

Curriculum Vitae
Dr. Konkallu Hanumae Gowd



Position: Professor,
Research Interest: Sulfur peptide chemistry and biology
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hanumae@gmail.com
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Education and Training:

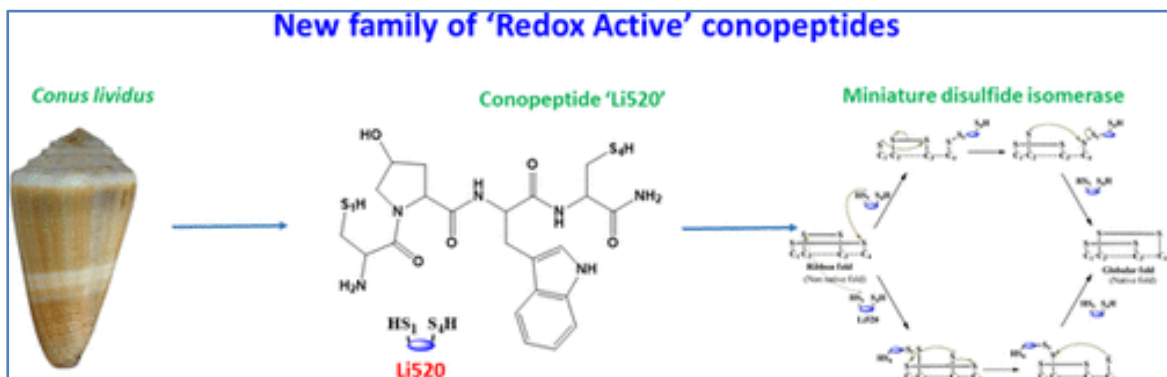
INSTITUTION	POSITION / DEGREE	YEAR	FIELD OF STUDY
Department of Chemistry, CUK, Kalaburagi	Professor	2020- Present	Sulfur peptide
Department of Chemistry, CUK, Kalaburagi	Assistant Professor	2014-2020	chemistry
Undergraduate Programme, IISc, Bangalore.	INSPIRE Faculty	2012-2014	Chemical Biology
Molecular Biophysics Unit, IISc, Bangalore.	Fellow Project Scientist	2010-2012	Biophysics
University of Utah, Salt Lake City, USA.	Post-Doctoral Fellow	2008-2010	Neuroscience
Department of Biological Sciences, TIFR, Mumbai.	Ph.D	2003-2008	Peptide Chemistry
Central College, Bangalore University, Bangalore.	M Sc	2001-2003	Organic Chemistry
SSASC College, Bangalore University, Tumkur.	B.Sc	1998-2001	Phy., Chem., Math.

Research Experience:

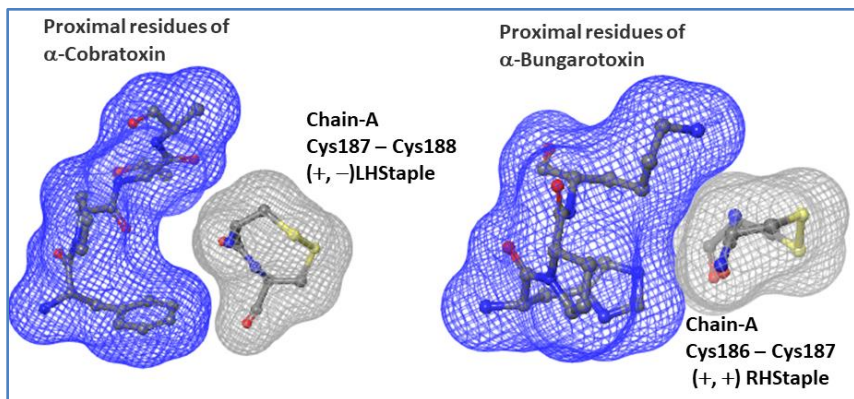
RESEARCH SUPERVISOR	POSITION	DURATION	AREA OF RESEARCH WORK
Prof. K.S. Krishnan, TIFR, Mumbai Prof. P. Balaram, MBU-IISc, Bangalore	Ph.D Student	5 Years	Sequencing and chemical synthesis of Conus venom peptide/modifying enzymes
Prof. Baldomero M. Olivera, University of Utah, Salt Lake City, USA Prof. Grzegorz Bulaj, University of Utah, Salt Lake City, USA	Post-Doctoral Fellow	2 Yrs	Conantokins based antagonists for subunits of NMDA receptor/ Selenocysteine directed folding of conotoxins.
Prof. P. Balaram, MBU-IISc, Bangalore	Scientist/DST-INSPIRE Faculty Fellow	4 Yrs	Disulfide rich conus venom peptides as miniature proteins

