

SCIENTIFIC PROGRAM

15th International Conference

on

Bioactive Lipids in Cancer,
Inflammation, and Related
Diseases

Sponsored by



F o u n d a t i o n

October 22 – 25, 2017
Marriott CasaMagna Resort & Spa
Puerto Vallarta, Mexico

Sunday, October 22, 2017

Registration opens: 9:00 AM

Venue: Vallarta III-V

12:30 PM *Welcome address*

Kenneth V. Honn
Chairman, Organizing Committee

Exceptional Contributions to Human Physiology and Translational Medicine Award lecture

Introduction of the awardee by Lawrence J. Marnett

12:40 PM

Jeffrey M. Drazen
*Editor-in-Chief, New England Journal of Medicine,
Distinguished Parker B. Francis Professor of Medicine, Harvard Medical School, Boston, MA*

Data sharing in clinical trials (Abstract 1)

Keynote Address

(Sponsored by Metagenics Institute)

Introduction of the speaker by Edward A. Dennis

1:30 PM

Lewis C. Cantley
*Meyer Director of the Sandra and Edward Meyer Cancer Center
at Weill Cornell Medical College/Ronald P Stanton Clinical Cancer Program at New York-Presbyterian
Professor of Cancer Biology in Medicine, Weill Cornell Medical College, Cornell University, New York, NY*

PI 3-Kinase and human disease (Abstract 2)

Lifetime Achievement Award Lecture

(Sponsored by Cayman Chemical Company)

Introduction of the awardee by Kenneth V. Honn

2:20 PM

Charles N. Serhan
*Director, Center for Experimental Therapeutics and Reperfusion Injury, Brigham and Women's Hospital and
The Simon Gelman Professor of Anesthesia (Biochemistry & Molecular Pharmacol.), Harvard Medical School, Boston, MA*

*Decoding new lipid mediators and mechanisms in resolution of inflammation, infections
and tissue regeneration (Abstract 3)*

3:10 PM *Coffee break (Vallarta Foyer)*

Sunday, October 22, 2017 program continues on next page

INAUGURAL SESSION

Outstanding Achievement Award Lectures

Session Chair: Gabor J. Tigyi

3:30 PM	<i>Increased epoxy fatty acids reduces ER stress leading to prevention and treatment of neuropathic pain and other diseases (Abstract 4)</i>	Bruce D. Hammock <i>University of California at Davis, Davis, CA</i>
4:15 PM	<i>Arachidonic Acid Monooxygenase: From biochemical curiosity to a physiological/pathophysiological relevant metabolic pathway (Abstract 5)</i>	Jorge H. Capdevila <i>Vanderbilt University, Nashville, TN</i>
5:00 PM	<i>Thromboxane (TXA₂) attenuates Th9 cell differentiation and function during allergic lung inflammation (Abstract 6)</i>	Darryl C. Zeldin <i>NIEHS/NIH, Research Triangle Park, NC</i>

Session ends at 5:45 PM

SPECIAL SESSION

ω -3 PUFA, SPMs, and Clinical Practice

(sponsored by Metagenics Institute)

Session Chair: Kenneth V. Honn

6:00 PM	<i>Oral supplementation with a novel marine oil fraction alters circulating leukocyte phenotype in healthy subjects and patients with peripheral arterial disease (Abstract 7)</i>	Michael S. Conte <i>University of California at San Francisco, San Francisco, CA</i>
6:30 PM	<i>Does the use of Specialized Pro-resolving Molecules in surgical and critical care practice offer a more focused approach to inflammation control? (Abstract 8)</i>	Robert Martindale <i>Oregon Health and Science University, Portland, OR</i>

Session ends at 7:00 PM

Opening reception: 7:00 – 9:00 PM
Marriott CasaMagna Puerto Vallarta Resort & Spa
Beach Front and Outdoor Garden Area
Cocktails and strolling dinner

Monday, October 23, 2017

PLENARY SESSION 1

Venue: Vallarta III-V

Session Chair: Charles N. Serhan

8:00 AM	<i>Specialized Pro-resolving Lipid Mediators in inflammatory lung disease. New opportunities for therapies (Abstract 9)</i>	Patricia Sime <i>University of Rochester Medical Center, Rochester, NY</i>
8:50 AM	<i>Elovanoids: Novel class of lipid mediators necessary for neural cell integrity that counteracts retinal degenerations, stroke and Alzheimer's (Abstract 10)</i>	Nicolas G. Bazan <i>Louisiana State University, New Orleans, LA</i>

Session ends at 9:40 AM

Coffee break: 9:40 AM (20 min) (Vallarta Foyer)

