

International Meeting on Lipid Mediators in Health and Disease



Jointly organized by
Eicosanoid Research Foundation
and
Winter Eicosanoid Conference

August 10 – 12, 2026
The Natcher Center, NIH, Bethesda, MD

Program

Monday, August 10, 2026

8:00 – 9:00 AM

Registration

9:00 – 9:10 AM

Opening Remarks (Charles N. Serhan, and Darryl C. Zeldin)

9:10 – 9:55 AM

Honn-McGiff Lifetime Achievement Award

presentation and lecture:

(Introduction of the awardee: Krishna Rao Maddipati)

Awardee: **Lawrence J. Marnett**, Vanderbilt University School of Medicine, Nashville, TN, USA.

COX-2: Endocannabinoid Cross-talk in the Modulation of Endocannabinoid Signaling and Generation of Bioactive Lipids (Abstract 1)

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Monday, August 10, 2026

10:00 AM – 12:30 PM

Session 1: Prostaglandins & Leukotrienes

(Sponsored by Cayman Chemical Company)

Chair: Darryl C. Zeldin, NIEHS/NIH, Research Triangle Park, NC

- 10:00 – 10:30 AM: Plenary talk: **Jesper Z. Haeggström**, Karolinska Institute, Stockholm, Sweden: *The leukotriene pathway, immune modulation at atomic resolution*. (Abstract 2)
- 10:35 – 10:55 AM: **Daniel Menendez**, NIEHS, Research Triangle Park, NC, USA. *A Molecular Cell Atlas of Mouse Ovalbumin-induced Allergic Lung Inflammation Identifies a Novel CD4⁺CD8⁺ T Cell Population Regulated by COX-2*. (Abstract 3)
- 11:00 – 11:20 AM: **K. Sandeep Prabhu**, Penn State University, University Park, PA, USA. *Redox regulation of Rac1-mTOR-dependent cyclooxygenase-1 expression in macrophages during resolution of inflammation*. (Abstract 4)
- 11:25 – 11:45 AM: **Mike Malkowski**, University of Buffalo, Buffalo, NY, USA. *The Role of Structural Asymmetry in the Allosteric Regulation of Cyclooxygenase-2*. (Abstract 5)
- 11:50 AM – 12:05 PM: **Lakshminarayan Reddy Teegala**, University of Toledo, Toledo, OH, USA. *CysLT1R Promotes LPS-induced Inflammation and Sepsis via Macrophage Metabolic Reprogramming*. (Abstract 6)
- 12:10 PM – 12:25 PM: **Jun Nagai**, Brigham and Women's Hospital, Boston, MA, USA. *CysLT2 receptor signaling works as a checkpoint molecule to suppress leukotriene-dependent mast cell activation and type 2 lung inflammation through a novel Gβγ-dependent mechanism*. (Abstract 7)

12:30 – 2:00 PM

Lunch and Poster Viewing

(please see the poster presentation schedule at the end of the podium presentation schedule)

Monday, August 10, 2026 program continued on next page...

2:00 – 5:05 PM

Session 2: Lipid Mediators in Cancer

(Sponsored by Solutex)

Chair: Dipak Panigrahy, Beth Israel Deaconess Medical Center, Harvard University, Boston, MA

2:00 – 2:30 PM: Plenary talk: **Dipak Panigrahy**, Beth Israel Deaconess Medical Center, Harvard University, Boston, MA: *SPMs & the Resolution of Cancer Inflammation*. (Abstract 8)

2:35 – 3:05 PM: Plenary talk: **Imad Shureiqi**, Michigan Medicine, Ann Arbor, MI, USA. *Necessity of 15-lipoxygenase-1 for colonic resolvin production to suppress colorectal carcinogenesis*. (Abstract 9)

3:10 – 3:30 PM: **Daiki Hayashi**, Kobe University, Kobe, Hyogo, Japan. *The mechanistic role of group VIA iPLA2 in ferroptosis suppression in cancer cells*. (Abstract 10)

3:35 – 3:55 PM: **Ganesh Halade**, University of South Florida, Tampa, FL, USA. *Integrative Lipidomic and Transcriptomic Profiling Reveals ALOX5 Dysfunction Drives Unresolved Inflammation in Colorectal Cancer*. (Abstract 11)

4:00 – 4:20 PM: **Neelam Sharma-Walia**, Rosalind Franklin University, North Chicago, IL, USA. *Lipoxin A4 treatment exhibited anti-angiogenic and anti-inflammatory effects on Kaposi's sarcoma-associated herpesvirus (KSHV)-related primary effusion lymphoma (PEL) tumors in NOD/SCID mice*. (Abstract 12)

4:25 – 4:40 PM: **Siddabasave Gowda Bomme Gowda**, Hokkaido University, Sapporo, Hokkaido, Japan. *Lipid biomarker analysis for neurodegenerative diseases*. (Abstract 13)

