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**Designation** : Scientist, Department of NMR  
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**Education:**

**M.Sc.**, In Organic Chemistry, 2002, Jiwaji University, Gwalior, M.P.

**B. Sc.**, Biosciences, 2000, Jiwaji University, Gwalior, M.P.

**Research Experience:**

2002-2005 (Nov): Research work using NMR & IR spectroscopy DRDE, Gwalior, M.P.

2005- 2006 (Feb): Scientist- Gd-II, Department of Medicinal chemistry, Central Instrumentation Laboratories, National Institute of Pharmaceutical Education, Mohali.

2006 (14<sup>th</sup> Feb) : Scientist-I, Department of NMR, All India Institute of Medical Sciences, N.D.

**Membership of professional bodies**

Life Member

(I) Indian Biophysical Society

(ii) NMR Society

**Research Area**

Evaluation and applications of MRI and MRS techniques in diagnosis and treatment management, In-bore MR guided prostate biopsy, MRI study of animal experimental model of stroke and cancer, Metabonomics study of biological samples by the use of NMR Spectroscopy. Biological samples involve tissues, Blood, Urine, Biopsies samples, Cell and other possible samples. Also optimisation of various 1D and 2D NMR Techniques for the observation of biochemical changes.

## PUBLICATIONS

### Papers

- 1 Metabolic abnormalities of gastrointestinal mucosa in celiac disease: An in vitro proton nuclear magnetic resonance spectroscopy study. Sharma U, Upadhyay D, **Mewar S**, Mishra A, Das P, Gupta SD, Dwivedi SN, Makharia GK, Jagannathan NR *J Gastroenterol Hepatol*. 2015 Oct; 30(10):1492-8.
- 2 High resolution <sup>1</sup>H NMR-based metabonomic study of the auditory cortex analogue of developing chick (*Gallus gallus domesticus*) following prenatal chronic loud music and noise exposure, Kuma Vivek, Nag Tapas, Sharma Uma, **mewar Sujeet**, Jagannathan N.R., Wadhawa Shashi. *J. Neurochemistry International*, July 15, 2014;79: 99-108.
- 3 Cellular interaction of folic acid conjugated superparamagnetic iron oxide nanoparticles and its use as contrast agent for targeted magnetic imaging of tumor cells, Authors: Kumar Manoj, Singh Gurpal, Arora, **Mewar Sujeet**, Sharma Uma, Jagannathan N.R., Sameer Sapra , Dinda Amit, Kharbanda Surender, Singh Harpal, *J. Nanomedicine*, Vol. 2012:2, July 2012: 3503-3516.
- 4 The transport of nan- surfactant based paclitaxel loaded magnetic nanoparticules across the blood brain barrier in a model. Dilnawaz Fahima, Singh Abhalaxmi, **Mewar Sujeet**, Sharma Uma, Jagannathan N.R., Sahoo Sanjeeb Kumar. *J. Biomaterials*, January 20, 2012;33: 2936-2951.
- 5 Composite Polymeric Magnetic Nanoparticles for Co-Delivery of Hydrophobic and Hydrophilic Anticancer Drugs and MRI Imaging for Cancer Therapy. Singh Abhalaxmi, Dilnawaz Fahima, **Mewar Sujeet**, Sharma Uma, Jagannathan N. R., Sahoo Sanjeeb Kumar. *J.ACS Appl. Mater. Interfaces*, March 3, 2011: 3: 842–856.
- 6 Direct detection of alkylphosphonic acids in environmental matrices by proton coupled phosphorus NMR, Sharma Mamta, Gupta A. K, **Mewar Sujeet**, Beldar Anil, Suryanarayana M. V. S., Raza S. K., *J. Magnetic Resonance in chemistry*. 2009; VoL 47:478-487.
- 7 Magnetic resonance imaging evaluation of subarachnoid hemorrhage in rats and the effects of intra-cisternal injection of papavarine and nitroglycerine in the management of cerebral vasospasm, Ramdurg Shashank R., Suri Ashish, Gupta Deepak, **Mewar Sujeet**, Sharma Uma, Jagannathan N.R., Sharma Bhavani S. *J. Neurology India*. 2010 May-Jun; 58(3):377-83.
- 8 Do's & Don'ts for Sophisticated Analytical Instruments Vol III . Jaiswal A.K., T. Millo, **Mewar S. K.**, Sharma M., Moon D.V., Moharana M.. *J. Forensic Med. Toxicology* 2008; 25: 14-19.
- 9 Detection and Characterization of Kerosene in Fire Debris by Thin Layer Chromatography. Jaiswal A.K, Millo T ., Gauru G.K., Sharma R.C., Lal , N., **Mewar S. K.**, Giri N.G. *Amity Journal of Behavioural and Forensic Sciences* 2008;4:79-83.