<i>Time</i>	Session 1: Lipid Mediators of Inflammation and Resolution - I (sponsored by Metagenics Institute) Chairs: Richard Phipps & Karsten Gronert (Vallarta III-IV)	Session 2: Lipids in Neuroinflammatory Diseases Chairs: Diana Escalante-Alcalde & Daniele Piomelli (Vallarta V)
10:00 AM	Richard Phipps: <i>Specialized Proresolving Mediators regulate B lymphocyte antibody production: implications for adjuvants and allergy/asthma (Abstract 11)</i>	Diana Escalante-Alcalde: <i>Of lipids and adult neurogenesis: The role of astroglial phospholipid phosphatase-3 (Abstract 16)</i>
10:30 AM	Karsten Gronert: <i>Lipid mediator circuits at the interphase of innate and adaptive immune responses (Abstract 12)</i>	Daniele Piomelli: <i>A key role for NAAA-regulated PEA signaling in Parkinson's disease (Abstract 17)</i>
11:00 AM	Stephanie G. Dakin: <i>Increased 15-PGDH expression leads to dysregulated resolution responses in stromal cells from patients with chronic tendinopathy (Abstract 13)</i>	Heather B. Bradshaw: <i>Traumatic brain injury drives novel changes in the CNS lipidome (Abstract 18)</i>
11:20 AM	Nan Chiang: <i>Novel Resolvin D2-receptor axis controls sepsis and organ protection (Abstract 14)</i>	Yasuyuki Kihara: <i>Systematic characterization of bioactive lipids in CNS inflammation (Abstract 19)</i>
11:40 AM	Raphael Bojalil: <i>Low circulating pro-resolutive lipid mediators coexist with high pro- and anti-inflammatory mediators in patients with stable or acutely complicated chronic heart diseases (Abstract 15)</i>	Niccolo Terrando: <i>From mice to men: novel insights into the role of maresin 1 in postoperative neuroinflammation (Abstract 20)</i>

Sessions end at 12:00 Noon

Lunch Break: 12:00 to 1:30 PM

Working Lunch: Courtesy of SCIEX

12:15 – 1:15 PM

Venue: Champions Restaurant

Novel approaches to global lipidomic profiling: Redefining analytical specificity

Presentation by Paul R. Baker, Ph.D., Global Applications Lead in Lipidomics, SCIEX

Monday, October 23, 2017 program continues on next page

Monday, October 23, 2017 *continued...*

<i>Time</i>	Session 3: Nutrition, Essential Fatty Acids, and Lipid Mediators in Cancer <i>(sponsored by Fresenius-Kabi)</i> Chairs: Daniela Corda & Dipak Panigrahy <i>(Vallarta III-IV)</i>	Session 4: Molecular Biology of Lipids Chairs: Makoto Murakami & Edward A. Dennis <i>(Vallarta V)</i>
1:30 PM	<i>The EMBO keynote lecture</i> Daniela Corda: <i>The cellular receptor of the glycerophosphoinositols and its involvement in the control of inflammation and tumor invasion (Abstract 21)</i>	Makoto Murakami: <i>Lipoquality control by the phospholipase A2 family in the skin (Abstract 26)</i>
2:00 PM	Dipak Panigrahy: <i>Resolvin mediated clearance suppresses cell debris-stimulated tumor growth (Abstract 22)</i>	Edward A. Dennis: <i>Lipidomics highlights infection and inflammation progression (Abstract 27)</i>
2:30 PM	Imad Shureiqi: <i>ALOX15 Enhancement of EPA Suppression of Colonic Tumorigenesis via Resolvin Generation (Abstract 23)</i>	Mathew Spite: <i>D-series resolvins are biosynthesized in skin wounds and promote re-epithelialization (Abstract 28)</i>
2:50 PM	Józef Timar: <i>Preclinical and clinical effects of prenylation inhibitory bisphosphonates depend on the mutation status of KRAS in lung adenocarcinoma (Abstract 24)</i>	Thomas Thatcher: <i>Activated human lung fibroblasts produce exosomes containing anti-fibrotic prostaglandins that inhibit fibrogenesis in naive fibroblasts (Abstract 29)</i>
3:10 PM	K. Sandeep Prabhu: <i>Targeting of leukemia stem cells by endogenous cyclopentenone prostaglandins in a rodent model of chronic myelogenous leukemia (Abstract 25)</i>	Nicos Petasis: <i>Total synthesis and study of maresin conjugates in tissue regeneration (MCTR) (Abstract 30)</i>

Session ends at 3:30 PM

Poster Sessions I-A & I-B (Abstracts 86-139)

Monday, October 23, 2017

Poster Viewing: 9 AM – 6 PM

Venue: Vallarta VII & Cozumel Mexico

Poster Session I-A: Posters 86-97* and 98-112

Discussion Time: 4:00-5:00 PM

**Santosh Nigam Memorial Outstanding Scientist Award Contest – Discussion Time: 4:00 – 6:00 PM*

Abstract	Presenting Author	Abstract Title
86*	Maceler Aldrovandi	<i>Time course studies of thrombus formation: a lipidomic approach</i>
87*	Romain A. Colas	<i>Impaired diurnal regulation of vascular RvD_{n-3DPA} increases systemic inflammation and cardiovascular disease</i>
88*	Allison Gartung	<i>Synergy between resolvins and checkpoint blockade in debris-stimulated FANCC^{-/-} head and neck cancer</i>
89*	Marie Hennebelle	<i>A new role of linoleic acid involving its oxidized metabolites in brain</i>
90*	Toshiaki Hirakata	<i>Dietary ω-3 fatty acids alleviate the allergic conjunctivitis in mice</i>
91*	Stephania Libreros	<i>Pro-Resolving mediators activate intracellular single cell signaling in human phagocytes</i>
92*	Linda S. May-Zhang	<i>High density lipoproteins modified by isolevuglandin, a highly reactive γ-ketoaldehyde, are not only structurally-functionally defective but augment macrophage inflammation and death</i>