4:45 – 5:00 PM: **Sugasini Dhavamani**, University of Illinois at Chicago, Chicago, IL, USA. *Phosphatidylcholine Eicosapentaenoic acid uptake and its metabolites and anti-inflammatory effects of molecular forms of omega-3 fatty acids in microglia: a novel finding*. (Abstract 14)

5:05 – 5:20 PM: *Tribute to Professor Bruce D. Hammock*

5:20 – 6:00 PM

Poster Discussion

(please see the poster presentation schedule at the end of the podium presentation schedule)

Tuesday, August 11, 2026

8:00 – 9:00 AM

Information session for new investigators

Presented by Victor Garcia

9:00 AM – 12:05 PM

Session 3: Cytochrome P450 Metabolism of PUFA

(Sponsored by NIEHS)

Chair: Darryl C. Zeldin, NIEHS/NIH, Research Triangle Park, NC

- 9:00 – 9:30 AM: Plenary talk: **Michal Laniado Schwartzman**, New York Medical College, Yorktown Heights, NY, USA. *The role of GPR75, the high affinity 20-HETE receptor, in obesity and cardiometabolic complications.* (Abstract 15)
- 9:35 – 10:05 AM: Plenary talk: **Ingrid Fleming**, Goethe University, Frankfurt, Germany. *PUFA diols promote lymphangiogenesis via AMPK activation and β -oxidation.* (Abstract 16)
- 10:10 – 10:30 AM: **Aditi Das**, Georgia Institute of Technology, Atlanta, GA, USA. *Lipidated Neurotransmitters as Dual-Acting Anti-Inflammatory Agents: Structure, Metabolism, and Receptor Signaling.* (Abstract 17)
- 10:35 – 10:55 AM: **Victor Garcia**, New York Medical College, Valhalla, NY, USA. *The Emerging Role of the 20-HETE/GPR75 Axis in the Pathogenesis of Liver Disease: From Mechanism to Therapeutic Potential.* (Abstract 18)
- 11:00 – 11:20 AM: **Raymond Koehler**, Johns Hopkins University, Baltimore, MD, USA. *Sex-dependent Cyp4a gene expression and role of 20-HETE in outcome from ischemic stroke.* (Abstract 19)
- 11:25 – 11:40 AM: **Pei-an (Betty) Shih**, University of California, San Diego, La Jolla, CA, USA. *PUFA-Dependent Soluble Epoxide Hydrolase Dysregulation Links Lipid Metabolism to Anorexia Nervosa Psychopathology.* (Abstract 20)
- 11:45 – 12:00 Noon: **Zhijun Guo**, University of Minnesota, Minneapolis, MN, USA. *The hexyl cuban-1-yl biguanide C5F2-HCB inhibits CYP3A4-mediated ($\pm$)-14,15 EET biosynthesis and when delivered in PEG400 reverses immune exclusion of the ovarian dependent SSM2ucd mammary carcinoma allograft while inhibiting tumor growth.* (Abstract 21)

12:05 Noon – 2:00 PM

Lunch and Poster Viewing

(please see the poster presentation schedule at the end of the podium presentation schedule)

Tuesday, August 11, 2026 program continued on next page....

2:00 – 5:05 PM

Session 4: Resolution of Inflammation
(Sponsored by OSE Immuno Therapeutics)

Chair: Charles N. Serhan, Mass General Brigham, Harvard Medical School, Harvard School of Dental Medicine, Harvard University, Boston, MA

2:00 – 2:30 PM: Plenary talk: **Patricia Sime**, Virginia Commonwealth University, Richmond, VA, USA. *SPMs in Airway Inflammation: opportunities for therapy*. (Abstract 22)

2:35 – 3:05 PM: Plenary talk: **Bruce Levy**, Mass General Brigham, Harvard Medical School, Harvard University, Boston, MA, USA. *Environmental Influences on the Resolution Of Lung Infection and Inflammation* (Abstract 23)

3:10 – 3:30 PM: **Thayse Bruggemann**, BWH and Harvard Medical School, Boston, MA, USA. *Traffic-emitted ultrafine particles disrupt macrophage efferocytosis and resolution of allergic lung inflammation*. (Abstract 24)

3:35 – 3:55 PM: **Megan Falsetta**, The University of Rochester, Rochester, NY, USA. *The lipid response to oxidative stress may be dysregulated in vulvodynia further exacerbating resolution failures*. (Abstract 25)

4:00 – 4:20 PM: **Ru-Rong Ji**, Duke University Medical Center, Chapel Hill, NC, USA. *Protectin DX resolves fracture-induced postoperative pain via GPR37 activation, macrophage efferocytosis, and neuronal signaling*. (Abstract 26)

4:25 – 4:40 PM: **Yan Lin**, Duke University, Durham, NC, USA. *Lung pathophysiology and nasal lipid mediators in health and mild asthma*. (Abstract 27)

4:45 – 5:00 PM: **Robert Nshimiyimana**, BWH and Harvard Medical School, Boston, MA, USA. *Synthesis and biosynthetic transformation of epoxy resolvins to potent pro-resolving mediators*. (Abstract 28)