Research Publications from CUK:

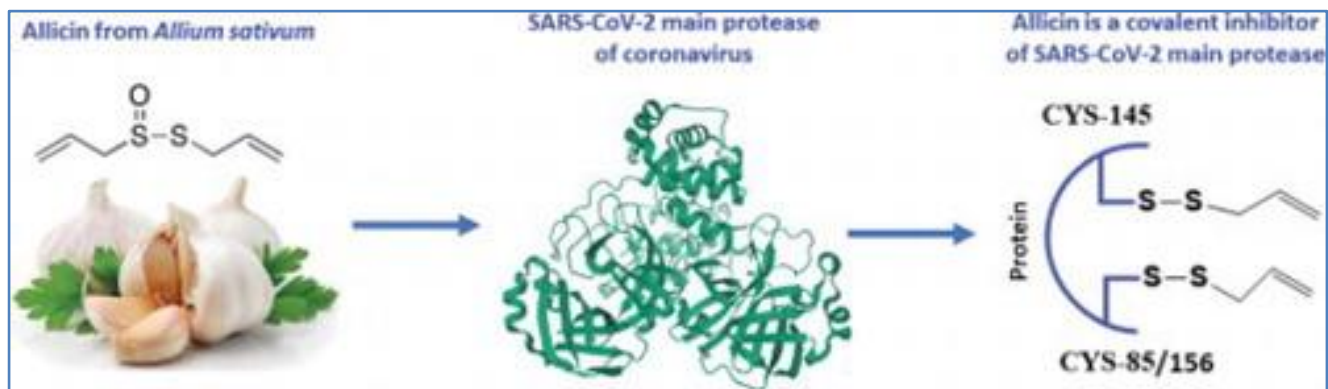
1. Dolle A, Vijayasarathy M, Shekh S, Hunashal Y, Reddy KKA, Prakash S, Rana A, Biswal HS, Raghothama S, Gowd KH. The Redox-Active Conopeptide Derived from the Venom Duct Transcriptome of *Conus lividus* Assists in the Oxidative Folding of Conotoxin. *Biochemistry*. 2021 Apr 27;60(16):1299-1311. doi: 10.1021/acs.biochem.1c00090.



2. Reddy KKA, Jayashree M, Govindu PCV, Gowd KH. Ligand-induced transition in conformations of vicinal cysteine disulfides in proteins. *Proteins*. 2021 Jun;89(6):599-613. doi: 10.1002/prot.26039.



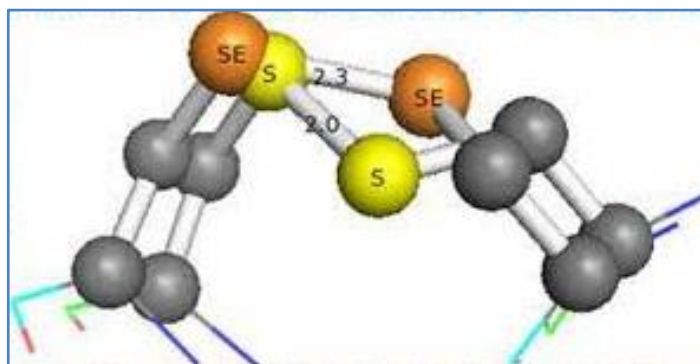
3. Shekh S, Reddy KKA, Gowd KH. *In silico* allicin induced S-thioallylation of SARS-CoV-2 main protease. *J. Sul. Chem.* 2020, 109-120. doi.org/10.1080/17415993.2020.1817457



