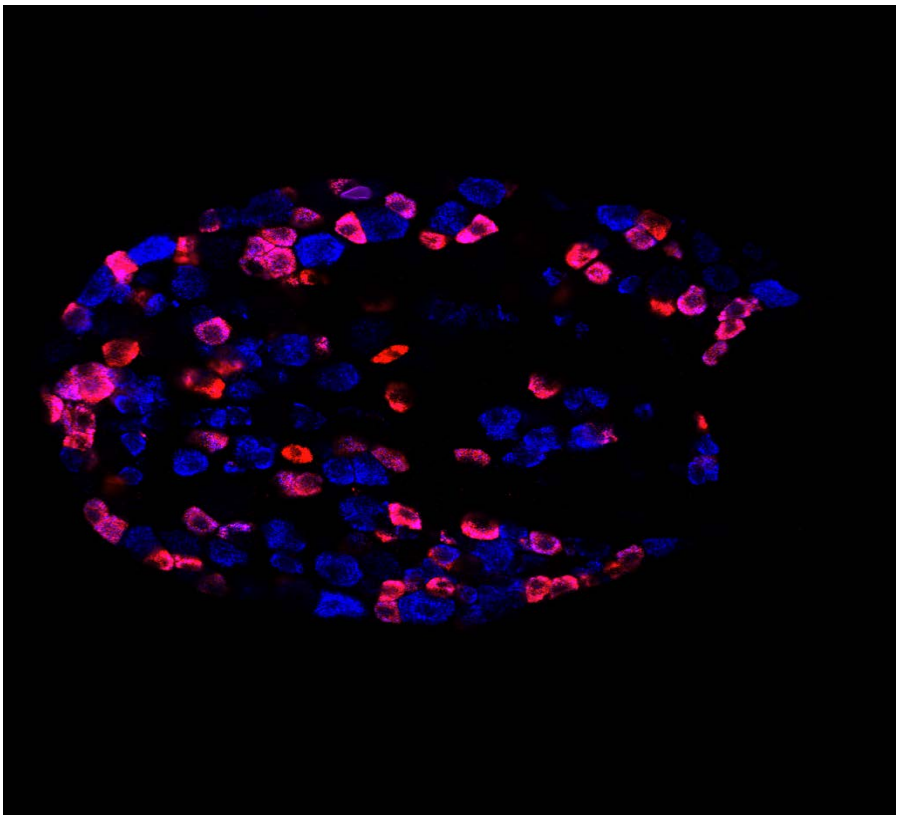


RUTGERS
School of Arts and Sciences

June 2022

IN THIS ISSUE

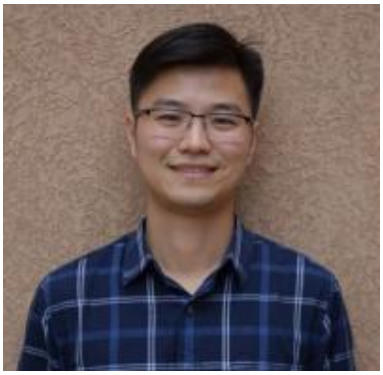
A Message from the Chair

Welcome to the Summer issue of Department of Cell Biology and Neuroscience (CBN) newsletter!

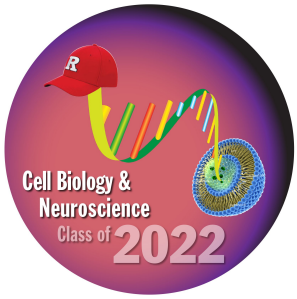
The spring semester brough a refreshing return to in person campus life, classes and especially events which included a live CBN celebration for our graduates after a two year hiatus. In addition to our graduates, we highlight the newest CBN colleague to join the ranks of tenured faculty, Associate Professor Peng Jiang as well as Professor Bonnie Firestein for her recognition as an AIMBE fellow. The CBN news bites section includes a collection of events and happenings within the department as well as the outstanding success of our faculty in securing external funding for their research endeavors.

Congratulations to the class of 2022!

With warm regards,



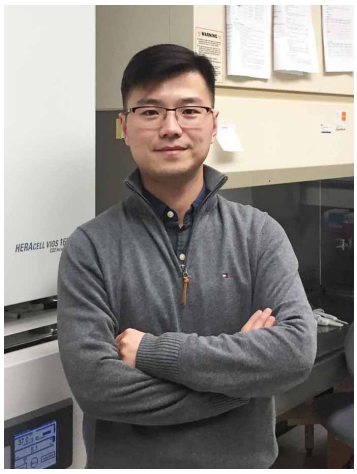
Faculty Feature: Dr. Peng Jiang
Dr. Peng Jiang was promoted to Associate Professor with Tenure



Spotlight: Congratulations CBN Class 0f 2022

Faculty Feature

Dr. Peng Jiang was promoted to Associate Professor with Tenure



In the past several years we have developed human induced pluripotent stem cells (iPSCs)-based model systems to study human diseases. In particular, the human-mouse chimeric brain models we have developed, can serve as a powerful tool to study pathophysiology of human brain cells within an intact brain environment under both healthy and diseased conditions. We're very interested in Down syndrome, the most common genetic cause of intellectual disability and early-onset Alzheimer's disease in Down syndrome individuals. With the help of these novel human iPSC-based models and gene editing technologies, we believe our studies will provide new insight into the etiology and pathogenesis of Down syndrome and provide a better understanding of human neural development and molecular mechanisms underlying intellectual disability as well as Alzheimer's disease.