5:05 – 6:00 PM
Poster Discussion

(please see the poster presentation schedule at the end of the podium presentation schedule)

Wednesday, August 12, 2026

8:30 AM – 12:10 PM

Session 5: Metabolipidomics

(Sponsored by ONO Pharma)

Chair: Edward A. Dennis, University of California – San Diego, La Jolla, CA

- 8:30 – 9:00 AM: Plenary talk: **Takao Shimizu**, National Institute of Global Health and Medicine, Shinjuku, Tokyo, and Institute of Microbial Chemistry, Shinagawa, Tokyo, Japan. *Roles of DHA and DHA-containing lipids in brain functions*. (Abstract 29)
- 9:05 – 9:35 AM: Plenary talk: **Makoto Arita**, RIKEN Center for Integrative Medical Sciences, Yokohama, Kanagawa, Japan. *Lipidome atlas associated with aging and the host-microbiome interactions*. (Abstract 30)
- 9:40 – 10:10 AM: Plenary talk: **Edward Dennis**, University of California, San Diego, La Jolla, CA, USA. *Lipidomics profiling of complex lipids identifies the specificity of phospholipase A₂'s in releasing PUFAs and of eicosanoids in plasma identifies fatty liver disease* (Abstract 31)
- 10:15 – 10:35 AM: **Joan Claria**, Hospital Clinic de Barcelona, Barcelona, Catalonia, Spain. *Blood multi-omics identify molecular features of dysregulated formation of lipid mediators and mitochondrial dysfunction associated with the outcome of acutely decompensated cirrhosis*. (Abstract 32)
- 10:40 – 11:00 AM: **Philip J. Kingsley**, Vanderbilt University, Nashville, TN, USA. *An LC-MS/MS method for the analysis of phosphatidylinositol and phosphatidylinositol phosphate species from activated RAW264.7 cells*. (Abstract 33)
- 11:05 – 11:25 AM: **Sean Davies**, Vanderbilt University, Nashville, TN, USA. *Regulation of macrophage function by NAPE-PLD*. (Abstract 34)
- 11:30 – 11:45 AM: **Azam Yazdani**, Harvard Medical School, Boston, MA, USA. *The AI-Based Network Integration for Multi-Omics Analysis: An Application to Immune and Inflammatory Resolution Pathways in Genetics, Glycomics, and Lipidomics*. (Abstract 35)
- 11:50 AM – 12:05 PM: **Matti Van Welzen**, University of Rostock, Rostock, MV, Germany. *SPIN: Specialized Pro-resolving lipid mediators INteractome, a knowledge graph to explore mechanism of SPM function*. (Abstract 36)

12:10– 2:00 PM

Lunch and Socialization

Wednesday, August 12, 2026 program continued on next page....

2:00 – 5:05 PM

Session 6: Lipid Mediator Receptors

(Co-Sponsored by Avanti Polar Lipids, HEEL, and Metagenics)

Chair: Nan Chiang, Harvard University, Boston, MA

2:00 – 2:30 PM: Plenary talk: **Takehiko Yokomizo**, Juntendo University, Tokyo, Tokyo, Japan. *Protective roles of BLT2 receptor on the plasma membrane disruption-induced epithelial cell damage.* (Abstract 37)

2:35 – 3:05 PM: Plenary talk: **Gabrielle Fredman**, Albany Medical College, Albany, NY, USA. *Aging, Atherosclerosis, and the Failure to Resolve: Targeting Resolution Pathways to Overcome Residual Inflammation* (Abstract 38)

3:10 – 3:30 PM: **Magnus Bäck**, Karolinska Institutet, Stockholm, Stockholm, Sweden. *Deletion of the resolvin D2 receptor GPR18 induces an age-dependent circadian hypertensive phenotype with vascular bed-specific endothelial dysfunction.* (Abstract 39)

3:35 – 3:55 PM: **Stephania Libreros**, Yale University, New Haven, CT, USA. *Eating invaders: Resolvins drive macrophage phagocytosis and resolution.* (Abstract 40)

4:00 – 4:20 PM: **David Potter**, University of Minnesota, Minneapolis, MN, USA. *Fluorinated cuban-1-yl biguanides inhibit biosynthesis of the endocrine resistance mediator ($\pm$)14,15-EET, reverse tumor hypoxia, and transiently overcome hormone therapy resistance in a breast cancer xenograft model.* (Abstract 41)

4:25 – 4:40 PM: **Jason Hellmann**, University of Louisville, Louisville, KY, USA. *15R-Lipoxin A₄ signaling constrains immunometabolic programming during innate immune memory formation.* (Abstract 42)

4:45 – 5:00 PM: **Yan Zhang**, Michigan Technological University, Houghton, MI, USA. *Resolvin D1 Attenuates Renal Inflammation and Cyst Growth in PKD Mice.* (Abstract 43)

5:05 – 6:00 PM Award Ceremony
Adjournment