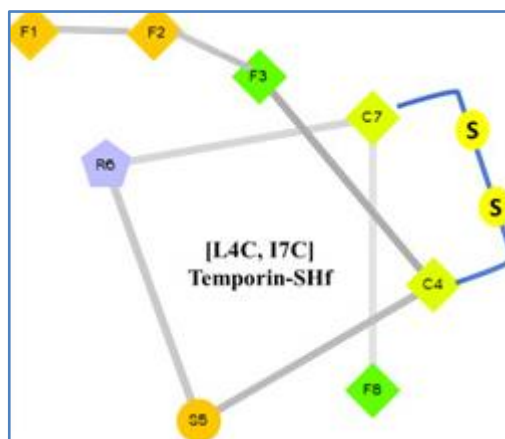
4. Reddy KKA, Moi S, Dolle A, Hosamani B, Krishnamurthy K, Prakash S, Raghothama S, Gowd KH, Synthesis of Peptide Cysteine Dimedone Using Fmoc-Cys (Dmd)-OH: Glutathione Cysteine Dimedone as a Probe in Investigating the Sulfenic Acid Mediated Oxidation of Glutathione. *Helvetica Chimica Acta*, 2020 (in press)



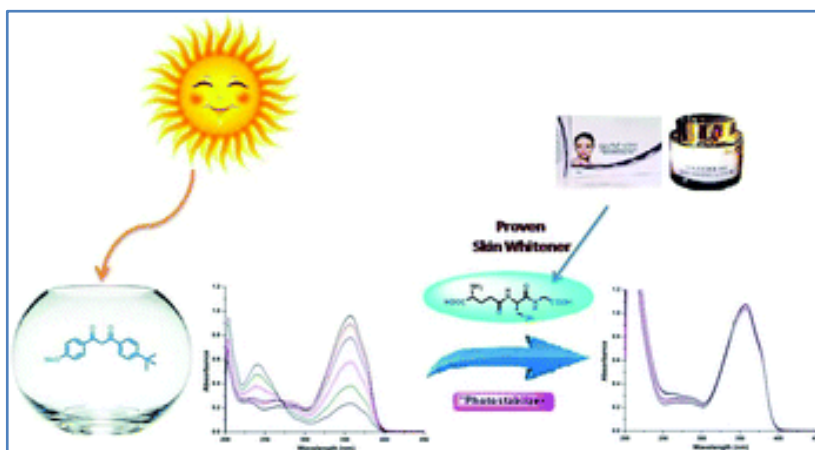
5. Dolle A, Reddy KKA, Gunaga SS, Krishnamurthy K, Senapati DK, Rana A, Sindogi K, Biswal HS, Raghothama S, Gowd KH. Characterization of (Boc-Cys/Sec-NHME)₂ and (Boc-Cys/Sec-OMe)₂: Evidence of local conformational difference between disulfide and diselenide. *J Pept Sci.* 2020 Apr;26(4-5):e3245. doi: 10.1002/psc.3245.



