Ms. HAJIRA BANU H

Flat No. J103, Vaishnavi Rathnam
SM Road, Jalahalli, Bangalore, Karnataka,
India -560 057

hajirabanu.banu@gmail.com;
hajira-banu.h@newcastle.ac.uk
+91-9591878178; +44-7824079920
linkedin.com/in/hajira-banu-h-069bb899

OBJECTIVE

An enthusiastic, adaptive, and fast-learning researcher with an interest in the discovery of new innovative drugs and drug delivery systems. Interested to work on multidisciplinary projects through collaboration with scientists from various disciplines and developing new skills to solve imminent challenges.

CURRENT POSITION

Ph.D. Marie Curie Early-Stage Researcher

School of Pharmacy — Newcastle Upon Tyne, UK
Newcastle University — October 2021 – Present

EDUCATION

M. Pharm (Pharmacology)
M. S. Ramaiah College of Pharmacy, Bengaluru, India
2013-2015

Dissertation: Study of Aldose reductase inhibition and Antihyperglycemic potential of *Wattakaka volubilis* root and Evaluation of its protective effect against Streptozotocin-induced Diabetic Complications in Rats
Percentage: 84.29% (Distinction)

Bachelor of Pharmacy
M.S. Ramaiah College of Pharmacy Bengaluru, India
Percentage: 84.08% (Distinction) 2009-2013

GRANTS AND AWARDS

AAIC Fellowship 2021

Travel Fellowship Awardee for Research Paper Presentation at Alzheimer's Association International Conference at Denver, USA

University Rank Holder 2009 and 2013

Best Outgoing Student as well as University Rank holder at Undergraduate (9th Rank) and Post graduate (3rd Rank) levels

RESEARCH EXPERIENCE

Faculty of Pharmacy, M. S. Ramaiah University of Applied Sciences, Bengaluru, India
2015- 2021

Short term Projects

- Developed brain targeted drug delivery systems for the management of CNS disorders
- Identifying targets for drug delivery across BBB and computational studies of the polymers like chitosan and thiolated chitosan to learn the interactions between these polymers and identified targets
- Developed and characterized nasal nanoformulations for the management of Alzheimer's disease that has to be further taken up for animal studies in amyloid peptide-induced Alzheimer's disease model
- Development of Hydrocolloids for Diabetic wound healing

BOOK CHAPTERS

Hajira Banu Haroon and Dhrubojyoti Mukherjee. A Novel Nano-Enabled Nasal Phytoformulation – A Potential Brain Targeting Strategy for Neurodegenerative Disorders. Conference on Drug Design and Discovery Technologies, Royal Society of Chemistry, *2019*, 178-182.

PATENT

Haroon Banu Hajira, Dhrubojyoti Mukherjee and Anbu, J. "Enhanced Brain Permeation of Thiolated Chitosan-Centella Hybrid Nanocomposite", Indian Patent Application: 202041055907, December 22, 2020 (Filed)

PEER-REVIEWED PUBLICATIONS

Haroon, H.B., Mukherjee, D., Anbu, J. *et al.* (2021) Thiolated Chitosan-*Centella asiatica* Nanocomposite: A Potential Brain Targeting Strategy Through Nasal Route. *AAPS PharmSciTech* **22,** 251 (2021). https://doi.org/10.1208/s12249-021-02131-6

Haroon, H.B., Ahmed, N., Sampath, M.K., Dinesh, S., Azamthulla, M. *et al* **(2021)** *Tamarindus indica.* Linn leaves ameliorates experimental induced heart failure in Wistar rats. *J Basic Clin Physiol Pharmacol.* https://doi.org/10.1515/jbcpp-2020-0338

Haroon, H.B., Perumalsamy, V., Nair, G. *et al.* (2021) Repression of Polyol Pathway Activity by *Hemidesmus indicus* var. *pubescens R.Br. Linn* Root Extract, an Aldose Reductase Inhibitor: An In Silico and Ex Vivo Study. *Nat. Prod. Bioprospect.* **11,** 315–324. https://doi.org/10.1007/s13659-020-00290-w

Haroon, H. B, and Murali, A., **(2019)** Alcohol Extract of *Wattakaka volubilis* (L.F) Stapf Root Inhibits Aldose Reductase to Prevent Diabetes Associated Cataract Formation in Rats, Indian Journal of Pharmaceutical Education and Research, 53(2), pp. 23-29

Haroon H.B., Murali A., Radhakrishnan G., **(2017)** Alcohol extract of *Wattakaka volubilis (L.f)* Stapf root accelerates wound healing in diabetic rats, Asian Journal of Traditional Medicines, 12 (5), pp. 226-233.

Haroon, H. B and Murali, A., **(2016)** Antihyperglycemic and neuroprotective effects of *Wattakaka volubilis* (L.f.) Stapf root against streptozotocin induced diabetes, Brazilian Journal of Pharmaceutical Sciences, 62(3), pp. 413-424

Haroon, H. B and Murali, A., **(2015)** Aldose Reductase Inhibition by *Wattakaka volubilis* (L.f) Stapf Root and Its Role in the Prevention of Diabetic Nephropathy, Journal of Pharmaceutical Science and Pharmacology, 4, pp. 104-109

CONFERENCE PRESENTATIONS

Hajira Banu Haroon and Dhrubojyoti Mukherjee, A novel nano-enabled nasal phytoformulation – a potential brain targeting strategy for neurodegenerative disorders. Presented at Conference on Drug Design and Discovery Technologies by Royal Society of Chemistry at Ramaiah University of Applied Sciences, Bangalore. 2019

