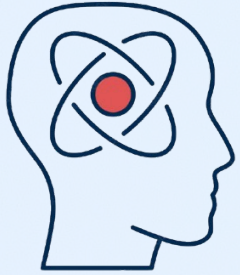


# Special Interest Group

On



# Brain Behavior and Cognitive Neurosciences Research

An Initiative  
of

**Research Division**

JSS AHER, Mysuru-15.



**Team Lead**

**Dr. Saravana Babu C**

Professor

Dept. of Pharmacology  
JSS College of Pharmacy,

JSS Academy of Higher Education &  
Research Mysuru-570015

Karnataka, India

**Started on 2020-21**

REG/ACA/SIG/BBCR/473/2020- 7495

Date: 23.12.2020

**NOTIFICATION**

**Sub: Constitution of Special Interest Group in "Brain, Behaviour and Cognitive Neurosciences Research (BBCR)".**

**Ref: Your request letter No. REG/JSSCP/1389/2020-21 dated 30<sup>th</sup> November, 2020.**

In exercise of powers conferred under Section 50 (xxii) and 12 [xi (a)] of the MoA/Rules of JSS Academy of Higher Education & Research as per UGC Regulations 2016, the Special Interest Group (SIG) in the area of "**Brain, Behaviour and Cognitive Neurosciences Research (BBCR)**" has been constituted for focusing on basic and applied research in the mentioned area with the following members:

Sl.No.	Name of the member	Remarks
1	<b>Dr. Saravana Babu Chidambaram</b> Associate Professor, Dept. of Pharmacology JSS College of Pharmacy, Mysuru.	<b>Group Leader</b>
2	<b>Dr. Jayanthi M K</b> Professor & Head, Dept .of Pharmacology JSS Medical College.	Member
3	<b>Dr. Rajeshwari L</b> Professor, Dept. of Physiology JSS Medical College.	Member
4	<b>Dr. Manjula S N</b> Professor & Head, Dept .of Pharmacology JSS College of Pharmacy, Mysuru.	Member
5	<b>Dr. Krishna K.L</b> Assistant Professor, Dept .of Pharmacology JSS College of Pharmacy, Mysuru.	Member
6	<b>Ms. Mahalakshmi A M</b> Lecturer, Dept. of Pharmacology, JSS College of Pharmacy, Mysuru.	Member
7	<b>Dr. Praveen T K</b> Professor and Head, Dept. Pharmacology JSS College of Pharmacy, Ooty	Member
8	<b>Dr. Shasthara P</b> Assistant Professor, Dept .of Neurology JSS Medical College.	Member
9	<b>Dr. Kishore M</b> Associate Professor, Dept. of Psychiatry JSS Medical College.	Member
10	<b>Ms. Patteswari D</b> Assistant Professor, Division of Cognitive Neuroscience FLS, JSS AHER.	Member

11	<b>Ms. Sangeetha Joji</b> Assistant Professor, Division of Cognitive Neuroscience FLS, JSS AHER.	Member
12	<b>Dr. Nandlal Kumar</b> Professor, Dept. of Neurochemistry National Institute of Mental Health and Neuro-Sciences (NIMHANS), Bengaluru.	Special Invitee
13	<b>Dr. Pankaj Seth</b> Professor, Molecular and Cellular Neuroscience National Brain Research Centre (NBRC), Manesar, Gurgaon	Special Invitee
14	<b>Dr. Shyam S Sharma</b> Professor and Head, Dept. of Pharmacology and Toxicology National Institute of Pharmaceutical Education and Research (NIPER), Mohali.	Special Invitee
15	<b>Dr. Dinesh Bhatia</b> Associate Professor & Head, Dept. of Biomedical Engineering, North Eastern Hill University (NEHU), Shillong.	Special Invitee

The SIG “**Brain, Behaviour and Cognitive Neurosciences Research (BBCR)**” shall function for a period of three years from the date of Notification.

The SIG shall submit their report once in six months to the JSS AHER. The budget for the functioning shall be submitted by the Group leader of the SIG and approval shall be obtained from the JSS AHER for carrying out their various activities.

**R**

**To,**

All the above members,

**Copy to:**

1. The Pro Chancellor, JSS AHER.
2. The Vice Chancellor, JSS AHER.
3. The Controller of Examinations, JSS AHER.
4. The Director (Academics), JSS AHER.
5. The Director (Research), JSS AHER.
6. The Dy. Registrar (Senior Grade), JSS AHER.
7. The Dy. Director (Academics), JSS AHER.
8. The Dy. Director (Authorities), JSS AHER.
9. The Associate Director (Research), JSS AHER.
10. The IQAC Coordinator, JSS AHER.
11. The Asst. Director (Academics), JSS AHER.
12. The Asst. Director (Research), JSS AHER.