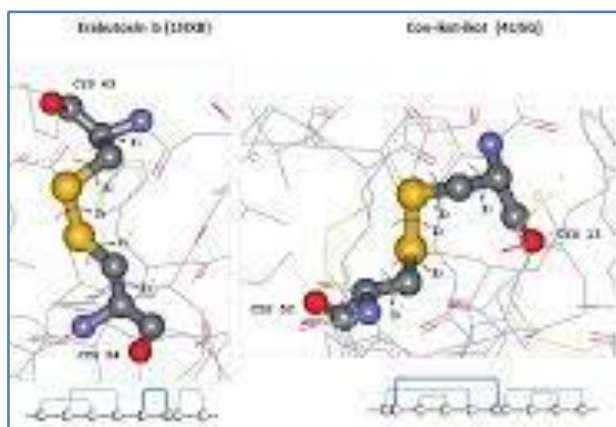
6. Dolle A, Nagati VB, Hunashal Y, Krishnamurthy K, Pasupulati AK, Raghothama S, Gowd KH. Disulfide engineering on temporin-SHf: Stabilizing the bioactive conformation of an ultra-short antimicrobial peptide. *Chem Biol Drug Des.* 2019, Sep;94(3):1634-1646. doi: 10.1111/cbdd.13525.



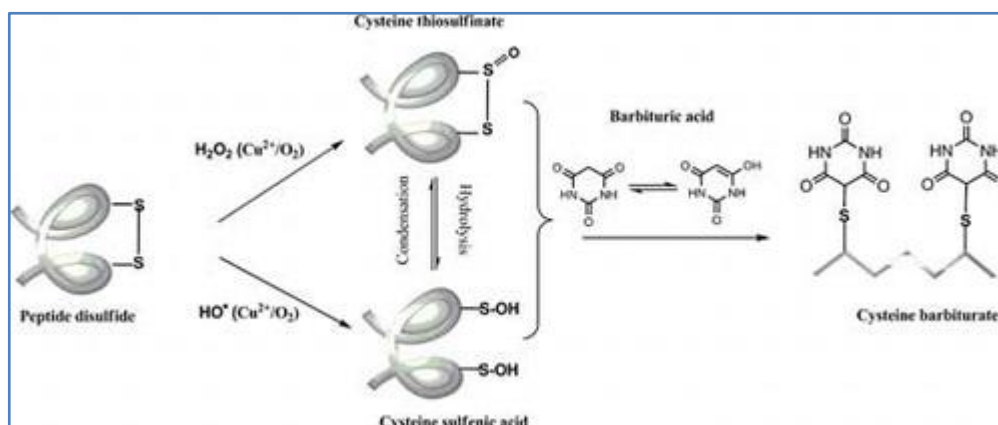
7. Govindu PCV, Hosamani B, Moi S, Venkatachalam D, Asha S, John VN, Sandeep V, Gowd KH. Glutathione as a photostabilizer of avobenzone: an evaluation under glass-filtered sunlight using UV-spectroscopy. *Photochem Photobiol Sci*. 2019 Jan 1;18(1):198-207. doi: 10.1039/c8pp00343b.



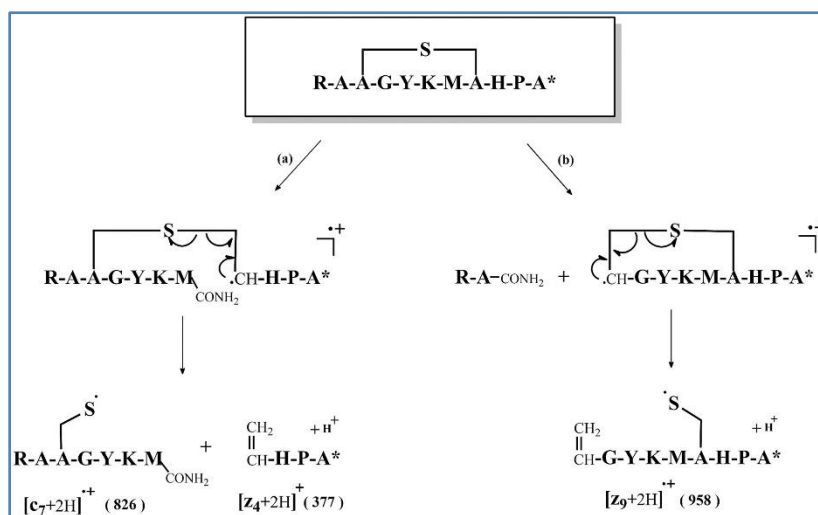
8. Govindu PCV, Mohanan A, Dolle A, Gowd KH. Conformations of cysteine disulfides of peptide toxins: Advantage of differentiating forward and reverse asymmetric disulfide conformers. *J Biomol Struct Dyn*. 2019 May;37(8):2017-2029. doi: 10.1080/07391102.2018.1475257.



