

## **RESUME**



### **PERSONAL DETAILS**

Name	Dr. Viraj Hanumantrao Mankar
Fathers Name	Mr. Hanumantrao Nivrutti Mankar
Date of Birth	15 <sup>th</sup> April 1983
Nationality	Indian
Languages Known	English, Hindi, Marathi (Read, Write, Speak)
Gender	Male
Marital Status	Married
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## **SUMMARY**

I completed my PhD at Queensland University of Technology in Brisbane Australia. My PhD research was focused on synthesis and biological evaluation of novel dual action cardio-protective agents. This project is heavily weighted in free radical antioxidant synthesis with a biological application including cancer, diabetes and cardiovascular diseases. My strengths are in the synthesis of biologically active chemical entities; however, I am willing to work in new areas of research. I have great focus and perseverance in any task I am given. I get great satisfaction working on novel ideas which are challenging and researching better techniques. I have great communication skills; have attended many conferences, given seminars in my work. I have total experience of 13 years out of which 4 years in the PhD new drug discovery and 4 years in pharmaceutical API process development R&D(after MSc) and 5 years of full time teaching experience in engineering chemistry, environmental studies, applied Chemistry and also in core organic chemistry as assistant Professor in Lovely Professional University Punjab.

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## **EDUCATIONAL BACKGROUND**

<b><u>Degree/ Examination</u></b>	<b><u>Year of Passing</u></b>	<b><u>Board/ University</u></b>	<b><u>Subject/ Specialization</u></b>	<b><u>Percentage</u></b>	<b><u>Class</u></b>
SSC	1998	Pune	—	55.86	Higher Second
HSC	2000	Pune	Science	58.00	Higher Second
BSc	2004	Pune	Chemistry	67.68	First
MSc	2006	Pune	Drug Chemistry	58.45	Higher Second
<b>PhD</b>	<b>2016</b>	<b>QUT, Brisbane, Australia</b>	<b>Synthetic Medicinal Chemistry</b>	—	—
MSCIT	2003	M.S.B.T.E., Mumbai	Computer	63	First
EAP	2011	QUT, Brisbane, Australia	Academic English	67	First

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## **WORK EXPERIENCE**

**Total year of Research Experience 13 Years 0 months**

1. Working at **Queensland University of Technology, Brisbane, Australia** as '**PhD Research**'.

Dept. of Nanotechnology and Molecular Sciences

Period: February 2011 to May 2015. (Experience 4 Year).

- Design and synthesis of dual action adenosine compounds combining with nitroxide antioxidants.
- Good knowledge of synthesis and purification of large molecular mass of profloroscant and biologically active molecules.
- Proficient in carrying-out independent and collaborative research.
- Experience in synthetic and medicinal organic chemistry.
- Sound knowledge of commonly used chemistry related software's and instruments.
- Extensive knowledge of compound purification and characterization by HPLC, MPLC, ESR, NMR, IR, Mass analysis.
- Good knowledge of radical chemistry and related reactions.
- Knowledge of carbohydrate chemistry, purine chemistry and dual action compounds on GPCRs.
- Dual action antioxidant combining cardio-protective compounds.
- Nitroxide-antioxidant chemistry.
- Experience in training undergraduate research students in the laboratory.

2. Working at **Queensland University of Technology, Brisbane, Australia** as '**Sessional Academic Staff**' Member. (Part time)

Dept. Nanotechnology and Molecular Sciences

Period: July 2013 to October 2015. (Experience 2 Year and 4 months)

- Attentive chemistry lecturer with excellent communication skills.
- Conducts college level courses in the field of chemistry.
- Expertise in Planning, preparing and delivering lectures and leading classroom discussions and laboratory demonstrations.

3. Working at **Merck/ Mylan India Pvt Limited, Talaja, Navi-Mumbai** as '**Research Executive**'.

Dept. Research & Development (Synthetic Organic Chemistry).

Period: June 2006 to February 2010. (Experience 3 Year and 8 months)

- Design and development of the novel route for the synthesis of active pharmaceutical ingredient (API) laboratory scale following literature and in-house procedures.
- Demonstrate the process to kilo lab and pilot plant to validate the process of synthesis.
- Develop and optimize the process for synthesis of the highest quality API using multi-stage synthesis.

