Assistant Professor Dept.of Chemistry. & NSS Programme Officer-Unit I JSS College, Vidyagiri, Karnatak University Dharwad. 580004, Karnataka-State INDIA. Ph :+919740299477 E-mail:drrtmahesh@gmail.com Former Head of the Deapartment, Formulation Analytical Development, Nuwill Research and Innovation Pvt. Ltd (R &D) # 640, 3rd Floor, Jhanardhana Towrs Bilekahalli, JP Nagar, Bannerughatta Road Bangaluru. INDIA. 560070 Ph :+91 9740299477 E-mail:drrtmahesh@gmail.com

# **Educational Qualification:**

**Ph.D**inChemistry, under the supervision of Professor S. T. Nandibewoor,Karnatak University Dharwad, Karanataka, India, 580004.

Thesis Title: "Kinetic and Spectroscopic Investigations of Some Reactions of Biomedical Importantance.

# **CAREER OBJECTIVE:**

To achieve an altius expertise in the field of Chemistry by working in challenging position that offers ample opportunities to excel, enhance my knowledge and Teaching Experience, which can be shared to achieve Organizational and Individual goals. I see this as a major step towards fulfillment of long-term goal of developing into a Teacher, Researcher and Guide with successful and creditable carrier.

### **PROFESSIONAL EXPERTISE:**

1. Presently working as a Faculty in Chemistry (Assistant Professor-UGC), JSS Banashankari Arts, Commerce and S.K. Gubbi Science College, Vidyagiri, Dharwad.Karnataka.

### **TECHNICAL EXPERTISE:**

2. About14years of Industrial Research experience in the field of Formulation Analytical Research and Development for New Dosage Formulations.



- 3. Faced Audit like USFDA, MHRA successfully.
- 4. Setting up of new Formulations and Analytical Research facilities.
- 5. Published sixteenNational/International research papers in reputed journals.
- 6. Have Technicalexperience on UPLC, HPLC,GC, TGA, DSC,GPC,IR, UV, LCMS (Basic knowledge), USP-Dissolution tester instrument and KF titrate.
- 7. Literature Search-After being offered by any analytical method development task online on internet, as well as manual literature search from chemical database like abstracts and journals.
- 8. Four years of academic research experience as Research Fellow (RF) sponsoredbyKarnatakUniversity, Dharwad.Karnataka.
- 9. Three years of teaching faculty in post graduate department of Chemistry, Karnatak University, Dharwad.Karnataka.
- Worked as a Guest faculty for undergraduate department of Industrial Chemistry(2000-2004) (UGC sponsored scheme) in KLE's Science College and Nehru College, Hubli, Karnataka.
- 11. Currently working with Journal of Chromatographic Science as aTechnical expert and Reviewer-an international journal.
- 12. Currently working as a Technical Adviser –Formulations Analytical Method Development for one of the leading Pharmaceutical Manufacturing and Research Industry at New York.USA.

### I. INDUSTRIALRESEARCH EXPERIENCE:

<b>Designation</b> : Head –Formulation Analytical Development (R& D).		
Organization :Nuwill Research and Innovations Pvt.Ltd.		
Bangaluru.INDIA.		
www.Nuwillresearch.com		
<b>Duration</b> :From 1 <sup>st</sup> July 2015 to March 21 <sup>st</sup> March 2017.		

#### **II. BIOCON LIMITED:**



Syngene International Ltd, established in 1994 as a subsidiary of Biocon Limited, Syngene is an internationally reputed custom research and manufacturing organization, which supports R&D programs from lead generation to clinical supplies. Our multi-disciplinary skills in integrated drug discovery and development include capabilities in medicinal chemistry, process R&D, cGMP manufacturing, formulation and analytical development.

Designation	: SeniorResearch Scientist- Formulation Development Centre (FDC)
Organization	: Syngene International Ltd, a subsidiary of Biocon Limited. Bangalore. INDIA.www.syngeneintl.com
Duration	: From 15 <sup>th</sup> Dec 2014 to June 2015.

# III. KEMWELL BIOPHARMA PVT LTD:

Kemwell is a leading provider of contract manufacturing and development services for pharmaceutical products globally. Operating four manufacturing facilities in India and one in Sweden, Kemwell is one of the largest formulations contract manufacturers in India serving blue-chip Multinational/Indian pharmaceutical companies for over 20 years

Designation	Designation : Deputy Manager/Sr.Team Leader Pharmaceutical Development Unit (PDU)Analytical Development (R n D		
<b>Organization</b> : KemwellBiopharmaPvt Ltd. INDIA.			
http://www.kemwellbiopharma.com			
Duration	: From 1 <sup>st</sup> Dec 2010 to Dec 15 2014. (4 <sup>-</sup> 1years)		

### IV. SPI PHARMA INC-USA:

SPI Pharma<sup>TM</sup> INC is a leading supplier to the pharmaceutical, nutraceutical, and animal health markets worldwide. Its parent, <u>Associated British Foods</u>, based in the UK, is a multi-billion dollar conglomerate with global presence and having shadows in many countries.