93*	Michael J. Pulkoski-Gross	<i>Identification of an intrinsic membrane binding interface that impacts cellular function of sphingosine kinase 1</i>
94*	Prajna Shanbhogue	<i>Novel insights into allosteric activation of neutral sphingomyelinase-2 by anionic phospholipids</i>
95*	Ashley Shay	<i>IL-4 Upregulates cyclooxygenase-1 expression in macrophages</i>
96*	Rachel E. Walker	<i>The effects of inflammation and polyunsaturated hepatic fatty acid incorporation on very low density lipoproteins oxylipin composition</i>
97*	Jennifer Yeung	<i>12-LOX derived metabolites of DPA, ω-6, inhibit platelet activation through the PPAR pathway</i>

Abstract	Presenting Author	Abstract Title
98	Gregory S. Carbonetti	<i>Transport of endogenously-produced lipids by FABP5 leads to increased prostate cancer aggression</i>
99	Jennifer K. Colby	<i>Transgenic 15-lipoxygenase-1 expression is associated with enhanced biosynthesis of pro-resolving EPA metabolites in a mouse model of colon cancer</i>
100	Gohar V. Hakobyan	<i>Blood mononuclear cell's lipids as biomarker of prostate and bladder cancers</i>
101	Michael C. Goodman	<i>Substrate selectivity and time dependence of a COX-2/FAAH dual inhibitor</i>
102	Yan Li	<i>A novel and powerful anti-bleeding enzyme complex controlling the cellular arachidonic acid metabolism toward thromboxane A₂ biosynthesis</i>
103	Kazushige Yokota	<i>Co-incubation of cultured preadipocytes during the differentiation phase with exogenous arachidonic acid and a cAMP-elevating agent attenuates adipogenesis program by inducing the biosynthesis of anti-adipogenic prostanoids</i>
104	Iryna Khasabova	<i>The role of 2-AG oxidation in mechanical hyperalgesia in humanized model of sickle cell disease</i>
105	Matthew Edin	<i>Epoxide hydrolase 1 (EPHX1) regulates epoxyeicosanoid hydrolysis and postischemic cardiac recovery</i>
106	Sean D. Kodani	<i>Dual soluble epoxide hydrolase (sEH)/fatty acid amide hydrolase (FAAH) inhibitors: Chemical tools for exploring the convergence of two eicosanoid pathways</i>
107	Pei-an (Betty) Shih	<i>Soluble epoxide hydrolase in breast cancer patients and healthy controls: implications for anxiety and cognitive decline</i>
108	Thayse R. Bruggemann	<i>Phospholipid phosphatase 6 regulates leukocyte trafficking during allergic lung inflammation</i>
109	William Campbell	<i>Characterization of GPR40 as a low affinity epoxyeicosatrienoic acid (EET) receptor in vascular cells</i>
110	Samar Hammad	<i>Altered lipoprotein ceramide composition regulate metabolic and signaling pathways in renal cells</i>
111	Xiaoyong Lei	<i>Evidence for interplay between ER stress, inflammation, and lipid signaling involving novel transcriptional regulation of iPLA_{2B}</i>

