

Curriculum vitae

Prakash Kishore Hazam (M. Pharm-Pharmacognosy)

Department of Biosciences and Bioengineering,

Indian Institute of Technology Guwahati, PIN-781039, India

Contact number: +918812821604

Email id : p.hazam@iitg.ernet.in, prakashkishor.hazam@gmail.com

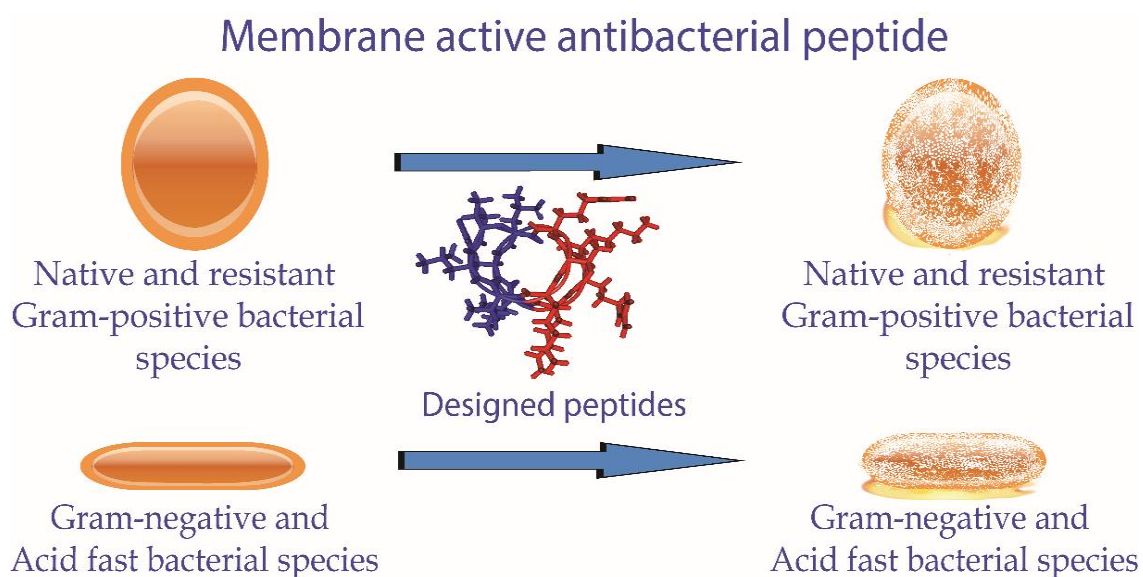


Research Interest

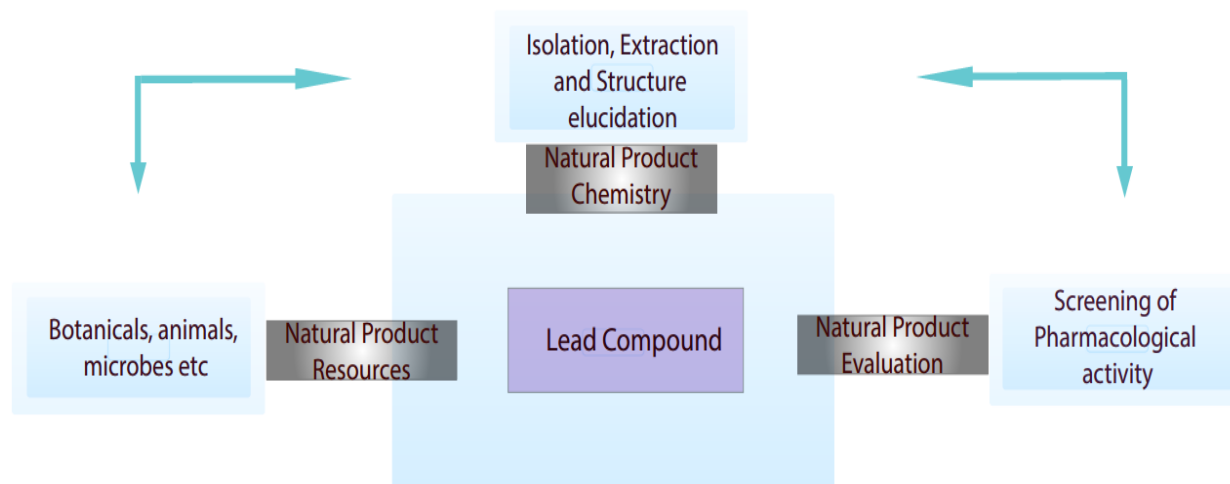
- Design, synthesis and evaluation of antimicrobial activity of peptide based drugs.
- Isolation and characterization of natural products.
- In-vivo and in-vitro evaluation of isolated and synthesized drug molecules.