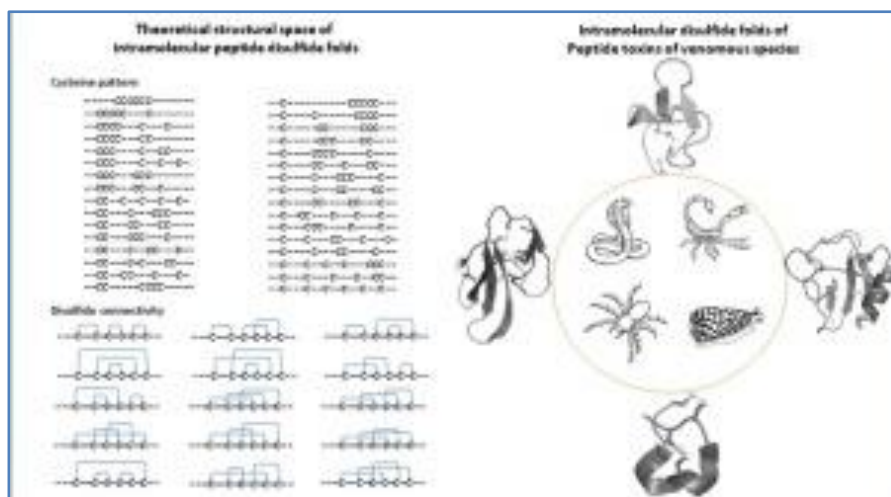
9. Govindu PChV, Sudarshan C, Gowd KH. Synthesis of two closely spaced cysteine barbiturates containing peptides by copper-catalyzed oxidation of contryphan disulfide. *Synthetic Communications*, Pages 1559-1567 Published online: 06 Jul 2017, <https://doi.org/10.1080/00397911.2017.1336245>



10. Dolle AB, Jagadeesh N, Bhaumik S, Prakash S, Biswal HS, Gowd KH. Electron transfer dissociation of synthetic and natural peptides containing lanthionine/methyllanthionine bridges. Rapid Commun Mass Spectrom. 2018 Jun 15;32(11):831-843. doi: 10.1002/rcm.8108.



11. Govindu PCV, Chakraborty P, Dutta A, Gowd KH. Structural space of intramolecular peptide disulfides: Analysis of peptide toxins retrieved from venomous peptide databases. Comput Biol Chem. 2017 Jun;68:194-203. doi:10.1016/j.compbiolchem.2017.03.004.



Research Patent from CUK:

12. MOI, Smriti, HOSAMANI, Basavaprabhu, KUMAR, Kiran, GUNAGA, Shubha Shridhar, SAHOO, Deepak Kumar, PATIL, Pooja S, NAVANI, Poornima G, SANDEEP, Vuddanti, RAGHOTHAMA, Srinivasarao, ROW, T.N Guru, GOWD, Konkallu Hanumae. **A compound with improved photostability under sunlight.** Indian Patent (Filed).