Abstract	Presenting Author	Abstract Title
112	Maurizio Battino	<i>Phenolic extracts of extra virgin olive oils suppress the proliferation of MCF-7 breast cancer cells</i>
113	Jaimie Chang	<i>Regulation of tumor debris-mediated inflammation as a therapeutic modality in brain tumors</i>
114	Peter Dieter	<i>Prostaglandin E₂: A double-edged sword in bone remodeling?</i>
115	Djanira Fernandes	<i>Inhibition of CHOP chemotherapy-stimulated hematological tumor growth with resolvins</i>
116	David Klumpp	<i>AOAH modulation of pelvic pain</i>
117	Marina Korotkova	<i>Different effects of COX-2 and mPGES-1 inhibitors on lipidomic and proteomic profiles in A549 cells.</i>
118	Remi Murase	<i>Group III phospholipase A2 is a novel promoting factor of colorectal diseases</i>
119	Julia Piwowarski	<i>Control of breast cancer through the resolution of inflammation</i>
120	Karolina Serhan	<i>Ovarian Cancer: The failure to resolve?</i>
121	Zivile Useckaite	<i>5LOX is associated with increased metabolic activity and poorer overall survival in esophageal adenocarcinoma, and this pathway represents a novel target in EAC</i>
122	Curtis W. Pazderka	<i>N'-phenyl-16-ureidopalmitic acids that decrease the viability of triple-negative breast cancer cells in vitro and disrupt their mitochondrial membrane potential.</i>
123	Li-Shu Wang	<i>The axis of gut bacteria-metabolites-receptors in colon carcinogenesis</i>
124	Lujin Wu	<i>Combined therapy with PPARα ligand AVE8134 and cyclooxygenase-2 (Cox2) inhibitor synergistically suppresses lung cancer growth and metastasis</i>
125	Reheman Adili	<i>Dietary supplementation of docosahexaenoic acid and eicosapentaenoic acid regulates platelet function, alters thrombus composition and attenuates vessel occlusion in vivo</i>
126	Aracely E. Chávez-Piña	<i>Antioxidative action of docosahexaenoic acid in the indomethacin-induced gastric injury model</i>
127	Megan Falsetta	<i>Specialized Pro-resolving Mediators: a promising new therapeutic avenue for unremitting vulvar pain</i>
128	Aruna Gorusupudi	<i>Significance of VLC-PUFAs in diabetic retinas shown in mouse and human donor eyes.</i>
129	Monika Haack	<i>Inflammatory and inflammatory resolution mediators in response to sleep deficiency and sleep recovery in humans – first pilot data</i>
130	Arizai Yolia Landa Juárez	<i>Evaluation of the antinociceptive effect and mechanism of action of docosahexaenoic acid (DHA) in a murine model of neuropathic pain</i>
131	Qinglan Ling	<i>The examination of opposite effects exerted by two Arachidonic acid metabolites on neurodegeneration using novel hybrid enzymes</i>
132	Yoshimi Miki	<i>Dual roles of group IID phospholipase A2 in inflammation and cancer</i>

Abstract	Presenting Author	Abstract Title
133	Toshiaki Okuno	<i>Intravenous anesthetic propofol binds to 5-lipoxygenase and attenuates LTB₄ production in vivo and in vitro</i>
134	Simona Pace	<i>Sex bias in the biosynthesis of pro-inflammatory lipid mediators with consequences for the inflammatory response and related pharmacotherapy</i>
135	Jessica Wei	<i>The role of Lipoxin A₄ in autoimmune uveitis</i>
136	Kei Yamamoto	<i>An epidermal sPLA2 (PLA2G2F)/plasmalogen-lysophosphatidylethanolamine axis is a novel drug target for epidermal-hyperplastic diseases</i>
137	Zhiquan Zhang	<i>Neuroprotective effects of annexin-a1 tripeptide after cardiac surgery in rats</i>

Meet the Exhibitors Reception
Vallarta Foyer
3:30 – 5:30 PM

Tuesday, October 24, 2017

PLENARY SESSION 2

Venue: Vallarta III-V

Session Chair: Lawrence J. Marnett

8:00 AM	<i>20-HETE, its receptor and its role in cardiovascular diseases (Abstract 31)</i>	Michal L. Schwartzman <i>New York Medical College, Valhalla, NY</i>
8:50 AM	<i>Neutral ceramidase in colon cancer (Abstract 32)</i>	Yusuf Hannun <i>Stony Brook University, Stony Brook, NY</i>

Session ends at 9:40 AM

Coffee break: 9:40 AM (20 min) (Vallarta Foyer)

<i>Time</i>	Session 5: Inositides and Sphingolipids in Cancer and Inflammation Chairs: Bernard Payraastre & Julia Saba (Vallarta III-IV)	Session 6: Novel Aspects of Lipid Biology Chairs: Miriam L. Greenberg & Lawrence J. Marnett (Vallarta V)
10:00 AM	Bernard Payraastre: <i>Phosphoinositides in the regulation of platelets production and functions and in arterial thrombosis (Abstract 33)</i>	Miriam L. Greenberg: <i>Cardiolipin at the epicenter of energy metabolism – Implications for Barth syndrome (Abstract 38)</i>
10:30 AM	Julia Saba: <i>Mutations in the SIP lyase gene SGPL1 as the cause of steroid-resistant nephrotic syndrome and immunodeficiency (Abstract 34)</i>	Lawrence J. Marnett: <i>Global analysis of protein targets of lipid electrophiles (Abstract 39)</i>
11:00 AM	Nawajes Mandal: <i>Sphingolipids as mediators of ocular inflammation (Abstract 35)</i>	Ernst H. Oliw: <i>Fungal biosynthesis of allene oxides and jasmonic acid (Abstract 40)</i>
11:20 AM	Toshiro Okazaki: <i>Creamed increase by deficiency of sphingomyelin synthase (SMS) 2 suppressed murine acute colitis and colon cancer initiation through cytokine/chemokine inhibition (Abstract 36)</i>	Sean S. Davies: <i>Gut bacteria expressing N-acyl-phosphatidylethanolamine inhibit development of obesity and obesity associated diseases (Abstract 41)</i>
11:40 AM	Johnny Stiban: <i>Modulation of cancer cell growth by regulation of CerS phosphorylation: the effects of insulin and glucagon on CerS5 phosphorylation and activation (Abstract 37)</i>	Ilce Medina Meza: <i>Flavonoids possess dose-dependent ability to disrupt inflammation mediated by cholesterol oxidation (Abstract 42)</i>

Session ends at 12:00 Noon

Lunch Break: 12:00 to 1:30 PM

Working Lunch: Courtesy of Zone Labs, Inc.