## Abstracts in International / national Conferences

- 1 **Sujeet K. Mewar**, Sanjay Sharma, Sanjay Thulkar, Ekta Dhamijia, Pradeep Kumar, Rama, Jayasundar, N. R. Jagannathan , S. Senthil Kumaran, S. Datta Gupta , Rajeev Kumar and Virendra Kumar. mpMRI Guided In-bore Biopsy to Increase the Detection Rate of Prostate Cancer 61st Experimental Nuclear Magnetic Resonance Conference, Hilton Inner Harbor, Baltimore, Maryland,USA, 85, March 8 - 13, 2020.
- 2 Virendra Kumar, Naveen Kumar MS, **Sujeet kumar mewar** , Pradeep Kumar, Naveet Wig, Prayas Sethi, and Sanjeev Sinha. Metabolic Profile Differences in Serum of Sepsis Patients may Identify Survivors and Non-Survivors. International Society for Magnetic Resonance in Medicine. (ISMRM), Virtual Conference & Exhibition 5991: August 08-14, 2020.
- 3 **Sujeet Kumar Mewar**, Sanjay Sharma, Sanjay Thulka, Ekta Dhamijia, Pradeep kumar, Sridhar Panaiyadiyan Rama Jayasundar, S. Senthil Kumaran, S. Datta Gupta, N.R. Jagannatha, Rajeev Kumar, and Virendra kumar. Prebiopsy mpMRI to Increase the Detection Rate and Reduce the Overdiagnosis of Prostate Cancer International Society for Magnetic Resonance in Medicine (ISMRM), Virtual Conference & Exhibition 4947: August 08-14, 2020.
- 4 **Sujeet K. Mewar**, Sanjay Sharma, Pradeep Kumar, Sridhar Panaiyadiyan, Ekta Dhamijia , Sanjay Thulkar, S. Datta Gupta, N.R. Jagannathan, S. Senthil Kumaran, Rama Jayasundar, Rajeev Kumar and Virendra Kumar. MR Targeted In-Bore Biopsy of Prostate Cancer 26<sup>th</sup> National Magnetic Resonance Society Meeting & International Conference on NMR-from Molecules to Human Behaviour and Beyond, Rajkot, Gujarat, India. February 18-21, 2020.
- 5 **Sujeet Mewar**, Dimpy Gupta, Rahul kumar, Pawan Kumar, Aditya Kumar Gupta, Sameer Bakhshi, Pranay Tanwar,Virendra Kumar. Blood Plasma Shows Metabolic Changes in Patients of Acute Myeloid Leukemia studied by NMR Metabolomics. Conference on Magnetic Resonance in Medicine & 25<sup>th</sup> NMRS Meeting, Indian National Science Academy (INSA), New Delhi; 13-16 February 2019: 5.
- 6 Virendra Kumar, Pawan Kumar, Dimpy Gupta, Rahul kumar, **Sujeet Mewar**, Aditya Kumar Gupta, Sameer Bakhshi, Pranay Tanwar. Bone Marrow Metabolomics of Acute Myeloid Leukemia. Conference on Magnetic Resonance in Medicine & 25<sup>th</sup> NMRS Meeting, Indian National Science Academy (INSA), New Delhi; 13-16 February 2019: 6.
- 7 Pawan Kumar, Rahul Kumar, **Sujeet Mewar**, Dimpy Gupta, Aditya Kumar Gupta, Sameer Bakhshi, Pranay Tanwar, Virendra Kumar. Metabolic Biomarkers in Bone Marrow of Childhood Acute Lymphoblastic Leukemi. Conference on Magnetic Resonance in Medicine

& 25<sup>th</sup> NMRS Meeting, Indian National Science Academy (INSA), New Delhi; 13-16 February 2019: 24.