Academic Awards:

- ✓ “INSPIRE Faculty Award” from Department of Science & Technology.
- ✓ “Honourable mention” (2009) in the context of best thesis award from Tata Institute of Fundamental Research, Mumbai.
- ✓ “The Journal of Experimental Biology” (2007) Traveling fellowship from Company of Biologist.
- ✓ “Sarojini Damodaran International Fellowship” (2007) from TIFR endowment fund.
- ✓ Financial assistance from Department of Science & Technology (2007) to visit Prof. Baldomero M. Olivera lab at university of Utah.
- ✓ Traveling award from “Joint Third AOHUPO and Fourth Structural Biology and Functional Genomics Conference” (2006) held in National University of Singapore.
- ✓ Kanwal Rekhi Scholarship (2004 & 2005) from TIFR endowment fund.
- ✓ University Gold Medal (2003) - For securing the first position in Bangalore University.
- ✓ Prof S.M. Mayanna Gold Medal/Cash prize (2003) for securing highest marks in M.Sc.Chemistry.
- ✓ Dr.B.D. Laroia Memorial Gold Medal/Cash prize (2003) for securing highest marks in M.Sc.Chemistry.
- ✓ Fakir Saheb Gold Medal/Cash prize (2003) for securing highest marks in M.Sc.Chemistry.
- ✓ Prof.S.Siddappa’s 60th Birthday Commemoration Gold Medal/Cash prize (2003) for securing highest marks in M.Sc.Chemistry.
- ✓ Prof K.M. Shivanandaiah Gold Medal/Cash prize (2003) for securing highest marks in Organic Chemistry (M.Sc.Chemistry).
- ✓ Prof Vrishabendrappa Endowment Gold Medal/Cash prize (2003) for securing highest marks in Organic Chemistry (M.Sc.Chemistry).
- ✓ Prof H. Sanke Gowda Gold Medal/Cash prize (2003) for securing highest marks in Organic Chemistry (M.Sc.Chemistry).
- ✓ Smt.Myna Bai & Narayana Rao Gold Medal/Cash prize (2003) for securing highest marks in Organic Chemistry (M.Sc.Chemistry).

Research Grants:

Funding agency	Project title	Grants received	Duration	Investigator name and PI or Co-PI
DST-INSPIRE	Disulphide rich conus peptide based scaffolds for functional miniature protein	35 Lakhs	05 Yrs	Dr. K. Hanumae Gowd (PI)
DST-SERB-ECR	Evaluation of genetically coded redox conopeptides as the folding catalysts of biologically active conotoxins: Development of regenerative immobilized reagents for simplified oxidative folding of disulfide rich peptides and proteins	45 Lakhs	03 Yrs	Dr. K. Hanumae Gowd (PI)
				Dr. N. S. Venkata Narayanan (Co-PI)

DST-National Post-Doctoral Fellowship Schem	Design, synthesis and application of Cysteine and Selenocysteine in Native Chemical Ligation and biological studies and developing fluorescent probes for their detection.	6 Lakhs	02 yrs	Dr. Konkalluhanumae Gowd (Mentor) Dr. Basavaprabhu (NPDF)
VGST	Unraveling the biochemical reactions of cysteine sulfenic acid: Structural and functional characterization of peptide barbiturates	5 Lakhs	01 Yr	Dr. Konkalluhanumae Gowd

Research Guidance:

SR.No.	Name (Period)	Designation	Statuses	Period
1	Dr. Basavaprabhu Hosamani	<i>Post-Doctoral Fellow</i>	Completed	2017-2018
2	Dr. Panchada Ch.V. Govindu	<i>Ph.D Student</i>	Completed	2014-2018
3	Dr. Ashwini B. Dolle	<i>Ph.D Student</i>	Completed	2015-2019
4	Mr. Kasi K. Amarnath Reddy	<i>Ph.D Student</i>	Submitted	2016-2021
5	Ms.Smriti Moi	<i>Ph.D Student</i>	Pursuing	2017
6	Mr. Shamasoddin Shekh	<i>Ph.D Student</i>	Pursuing	2018
7	Mr. Deepak Kumar Sahoo	<i>Ph.D Student</i>	Pursuing	2020
IAS-NASI-INSA Summer Fellows				
> 10 students at CUK for duration of 2 months/fellow				

Group-photo:

