**2019 MB&B Retreat Program**

**September 20-21, 2019**

Marine Biological Laboratory at Woods Hole

7 MBL St., Woods Hole, MA 02543

Time/Day Event Location

**Friday**

7:00 a.m. Bus Loads 266 Whitney Ave-

7:15 Bus Departs Bass Loading Dock

10:00-10:55 MBL Registration begins Swope Bld-MBL Coffee and light snacks served Lillie Auditorium

10:55-12:30 **Session 1** Lillie Auditorium

 Matt Simon, Nikhil Malvankar and Carol Migdalski

Welcome

Julien Berro with Yuan Ren

How to produce force to deform the plasma membrane into tiny vesicles?

Erdem Karatekin

Dynamics of membrane tension and synaptic vesicle recycling

Joe Howard with Olivier Trottier

Branching morphogenesis

Kai Zhang

The unlimited potential of cryo-EM

Growing up in Science: Karla Neugebauer

A personal narrative about becoming a scientist.

12:30-1:35 **Lunch** with continued discussion in marked area Swope

1:45-3:30 **Session 2** Lillie Auditorium

Yong Xiong with Swapnil Devarkar

The molecular arms race between human and HIV

Candie Paulsen with Justin Sanders

The Paulsen Lab: Studying Molecular Mechanisms of Pain at Yale

Franziska Bleichert

How to make a DNA replication origin: mechanisms of initiator function

Nikhil Malvankar with Yangqi Gu

Discovery of novel microbial nanowires and their assembly machinery

Wendy Gilbert with Cassandra Schaening-Burgos

Systems approaches to unraveling RNA-dependent gene regulation

3:30-3:50 Break with light refreshments

3:50-5:00 **Session 3**

Christian Schlieker with Sarah Prophet

Linking Torsins, nuclear envelope dynamics and nuclear pore biogenesis

Lillian Kabache

DNA Damage Repair and the Mitotic Machinery: working in concert to prevent genome instability

Tony Koleske

Understanding how mutations in TRIO cause schizophrenia and related disorders

 Flash Talks & Macnab Award Introduction

5:15-7:00 **Poster Session** (snacks & beverages served) Swope

7:00 **Dinner**-Assigned Seating with 7:45 Trivia

8:00-10:00 **Mixer** Meigs Room

**Saturday**

7:00-9:00 **Breakfast** Swope

9-10:30 **Free time** (activity list available)

10:30-12:15 **Session 4** Lillie Auditorium

 Mark Hochstrasser

How intracellular bacteria manipulate host reproduction

Karin Reinisch

VPS13 Proteins: Channels for Lipid Transport Between Membranes

Karla Neugebauer with Kirsten Reimer

RNA synthesis and processing in the space-time continuum

Wei Mi

Cryo-EM studies of membrane proteins from bacterial pathogens

Michael Koelle with Robert Fernandez

Learning how neurons communicate by mapping neurotransmitter signaling

12:15-1:15 **Lunch** Swope

1:15-2:45 **Session 5** Lillie Auditorium

Matt Simon with Martin Machyna

Insights into RNA and chromatin biology using nucleotide chemistry

Titus Boggon

Structural biology of Rho signaling cascades

Yongli Zhang

Single-molecule manipulation of proteins involved in membrane fusion, lipid exchange, and mechanosensation

David Schatz with Chang Liu

Structural snapshots of a RAG-like transposase in action

Joan Steitz with Seyed Torabi

Viral Noncoding RNAs: approaching answers.

2:45-3:00 Concluding remarks with announcement of Macnab Prize winners

3:00-3:15 **Group Photo** Steps of Lillie

3:30 **Bus Departs** Swope entrance