PHAR/Biom 275: Seminars on the Biology of Pain and Pain Therapeutics
Course Directors: Roger Sunahara and Tony Yaksh

January 7: Aashish Manglik
UC San Francisco
“Molecular puzzles in G protein-coupled receptor signaling”

January 14: Allan Basbaum
UC San Francisco
“Neuroimmune mechanisms in pain processing”

January 21: David Julius
UC San Francisco
“Natural products as probes of the pain pathway: From physiology to atomic structure”

February 1: Mary Woolley
Research!America
“Winning hearts and minds for health and medical research”

February 8: Victoria Blaho
Sanford Burnham Prebys
“Sphingolipids and immune system life and death”

February 15: Fernando Camargo
Harvard Stem Cell Institute
“The Hippo/YAP pathway in stem cells and cancer”

February 12: Jennifer Grandis
UC San Francisco
“Head and neck cancer precision medicine”

February 18: Laura Bohn
Scripps Research (FL)
“Development of biased opioid agonists for the treatment of pain”

February 25: Tony Yaksh
UC San Diego
“Analgesics: Novel targets and novel delivery platforms”

March 3: Chris Evans
UC Los Angeles
“Opioids: Welcome to a web of intrigue and despair”

March 10: David Borsook
Harvard University
“Imaging the human pain state and analgesic drug action”

March 17: Adrienne Cox
UNC - Chapel Hill
“Leveraging RAS biology for cancer treatment”

April 7: David Prober
California Institute of Technology
“Evolutionarily conserved regulation of sleep”

April 14: Helen Piwnica-Worms
UT MD Anderson Cancer Center
“Defining the compositional, spatial and signaling heterogeneity of breast cancer for impacting progression and chemotherapy resistance”

April 21: Gordon Mills
Oncology Health & Science Univ
“Delivering on the promise of precision oncology: PARP inhibitors as an example”

April 28: Mark Von Zastrow
UC San Francisco
“Relationships between GPCR signaling and membrane traffic”

May 5: John Griffin
Scripps Research Institute
“Activated protein C: Biased for translation and neuroprotection”

May 12: Ira Tabas
Columbia University
“The role and regulation of TAZ in non-alcoholic steatohepatitis (NASH) and NASH-induced hepatocellular carcinoma”

May 26: Anwesha Dey
Genta Inc
“Hippo pathway deregulation in cancers.”

October 8: Jacqueline Blankman
Lundbeck La Jolla Research Ctr
“Activation of the endocannabinoid system for the treatment of pain”

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