

The Southern California Pharmaceutical Discussion Group (SCPDG) Announces our April 9, 2026, Meeting:

Presentation 1 (15 Min)

Investigation of the Protective Effects of Natural Compounds Sodium Butyrate and Dihydromyricetin Chronic Alcohol-Induced Brain Damage

Presented by
Agrima Dwivedi
USC Mann School of pharmacy and pharmaceutical sciences

Abstract: Chronic alcohol exposure causes progressive brain damage through multiple interconnected mechanisms: inflammation, breakdown of the brain protective barrier, oxidative damage, and disrupted fat metabolism. Current medications have proven inadequate in preventing alcohol-induced brain damage. We investigated whether two naturally derived compounds, sodium butyrate and dihydromyricetin, could provide protection against alcohol-induced brain injury. Male C57BL/6J mice were exposed to chronic alcohol using the Lieber-DeCarli model and received daily treatment with either sodium butyrate (300 mg/kg) or dihydromyricetin (150 mg/kg), both known for their anti-inflammatory and antioxidant properties. Alcohol exposure significantly decreased levels of critical brain barrier proteins, specifically claudin-5 and occludin, while also reducing GFAP-positive astrocytes, reflecting both barrier breakdown and loss of brain supporting cells. Analysis of lipid metabolites identified specific lipid metabolites that may serve as potential metabolic targets for the tested natural compounds. These findings suggest that naturally derived compounds may effectively target multiple mechanisms of brain damage during chronic alcohol exposure, — including blood barrier function, and lipid metabolic dysregulation. This multimodal approach represents a promising avenue for future therapeutic development in treating alcohol-related brain injury.

Biography: Originally from Rajasthan, India, Agrima's love for natural science started early. Growing up, she was always the person with her nose in science books—reading about everything from animal behavior to how plants evolved, to how the human body works. That curiosity led her to pursue pharmacy, and eventually to USC for graduate studies. Agrima is proud of the journey she's made from India to California, pursuing research while maintaining close ties to her community. Agrima has led formulation development projects during undergrad that taught her problem-solving and persistence. At USC, she is learning advanced laboratory skills and contributing to meaningful research. Beyond academics, she is passionate about mentoring through AAPS and SAPNA, especially helping South Asian students navigate higher education.

Presentation 2 (45 Min)

Cannabinoids and the Treatment of Pain

Presented By
Daniele Piomelli, Ph.D.
Distinguished Professor
University of California Irvine

Abstract: This presentation will cover recent scientific acquisitions regarding the therapeutic application of cannabis to the therapy of pain.

Biography: Daniele Piomelli studied pharmacology and neuroscience with James H. Schwartz and Eric Kandel at Columbia University (1983-1988), and with Paul Greengard at the Rockefeller University (1988-1990). In 2000, two of his mentors (Kandel and Greengard) were awarded the Nobel Prize for their contributions to physiology and medicine. After working at the INSERM in Paris (France) and at the Neurosciences Institute in San Diego, with Nobel Laureate Gerald Edelman, Daniele joined the University of California, Irvine, where he is now Louise Turner Arnold Chair in Neurosciences and Distinguished Professor of Anatomy and Neurobiology, Pharmacology and Biological Chemistry. Daniele is an author of over 500 peer-reviewed articles—including in journals such as Nature, Science, Nature Medicine, PNAS and Nature Neuroscience—three full-length books, and over 30 patents. He founded the department of drug discovery and development (D3) at the Italian Institute of Technology in Genoa (Italy), which he directed from 2007 to 2016, and four biopharmaceutical start-ups based on discoveries made in his lab. He is director of the UCI's Center for the Study of Cannabis and Editor-in-Chief of Cannabis and Cannabinoid Research, the only peer-reviewed journal entirely dedicated to the study of cannabis, its derivatives, and their endogenous counterparts in the human body.

Date: Thursday, April 9, 2026

Location: Waters Technologies District Office, 3540 Howard Way, Suite 100, Costa Mesa, CA 92626

Agenda: This is a hybrid event. Check-in and Networking from 4:00-4:30 PM PT. Presentation and Discussion will be from 4:30-6:00 PM PT. Zoom login will open at 4:15 PM PT. There is **no charge for on-site** attendance as there will not be any refreshments for this event. Virtual attendance is always free.

Registration: Please register by Noon, Tuesday, April 7, using the link below or copy and paste into your browser : <https://www.eventbrite.com/e/scpdg-announces-our-april-9-2026-meeting-tickets-1985741680822?aff=oddtcreator>

Important Notes: You must register to receive an emailed Zoom link for virtual attendance. You will receive the Zoom link after registration closes at noon on Tuesday, March 17th. If you need assistance logging in or during the presentation, please text me at 714 606 5907.

Social Media Links:

<https://www.linkedin.com/groups/6601347/>

Past Presentations and Calendar of Events are located on our web page at:

<https://www.aaps.org/aaps/membership-and-community/regional-discussion-groups/southern-california?CLK=c1e0e09f-9f30-4360-8fe2-1daebb1091fa>