Designation	:Sr. Scientist-Analytical Research		
Organization	:SPI PharmaInc(R & D). USA,INDIA.		
	http://www.spipharma.com		
Duration	:4 and half years(2006 - 2010).		

# V. GENOVA RESEARCH CENTRE (MEDREICH LTD) - (R & D)

**Designation** :Officer -Analytical Development

Organization:Genova Research Centre (R & D) Bangalore. INDIA <u>http://www.Medreich.com</u> Duration :~2 Years(2004 - 2006)

### **VI. ACADEMIC PROFILE:**

Degree	Offered Subjects		Board / University	Year of Award/Passing.	
Ph. D.	Chemistry		Karnatak University, Dharwad	2004	
M.Sc.	Physical Chemi	istry		1998	
B.Ed	Physical Science and Biological Science			2000	
Position : Research S		Scholar			
Sponsors : University		Research Fellowship, sponsored by KUD.			
Thesis ti	itle :	"Kinetics and Spectroscopic Investigation of some Reactions of Bio-			
Medical	Impo	rtance".			



# **Duration** :2000-2004 (4 years)

### VII. PERSONAL PROFILE:

Date of Birth	:	19-07-1974
Marital Status	:	Married.

### VIII. AREAS OF EXPERTISE & EXPERIENCE:-

- About 14 years of diverse quality and technical knowledge experience.
- ➢ 6years of Academic Teaching Experience.
- Leading the team engaged in functions of Analytical Development departments.
- Responsible for activities related to Analytical Development.
- Setting up of a new Analytical Research facility.
- Responsible foranalytical method development for NCE molecules, Orally disintegrating tablets (ODT), Tablets, Capsules, Gel, Cream and Ointment (semisolids), Liquids, Ear drops, Topical solution, validations and stability analysis of by UPLC and HPLC.
- Effective preparation and implementation of standard operating procedures to meet the regulatory guidelines.
- Train and develop all staff on analytical method development, validations, GLP reviewing and approving of analytical data.
- To communicate with the external agencies regarding all technical aspects.
- Conducting of conference calls and project review meeting with clients.
- Outsourcing of tests for characterization of API and finished product using DSC techniques.
- Extensive knowledge and experience in Method development.



- > Extremely detail-oriented and organized.
- > Overall functioning of the Analytical research of R& D in accordance with GLP and GMP.
- > Establishing product specification and drawing up the final specifications.
- > To facilitate technology transfer from R&D to production level.
- Experienced in dissolution addition to basic analytical laboratory skills.
- > Interpreting data and adhering to strict guidelines on documentation when recording data.
- Experience in analytical wet chemistry.
- Effective in utilizing resources, improving processes, increasing quality and reducing costs.
- > Equally effective working independently or as a member of a team.
- > Time management skills in meeting deadlines for job completion.
- Cleaning validation/Verification.
- Responsible for the maintenance of our team documents.
- Preparation of SOP's,STP's
- Maintenance of cGMP,GMP,GLP.
- Having knowledge in CAPA, OOS, Deviations and change control.

# IX. TEHNICAL KNOWLEDGE:

### Have operating and Calibration knowledge of the following instruments.

•	UPLC	Make :	Waters-Acquity
•	HPLC 2998)	Make :	Waters-Alliance(UV-2487,2489& PDA-2996,
•	Gas Chromatograph (GC) Chromatography	Make :	Agilent, Shimadzu andNucon Gas
•	FTIR Mak	e :Nicolet-Im	pact 410-Thermo-nicolet, Shimadzu, Brooker
•	Dissolution Apparatus and Distek.	Make :L	abindia-DS 8000,Electrolab-USP Dissolution Tester



•	UV Spectrophotometer	Make :	Shimadzu, Bio-carry 50(Varian)
•	Stopped Flow technique (For fast kinetics reactions)	Make :	SFA Hitachi
•	LCMS	Make:	Waters
C	OMPUTER KNOWLEDGE:	-	for Waters, Chemstation- Agilent gies,ISIS draws, Chem draw, Familiar with MS-

