IMPORTANT: This syllabus form should be submitted to OAA (gsbs\_academic\_affairs@uth.tmc.edu) a week before the start of each semester.

**NOTE to STUDENTS:** If you need any accommodations related to attending/enrolling in this course, please contact one of the Graduate School's 504 Coordinators, Cheryl Spitzenberger or Natalie Sirisaengtaksin. We ask that you notify GSBS in advance (preferably at least 3 days before the start of the semester) so we can make appropriate arrangements.

Term and Year: Fall 2024

Course Number and Course Title:

**GS14 1611: Current Topics in Neuroscience** 

Credit Hour: 1

Meeting Location: UTHH McGovern

**Medical School** 

Building/Room#: MSB 7.046

**Program Required Course: No** 

**Approval Code: No** 

Audit Permitted: No

Classes Begin: August 28, 2024

Classes End: December 11, 2024

Final Exam Week: N/A

## **Class Meeting Schedule**

Day	Time	
Wednesday	1:00 – 2:00 PM	

#### **Course Director**

Name and Degree: Shin Nagayama, Ph.D.

Title: Associate Professor

Department: Neurobiology & Anatomy

Institution: UTH

Email Address: Shin.Nagayama@uth.tmc.edu

Contact Number: 713-500-5862

**Course Co-Director/s:** 

Name and Degree: **Keran Ma, Ph.D.** 

Title: Assistant Professor

Department: Neurobiology & Anatomy

Institution: UTH

Email Address: Keran.Ma@uth.tmc.edu

Contact Number: 713-500-8946

#### Instructors

1. Rodrigo Morales, PhD

Associate Professor Institution: UTHH

Email add: Rodrigo.Moralesloyola @uth.tmc.edu

2. John Byrne, PhD

Professor

Institution: UTHH

Email Address: John.Byrne@uth.tmc.edu

3. Sheng Zhang, PhD

Associate Professor Institution: UTH

Email address: Sheng.Zhang @uth.tmc.edu

4. Kartik Venkatachalam, PhD

Associate Professor Institution: UTHH

Email add: Kartik. Venkatachalam@uth.tmc.edu

**NOTE:** Office hours are available by request. Please email me to arrange a time to meet.

# 5. Jian Hu, PhD

Associate Professor Institution: MDAnderson

Email address: JHu3@mdanderson.org

# 6. Shin Nagayama, Ph.D.

Associate Professor Institution: UTHH

Email Address: Shin.Nagayama@uth.tmc.edu

# 7. Keran Ma, Ph.D.

Assistant Professor Institution: UTHH

Email Address: Keran.Ma@uth.tmc.edu

### **Course Description:**

This course (P/F) will give an overview of the wide range of research being carried out in the GSBS Neuroscience Graduate Program, and is open to all GS and MS students. Through presentations and discussions with various faculty members each week, students will gain an appreciation for the fundamental ideas and unsolved questions in Neuroscience research, and become familiar with the experimental and theoretical approaches being used to tackle those questions.

Anyone with an interest in neuroscience research is welcome to take this class. There are no exams or reading assignments, but students are expected to attend all presentations and to actively participate in class discussions.

# Course Objective/s:

Upon successful completion of this course, students will gain an appreciation for the fundamental ideas and unsolved questions in Neuroscience research, and become familiar with the experimental and theoretical approaches being used to tackle those questions.

# Specific Learning Objectives:

- 1. Students can directly face advanced neuroscientists and understand and discuss their sciences.
- 2. Studenrts learn the uniqueness of each faculty's science and their thinking style of building up their scientific directions.

### **Student Responsibilities and Expectations:**

Students enrolled in this course will be expected to perform the following activities each week.

- Participate in and contribute to course discussions during lecture.
- Attend all classes and enthusiastically join in the discussion.

Grading System: Pass/Fail

Student Assessment and Grading Criteria: (May include the following:)

Percentage

Description

Workshop or Breakout-Session ( 50 %)

Actively join the class discussion

Participation and/or Attendance ( 50 %)

Attend all classes

# **CLASS SCHEDULE - TENTATIVE**

Date	Duration (Hour(s) taught by lecturer)	Lecture Topic	Lecturer/s
7/28	1	Protein misfolding in neurodegeneration	Rodrigo Morales
9/4	1	TBD	TBD
9/11	1	TBD	TBD
9/18	1	Lipid metabolism in brain tumor and neurodegeneration	Jian Hu
9/25	1	TBD	TBD
10/2	1	TBD	TBD
10/9	1	TBD	TBD
10/16	1	TBD	TBD
10/23	1	TBD	TBD
10/30	1	TBD	TBD
11/6	1	Network, cellular and molecular mechanisms of operant reward learning	Jack Byrne
11/13	1	Probiing neurodegenerative diseases with helps from buzzing flies	Sheng Zhang
11/20	1	Bioenergetic dysfunction in models of tauopathy	Kartik Venkatachalam
12/4	1	TBD	TBD
12/11	1	TBD	TBD