 1: Main Auditorium, INSA</i>	
<i>Chairperson: Prof. CL Khetrpal</i>	
<b>Time</b>	<b>Speaker and Title</b>
17:45 – 18:20	<b>Prof. John C Gore:</b> Functional MRI of White Matter
18:20 - 18:55	<b>Prof. Jean-Paul Amoureux:</b> New recent developments of solid-state NMR methods to enhance the S/N and resolution
<b>19:00 hours - Leave for AIIMS</b>	
19:30-22:30	<b>Conference Dinner – Swimming Poolside, AIIMS</b>

**Date: February 14, 2019**

<b>Time</b>	<b>Speakers</b>	<b>Speakers</b>
	<b>Session-2: Main Auditorium</b>	<b>Session-3: Multi-purpose Hall</b>
<b>Chairpersons</b>	<b>Dr. B. Jagadeesh and Prof. ND Kurur</b>	<b>Prof. P. Raghunathan and Prof. Raju Sharma</b>
9:15 - 9:45	<b>Prof. Michael McMahon:</b> Using CEST MRI to monitor progression in renal disease	<b>Prof. Kavita Dorai:</b> NMR-Based metabolomics investigations of circadian clock, dispersal syndrome, immune response and aging in <i>Drosophila Melanogaster</i>
9:45 – 10:15	<b>Dr. Mandar Deshmukh:</b> The mechanism of small RNA mediated gene regulation	<b>Dr. Rajesh Kumar:</b> Recent advancements and innovations in MRI
10:15 – 10:45	<b>Prof. Yang Xia:</b> Microscopic MRI and its application in Science, Engineering and Medicine	<b>Dr. Sendhil Velan:</b> Imaging of fat partitioning in humans and rodents during obesity and weight loss
10:45 – 11:00	Oral-1: <b>Prof. T.I. Smirnova</b>	Oral-2: <b>Dr. Sony George</b>
11:00 – 11:15	Oral-3: <b>Dr. Nilomoni Nath</b>	Oral-4: <b>Dr. Shilpi Modi</b>
11:15 – 11:45	<b>Tea</b>	
<b>Session 4: Main Auditorium, INSA</b>		
<b>Chairperson: Prof. Anil Kumar</b>		
11:45 – 12:20	<b>Prof. Albert Thomas:</b> Accelerated Spatially Resolved Correlated Spectroscopic Imaging and Applications in Breast Cancer and Diabetic Calf Muscle	
12:20 – 12:55	<b>Prof. PK Madhu:</b> Recoupling schemes in solid-state NMR in a different light	
12:55 – 15:00	Lunch & Poster Session-1 ( <i>Odd number posters</i> ): Poster Hall <b>Chairpersons: Prof. Shrikant Kukreti and Dr. Neeraj Sinha</b>	
	<b>Session-5: Main Auditorium</b>	<b>Session-6: Multi-purpose Hall</b>
<b>Chairpersons</b>	<b>Prof. Shailesh Gaikwad and Dr. Anup Singh</b>	<b>Prof. R.K. Gupta and Prof. Ajay Garg</b>
15:00 – 15:30	<b>Prof. C Kesavadas:</b> Neuroimaging using MR: What next?	<b>Prof. Alex Smirnov:</b> Photonic band gap structures - a radically new line of resonators for mmW EPR and DNP NMR
15:30 – 16:00	<b>Dr. Poonam Rana:</b> Metabolomics based prediction modelling for radiation exposure: A journey so far	<b>Dr. Jeetender Chugh:</b> Dynamical modes in RNA binding protein allow for shape-dependent RNA recognition
16:00 – 16:30	<b>Dr. Jesus Angulo:</b> Novel Developments in Saturation Transfer Difference NMR (STD NMR) to Study Weak Protein-Ligand Interactions	<b>Prof. Roland Kreis:</b> Quality assessments in clinical MRS: of men and machine
16:30 – 17:00	<b>Tea</b>	
	<b>Session-7: Main Auditorium</b>	<b>Session-8: Multi-purpose Hall</b>
<b>Chairpersons</b>	<b>Prof. KV Ramanathan and Prof. Neeraj Sinha</b>	<b>Dr. S. Khushu and Prof. Raja Roy</b>