- 8 Virendra Kumar, Pawan Kumar, Rahul kumar, **Sujeet Mewar**, Dimpy Gupta, Aditya Kumar Gupta, Sameer Bakhshi, Pranay Tanwar NMRS. Metabolic Profile Changes after Therapy in Childhood Acute Lymphoblastic Leukemia Studied by NMR. Proceedings of Conference on Magnetic Resonance in Medicine & 25<sup>th</sup> NMRS Meeting, Indian National Science Academy (INSA), New Delhi; 13-16 February 2019: 25.
- 9 Pawan Kumar, Rahul kumar, **Sujeet Mewar**, Dimpy Gupta, Aditya Kumar Gupta, Sameer Bakhshi, Pranay Tanwar, Virendra Kumar. NMR based Metabolomics Study of Blood Plasma of Acute Lymphoblastic Leukemia. Conference on Magnetic Resonance in Medicine & 25<sup>th</sup> NMRS Meeting, Indian National Science Academy (INSA), New Delhi; 13-16 February 2019: 30.
- 10 **Sujeet K. Mewar**, Sanjay Sharma, Ekta Dhamijia, Sanjay Thulkar, Pradeep Kumar, Virendra Kumar, S. S. Kumaran, S. Datta Gupta, Sridhar Panaiyadiyan, Rajeev Kumar and Naranamangalam R. Jagannathan. Comparison of detection rate between mpMRI guided in-bore biopsy and TRUS biopsy, International Society for Magnetic Resonance in Medicine. (ISMRM), montreal, Canada, 2068: May 11-16, 2019.
- 11 **Sujeet K. Mewar**, Sanjay Sharma, Ekta Dhamijia, Sanjay Thulkar, Pradeep Kumar, Virendra Kumar, S. Senthil Kumaran, S. Datta Gupta, Rajeev Kumar and Naranamangalam R. Jagannathan. In-bore MR guided prostate biopsy using multiparametric MRI to avoid unnecessary biopsies. Intl. Soc. Magn. Reson. Med (ISMRM).2018; 2576.
- 12 **Sujeet Meawar**, Sanjay Sharma, Virendra Kumar, Sanajy Thulkar, S. Senthil Kumaran, Rajeev Kumar, S. Datta Gupta and N. R. Jagannathan. Use of multiparametric MRI in guiding in-bore guided prostate biopsy and routine TRUS guided biopsy for detection of prostate cancer - International Society for Magnetic Resonance in Medicine - Indian Chapter (ISMRM). International workshop on Quantitative Body Imaging, 26-28 March (2018)5.
- 13 **Sujeet Meawar**, Sanjay Sharma, Virendra Kumar, Sanajy Thulkar, S. Senthil Kumaran, Rajeev Kumar, S. Datta Gupta and N. R. Jagannathan. A Pilot Study of in-bore MR-Guided Prostate Biopsy. - International Society for Magnetic Resonance in Medicine- Indian Chapter & MISI. 1 (2017) 35.
- 14 Poonam Rana, Ritu Tyagi1, Apurva Watve, **Sujeet Kumar Mewar**, Uma Sharma, N. R. Jagannathan, and Subash Khushu. Specificity and sensitivity of early predictive urinary

metabolic biomarker of radiation injury: a <sup>1</sup>H NMR based metabolomics study. Intl. Soc. Magn. reson Med. (ISMRM). 24(2016), 904.

- 15 Upadhyay Deepti, Sharma U, **Mewar S**, Mishra Asha, Das Prasenjit, Gupta Siddhartha Datta, Makharia G K and Jagannathan N.R. Celiac Disease Metabonomics using NMR Spectroscopy, Celiac Disease and Other small Bowel Disorders Falk Symposium September 5-6, 2014 amsterdam, Netherlands.
- 16 Sharma U, **Mewar S**, Makharia G K and Jagannathan N.R. Biochemical Characterization of celiac disease biology using in-vitro NMR Spectroscopy. Gastroenterol Hepatol 2013;28 (3): 378, Shanghai, China.
- 17 Pandav Kumud, Sharma Shweta , Gupta Surendra Prakash, **Mewar Sujeet**, Kumar Pawan, Jagannathan N.R. Kumar Surat. 2D Proton NOESY A Tool for Determination of Solution Conformation an A basic Lesion. National conference on Recent Trends in Chemical and Environmental Sciences- RTCES-2013-2014.
- 18 Sharma U, **Mewar sujeet**, Makharia GK and Jagannathan N.R. Metabonomics of Gastrointestinal Mucosa in Celiac Disease Using in-vitro proton MR Spectroscopy. 21<sup>st</sup> Annual Meeting of ISMRM (International Society for Magnetic Resonance in Medicine ), Salt Lake city, Utah, USA (2013).
- 19 Singh S, **Mewar Sujeet**, Sharma U, Jagannathan NR, Prasad HK. Stress induced alterations in the metabolic profile of human monocytes 21<sup>st</sup> Annual Meeting of ISMRM (International Society for Magnetic Resonance in Medicine ), Salt Lake city, Utah, USA (2013).
- 20 Ghatak S, Ra P.K., Kumar P, **Mewar Sujeet**, Jayasundar R. NMR metabolomics in validating Traditional Indian Medicine (TIM) classification of medicinal plants.. 54<sup>th</sup> ENC (Experimental Nuclear Magnetic Resonance Conference), Pacific Grove, California, USA (2013).
- 21 Singh S, **Mewar sujeet**, Sharma U, Jagannathan NR, Prasad HK. Stress induced alteration in immune function and metabolic profile of human immune cells its implication in susceptibility to Mycobacterium tuberculosis infection. FIMSA (2013).
- 22 Sharma U, **Mewar S**, Makharia GK and Jagannathan NR. Understanding Celiac disease biology through NMR spectroscopy. In National Symposium on ‘ Frontiers of Biophysics, Biotechnology & Bioinformatics’, IBS at Mumbai, Organized by Department of Biophysics & Center for excellence in Basic Sciences. University of Mumbai January 12-16, 2013. P No. 35.