- Extensive knowledge of purification, identification and characterization of drug molecules and impurities by HPLC, NMR, IR, Mass analysis.
- Knowledge of good manufacturing practices (GMP) campaign works in cross functional teams for monitoring raw material and final product specification generation, raw material procurement, analytical method validation, process validation.
- Ability to work in coordination with process engineers and plant operators for successful technology transfer from lab to pilot plant.
- Familiar with chemical hygiene and safe handling procedures in the laboratory.
- Successfully commercialized API Sitagliptin, Frovatriptan, Zofenopril, Pregabalin on the continued production scale.

4. Working in **Lovely Professional University, Phagwara, Punjab** as **Assistant Professor**  
 School of Chemical Engineering and Physical Sciences and  
 School of Civil and Mechanical engineering  
 Period: starting from August 2016 to till date. (Experience: 4.5 year) current.

- ◆ Attentive chemistry lecturer with excellent communication skills.
- ◆ Conducts college level courses in the field of chemistry.
- ◆ Expertise in areas of instruction includes organic chemistry, chemical analysis, and chemical reactions.
- ◆ Planning, preparing and delivering lectures and leading classroom discussions.
- ◆ Administering and grading examinations and giving appropriate feedback to students.
- ◆ Ability to work both independently and in team environments.
- ◆ Coordinate the workflow for a team, including resource planning, scheduling, and prioritizing workload to identify and resolve issues.
- ◆ Familiar with a variety of the chemistry concepts, practices, and procedures.
- ◆ Experience and judgment to plan and accomplish goals.
- ◆ Performs a variety of tasks, lead and direct the work of others.
- ◆ Tailoring chemistry teaching methods to suit the need of individual student.
- ◆ Devising and writing new curriculum materials.
- ◆ Preparing coursework for students and the class.
- ◆ Recording and monitoring student's attendance.
- ◆ Good experience in the synthesis of drugs and other biologically active molecules.
- ◆ Proficient in carrying-out independent and collaborative research.
- ◆ Doctorate degree experience in synthetic and medicinal organic chemistry.
- ◆ Sound knowledge of commonly used chemistry related software's and instruments.
- ◆ Sound knowledge of compound purification and characterization by HPLC, MPLC, EPR, NMR, IR, Mass analysis.

### **TEACHING EXPERIENCE**

<b><u>Course Code</u></b>	<b><u>Course Title</u></b>	<b><u>Term Id</u></b>	<b><u>Year</u></b>
CHE124	Engineering Chemistry Theory	16171-17182	2016-2020
CHE122	Engineering Chemistry Laboratory	16171-17182	2016-2020
CHE110	Environmental Studies	16171-17181	2016-2020
CHE115	Basic Organic Chemistry Theory	16172- 18191	2017-2019
CHE882	Chemistry in Daily Life Theory	16172	2017-2018
CHE585	MSc Organic Chemistry Laboratory-II	17182-18191	2018-19
CHE638	MSc Organic Chemistry Laboratory-III	17181	2017-18
CHE01D	Applied Chemistry-I	20211	2019-20

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### **PROJECT WORK (DURING MASTERS OF SCIENCE)**

“Standardization of Herb- Terminalia bellerica” (June- August 2005)  
Hi-Tech Biosciences, Paud Road, Kothrude, Pune.

### **RESEARCH GUIDANCE**

Guided Seven MSc Research Project Students

Guidance two PhD Research Students- Current

### **VOLUNTEER WORK**

- ♦ Pulse Polio Campaign, Baramati **2003**.
- ♦ National Service Scheme Special Campaign **2002-2004**.
- ♦ Blood Donation Campaign **2011**.
- ♦ Participate in Cultural Society of India, Brisbane.**2012**.
- ♦ Participate in Radical Wine and Chocolate Festival **9 Aug 2013**.

## **LIST OF PUBLICATIONS**

**Research patents, Book and papers published/ communicated in peer reviewed international journals**

1. **Patent** - Gore, V. G.; Datta, D.; Gadakar, M.; Pokharkar, K.; **Mankar, V.**; Wavhal, S. A novel process of preparing an enantiomerically enriched  $\gamma$ -amino acid, such as enantiomerically enriched (S)-pregabalin. In Espacenet Patents: WO2009122215 A1: 2009.
2. **Patent-** Gore, V. G.; Gadkar, M.; Tripathi, A.; **Mankar, V.** A process for the preparation of frovatriptan and frovatriptan succinate and their synthetic intermediates. In Espacenet Patents WO2010122343 A1: 2010..
3. Book on “**Cardiovascular Protection with Adenosine Combined Antioxidants**” 2018 **Lambert Publication.**
4. **A review on edaravone as potential antioxidants**, *Plant Archives*, Vol. 20, Supplement 2, 2020 pp. 3192-3198.
5. **Edaravone based antioxidants for cardioprotection and neuroprotection**, *Plant Archives*, Vol. 20, Supplement 2, 2020 pp. 3440-3445.
6. **Sterically Hindered Phenols as Antioxidant**, *European Journal of Molecular and Clinical Medicine*, Issue 7, Volume 7, 2020 pp3481-3491.
7. **Technical advancement of cadmium and lead detection methods and Future scope for biosensor in Dairy industry: An Overview**, *Sambodhi UGC care journal* Issue 4, Volume 43, 2020 pp140-147.