17:00 – 17:15	OP01: <b>Juan C. Fuentes-Monteverde</b>	OP02: <b>Neeru Arya</b>
17:15 – 17:30	OP03: <b>Rupsa Bhattacharjee</b>	OP04: <b>Priya Singh</b>
17:30 – 17:45	OP05: <b>Ayan Debnath</b>	OP06: <b>Sunita Gudwani</b>
17:45 – 18:00	OP07: <b>Aruna Singh</b>	OP08: <b>Esha Baidya Kayal</b>
18:00 – 18:15	OP09: <b>Lokeswara Rao Potnuru</b>	OP10: <b>Kavya Illath</b>
18:15 – 18:30	OP11: <b>Manish Kumar</b>	OP12: <b>Harindranath Kadavath</b>
18:45 hrs	<b>Leave for Banquet Dinner</b>	
19:30 hrs	<b>Banquet Dinner</b>	

Date: February 15, 2019		
Time	Speakers	Speakers
	<b>Session-9: Main Auditorium</b>	<b>Session-10: Multi-purpose Hall</b>
<i>Chairpersons</i>	<i>Prof. RV Hosur and Prof. Rajesh Sagar</i>	<i>Prof. KVR Chary and Prof. Rama Jayasundar</i>
9:15 - 9:30	Oral-5: <b>Dr. Avik Mazumder</b>	Oral-6: <b>Dr. Puja Panwar Hazari</b>
9:30 – 10:00	<b>Prof. Murali Krishna Cherukuri:</b> EPR/MRI based molecular imaging biomarkers to guide treatment in tumor bearing mice	<b>Dr. Ashish Gupta:</b> Essential hypertension: <sup>1</sup> H NMR based metabolomics of filtered serum
10:00 – 10:30	<b>Dr. Neel Sarovar Bhavesh:</b> Towards a code for single stranded RNA recognition	<b>Dr. Bipul Sharma:</b> Cocrystal Engineering for Phase Stability Improvement of Labile Drugs
10:30 – 11:00	<b>Dr. Jaladhar Neelavalli:</b> SWIp and QSM for Neuro and Body Imaging	<b>Dr. Kurt Schenker:</b> Trends in Preclinical MRI
11:00 – 11:15	Oral-7: <b>Dr. Sonia Gandhi</b>	Oral-8: <b>Dr. Samanwita Pal</b>
11:15 – 11:45	<b>Tea</b>	
<b>Session 11: Main Auditorium, INSA</b> <i>Chairperson: Prof. S Subramanian</i>		
11:45 – 12:20	<b>Prof. Andrew Webb:</b> Ultra-high field and ultra-low field MRI	
12:20 – 12:55	<b>Prof. Peter Jezzard:</b> New methods for the study of cerebrovascular disease using MRI	
12:55 – 15:00	Lunch & <b>Poster Session – 2 (Even number posters):</b> Poster Hall <i>Chairpersons: Dr. S. Khushu and Dr. TG Ajithkumar</i>	
	<b>Session-12: Main Auditorium</b>	<b>Session-13: Multi-purpose Hall</b>
<i>Chairpersons</i>	<i>Prof. J. Ramakrishna and Prof. Gurpreet Gulati</i>	<i>Prof. S. Ganapathy and Prof. Mangala Sunder Krishnan</i>
15:00 – 15:30	<b>Dr. Amit Mehndiratta:</b> Quantitative IVIM diffusion MRI for cancer imaging and measuring treatment response	<b>Dr. Ranjan Khunt:</b> qNMR and Medicinal Chemistry
15:30 – 16:00	<b>Dr. Ravi S Ampapathi:</b> Structural investigations of SIX3-HD and its role in the disease Holoprosencephaly	<b>Prof. Pravat Mandal:</b> Big data analytics in early diagnostic on Alzheimer's disease using multi-model imaging modalities
16:00 – 16:30	<b>Prof. Pratip K Bhattacharya:</b> Real-time metabolic and molecular imaging of cancer systems	<b>Dr. V Pramodh:</b> Studying protein conformational dynamics using Methyl <sup>1</sup> H spectroscopy
16:30 – 17:00	<b>Tea</b>	
	<b>Session-14: Main Auditorium</b>	<b>Session-15: Multi-purpose Hall</b>
<b>Session 21: Award Lectures: Main Auditorium, INSA</b> <i>Chairpersons: Prof. S Subramanian and Prof. Suryaprakash</i>		
17:00 – 17:30	<b>Prof. Subramaniam Award Lecture:</b> <b>Prof. Ashutosh Kumar, IIT, Bombay</b>	
17:30 – 17:50	<b>CBMR Gold Medal Award lecture:</b> <b>Dr. Sandeep Kumar Mishra, IISc, Bengaluru</b>	
17:50 – 18:05	<b>Jharana Rani Samal Outstanding Research Award:</b> <b>Mr. Arnab Dey, IIT, Madras</b>	
19:30 – 21:30	<b>Dinner – INSA</b>	

<b>Date: February 16, 2019</b>		
<b>Time</b>	<b>Speakers</b>	<b>Speakers</b>
	<b>Session-16: Main Auditorium</b>	<b>Session-17: Multi-purpose Hall</b>
<i>Chairpersons</i>	<i>Prof. RK Agrawal and Dr. Uma Sharma</i>	<i>Dr. Anil Mishra and Dr. Virendra Kumar</i>
9:15 - 9:45	<b>Dr. Dinesh Kumar:</b> Diagnostic panel of biomarkers for the assessment of Sarcoidosis and Tuberculosis identified using NMR based serum metabolomics	<b>Dr. Ranabir Das:</b> Understanding aromatic interactions and protein design
9:45 – 10:15	<b>Dr. Monica Sundd:</b> Structural studies on the intermediates of fatty acid biosynthesis pathway using NMR	<b>Dr. Suchandrima Banerjee:</b> Futureproofing neuro MR technique developments
10:15 – 10:45	<b>Dr. Sulakhshana Mukherjee:</b> Mechanism of DNA binding of this family of transcription	<b>Dr. Phani Kumar:</b> Lithium Cation Speciation in LiPF <sub>6</sub> -PC Electrolyte Studied by 2D Heteronuclear Overhauser Enhancement and Pulse Field Gradient Diffusometry NMR
10:45 – 11:15	<b>Prof. Rajesh Kumar:</b> Role of Magnetic Resonance procedures in sleep disordered breathing	<b>Prof. Periannan Kuppusamy:</b> Measurement of oxygen concentration (pO <sub>2</sub> ) in human Tumors using EPR Oximetry with OxyChip
11:15 – 11:45	<b>Tea</b>	
<b>Session 18: Main Auditorium, INSA</b> <i>Chairperson: Prof. G. Govil</i>		
11:45 – 12:20	<b>Prof. N Suryaprakash:</b> Versatile Chiral Auxiliaries, Water Compatible Weak Chiral aligning Media and Manipulation of Spin Dynamics for NMR Spectroscopic Discrimination of Enantiomers	
12:20 – 12:55	<b>Prof. Ritu Barthwal:</b> Disrupting telomere maintenance by targeting G-Quadruplex DNA with small molecules: alkaloids, anthracycline and anthraquinone derivatives	
12:55 – 13:45	<b>Lunch</b>	
	<b>Session-19: Main Auditorium</b>	<b>Session-20: Multi-purpose Hall</b>
<i>Chairpersons</i>	<i>Prof. Shrikant Kukreti and Dr. TG Ajithkumar</i>	<i>Dr. N. Thirupathi and Dr. Vijayakumar</i>
13:45 – 14:00	OP13: <b>Dr. Ankeeta</b>	OP14: <b>Rafeek Thaha</b>
14:00 – 14:15	OP15: <b>Dr. Vivek Tiwari</b>	OP16: <b>Jyotsana Ojha</b>
14:15 – 14:30	OP17: <b>Bhawna Chaubey</b>	OP18: <b>Khandekar Jishan Bari</b>
<i>Chairpersons</i>	<i>Prof. Suraj Manrao G and Dr. S. Raghohama</i>	<i>Prof. A. Saran and Dr. Ashish Arora</i>
14:40 – 15:10	<b>Dr. Anirban Bhunia:</b> Structural and mechanistic studies of Amyloids and model membranes	<b>Dr. Vipin Agarwal:</b> Quantitative and qualitative proton-proton distances in fully protonated solids at fast magic spinning NMR
15:10 – 15:40	<b>Prof. Rose Dawn Bharat:</b> Resting State fMRI in epilepsy	<b>Dr. TS Mahesh:</b> Push-Pull Technique for Pulse Engineering
16:00 – 16:30	<b>Valedictory Function and Poster Awards</b>	
16:30 – 17:00	<b>GBM of NMRS: Main Auditorium, INSA</b>	
17:00	<b>High Tea</b>	