- 23 Ghatak S, Kaur E, Kumar P, **Mewar S**, Rai PK, Velpandian T, Jayasundar R. Spectroscopic analysis and antioxidant evaluation of medicinal plants. NMRS (2013).
- 24 Kumar V, **Mewar S**, Sharma U, Nag, T C, Jagannathan NR, Wadhwa S. Developmental metabolic profile of chick auditory cortex: an in-vitro high-resolution <sup>1</sup>H NMR spectroscopic study. NMRS (2013), Mumbai.
- 25 Singh S, Mewar S, Sharma U, Jagannathan N. R., Prasad H.K. Stress induced alteration in immune function and metabolic profile of human immune cells its implication in susceptibility to Mycobacterium tuberculosis infection. Conference. 5<sup>th</sup> Congress of the Federation of Immunological Societies of Asia Oceania 2012, March 14-17, New Delhi.
- 26 Verma H, Gulati GS, Kumaran SS, Jagannathan NR, **Mewar S**, Hote MP, Prabhakar P, Seth S, Maulik S, Mohanty S, Ray R, Jagia P, Sharma S, Bhargava B. Cardiac magnetic resonance (CMR) in small animal models of heart failure. Airan B. 7<sup>th</sup> ABA & IBS -2011. New Delhi, January 30- February 2, 2011.
- 27 Chauhan A, Reeta KH, Gupta YK, **Mewar SK**, Sharma U, Jagannathan NR. Effect of mycophenolate mofetil on behavioral and neuroimaging outcomes in transient focal cerebral ischemia in rats.. European Neuropsychopharmacol 2010; 20 (Suppl 3): S246.
- 28 Mamta Sharma, **Sujeet Mewar**, M.V.S. Suryanarayana. NMR study of nerve agent sarin binding to protein albumin. Special Symposium on “Magnetic Resonance and Biomolecular Mimetics” and 15<sup>th</sup> NMRS Meeting, Institute of Chemical Technology, Hyderabad. 02-05 February 2009. Indian
- 29 Gupta YK. Chauhan A, Reeta KH, Jagannathan NR, Sharma U, Mewar SK. Neuroprotective effect of mycophenolate mofetil on transient focal cerebral Ischemia in Rat. World Stroke Conference, Oct, 2010.
- 30 Ramdurg Shashank R, Suri Ashish, **Mewar Sujeet**, Sharma Uma, Jagannathan N.R., Sharma Bhavani. The potential of MRI and MRA in the evaluation of subarachnoid hemorrhage in rats and demonstration of cerebral vasospasm. S 17<sup>TH</sup> Scientific Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM) April 2009.
- 31 Ramdurg Shashank R, Suri Ashish, Gupta Deepak, **Mewar Sujeet**, Sharma Uma, Jagannathan N.R., Sharma Bhavani S. Magnetic resonance imaging evaluation of subarachnoid hemorrhage in rats and demonstration of cerebral vasospasm. Special Symposium on “Magnetic Resonance and Biomolecular Mimetics” and 15<sup>th</sup> NMRS Meeting, Feb 02-05, 2009. Indian Institute of Chemical Technology, Hyderabad.