

A.H. SNEHA RANI, Ph. D.

Professional Address

Department of Studies in Biochemistry
Jnana Kaveri P. G. Centre, Mangalore University
Chikka Aluvara, Somwarpet Taluk, Kodagu District-571232



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Research Areas

Proteases and Protease inhibitors, Enzymology (industrially important enzymes), Biomimetic nanostructures, Gut microbiome

Education

Ph. D. (Biochemistry)	CFTRI, University of Mysore, 2011 India	
M. Sc. (Biochemistry)	University of Mysore, India	1999
B. Sc.	University of Mysore, India	1997

Research and professional experience

Dec-2013	Assistant Professor (II) , Department of Studies in Biochemistry, Jnana Kaveri P. G. Centre, Mangalore University
April-2013 to Dec-2013	CSIR- Research Associateship , CSIR-Central Food Technological Research Institute , Mysore, India
Jan-2011 to 2012	Postdoctoral fellow, Blood Research Institute, BloodCenter of Wisconsin, Milwaukee, USA
May - 2005 to Dec-2010	Doctoral Degree Program, CSIR-Central Food Technological Research Institute , Mysore, India
1999-2005	Lecturer, Constituent colleges, University of Mysore

Academic Fellowships and Honors

2004	Junior Research fellowship, DBT sponsored project, CSRTI, India
2005	Junior Research Fellow, CSIR/UGC, India
2005	National Eligibility Test, CSIR/UGC, India

2007	Senior Research Fellow, CSIR/UGC, India
2013	Research Associateship, CSIR, India
2017	UGC (Mangalore University) Travel Grant to attend International Conference
2019	INSA-Bilateral Exchange Program

Membership of Professional Organizations

Society of Biological Chemists

Indian National Science Congress

Indian Biophysical Society

NMR Society

Association of Food Science and Technology

Sponsored Projects

Principal Investigator

Sl. No.	Title	Agency	Period	Grant/Amount Mobilized (Rs. in lakhs)
1	Setting up on Animal Cell Culture facility	VGST, GoK	2015-2018	30 Lakhs
2	Understanding the therapeutic potential of legume serine protease inhibitor and there of designing small cyclic peptides	SERB-DST	2015-2018	22.1 Lakhs
3	Therapeutic effect of Bioactive Principles on Melanogenesis in Melanoma Cells	MHRD/UGC	2014-2016	6 Lakhs

Doctoral Research Advisor under Biochemistry Discipline

Pursuing 04

Mr. Prabhudev

Mr. H.R. Sachin

Mr. D. N. Ganesh Prasad

Mr. M.A. Pavan Kumar

RESEARCH PUBLICATIONS

AH Sneharani, SA Singh, AGA Rao. Interaction of α S1-Casein particles with Curcumin and Its Biological Implications *J Agri Food Chem* 57: 10386-10391, 2009

AH Sneharani, VK Jimsheena, SA Singh, AGA Rao. Interaction of Curcumin with β -Lactoglobulin Nanoparticles; Stability, Spectroscopic Analysis, and Molecular Modeling of the Complex *J Agri Food Chem* 58: 11130-11139, 2010

AH Sneharani, SA Singh, AGA Rao. Inhibition of lipoxygenase-1 by tetrahydrocurcumin. *Eur Food Res Technol* 233: 561-568, 2011

AH Sneharani. Curcumin as a tool to assess the surface hydrophobicity of proteins, *Spectroscopy lett*, 49: 568-572, 2016

AH Sneharani. Cis-parinaric Acid: A non-redox Inhibitor of Lipoxygenase-1. *Asian J. Biochem* 12(2)27-35, 2017

AH Sneharani et al., Human pleural fluid PLA2 inhibition and in vitro antioxidant activity of ethanolic root extract of *Toddalia asiatica*. *IJRSR* 7: 9592-98, 2016

AH Sneharani. Serine Protease inhibitor from *Guizotia abyssinica*. *IAJPS*, 6 (04), 5045-50, 2016

AH Sneharani. Mechanistic Effect of dietary components in managing Obesity. *WJPR*, 6 (13), 176-183, 2017

AH Sneharani. Serine Protease Inhibitors as Potential Therapeutic agents: A perspective. *EJPS*, 4 (07), 2017

AH Sneharani. Assessing zinc levels: Is it the need of hour? *IAJPS*, 2017, 4 (10), 3946-3649

