

# *2<sup>nd</sup> India-Japan Workshop on Magnetic Resonance*

**Date:** Sunday, 8<sup>th</sup> December – Tuesday, 10<sup>th</sup> December 2019

**Venue:** Tata Institute of Fundamental Research, Sy. No. 36/P, Gopanpally, Serilingampally, Hyderabad -500 107

## Program

<b>Sunday, 8<sup>th</sup> December 2019</b>	
18:30 onwards	Research Mixer and official discussions (Enhancing Indian-Japanese research collaboration in magnetic resonance)
<b>Monday, 9<sup>th</sup> December 2019</b>	
Time	Speakers
9:15-9:30	<i>Opening remarks by Director TIFR Hyderabad and Director NMR Division, Riken</i>
Session Chair: B. Jagdeesh	
9:30-11:00	<p>Yoshitaka Ishii, Tokyo Institute of Technology &amp; Riken, Yokohama <i>Sensitivity-Enhanced Protein Solid-state NMR using Ultra-fast MAS and Structural Studies of Alzheimer's Amyloid-<math>\beta</math></i></p> <p>Ranabir Das, NCBS, Banaglore <i>Molecular mechanism of how deamidation by Shigella silences the host immune response</i></p> <p>Ashutosh Kumar, IIT Bombay <i>Mechanism of recognition between Plasmodium falciparum and Human sumoylation machinery</i></p>
11:00-11:30	Coffee/Tea Break
Session Chair: Yoshitaka Ishii	
11:30-13:00	<p>Yusuke Nishiyama, Jeol Resonance and Riken, Yokohama <i>Electron and NMR Nano-Crystallography</i></p> <p>Kristhoff Grohe, Bruker Biospin, Germany <i>Towards exact distance restraints in solid-state NMR for determination of structure and dynamics of insoluble proteins</i></p> <p>Kaustubh Mote, TIFR, Hyderabad <i>Rapid data collection at slow and moderate MAS frequencies without increasing probe duty cycles</i></p>
13:00-14:00	Lunch
Session Chair: Tomoyasu Aizawa	
14:00-15:30	<p>K. Takeda, Kyoto University <i>In situ solid-state measurements of a magnetically oriented microcrystal suspension / Up-conversion of radio-frequency NMR signals to an optical regime using a membrane transducer</i></p> <p>Rajalakshmi, TIFR, Hyderabad <i>Optical detection of Spins Polarisation</i></p> <p>Yoh Matsuki, Osaka University <i>Mesoscale Sample Domain Selection by 460 GHz-700 MHz DNP NMR using Closed-Cycle Helium MAS and Dual Gyrotron</i></p>
15:30-16:00	Coffee/Tea Break
Session Chair: Kanchan Garai	
16:00-18:00	Soumya De, IIT Kharagpur

	<p><i>Identification of rigid segments with important biological functions in intrinsically disordered regions of proteins by solution NMR spectroscopy</i>  Navratna Vajpai, Biocon Biologics Ltd – RND, Bangalore  <b>High-resolution HOS characterization of biologics</b>  Srinivasan L Poojary, JEOL India Ltd.  <i>Latest Developments and New features from JEOL NMR Technologies</i>  Sebastian Wagner, Bruker Biospin, Germany  <i>Automation in solid state NMR, a comprehensive look at CPMAS and ICONNMR</i></p>
18:30	Leave for Dinner
<b>Tuesday, 10<sup>th</sup> December 2019</b> Session Chair: Abani Bhuyan	
9:00-11:00	<p>Pramodh Vallurupalli, TIFR, Hyderabad  <i>Double Resonance CEST Spectroscopy: A New Tool to Study Multi-State Protein Conformational Exchange</i>  Tomoyasu Aizawa, Hokkaido University  <i>Development and application of novel overexpression systems for NMR analysis of antimicrobial peptides</i>  Bharathwaj Sathyamoorthy, IISER, Bhopal  <i>Application of optimized heteronuclear NMR methodology towards characterizing sensitivity limited DNA duplexes containing epigenetic modifications</i>  Mandar V Deshmukh, CCMB, Hyderabad  <i>Understanding the mechanism of small RNA mediated gene regulation in higher eukaryotes</i></p>
11:00-11:30	Coffee/Tea Break
Session Chair: Yusuke Nishiyama	
11:30-13:30	<p>P.K. Pujari, BARC, Mumbai  <i>Understanding Phase Behaviour of Nanoconfined Liquids: An NMR and Positron annihilation spectroscopic Approach</i>  Yasuto Noda, Kyoto University  <i>Toward In-situ/Operand High-Resolution Solid-State NMR</i>  Vivek Polshettiwar, TIFR, Mumbai  <i>Noble Metal and Ligand Free Nanocatalysts to Convert CO<sub>2</sub> to Fuel and Plastic Waste to Chemicals</i>  T. N. Narayanan, TIFR, Hyderabad  <i>Importance of in situ Probes in Electrochemical Experiments</i></p>
13:00-14:00	Lunch
Session Chair: Aprotim Mazumdar	
14:00-15:00	<p>Jun Kikuchi, Riken Yokohama  <i>NMR Data Science Approach for Fishery Products and Aquatic Ecosystem</i>  Neeraj Sinha, CBMR, Lucknow  <i>Improving survival predictability and biological insight through NMR based metabolomics of Acute Respiratory Distress Syndrome (ARDS)</i></p>
<i>Vote of Thanks (P.K. Madhu)</i>	