12:15 – 1:15 PM

Venue: Champions Restaurant

Clinical uses of high-dose fish oil

Presentation by Barry Sears, Ph.D., President, Zone Labs, Inc.

Tuesday, October 24, 2017 program continues on next page

Tuesday, October 24, 2017 *continued...*

<i>Time</i>	Session 7: PUFA, Lipid Mediators, and Phospholipases (sponsored by Solutex) Chairs: Takao Shimizu & Julian Cambronero (Vallarta III-IV)	Session 8: ERF Young Investigator Award Competition Chairs: Lawrence J. Marnett & Krishna Rao Maddipati (Vallarta V)
1:30 PM	Takao Shimizu: <i>Functional roles of phospholipids rich in polyunsaturated fatty acids in vivo</i> (Abstract 43)	1:30 PM: Elizabeth Berger: <i>Lipid mediator pathways in the pathogenesis of bacterial keratitis</i> (Abstract 48)
2:00 PM	Julian Cambronero: <i>A novel role for phospholipase D (PLD) in macrophage-mediated inflammation and resolution</i> (Abstract 44)	1:50 PM: Jesmond Dalli: <i>Novel n-3 docosapentanoic acid-derived resolvins are vasculoprotective and mediate the actions of statins in controlling inflammation</i> (Abstract 49)
2:30 PM	Raja-Elie E. Abdounour: <i>Phospholipase D isoforms differentially regulate leukocyte responses to acute lung injury</i> (Abstract 45)	2:10 PM: Scott B. Hansen: <i>The role of membrane order and arachidonoyl lipids in pain channel activation</i> (Abstract 50)
2:50 PM	Ted Holman: <i>Biochemical/cellular characterization and inhibitor discovery of pseudomonas aeruginosa 15-lipoxygenase</i> (Abstract 46)	2:30 PM: Andres Trostchansky: <i>Arachidonic acid pathway in ALS mice and modulation of the disease by nitro-fatty acids</i> (Abstract 51)
3:10 PM	Sungwhan F. Oh: <i>Host diet dictates glycosphingolipid structures and immunomodulatory functions synthesized by gut commensal microbiota</i> (Abstract 47)	2:50 PM: Karin Larsson: <i>Selective inhibition of mPGES-1 in cancer-associated fibroblasts suppresses neuroblastoma tumor growth</i> (Abstract 52) 3:10 PM: Guodong Zhang: <i>Lipidomic profiling identifies cytochrome P450 epoxygenases as a novel therapeutic target of colorectal cancer</i> (Abstract 53)

Sessions end at 3:30 PM

Poster Sessions II-A & II-B (Abstracts 140-193)

Tuesday, October 24, 2017

Poster Viewing: 9 AM – 6 PM

Venue: Vallarta VII & Cozumel Mexico

Poster Session II-A: Posters 140-166

Discussion Time: 4:00-5:00 PM

Abstract	Presenting Author	Abstract Title
138	Anna Bukiya	<i>Cholesterol interacts with alcohol to control cerebral artery diameter</i>
139	Austin M. Guo	<i>Inflammatory neutrophils contribute to 20-HETE regulation of ischemia-induced angiogenesis</i>
140	Raquel A. Marques	<i>Dysregulated circadian pro-resolving mediator biosynthesis and peripheral blood T-cell subset in murine cardiovascular disease</i>
141	Linda S. May-Zhang	<i>Comparing 4-oxo-2-nonenal with other reactive aldehydes in modifying high density lipoprotein</i>
142	Brian Sansbury	<i>Resolvin D2 promotes revascularization and muscle regeneration during limb ischemia</i>
143	Bruce D. Hammock	<i>Novel multi-target agents: COX-2/sEH dual inhibitors</i>

