

N. Manikandan M.Tech.,M.Sc.

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Professional overview:

- Enthusiastic, highly organized, motivated, and professional Analytical technically-proficient Research Scientist expertise in NMR Spectroscopy, molecular modeling, Mass spectroscopy and structural analysis with successful 9.8 years' experience in delivering analytical solutions to complex scientific problems in an industrial environment.
- Highly adaptable, a collaborative team member with excellent time management, organizational skills, Lead the analytical aspects of a project while working with other functional areas to advance projects through the pipeline which results in the ability to work in multidisciplinary teams and across departments.
- Excellent in written and oral communicator to a diverse group of the audience as demonstrated by high impact 5 publications, 8 posters, and 11 oral presentations.

Work History:

Research Scientist, 08/2017-Current (3 years 5 months)

Jubilant Biosys Ltd, Yeswanthpur, Bangalore Karnataka

- Authoring, reviewing and approving Analytical Structural elucidation data, impurity identification, quantification Performing maintenance and troubleshooting of NMR instruments methods and technical reports.
- Developing advanced solution-state NMR methods and molecular modeling samplings to enable characterization and understanding of complex protein-ligand interactions, binding affinity, peptide-peptide interactions, and 3D structures of surface-bound bio-mimetic peptides & proteins.
- Manage the NMR and mass spectrometry laboratory and provide timely analytical support to global R&D business.
- Highly skilled in operating and maintenance of advanced Bruker NMR spectrometers (300- 500MHz), Varian 400MHz and profound knowledge of NMR related hardware (Console) and software.

Research Associate, 03/2011 To 08/2017 (6 years 5 months)

Syngene international Ltd (BBRC), Bangalore, Karnataka.

- Providing NMR support for structural elucidation, impurity identification and quantification. Maintenance and troubleshooting of NMR instruments, including cryogen refills and instrument calibrations.
- Well-versed with various NMR techniques like APT, DEPT, COSY, NOESY, TOCSY, HOESY, (¹H-¹³C/¹⁵N), HMBC, (¹H-¹³C/¹⁵N) HSQC, STD NMR, and relaxation NMR experiments.
- Enhancing collaborations with other NMR labs and analytical colleagues to provide technical support and improve productivity.
- Providing excellent customer service through timely, clear, and accurate reporting of the analytical data. Involved various Synthetic chemistry and Pharmacology NMR research study.

Skills:

- Good knowledge of Varian and Bruker NMR hardware for solution state NMR spectroscopy.
- Extensive use of different NMR data processing and analysis software like TopSpin, VNMR, MestRe-C. AMIRA, CARA, GROMACS, ORIGIN, CCPN, Molecular Analysis packages ACD labs and Chemdrew.
- Experience with HPLC/UPLC (Agilent, Waters) and LC/MS instruments (Waters, Shimadzu, Agilent) and FT-IR.
- Six sigma black belt trained personal and EQ emotional intelligence certified personal.
- Collate and present results in various forms, such as, technical reports and oral presentations.
- Experience with protein engineering, molecular biology and analytical techniques.
- Demonstrates a sense of urgency, contagious optimism and a “can do” attitude
- Serve as a liaison between functional groups and external customers for analytical development, transfer, troubleshooting and improvement efforts.
- Ability to provide scientific guidance, leadership and training to others department.
- Ability to manage others and a commitment to and demonstrated proficiency in employee development. Advanced skills in statistics and statistical analysis of process capability.

Education:

M.Tech 76% Bio-Chemistry and Biotechnology, Sep, 2010
Anna university Tirunelveli, Tamil Nadu.

M.Sc 73% Analytical chemistry, Aug, 2008
Periyar university Salem, Tamilnadu.

B.Sc 69% Biology, Sep, 2006
MS University kanyakumari, Tamilnadu

Awards and achievement:

- 2017, 2018 and 2019 years best team Awarded analytical chemistry lab based on team's success and contribute the Lab2Lab implementation, Create Method development Data bank.
- Emerging scientist award 2017-2018 Jubilant biosys ltd.
- Galaxy award, Star award and emerging associate award 2015-2016 Syngene international Ltd.
- Ultra-high-resolved NMR: Analysis of complex mixtures of compounds with near-identical ¹H and ¹³C NMR spectra. Bristol-Mayer squib- Biocon R&D center, Bangalore June 2016.
- Application of Non-Uniform Sampling (NUS) technique in NMR spectroscopy syngene International ltd, Bangalore june, 2017.

Research Interests:

- Study of protein and/or peptide structures and interactions by NMR spectroscopy.
- Conformational and dynamics study of small organic molecules by solution NMR spectroscopy.

Publication:

- Zinc Acetate-Promoted Buchwald–Hartwig Couplings of Heteroaromatic Amines, *J. Org. Chem.*, **2017**, 82 (14), pp 7420–7427 DOI: 10.1021/acs.joc.7b01101 Publication Date (Web): July 5, 2017
- Inter and intra -specific variation of total seed storage protein and other metabolites in different tea clone, accepted ,IIAOB[MS-IIOABJ-RES-2010-30]
- Biosorption of uranium and thorium by marine micro algae, Indian journal of geo marine science Vol. 40(1), February 2011, pp 121-124. N Manikandan et al.
- Uranium and Thorium uptake by live and dead cells Psedomonas Sps Journal Of Scientific And industrial research Vol 69:373-375., N Manikandan, S Prakash., et al.
- Lab scale production of pertussis vaccine in B2 medium with the different concentration of bactacasamino acid, yeast extract & soluble starch, International journal of industrial biotechnology and biochemistry, vol 2,2011,pp 149-156. N Manikandan et al.

Conference Paper:

- Ultra-high-resolved NMR: Analysis of complex mixtures of compounds with near-identical ¹H and ¹³C NMR spectra. Bristol-Mayer squip- Biocon R&D center, Bangalore june 2016.
- Application of Non-Uniform Sampling (NUS) technique in NMR spectroscopy syngene International ltd, Bangalore june,2017.

Personal information:

Place of birth	: Kanyakumari, Tamilnadu
Date of Birth	: 27 th june 1985
Present resident	: Bangalore, Karnataka 560099
Sex	: Male
Relationship Status	: Single

Declaration:

I hereby declare that the Information furnished above is true to the best of my knowledge.

Date : 20.01.2021

Place : Bangalore

Yours faithfully,

(N.MANIKANDAN)