## **NATIONAL/ INTERNATIONAL CONFERENCES/ SYMPOSIA ATTENDED/PRESENTED**

1. National Conference on Recent Advances in Chemical Sciences (Food and Drug Research), **Bikaner, Rajasthan (3-5 Oct 2008).**
2. Bio-Nano Innovation International Conference, **Brisbane, Australia (18-20 July 2012).**
3. ARC Free Radical Chemistry Conference, **Sydney, Australia (Dec 2012).**
4. ARC Free Radical Chemistry Conference, University of Wollongong, **Wollongong,**

### **Australia (Dec 2013)**

5. Brisbane Biological and Organic Chemistry Symposium (BBOCS), Griffith University, **Brisbane, Australia (Dec 2013)**.
6. Brisbane Biological and Organic Chemistry Symposium (BBOCS), Queensland University of Technology, **Brisbane, Australia (1 Dec 2014)**.  
Poster presentation was done in above conference with title "**Synthesis and Biological Evaluation of Novel Nitroxide Antioxidant Containing Adenosine A2A Agonists for Cardio-protection**".
7. RACI National Congress, International Conference, **Adelaide, Australia (7-12 Dec 2014)**.  
Poster presentation was done in above conference with title I) "**Synthesis and Biological Evaluation of Dual Acting Nitroxide Antioxidant A2A Agonists for Cardio-protection**".  
And II) "**Radicals New Weapons in the Battle Against Inflammation**".
8. International Conference on Recent Advances in Fundamental and Applied Sciences (**RAFAS**), **Lovely Professional University, Phagwara, Punjab (25-26 Nov 2016)**  
Organizing committee member and worked as abstract and full paper reviewer
9. National Conference on Recent trends in Physical, Chemical, and Biosciences, (**RTPCB-2016**), **V.P. College, Baramati (16-17 Dec 2016)**. Worked as National advisory committee member.
10. Inter-**Disciplinary Seminar** on Sustainable Urbanization, Environment and Spatial Planning Concerns Dec 17-19 2018 UGC-Human Resource Development Centre, Guru Nanak Dev University, Amritsar
11. **106<sup>th</sup> Indian Science Congress**, Lovely Professional University, Phagwara, Punjab (3-7 Jan 2019) Organizing committee member and Poster presentation.
12. International Conference on Continuity Consistency and innovation in Applied Sciences and Humanities, **Technical advancement of cadmium and lead detection methods and Future scope for biosensor in Dairy industry: An Overview (ICCIASH-2020)**(13-14 Aug 2020)

## **AWARDS**

1. QUT PhD Student Living Allowance Scholarships, **2011-2015**.
2. QUT PhD Tuition Fee Waiver Scholarships, **2011-2015**.
3. QUT Academic Development Foundation of Learning and Teaching Certificate (**22 May 2015**).
4. QUT Academic Development Sessional Academic Program Certificate (**17 Apr 2014**).
5. Certificate of Friendship by the Lord Mayer of Brisbane Councilor Graham Quirk (**29 Aug 2013**).
6. National Service Scheme (NSS) Certificate, University of Pune, **2002-2004**.
7. Maharashtra State Certificate in Information Technology (MS-CIT), **Oct -2003**.
8. National Workshop on Environmental Sciences, Lovely Professional University, **Jan-2018**.

## **MEMBERSHIP**

1. Life member of Indian Science Congress
2. **Associate Editor** of "International Journal of PharmTech Research".
3. **Editorial Board Member** "American Journal of Chemical Research"
4. Science Journal of Chemistry (SJC),
5. Journal of Drug Design and Medicinal Chemistry(JDDMC);
6. International Journal Chemistry Studies
7. International Journal of Green Chemistry



## **REFERENCES**

### **Professor Steven. E. Bottle**

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Queensland Node  
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