Abstract	Presenting Author	Abstract Title
144	Bruce D. Hammock	<i>Characterization and efficacy of a dual soluble epoxide hydrolase/phosphodiesterase inhibitor</i>
145	Bruce D. Hammock	<i>Advancing soluble epoxide hydrolase inhibitors through preclinical studies in preparation for Phase 1 clinical trials for treating painful diabetic neuropathy</i>
146	Ogori A. Friday	<i>Oil yield and physicochemical properties of <i>Balanites aegyptiaca</i> (L.) del. kernels at various process treatments</i>
147	Marie Hennebelle	<i>Multiple sclerosis is characterized by a decrease in plasma DHA-enriched containing plasmalogen and an increase in oleic acid-containing phosphatidylcholine species</i>
148	William J. Valentine	<i>Lysophosphatidic acid acyltransferase 3 incorporates docosahexaenoic acid into phospholipids of skeletal muscle cells and is upregulated by PPARδ activation</i>
149	Takuya Hara	<i>C-terminal region of BLT2 receptor restricts its localization to the lateral membrane</i>
150	Giorgis Isaac	<i>Utilization of SimLipid for the characterization of metabolic syndrome related lipids acquired using a novel scanning quadrupole DIA acquisition method</i>
151	Suraj Dhungana	<i>Spatial mapping of lipids and neurotransmitters in rat brain section using DESI ion mobility mass spectrometry</i>
152	Laura Goracci	<i>Analysis of bioactive lipids with Lipostar: applications in sphingolipidomics</i>
153	Aaron R. Navratil	<i>Lipidomics reveals physiological isotope effects during the enzymatic oxygenation of polyunsaturated fatty acids ex vivo</i>
154	Hernando Olivos	<i>Detection and quantification of radiation induced alteration in lipids using untargeted and targeted liquid chromatography coupled mass spectrometry approaches</i>
155	Ana Paula F. Peti	<i>Method development for quantification of cytochrome P450-derived eicosanoids using high-resolution multiple reaction monitoring</i>
156	Christian A. Reynolds	<i>Analysis of lipid mediators in heart failure: A pilot study</i>
157	Adithya Sanjay	<i>Comparative PUFA metabolomics of prostatic primary epithelial and cancer cells</i>
158	Nathaniel C. Gilbert	<i>Crystal structures of Stable-5-LOX reveal the structural basis for competitive and non-competitive inhibition</i>
159	Erin Schexnaydre	<i>5-Lipoxygenase-specific sequence motif confers auto-inactivation and dependence on a partner protein</i>
160	Carlos A. Sorgi	<i>5-Lipoxygenase activity as a marker of macrophage heterogeneity in mice</i>
161	Kuniyuki Kano	<i>Imaging MS analysis of lysophospholipids using AP-MALDI-MS</i>
162	Geetika Aggarwal	<i>Bile acids modulate N-acyl phosphatidylethanolamine hydrolyzing phospholipase D activity</i>
163	James A. Wepy	<i>Investigation of molecular interactions between lysophospholipase A₂ and its diverse bioactive lipid substrates</i>

Abstract	Presenting Author	Abstract Title
164	Adam Uzieblo	<i>Evaluating contribution of bis-fluorination of selective γ-lactam agonists towards rat EP4 prostanoid receptor</i>

Poster Session II-B: Posters 167-193

Discussion Time: 5:00-6:00 PM

Abstract	Presenting Author	Abstract Title
165	Arlette Guadalupe Arroyo Lira	<i>Oral administration of docosahexaenoic acid (DHA) increase antinociception and bioavailability of naproxen</i>
166	Filip Bergqvist	<i>Prostacyclin: a potential novel therapeutic target to treat tendon pain and inflammation?</i>
167	Derek W. Clissold	<i>From Leukotriene (LT) antagonists to Specialized Pro-resolving Mediator (SPM) agonists - structural relationships</i>
168	Alessio Cremonesi	<i>Development of a LC-MS/MS method for the quantitation of lipid mediators in human plasma</i>
169	Xavier De la Rosa Siles	<i>Identification of novel Resolvin Conjugate in Tissue Regeneration 3 (RCTR3) in human tissues stimulates proresolving phagocyte functions</i>
170	Melody G. Duvall	<i>Lipoxin A₄ promotes and dexamethasone inhibits natural killer cell-mediated inflammation resolution in severe asthma</i>
171	Magdalena B. Flak	<i>Oral pathobiont Porphyromonas gingivalis regulates n-3 docosapentaenoic acid-derived resolvins and disrupts gut barrier homeostasis in inflammatory arthritis</i>
172	Jana Gerstmeier	<i>Pathogenic bacteria activate distinct human macrophage phenotypes to differentially produce specific resolvin or eicosanoid signals</i>
173	Aruna Gorusupudi	<i>Synthetic VLC-PUFAs as a novel treatment strategy for retinal degenerative diseases</i>
174	Naveen Kumar V. Gundala	<i>Anti-inflammatory and anti-diabetic action of Arachidonic acid (AA)</i>
175	Yoko Hashimoto	<i>Role of LTB₄-BLT1 signaling in mice pain model following hind paw incision</i>
176	Jason Hellmann	<i>Exercise-enhanced macrophage phagocytosis and resolvin biosynthesis is abrogated by a diet high in fat</i>
177	Iryna Khasabova	<i>Resolvin D1 reduces hyperalgesia in a murine model of bone cancer pain</i>
178	Tara M. Nordgren	<i>A high DHA diet reduces airway inflammation from organic dust exposures and enhances pro-resolving lipid mediator production in mice</i>
179	Elizabeth Arlen Pineda Peña	<i>Anti-inflammatory mechanism of DHA (docosahexaenoic acid) in the indomethacin-induced gastric injury model in mice</i>
180	Nicos A. Petasis	<i>Stereocontrolled total synthesis of protectin conjugates in tissue regeneration (PCTR)</i>
181	Kimberly Catherine De Freitas Pistorius	<i>PD_{n-3} PDA biosynthesis and actions in human macrophages</i>

