

Padma Akkapeddi

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CURRENT POSITION

Visiting Student at Institute of Pharmaceutical Sciences, ETH, Zurich, Switzerland under Supervision of Prof Dario Neri

Lisbon Biomed student under the supervision of Dr. Gonçalo Bernardes and Dr. João Barata

EDUCATION

M.Sc Biochemistry (2010), First division, Bangalore University, India.

B.Sc Chemistry Honors (2008), First division, Delhi University, India.

TOEFL Score: 93/120

PUBLICATION AND PATENT APPLICATIONS:

1. Jiaul Hoque, **Padma Akkapeddi**, Vikas Yadav, Goutham B. Manjunath Divakara S S M Uppu, Mohini Mohan Konai, Venkateswarlu Yarlagadda, Kaustav Sanyal and Jayanta Haldar “ Broad Spectrum Antibacterial and antifungal polymeric paint materials: synthesis, structure- activity relationship and membrane-active mode of action”. *ACS Applied Material Interfaces*, **2015**, 7 (3), 1804
2. Venkateswarlu Yarlagadda, **Padma Akkapeddi**, Goutham B. Manjunath and Jayanta Haldar “Membrane Active Vancomycin Analogues: A Strategy to Combat Bacterial Resistance”. *Journal of Medicinal Chemistry*, **2014**, 57 (11), 4558
3. Chandradhish Ghosh, Goutham B. Manjunath, **Padma Akkapeddi**, Yarlagadda Venkateswarlu, Jiaul Hoque, Divakara S. S. M. Uppu and Jayanta Haldar “Small Molecular Mimics of Antimicrobial Peptides: the simpler the better!” *Journal of Medicinal Chemistry*, **2014**, 57 (4), 1428.
4. Jiaul Hoque[#], **Padma Akkapeddi**[#], Venkateswarlu Yarlagadda, Divakara S S M Uppu, Pratik Kumar and Jayanta Haldar. “Cleavable Cationic Antibacterial Ampiphiles: Synthesis, Mechanism of Action and Cytotoxicities” *Langmuir*, **2012**, 28, 12225. (#: Equal contribution)
5. Yarlagadda Venkateswarlu, **Padma Akkapeddi** and Jayanta Haldar “Development of lipophilic cationic glycopeptide antibiotics and their enhanced activity against gram positive and gram negative bacteria.” **WO/2013/072838**.

6. Divakara S S M Uppu, **Padma Akkapeddi**, Goutham Belagula Majunath and Jayanta Haldar. "Nanoparticle compositions of antimicrobial polymers and their uses thereof." Indian Provisional Patent Application No.: **WO2014006601 A2**
7. Chandradhish Ghosh, **Padma Akkapeddi**, Goutham Belagula Majunath and Jayanta Haldar. "Antimicrobial compounds, their synthesis and applications thereof". Indian Provisional Patent Application No.: 5299/CHE/2012.

AWARDS:

Awarded research fellowship from FCT (Portugal) as a part of LisbonBiomed Graduate programme at IMM, Lisbon.

Research Assistantship from Department of Science and Technology, Government of India, in Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India.

RESEARCH EXPERIENCE:

Research assistant, JNCASR

August 2010-2013

Dr. Jayanta Haldar Group (NCU)

(Lab page: <http://www.jncasr.ac.in/jayanta/>)

Development of novel Polymeric nanomedicine for Targeted Drug Delivery and Gene Delivery for Cancer therapy.

*Development of novel glycopeptide antibiotics to combat drug resistance
Engineering Antimicrobial Polymers and Amphiphiles*

Summer Trainee, Indian Institute of Science

May-Aug 2008

Prof. Srinivasan Chandrasekaran Group

(Dept. Organic Chemistry)

Synthesis of Ferrocene-amino acid, peptide conjugates employing click chemistry.

Preparation and incorporation of 3-methyl cysteine, an uncommon and biologically important amino acid into a peptide

Summer Trainee, JNU

May-July 2007

Prof. R.N.K Bamezai (*Padma Shri Awardee*)

(School of Life Science)

Basic molecular biology techniques like Protein and DNA purification, Western Blotting, PAGE, ELISA etc.

RELEVANT SKILLS:

Biology: Phage Display, Antibody Engineering, Mammalian protein expression and purification, Surface Plasmon Resonance, FPLC, Tissue culturing (multiple cell lines including Macrophages, Peripheral Blood Mononuclear cells), cytotoxicity studies, Gene transfection studies, FACS calibur and Confocal microscopy (using various dyes such as Annexin-FITC, Propidium iodide, MitoProbe, LysoTrackers, LysoSensors etc.), Autophagy studies using Fluorescent LC3 probes, Traffic-Signal assays etc.

Cloning of various Cancer cell lines to achieve permanent GFP expression.

Basic Microbiological techniques, handling antibiotic resistant bacteria (MRSA, VRE), MIC determination and fluorescent microscopy using Syto 9 and Propidium iodide. *In-vivo* mice handling (CD-1 and BALB-C) for various antibacterial testings.

Chemistry: Synthesis and characterization techniques such as Nuclear Magnetic Resonance (NMR), Mass spectroscopy, Infrared spectroscopy, Dynamic Light Scattering (DLS), Scanning Electron Microscopy (SEM)

TEACHING EXPERIENCE:

I was part of course work programme for graduate students at JNCASR. Have an experience in taking classes for graduate students in the field of Medicinal chemistry with focus on cancer drug delivery. Trained various summer and graduate students in handling pathogenic bacteria and carrying out various antibacterial activity testings.

REFERENCES:

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Prof. Srinivasan Chandrasekaran, Honorary Professor, Dept. of Organic Chemistry, Indian Institute of Science, Bangalore-560012

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