I hope that our findings will lead to new therapeutic interventions in the future that do not only benefit Down syndrome population, but also the general population. Going forward, in conjunction with my promotion, I also hope to further broaden the scope of our research directions, by applying our unique human iPSC disease modeling paradigm to understand mechanisms of other neurological disorders, such as autism spectrum disorder, and employing our human-mouse chimeric brain models to develop new regenerative medicine approaches for neural repair.

CBN also recognizes our very own Dr. Melitta Schachner as being ranked #90 in the world and #57 in the United States of Research.com's rankings of top neuroscientists and Dr. Joanna Burger ranked #169 in the world and #68 in the United States of Research.com's rankings of top ecology and evolution scientists based on citations. These rankings include only those prominent scientists with a high index rating for scientific papers in their respective field.

Congratulations to the CBN Class of 2022

In honor of the mRNA vaccine that has enabled the world to more effectively combat the SARS-CoV-2 virus, this year's medallion contains a blowup of an mRNA within a vaccine lipid nanoparticle. Human mRNAs contain an N^7 methyl guanosine (m^7G) cap at their 5′ end (or beginning) of the mRNA to both stabilize and promote translation of the mRNA into protein. The ribbon denotes the mRNA and the Rutgers cap represents the 5' end cap.

On Sunday, May 15th, 212 students graduated with degrees in Cell Biology and Neuroscience at the 256th University Commencement. A departmental celebration on May 12th was held at the Life Sciences Atrium, where students gathered together with faculty to share a dinner, and listened to remarks by their fellow classmates Michael Rangel and Siddhant Kumarapuramganapath. Personalized engraved medallions were also presented to the graduates. Following tradition, the front of all the medallions were emblazoned with a special CBN thematic image designed by a faculty member –this year's was designed by the Chair of the Department, Dr. Mike Kiledjian, to feature messenger RNA research in the CBN department and at Rutgers. CBN recognized 13 Academic Achievement awardees, 5 Thesis Excellence awardees, and 2 CBN Research Excellence awardees.

Support the CBN Awards Fund

Your gift will help recognize our outstanding students, support them in their research and educational endeavors, and fund leading biomedical research accomplishments. Every gift goes a long way. Click on the link below to give now!

Click on the link below to give now.

Best wishes for a happy and healthy summer from the Department of Cell Biology and Neuroscience!

DONATE NOW | Click here to give to CBN

CBN News Bites

•Dr. Peng Jiang was promoted from Assistant Professor to Associate Professor with tenure
•Dr. Bonnie Firestein, named an American Institute for Medical and Biological Engineering Fellow
•Dr. Victoria Abraira was invited to speak as an awardee at the National Academy of Sciences in California for being recognized as the Kavli Frontiers of Science Fellow.
•Drs. Rafiq Huda and Max Tischfield have received the Young Investigator Award from the Brain and Behavior Research Foundation
•Dr. Rafiq Huda was awarded: the Brain Research Foundation Seed Grant; the Parkinson's Foundation Impact Award; the American Parkinson Disease Association Research Grant; and the Brain & Behavior Research Foundation (aka NARSAD) Young Investigator Award
•Dr. Brian Daniels received two diversity supplements from NIH (Juan Angel Tamayo & Irving Estevez)
•Dr. Bonnie Firestein received an NIH supplement for her GA Christen Crosta
•Dr. Peng Jiang received 2 NIH R01 grants
•Dr. Mike Kiledjian was awarded an NIH R01
•Dr. David Margolis received an F31 training grant for his graduate student Branden Sanabria
•Dr. Max Tischfield was awarded Brain & Behavior Research Foundation grant
•Dr. Victoria Abraira received 4 NIH grants including a diversity supplement, and NJACTS (NJHF) grant, and her post-doc Mark Gradwell was awarded a NJ Commission on Spinal Cord Research fellowship
•Dr. Wise Young was awarded a Lisa Dean Moseley Foundation grant

COVER PAGE: PHOTO CREDIT ABRAIRA LAB MANON BOHIC; DORSAL ROOT GANGLION CELL BODIES OF THE SENSORY NEURONS OF THE SKIN AND INTERNAL ORGANS

RUTGERS
School of Arts and Sciences

Department of Cell Biology and Neuroscience
Rutgers, The State University of New Jersey
(p) 848-445-9532
(f) 732-445-1794
cbn.rutgers.edu