AH Sneharani*, Prabhudev SH, Sachin, Effect of phytochemicals on optical absorption spectra during biogenic synthesis of self-assembled silver nanoparticles and studies relevant to food applications. *Spectroscopy Letters*, 2019, Vol. 52, no. 7, 413-422

AH Sneharani* Curcumin-sunflower protein nanoparticles—A potential antiinflammatory agent. *Journal of Food Biochemistry*, 2019, DOI: 10.1111/jfbc.12909

Prabhudev SH and **AH Sneharani***, Extraction and characterization of pectin methylesterase from muskmelon biowaste for pectin remodelling *Journal of Food Biochemistry*, 2020 DOI: 10.1111/jfbc.13237

AH Sneharani*, Interaction of curcumin with erythrocytes: A microscopic study *Biomedicine*, 2020, Vol. 40, no. 2,

Sachin HR, Prabhudev SH, Ganesh Prasad DN, **A.H. Sneharani***, Immobilization of trypsin enzyme on silver nanoparticles, *Biomedicine*, 2020, Vol. 40, no. 2

H.R. Sachin, M.N. Sharath Kumar, S. Devaraja and **A.H. Sneharani*** (2020) Anticoagulant and antiplatelet activities of novel serine protease purified from seeds of *Cucumis maderaspatensis*, 3Biotech

Book Chapters

1. Facile Chemical Fabrication of Designer Biofunctionalized Nanomaterials (Chapter 2) (*Book Title: Functionalised Nanomaterials I*; Taylor and Francis, **CRC Press**, *In Press*)

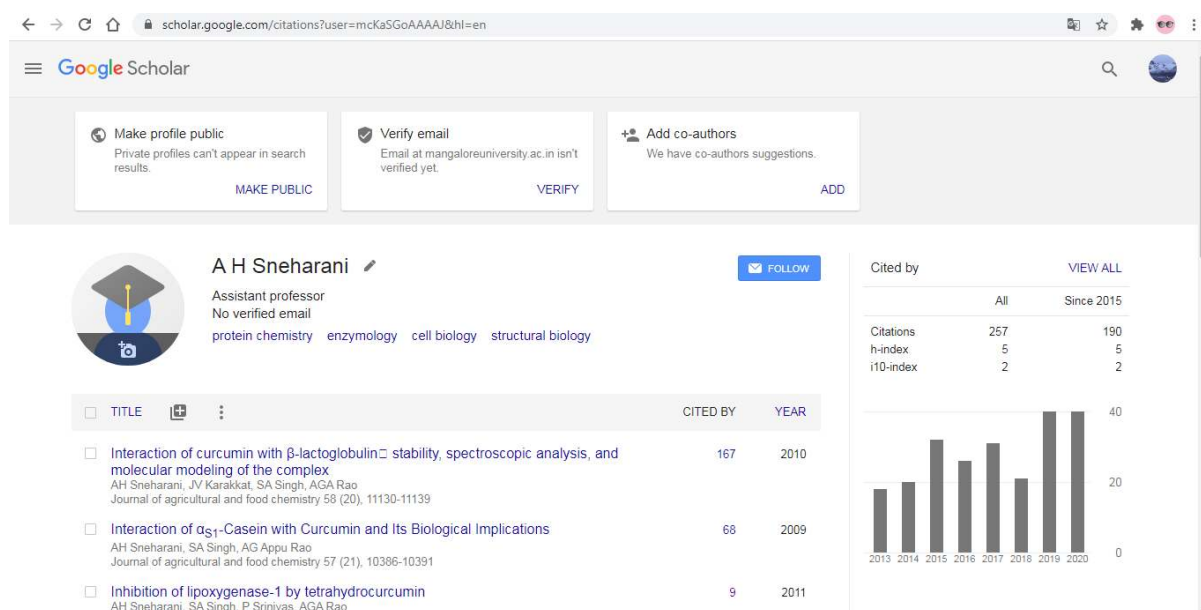
Impact of publications

h- index 5

i10 index 2

Citations 257

<https://scholar.google.com/citations?user=mcKaSGoAAAAJ&hl=en>



Conferences, Paper presentation

H11B2C2 products (hyaluronan binding protein) form a complex with TSG and other proteins: A possible H11B2C2 mediated transactivation in tumor progression protein'. Paper presentation, Symposium, 22nd Annual convention of Indian Association for Cancer Research