Hajira Banu Haroon and Dhrubojyoti Mukherjee, Development and Characterisation of Brain targeted formulation of Centella asiatica using Beta cyclodextrin and thiolated eudragit. Presented at International Scopus indexed Conference on Innovating the Pharmaverse: New Vistas and Avenues in Pharmaceutical & Clinical Domain, at Krupanidhi College of Phamacy, Bangalore 2019

Hajira Banu Haroon, Divya S, Gargi Kasture, Pooja Prasad and Raunak Sarkar, Evaluation of Anti-obesity activity of *Tamarindus indica* L. leaf extract in High-Fat Diet-induced Obese Rat model 1st World Pharmacology Congress Drug Discovery, Design and Development held at IISc Bangalore India, 2019

Hajira Banu Haroon, Supritha D, Nausheen Ahmed, Manoj Kumar S, Swathi G, Mohammed Azmthulla and R Gowri, *In vitro* and *in vivo* studies on cardioprotective action of *Tamarindus indica* Leaf extract". Presented at INNOPHARM 3 – 3rd International Conference held at Panjim, Goa during 27th and 28th October 2018

Hajira Banu Haroon, Supritha D, Nausheen Ahmed, Manoj Kumar S and Swathi G, *In silico* Analysis of Phytoconstituents of *Tamarindus indica.* L on obesity-linked Neurodegeneration, Neurogen -2018, Research Advances and Therapeutic Interventions in Neurodegenerative Disorders held at JSS College of Pharmacy, Ooty, India, 2018

Hajira Banu Haroon and Vijay Bhanu, Aldose reductase inhibition and anti cataractogenic action of *Hemidesmus indicus* var. *pubescens R.Br. Linn* root extract against galactose induced opacity in isolated goat lens Presented at 1st Phrmaceutical Sciences Congress - Connecting Pharmaceutical Sciences and Knowledge Advancement held at Bangalore, India, 2017

Hajira Banu Haroon and Anita Murali, Alcohol extract of *Wattakaka volubilis* (L.f) Stapf. Roots inhibits aldose reductase to prevent diabetes associated cataract formation in Rats.

Presented at International Society for the study of Xenobiotics, on October 25th -28th 2016 at IISc, Bangalore

PG Thesis Advised:

- Development of Hydrocolloids for Diabetic wound healing
- Thiolated Polymer based Scaffold for drug delivery
- Effect of *Hemidesmus indicus* Var. R.Br. Linn Pubescens root extract against galactose induced cataract in isolated goat lens

UG Thesis Advised:

- Evaluation of *Tamarindus indica*. L leaf extract for Cardioprotective and In vitro Anti-obesity activity
- Evaluation of Anti-obesity activity of *Tamarindus indica* L. leaf extract in High-Fat Diet induced Obese Rat model
- *In vitro* Antiurolithiatic activity of Panchagavya ghrita, Lashunadh ghrita, Mandur vatak, and Punnarva mandur- A Comparative study

SKILLS

Communication/presentation skills - Presented data clearly and confidently to both small and large groups, by adapting style and content to the level of knowledge and understanding of others.

Writing skills - Wrote scientific articles in international peer-reviewed journals, as well as the highly technical replies to the questions raised by the reviewers. Wrote funding applications and patents.

Technical Skills – Skilled in Preparation and characterisation of nanoparticles. Animal handling (Skilled with the procedure like stereotaxic surgeries) and tissue harvesting, Pharmacology and toxicological screening, Molecular techniques like PCR, Gel electrophoresis, Analytical instruments like Spectrophotometer, HPLC, HPTLC, FTIR, Schrodinger Suite, and MS office.

Interpersonal Skills- Collaborated and communicated with scientists at all professional levels and, outlining objectives, methodology, and conclusions, actively listening to people and stimulating interest and discussion. Exchanged constructive feedback and support and learned delegating responsibility. Can work both independently and in team settings.

Other Skills - Efficient, organized, reliable, fast-learner, highly motivated, get the job done, Analysis and Problem Solving, Project Management and Organization, Self-Management and Autonomy

Languages – Fluent in English, Hindi, and Kannada

ENGLISH PROFICIENCY

International English Language Testing System (IELTS, General)
Overall Band Score: 7.0 (out of 9)
Listening: 8.0

Reading: 7.0
Speaking: 7.0
Writing: 6.5

TEACHING AND LEADERSHIP EXPERIENCE

Department of Pharmacology, Faculty of Pharmacy, M S Ramaiah University of Applied Sciences Bengaluru, India

Assistant Professor July 2015 – August 2021

- Taught human anatomy and physiology, pathophysiology and pharmacology for undergraduate students (More than 100 students in each class)
- Prepared course material including laboratory experiments, lectures, exams, homework, and practice problems
- Led weekly laboratory and/or problem-solving and discussion sections for graduate and undergraduate students
- Supervised students in final year projects (details mentioned earlier), graded exams and weekly homework
- Part of the Organizing Committee for convening a national level scientific conference
- Part of the editorial team for periodical newsletters

M S Ramaiah University of Applied Sciences
Associate Head, Innovation Center, Bengaluru, India
February 2019 – August 2021

- Organizing innovation challenges for undergraduate and postgraduate students.
- Organizing Internal Hackathon for Smart India Hackathon
- Patenting of ideas, Providing necessary guidance for Technology and Business incubation
- Development of innovative courses for undergraduate students

***