13. The Principal, JSS Medical College.
14. The Principal, JSS Dental College & Hospital.
15. The Principal, JSS College of Pharmacy, Mysuru.
16. The Principal, JSS College of Pharmacy, Ooty
17. The Head, Dept. of Water & Health (FLS), JSS AHER.
18. The Coordinator, Dept. of Health System Management Studies, JSS AHER.
19. Office Copy

### Guidelines for the formatio

**Objective:** To promote research in specific area by a group of individuals working in the constituent colleges of the JSS AHER, who are desirous of promoting research in a specific area through

- Continuous dialogue
- Conducting Group meetings
- Submitting research projects
- Development of new ideas in research in the identified area and translating the same into research proposals to external funding agencies and research publications in indexed journals.
- Translating research findings into the clinical applications
- Organizing seminars related to objectives of the Group.

The SIG should categorize their objectives as short term and long-term objectives and while submitting the progress reports, highlight their achievements under the same.

**Structure:** The SIG shall consist of 5-7 members with a group leader. They shall meet periodically and submit the report annually of the group activities and achievements.

The Special Interest Group shall function for a period of 3 years from the date of notification, which can be extended further, based on the outcomes and reviewed by the Board of Management of the JSSAHER.

**Budget:** The budget required for functioning of the SIG shall be allocated from Research and Development fund of the JSS AHER based on the budget prepared and submitted by them annually.

**The budget shall be provided for following aspects.**

- Meeting expenses of the Group.
- Short travels within India for the purpose of group objectives.
- Secretarial assistance as required by the Group.
- Preparation of research project proposals/reports.

The JSS AHER shall provide in its budget for the expenditure proposed by the Special Interest Groups and make the funds available to the respective group.

**Evaluation of outcomes:** The JSS AHER shall evaluate the SIG periodically in respect to their group objective examining the follows.

- Progress in the proposed research projects.
- Publication of research findings in periodicals and presentations
- Reports.

**Name of the SIG:** Brain Behavior and Cognitive  
Neurosciences Research

**Approval Reference:** REG/ACA/SIG/BBCR/474/2020  
-7495 Dated: 23.12.2020

**Name of the Team Leader:** Dr. Saravana Babu C

### **Activities Conducted**

- **Hands -on Training on Isolation and Storage of Extracellular Vesicles”**

**Date and Time :** 19th- 20nd June 2023

**Venue :** Seminar Hall, JSS College of Pharmacy, Mysuru & Dept.  
Biochemistry, JSS Medical College, Mysuru

**Resource Person :**

1. Gurudutt N. Pendyala, Ph.D, Assoc Prof, Robert Lieberman  
Endowed Professor of Anesthesiology, Nebraska Medical  
Center, Omaha, US.
2. Sowmya Yelamanchili, PhD, Assoc Prof, Research Faculty,  
Department of Anesthesiology, Nebraska Medical Center,  
Omaha, US.

Dr. Gurudutt N. Pendyala, Ph.D. delivered a talk on the topic "Up with Hope, Down with Dope: DRUGS - An equal opportunity destroyer," during which he offered his expertise and experience. Dr. Sowmya Yelamanchili, PhD, delivered a talk on the title "The role of extracellular vesicles in chronic methamphetamine use disorder,"

The "Hands-on Training on Isolation and Storage of Extracellular Vesicles" was held in the Department of Biochemistry at JSS Medical College in Mysuru. A thorough presentation on the separation and preservation of extracellular vesicles was given in the biochemistry research lab. Each participant was given hands on experience during the training.







## **Guest Lecture on Antivirals Development for SARS-CoV-2 and its Variants**

**Date and Time** : 29th November 2023, 10.00 AM

**Venue** : Seminar Hall, JSS College of Pharmacy,  
Mysuru

### **Resource Person :**

Prof. Siddappa Byrareddy, Professor & Vice Chair of Research.  
Department of Pharmacology and Experimental Neuroscience,  
Durham Research Centre, Nebraska Medical Centre, Omaha, NE,  
USA

Prof. Byrareddy shared insights into the latest advancements in drug discovery, underlining the importance of a multi-faceted approach that integrates computational modeling, high-throughput screening, and molecular biology techniques. This information proved invaluable to the teaching faculty, M. Pharm students, and Ph.D. Scholars in attendance, providing a holistic view of the complexities involved in the drug development process. Prof. Byrareddy addressed the specific challenges posed by SARS-CoV-2 variants and elucidated how these challenges necessitate continual adaptation in antiviral development strategies. He presented recent case studies and breakthroughs in therapeutics targeting specific variants, showcasing the dynamic nature of ongoing research in the field.