Abstract	Presenting Author	Abstract Title
182	Julia Steinmetz	<i>Characterization of bone marrow derived macrophage cell assay for the studies on anti-inflammatory lipid mediators upon mPGES-1 inhibition</i>
183	Dan Tew	<i>Development and validation of a Lipoxin A4 monoclonal antibody</i>
184	Mary E. Walker	<i>13-series resolvins mediate the leukocyte-platelet actions of atorvastatin and pravastatin in inflammatory arthritis</i>
185	Nicholas Wourms	<i>A streamlined synthetic approach to SPMs</i>
186	Maurizio Battino	<i>Strawberry methanolic extract inhibits adipogenesis in 3T3-L1 mouse embryo fibroblasts cells</i>
187	Maurizio Battino	<i>Strawberry enriched-diet counteracts oxidative stress and ameliorates lipid profile in rats stressed with lipopolysaccharide and doxorubicin</i>
188	Marie Hennebelle	<i>Liver and brain oxidized linoleic acid metabolites are mainly provided through endogenous synthesis from their precursor.</i>
189	Wenjia Lou	<i>Expression of $\Delta 12$-desaturase promotes cardiolipin peroxidation in <i>Saccharomyces cerevisiae</i>: A model for CL signaling</i>
190	Patricia Rodrigues	<i>The Gata6 transcription factor regulates sphingolipid metabolism in macrophages.</i>

Meet the Exhibitors Reception
Vallarta Foyer
3:30 – 5:30 PM

Tuesday, October 24, 2017 program continues on next page

GALA DINNER

Venue: Club Regina Puerto Vallarta

Outdoor Seaside Garden

(Bus Departs CasaMagna Marriott Hotel at 6:30 PM)

Cocktails:

7:00 – 7:30 PM

Dinner and Entertainment:

7:30 – 10:00 PM

Dancing and Music:

until 11:00 PM

(return transportation from Club Regina to CasaMagna: 10:15, 10:30, 10:45, & 11:00 PM)

Presentation of
ERF Outstanding Achievement Awards to:

Bruce D. Hammock, Ph.D.

Jorge H. Capdevila, Ph.D.

Darryl C. Zeldin, M.D.

Sponsored by Avanti Polar Lipids

Presentation of
Travel Awards

Sponsored by:

BBA-Molecular and Cell Biology of Lipids

Christopher Harris Memorial Travel Award Fund

Eicosanoid Research Foundation

Journal of Prostaglandins and Other Lipid Mediators

NIEHS/NIH

ONO Pharmaceutical Company

University of Tennessee Health Science Center

Wayne State University

Presentation of
ERF Young Investigator Awards
Sponsored by Cayman Chemical Company

Presentation of
Santosh Nigam Memorial Outstanding Young Scientist Award
Sponsored by Santosh Nigam Memorial Fund

Wednesday, October 25, 2017

PLENARY SESSION 3

Venue: Vallarta III-V

Session Chair: Edward A. Dennis

8:00 AM	<i>ω-3 Fatty acid epoxides are autocrine mediators that ensure full activation of mast cells (Abstract 54)</i>	Hiroyuki Arai <i>University of Tokyo, Tokyo, Japan</i>
8:50 AM	<i>Deciphering the molecular mechanisms of leukotriene biosynthesis (Abstract 55)</i>	Jesper Z. Haeggström <i>Karolinska Institute, Stockholm, Sweden</i>

Session ends at 9:40 PM

Coffee break: 9:40 AM (20 min) (Vallarta Foyer)

<i>Time</i>	Session 9: Lysophospholipids in Cancer Chairs: Jae Ho Kim & Gábor J. Tigyi <i>(Vallarta III-IV)</i>	Session 10: Lipid Receptor Biology and Biochemistry Chairs: John E. Burke & Takehiko Yokomizo <i>(Vallarta V)</i>
10:00 AM	Jae Ho Kim: <i>Role of autotaxin in the maintenance of ovarian cancer stem cells (Abstract 56)</i>	JLR Junior Investigator Awardee Lecture John E. Burke: <i>Probing the structural dynamics of phosphoinositide signalling on membranes, and the mechanism of activation downstream of Ras GTPase signalling (Abstract 61)</i>
10:30 AM	Gábor J. Tigyi: <i>The autotaxin-LPA axis in the development of the metastatic niche (Abstract 57)</i>	Takehiko Yokomizo: <i>Biological roles of BLT receptors (Abstract 62)</i>
11:00 AM	Zoltan Benyó: <i>Different pathways mediate LPA-induced vasoconstriction in the systemic and coronary vessels (Abstract 58)</i>	William S. Powell: <i>Selective highly potent antagonists of the OXE receptor for 5-oxo-EETE inhibit allergen-induced dermal eosinophilia in monkeys (Abstract 63)</i>
11:20 AM	David N. Brindley: <i>Targeting autotaxin activity and lysophosphatidate signaling from inflamed adipose tissue to improve chemotherapy and radiotherapy for breast cancer (Abstract 59)</i>	Paul Norris: <i>Specialized Pro-resolving Mediators link coagulation to innate host defense in human blood (Abstract 64)</i>
11:40 AM	Philip Kingsley: <i>Identification of prostaglandin glycerol esters in transgenic murine brain tissue (Abstract 60)</i>	Yukihiko Sugimoto: <i>Prostaglandin EP4 signaling regulates physiological lipid storage status (Abstract 65)</i>