**OFFICE PACKAGES, Internet and Windows 10.** 

# **CONFERENCE, WORKSHOPand SEMINARS ATTENDED:**

- 1.Research Paper presented at **IIT Roorke, Uttaranchal** (Oct 2003,22<sup>nd</sup> Annual Conference IndianCouncil of Chemists).
- 2.Participated in Seminar Kaiga Nuclear Power Corporation Karwar, held at Karnatak-2003, ScienceCollege,Dharwad.
- 3. National workshop on Analytical Techniques and advances in XRPD in Pharmaceutical Industry held at **IISc**, Bangalore. (Nov 13<sup>th</sup>- 15<sup>th</sup> 2006)
- 4. Attend LCMS School organized by Water's India Pvt Ltd, (R and D Centre), Peenya.Bangalore.
- 5. Participated in**two-day workshop on Cleaning validation** conducted by Prescription Pharma at Hyderabad, (January 2013)



- 6. Delivered a Session during the National Seminar on "Hands on Training in Intellectual Property Rights and Bioethics" held at Acharya&B.M.reddy College of Pharmacy, Bangalore.(24/08/2015 to 08/09/2015)
- 7. Had participated **Two Day workshop on Being Masterful Teacher** conducted by conducted by UGC-CPE II Phase assistance organization in association with connected, JSS College, Dharwad(From 19 and 20<sup>th</sup> April 2017).
- 8. Had Delivered a Lecture on "Personality Development and Job Opportunities" for B.Ed. Students at JSS ShriManjunatheshwara College of Education.Vidyagiri.Dharwad(30/11/2017).
- 9. Had attended one Day workshop on Teacher Quality: Issues and Prespectivesconducted by KAP and KRMSS.Dharwad (16/08/2017)
- 10. Had attended **one Day workshop on UG Chemistry Practical Techniques, Performance, Evaluation and Guidlines**. Conducted by Chemistry Teachers forum of KUD affiliated Colleges, Dharwad- CHEM-FORUM 2017-18.(22/06/2018).
- 11. Had attended **Two Day workshop on Recent Development in Material Research**. Conducted by Indian Acadamy of Science, Bangaluru and Higher EduscationAcadamy.Dharwad.(16/11/2018 to 17/11/2018).
- 12. Had attended **one Day workshop on Frontier areas in Physical Science**. Conducted by VGST and Karnataka State Higher EduscationAcadamy.Dharwad.(12/12/2017).
- 13. Had attended **67<sup>th</sup>Orientation Programme**-Conducted by UGC-HRDC-KUD, Dharwad.(From 16/01/2018 to 12/02/2018).
- 14. Had Presented Poster in 37<sup>th</sup> Annual National Conference of Indian Council of Chemists held at NITK.Surathkal, Mangalore.Karnataka.( 12/12/2018 to 14/12/2018)
- 15. Had participated in one Day Teachers Training Programme in UGC-CPE 2<sup>nd</sup> Phase conducted by JSS College,Dharwad.(24/02/2019)
- 16. Had attended one Day workshop on International Year of Periodic Table (IYPT) 2019. Conducted by Karnataka State Higher EduscationAcadamy.Dharwad.(06/09/2019)
- 17. Had Participitated and acts as a guide for Volunteer's at 84<sup>th</sup> All india Kannada SahithyaSammelena, Jointelyorganised by Kannada SahithyaParashad,ZillaPanchayat and Office of the DistricAdministration.Dharwad.(05/01/2019 to 09/01/2019)



- 18. Swyam APRIT Online Course Course in Chemistry for Higher Education Faculty conducted by Government of India, Ministry of HRD in association with Sri Guru TeghBahadurKhalsa College, Delhi. (From ------ to ------)
- 19. Had participated 7 days NSS Orientation Training Programme conducted by Ministry of Youth Affairs & Sports, Dept. of Youth Affairs, Govt of India and NSS-ETI-Karnataka(Empanelled Training institution), University of Mysuru.Karnataka. (From 15/02/2020 to 21/02/2020).
- 20. Had participated two days multidisciplinary National seminar-NAAC Sponsered, IQAC initiated on Quality sustenance and Enhancement in Higher Education; Challenges and Responsibilities of Stakeholders conducted by SJMVS Atrs and Commerce College, JayachamarajNagar,Hubli.(From 28/02/2020 to 29/02/2020).
- 21. Had Participated **one day workshop** on **Tobacco Control**, conducyed by State NSS Cell, KUD and KLE's JGCC.Hubballi (11/02/2020).
- 22. Had attended7 days University Level Leadership Training Camp- Nation Service Schemeconducted by Karnatak University, Dharwad.(From 07/01/2020 to 13/01/2020)

#### **RESEARCH PUBLICATIONS:**

- Kinetics and mechanism of oxidation of L-Leucine by alkaline diperiodatonickelate (IV) A free radical intervention, deamination and decarboxylation
   R. T. Mahesh, P. D. Pol and S. T. Nandibewoor, *Mona. Chem.*, 134 1341(2003).
- Kinetics and mechanism of oxidation of L-Proline by aqueous alkaline permanganate -A free radical intervention and decarboxylation (stopped flow technique) R. T. Mahesh, P. D. Pol and S. T. Nandibewoor, J. Chem. Res., January, 13-17.(2005)