## Faculty exchange first visit by Dr. Meena Sakharkar and Guest Lecture

**Date and Time :** 28th October 2023, 10.00 AM

**Venue :** RA Seminar Hall, JSS College of Pharmacy, Mysuru

**Resource Person :** Dr. Meena Sakharkar, Professor, College of Pharmacy and Nutrition, University of Saskatchewan, Canada

Dr. Meena Sakharkar made her first visit to JSS College of Pharmacy, Mysuru, as part of the Faculty Exchange Programme. During her visit she conducted a guest lecture sharing insightful details on Drug Discovery and Development Research. Dr. Sakharkar addressed various drug target identification and validation techniques using multiple cross-disciplinary approaches.



## Faculty exchange second visit by Dr. Meena Sakharkar and Guest Lecture

**Date and Time :** 18th July 2024, 10.00 AM

**Venue :** CADD Lab, JSS College of Pharmacy, Mysuru

**Resource Person :** Dr. Meena Sakharkar, Professor, College of Pharmacy and Nutrition, University of Saskatchewan, Canada

Dr. Meena Sakharkar made her second visit to JSS College of Pharmacy, Mysuru, as part of the Faculty Exchange Programme. During her visit she conducted an interactive session with the students sharing insightful discussions on Network Pharmacology and Schrodinger docking software.



## Publications

- Bipul Ray, Sunanda Tuladhar, Pramod Gudigenahally Nagaraju, Ashwini Shivalinga, Arehally Marappa Mahalakshmi, Poornima Priyadarshini Chicgovinda, Byoung-Joon Song, Saravana Babu Chidambaram. Telmisartan Protects Mitochondrial Function, Gait, and Neuronal Apoptosis by Activating the Akt/GSK3 $\beta$ /PGC1 $\alpha$  Pathway in an MPTP-Induced Mouse Model of Parkinson's Disease. *J. Integr. Neurosci.* 2024; 23(2): 29  
<https://doi.org/10.31083/j.jin2302029>
- Abid Bhat, Muhammed Bishir, Seithikurippu R. Pandi-Perumal, Sulie L. Chang, and Saravana B. Chidambaram. Roflumilast, a Phosphodiesterase-4 Inhibitor, Ameliorates Sleep Deprivation-Induced Cognitive Dysfunction in C57BL/6J Mice. *ACS Chemical Neuroscience* 2022 13 (13), 1938-1947. DOI:10.1021/acscchemneuro.2c00127
- Arehally M Mahalakshmi, Bipul Ray, Sunanda Tuladhar, Tousif Ahmed Hediyaal, Praveen Raj, Annan Gopinath Rathipriya, M Walid Qoronfleh, Musthafa Mohamed Essa, Saravana Babu Chidambaram. Impact of pharmacological and non-pharmacological modulators on dendritic spines structure and functions in brain. *Cells* 2021, 10(12), 3405; <https://doi.org/10.3390/cells10123405>
- Abid Bhat, Vanessa Tan, Benjamin Heng, Sharron Chow, Salundi Basappa, Musthafa M Essa, Saravana B Chidambaram, Gilles J Guillemin. Papaverine, a phosphodiesterase 10A inhibitor, ameliorates quinolinic acid-induced synaptotoxicity in human cortical neurons. *Neurotoxicity Research.* 39, 1238–1250 (2021). <https://doi.org/10.1007/s12640-021-00368-4>
- Bipul Ray, Arehally M Mahalakshmi, Sunanda Tuladhar, Abid Bhat, Asha Srinivasan, Christophe Pellegrino, Anbarasu Kannan, Srinivasa Rao Bolla, Saravana Babu Chidambaram, Meena Kishore Sakharkar. “Janus-Faced”  $\alpha$  synuclein: role in Parkinson's disease. *Front. Cell Dev. Biol.*, 28 May 2021 Sec. Molecular and Cellular Pathology Volume 9 - 2021 | <https://doi.org/10.3389/fcell.2021.673395>