Summary of work done

- Design, simulation, synthesis, characterization and evaluation of syndiotactic amphipathic antibacterial peptides.



- Isolation, *in-vivo* and *in-vitro* evaluation of natural products. Anti-cataract, angiogenesis, cardio-protective and antioxidant activity of *Passiflora nepalensis*.



Education

Qualification	Institution	University/ Board	Year Joined	Result
Ph.D	Indian Institute of Technology Guwahati	Indian Institute of Technology, Guwahati	27 th December 2011	Thesis submitted
Master of Pharmacy	Himalayan Pharmacy Institute, Sikkim	Sikkim University	2010	77.6 %
Bachelor of Pharmacy	Himalayan Pharmacy Institute, Sikkim	University of North Bengal	2008	75.9 %
Class 10+2	Jawahar Navodaya Vidyalaya, Golaghat	Central Board Of Secondary Education	2003	70.0 %
Class 10	Jawahar Navodaya Vidyalaya, Jorhat	Central Board Of Secondary Education	2001	64.8 %

List of publications

1. Bactericidal potency and extended serum life of stereo-chemically engineered peptides against Mycobacterium. PK Hazam, A Singh, N Chaudhary, V Ramakrishnan. (2018). **International Journal of Peptide Research and Therapeutics**. doi.org/10.1007/s10989-018-9690-0.
2. Effect of tacticity-derived topological constraints in bactericidal peptides. PK Hazam, G Jerath, A Kumar, N Chaudhary, V Ramakrishnan. **Biochimica et Biophysica Acta (BBA)- Biomembranes** 1859 (8), 1388 – 1395, 2017. doi: 10.1016/j.bbamem.2017.05.002.
3. Peptido-mimetic Approach in the Design of Syndiotactic Antimicrobial Peptides. PK Hazam, G Jerath, N Chaudhary, V Ramakrishnan. **International Journal of Peptide Research and Therapeutics**. 2017:1-9. doi: 10.1007/s10989-017-9615-3
4. Symmetry-Directed Self-Organization in Peptide Nanoassemblies through Aromatic π - π Interactions. S Sasidharan, PK Hazam, V Ramakrishnan. **The Journal of Physical Chemistry B** 121 (2), 404-411, 2017. doi: 10.1021/acs.jpcc.6b09474.
5. Mapping the Geometric Evolution of Protein Folding Motor. G Jerath, PK Hazam, S Shekhar, V Ramakrishnan. **PLoS One** 11 (10), e0163993, 2016. doi: 10.1371/journal.pone.0163993.
6. bPE toolkit: toolkit for computational protein engineering. G Jerath, PK Hazam, V Ramakrishnan. **Systems and synthetic biology** 8 (4), 337-341, 2014. doi: 10.1007/s11693-014-9156-4.
7. Cardioprotective effect of *Urtica parviflora* leaf extract against doxorubicin-induced cardiotoxicity in rats. NR Barman, PK Kar, PK Hazam, HS Pal, A Kumar, S Bhattacharya, PK Halder. **Chinese Journal of Natural Medicines** 11 (1), 38-42, 2013. doi: 10.1016/S1875-5364(13)60005-9.
8. Botanicals as medicinal food and their effects on drug metabolizing enzymes. PK Mukherjee, S Ponnusankar, S Pandit, PK Hazam, M Ahmmed, K Mukherjee. **Food and chemical toxicology** 49 (12), 3142-3153, 2011. doi: 10.1016/j.fct.2011.09.015