- Kinetics and mechanism of oxidation of Isonicotinic acid by alkalinediperiodatonickelate(IV)-A free radical intervention.
   R. T. Mahesh, M.B. Bellakki and S. T. Nandibewoor, *Indian. J. Chem.*,45A, 587 (2006).
- 4. Kinetics and mechanism of oxidation of ruthenium(III) catalysed oxidation Gabapentin(Neurontin) by heptavalent Manganese: A free radical intervention and decarboxylation.
  R. T. Mahesh, M.B. Bellakki and S. T. Nandibewoor, *Catalysis Letts*, 97, 91 (2004).
- Osmium(VIII) catalysed and uncatalysed oxidation of Aspirin drug by diperiodatocuprate(III) complex in aqueous alkaline medium: A mechanistic approach. R.R.Hosamani. R.TMahesh, and S. T. Nandibewoor, *Polyhedron., Mar 30, 29,5, 1443*(2010).
- 6. Free radical intervention in the oxidation of nicotinamide by alkaline permanganate –A kinetic study.
  P. D. Pol, R. T. Mahesh and S. T. Nandibewoor, *J. Chem. Research(S)*, (2002)533; (M) (2002) (1145).
- 7. Chromium(III) catalysed oxidation of 1,10-Phenanthroline by alkaline permanganate
  P. D. Pol, R. T. Mahesh and S. T. Nandibewoor, *React. kinet. Catal. Lett.*, 81,113 (2004).
- Kinetic, Mechanistic and Spectral Investigation of Oxidative Degradation and Deamination of Atenolol by Cerium(IV) in aqueous Perchloric acid medium.
   M.B. Bellakki, R.T. Mahesh and S.T. Nandibewoor, *Inorg. React. Mech.*,6,59 (2006).
- 9. Kinetics and mechanism of oxidation of ruthenium(III) catalysed oxidation L-Asparagine by permanganate in aqueous alkaline medium.
  M.B. Bellakki, R. T. Mahesh and S. T. Nandibewoor, *J. Soudi.Chem.Soc.*,8,327 (2004).
- Kinetics and Mechanistic study of Oxidative Decarboxylation and Deamination of L-glutamine by Diperiodatonickelate(IV) in Aqueous Alkaline Medium M.B. Bellakki, R.T. Mahesh and S.T. Nandibewoor, *Indian. J. Chem.*,43A, 1639 (2004).
- Kinetics and Mechanism of Oxidation of Gabapentin (Neurontin) by Heptavalent Manganese: A free radical intervention M.B. Bellakki, R.T. Mahesh and S.T. Nandibewoor,



# Syn. Reacty. In Inorg.React., (2020) (Accepted for Publication).

- Kinetic, Mechanistic and spectral investigation of oxidation 4-hydroxy coumarin by Diperiodatocuprate (III) in aqueous alkaline medium M.B. Bellakki, R.T. Mahesh and S.T. Nandibewoor, *Nat. Acad. Sci. India*, 75(A), III, (2005).
- Mechanism of interaction of Antibacterial drug Maxifloxacin with herring sperm DNA: Electrochemical and Spectroscopic studies Mallappa M1, Babu G Gowda1,\* and R T Mahesh2

Der PharmaChemica, 2014, 6(4):398-405.

14. Spectroscopic and Viscositic Studies on the Interaction of Solifenacin Succinate with DNA.

Babu G. Gowda<sup>1</sup>\*, Mallappa M<sup>1</sup>, **R. T. Mahesh<sup>2</sup>**, C. C. Hadimani<sup>3</sup> Asian Journal of Biomedical and Pharmaceutical Sciences; 04 (35); 2014; 44-48.

15. A review on HPLC method development.

Venkataramana N.V.<sup>1</sup>\*, Aruna Kumar D.B.<sup>1</sup>and **R.T. Mahesh<sup>2</sup>** 

World Journal of Pharmacy and Pharmaceutical Sciences; Volume 9, Issue 3, 640-649.

16. Kinetic, mechanistic and spectral studies for the oxidation of Atenolol by alkaline hexacyanoferrate(III) **R. T. Mahesh**, M.B. Bellakki and S. T. Nandibewoor,

Spectroscopy Lettrs., (2020) (Communicated).

17. Kinetics and Mechanistic study of the ruthenium (III) catalysed Oxidative Decarboxylation of Aspirin by Diperiodatocuprate (III) in Aqueous Alkaline Medium.
M.B. Bellakki, R.T. Mahesh and S.T. Nandibewoor, *J. Catalysis.*, (2020) (Communicated).