'Cloning of PECAM-I' Indian Science Congress, Jan 3rd - 7th 2016

'Isolation of Serine protease inhibitor from *Clitoria sp*' International Conference on Importance of Herbal Medicine in the Era of Globalization, Dec 21st to 23rd, 2016

'Synthesis and Characterization of SFPI nanoparticles' Oral presentation, International Conference on Materials for Advanced Technologies, ICMAT 2017, Singapore

International conference on, NANOS 14th to 17th Dec 2015, GITAM Institute of Science

Interaction of curcumin with α_{S1} -casein-A spectroscopic approach' 77th annual meeting, Society of Biological Chemists, IITM, Chennai, December, 2008

Spectroscopic analysis of curcumin- β -lactoglobulin complex and nanoparticle preparation' Symposium on Recent trends in biophysics' Paper Presentation, Banaras Hindu University, February 2010

'Isolation and Characterization of Serine protease inhibitor from *Guzatica sp*' National conference on Emerging Protein Technologies for formulation solutions, National Conference on Recent Trends in Novel Carbon Materials, 22nd September 2015

'Avocado seed: A treasure of polyphenols', 85th annual meeting, Society of Biological Chemists, CFTRI, Mysore, 21st to 24th November, 2016

'Plant based protein nanoparticles' Oral presentation, International conference on Nanomaterials and their Applications. 1st to 2nd March, 2018

'Biogenic green synthesis of Avocado Aqueous extract facilitates silver nanoparticles', Oral presentation, International Conference on Recent Advances in Materials Science and Biophysics, 23rd to 25th January, 2018

'Isolation of thermostable trypsin and chymotrypsin inhibitor from the seed of niger (*Guizotia abyssinica*)- preliminary studies', Oral presentation, National Conference on Emerging Protein Technologies for formulation solutions, October 16th, 2014

Gut bacterial diversity in worker adults of *Apis florea* and *Apis cerena indica* assessed by MALDI-TOF, 16S rRNA and NGS, Oral presentation, International workshop on Biology and Applications of Actinomycetes, 30th October and 1st November, 2019, University of Mysore

Conferences/Workshops Participation

‘Genomic instability and human diseases’, One day International Symposium, 30th Jan, 2017

State level Seminar on ‘Frontiers of Science and Technology’ at Yuvaraja’s College, Mysore on 5th January 2004 - Participation

Workshop on Biotechnology and Bioinformatics in Sericulture’ held at CSRTI, Mysore on December 9th to 10th 2004

Workshop on ‘Emerging techniques of Biophysics’ held by Indian Biophysical Society and Banaras Hindu University, February 16th 2010

National seminar on ‘Microbes in the present Scenario’, 28th Feb to 1st March, 2014

International Webinar on ‘Fundamentals of Effective Scientific Writing: Manuscripts and Grants’, ACS society, USA, 9th June, 2020

‘Current Concepts on the role of Indian medicine and phytoceuticals in maintenance of health’, 33rd International Conference and annual summit of IABMS, 15th to 17th November, 2018

‘2-Days International Workshop on COVID-19 Mass Disaster & Possible Management : Challenges for Immediate Future’, 5th to 6th May, 2020

103rd Indian Science Congress, Jan 3rd to 7th, 2016

National Seminar on ‘Ornamental plants-Scope, opportunities and challenges’, 21st to 22nd March, 2017

Workshop on NMR/MRI, From molecules to Human Behaviour, Nov 15th to 21st, 2015

85th annual meeting, Society of Biological Chemists, CFTRI, Mysore, 21st to 24th November, 2016

Conference on ‘Recent Advances in Computational Drug Design’, 16th to 17th Sep, 2013

International Conference on Green Chemistry and Nanotechnology Opportunities and Challenges 2017, 27th to 28th Feb, 2017

3rd International Festival of Science, Technology, Engineering & Mathematics’ 17th to 20th Oct, 2016

One day workshop on X-Ray Crystallography, 10th November, 2014

‘Applications of functionalised carbon nanotubes in nanomedicine’, 29th May, 2020

CHAIR/Invited talk in CONFERANCES/SYMPOSIUM

‘Trends in Bioactive natural products and health care’, Two days National conference, 6th to 7th October 2017

‘Current Concepts on the role of Indian medicine and phytoceuticals in maintenance of health’, 33rd International Conference and annual summit of IABMS

Invited talk

‘Current Concepts on the role of Indian medicine and phytoceuticals in maintenance of health’, 33rd International Conference and annual summit of IABMS, 15th to 17th November, 2018