In communication

1. Peptide based Antimicrobials: Design Strategies and Therapeutic Potential. PK Hazam, Ruchika Goyal, V Ramakrishnan. **Progress in Biophysics and Molecular Biology (PBMB_2018_72)**.
2. Bactericidal potency of bio-active materials from stereo-chemically engineered polypeptides. PK Hazam, Akhil R, A Singh, N Chaudhary, V Ramakrishnan. **Acta Biomaterialia** (AB-18-1570).

Patent

Antimicrobial peptide, Patent No: 333/KOL/2015 dated 26/03/2015 (published on 30/09/2016).

Academic Projects

1. Anticataract, angiogenesis and cardioprotective activity of the plant *Passiflora nepalensis* at All India Institute of Medical Science, New Delhi and Himalayan Pharmacy Institute, Sikkim (May 2009 - April 2010).
2. Herb-drug interaction of antidiabetic plants at School of Natural Product Studies, Jadavpur University, Kolkata (November 2010 - December 2011).
3. Antimicrobial peptide drugs (pursuing from 2011 till date).

Conferences

1. Poster "Symmetry as a design element in directing self-organization of peptide nano-assemblies" accepted in International Conference on Advances in Biological Systems and Material Science in Nano World (ABSMSNW-2017) Abstract ID: B1053.
2. Poster presentation in Research Conclave 2016 entitled "Peptide Based Molecular constructs as THERANOSTIC agents" at Department of Biotechnology, Indian Institute of Technology, Guwahati.
3. Participated in National Conference on "Recent Advances in Cancer Biology and Therapeutics" 2014 at Department of Biotechnology, Indian Institute of Technology, Guwahati.
4. Poster presentation at 62nd Indian Pharmaceutical Congress 2010 entitled "Cytochrome P450 Inhibition study of *Tinospora cordifolia*" in the session of PHARMACOLOGY and TOXICOLOGY, CLINICAL RESEARCH and PHARMACOVIGILANCE.
5. Participated in International Symposium on "Recent Advances in Pharmacotherapy of Cardiovascular Diseases" 2009 at Delhi Institute of Pharmaceutical Sciences and Research.
6. Poster presentation at International Herbal Conference 2009 entitled "Hepatoprotective Activity of Ethanolic Extract of *Bacopa monnieri* Linn in Paracetamol Induced Hepatotoxic Rats".

Awards and honors

1. GATE 2009.
2. DST-INSPIRE fellowship 2011.
3. Institute Fellow at Indian Institute of Technology, Guwahati for pursuing Ph.D.
4. First Class with Distinction (University topper) in Master of Pharmacy, Pharmacognosy 2010.
5. First Class with Distinction in Bachelor of Pharmacy 2008.

Experimental Skills and experiences

- Peptide based antimicrobial drug design and screening.
- Solid phase peptide synthesis, separation and characterization using chromatography and mass spectrometry.
- Isolation, evaluation and screening of natural drugs.
- Cardio-pharmacology with isolated heart study using Langendorff's apparatus.
- Histopathological study of animal tissue.
- Anti-cataract study using Chicken embryo.
- Angiogenesis study using chicken Chorioallantoic membrane.
- Drug metabolism due to attenuated CYP₄₅₀ release.

Research Experiences.

- **September 2009 to March 2010** – M. Pharm project work at All India Institute of Medical Sciences (AIIMS), New Delhi, India.
- **September 2010 to December 2011** – Senior Research Fellow at Jadavpur University, Kolkata.
- **December 2011 to December 2013** – Junior Research Fellow at Indian Institute of Technology, Guwahati (Ph.D.).
- **December 2013 to April 2018** – Senior Research Fellow at Indian Institute of Technology, Guwahati (Ph.D.).