Sessions end at 12 Noon

Lunch Break: 12:00 to 1:30 PM
(no complimentary lunch provided)

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<i>Time</i>	Session 11: Cyclooxygenase Pathway in Cardiovascular Disorders and Cancer Chairs: Bruno Escalante & Kenneth V. Honn <i>(Vallarta III-IV)</i>	Session 12: Lipid Mediators of Inflammation and Resolution - II <i>(Sponsored by University of Rochester Medical Center)</i> Chairs: Markus Wenk & Makoto Arita <i>(Vallarta V)</i>
1:30 PM	Bruno Escalante: <i>Role of thromboxane A₂ on coronary vasoconstriction in obese mice</i> (Abstract 66)	Markus Wenk: <i>Natural variation of blood plasma lipids in healthy Asian individuals</i> (Abstract 71)
2:00 PM	Kenneth V. Honn: <i>Thromboxane receptor (TPa) activation induces amphiregulin in prostate cancer</i> (Abstract 67)	Makoto Arita: <i>Eosinophil polyunsaturated fatty acid metabolism and its potential control of inflammation and allergy</i> (Abstract 72)
2:30 PM	Shuntaro Hara: <i>Crosstalk between two prostaglandin terminal synthases PGIS and mPGES-1 in skin inflammation and carcinogenesis</i> (Abstract 68)	Patricia C. Kane: <i>Epigenetic insult resulting in membrane lipid disturbance as the etiology of inflammation and resolution with bioactive lipids</i> (Abstract 73)
2:50 PM	Khosrow Kashfi: <i>Targeting NF-κB, FoxM1, and p53 in pancreatic cancer with NOSH-aspirin</i> (Abstract 69)	Bruce D. Levy: <i>Maresin conjugates in tissue regeneration (MCTR) promote catabasis in allergic airway</i> (Abstract 74)
3:10 PM	Klaus van Leyen: <i>12/15-Lipoxygenase contributes to bleeding in the brain following ischemic stroke</i> (Abstract 70)	Darlene A. Dartt: <i>RvD2 increases goblet cell cAMP and intracellular [Ca²⁺] to regulate mucin secretion and maintain ocular surface homeostasis in both health and disease</i> (Abstract 75)

Sessions end at 3:30 PM

Coffee break: 3:30 PM (30 min) (Vallarta Foyer)

<i>Time</i>	Session 13: Lipids in Metabolic and Cardiovascular Disorders Chairs: Jerry Nadler & Michael Holinstat <i>(Vallarta III-IV)</i>	Session 14: Biology of the Epoxygenase Pathway Chairs: Ambra Pozzi & Krishna Rao Maddipati <i>(Vallarta V)</i>
4:00 PM	Jerry Nadler: <i>12-Lipoxygenase: A new target for diabetes prevention and treatment</i> (Abstract 76)	Ambra Pozzi: <i>The slow metabolizers CYP2C9*2 and *3 directly regulate tumorigenesis via reduced generation of epoxyeicosatrienoic acids</i> (Abstract 81)
4:30 PM	Michael Holinstat: <i>Targeting 12-LOX for prevention of thrombotic diseases: Novel treatment for immune-mediated thrombosis and thrombocytopenia</i> (Abstract 77)	Krishna Rao Maddipati: <i>Discerning the origins of clinical chorioamnionitis from human amniotic fluid lipidomics</i> (Abstract 82)
5:00 PM	Ganesh V. Halade: <i>Splenic leukocytes defines the resolution of inflammation in heart failure pathology</i> (Abstract 78)	Pei-an (Betty) Shih: <i>Cytochrome P450-derived eicosanoids reveal a potential prognostic biomarker for major depressive disorder</i> (Abstract 83)
5:20 PM	Sasanka Ramanadham: <i>Linking Ca²⁺-independent phospholipase A₂β-derived lipids to Type 1 diabetes development</i> (Abstract 79)	Aditi Das: <i>Novel Anti-inflammatory and vasodilatory ω-3 endocannabinoid epoxide regioisomers</i> (Abstract 84)
5:40 PM	Kazushige Yokota: <i>Comparison of pro-adipogenic effects between prostaglandin (PG) D₂ and its stable, isosteric analogue, 11-deoxy-11-methylene-PGD₂</i> (Abstract 80)	Menachem Rubinstein: <i>Inhibition of MGST2-generated LTC₄ attenuates side effects of chemotherapy and statins</i> (Abstract 85)

Sessions end at 6:00 PM

Conference Adjourns at 6:00 PM Wednesday, October 25, 2017