

SCIENTIFIC PROGRAM

*14th International Conference
on*

Bioactive Lipids in Cancer,
Inflammation, and Related
Diseases

Sponsored by



F o u n d a t i o n

July 12 – 15, 2015
Hungarian Academy of Sciences
Budapest, Hungary

Sunday, July 12, 2015

Registration opens: 10:00 AM

Venue: Diszterem Lecture Hall (2nd floor)

2:00 PM *Welcome address*

Kenneth V. Honn

Chairman, Organizing Committee

Lifetime Achievement Award Lecture

(Sponsored by Cayman Chemical Company)

Introduction of the awardee by Gabor J. Tigyi

2:10 PM

Shuh Narumiya

Professor and Program Leader, Global Center of Excellence Programs,

Center for Frontier Medicine, Department of Pharmacology, Kyoto University, Kyoto, Japan

My adventures in prostaglandin research (Abstract 1)

3:00 PM *Coffee break (Krudy Room, Lower Ground floor)*

INAUGURAL SESSION

Lipid Mediators in Metabolic and Cardiovascular Diseases

Session Chairs: Edward A. Dennis and Gabor J. Tigyi

3:30 PM	<i>Pro-resolving Lipid Mediators and Their Roles in Metabolic Diseases (Abstract 2)</i>	Joan Claria <i>University of Barcelona, Barcelona, Spain</i>
4:15 PM	<i>Lipoxins Attenuate Metabolic Disease (Abstract 3)</i>	Catherine Godson <i>University College Dublin, Dublin, Ireland</i>
5:00 PM	<i>Defining the pathways by which COX-2 protects the cardiovascular system: novel insights into next generation COX-2 inhibitors that spare the vasculature (Abstract 4)</i>	Jane A. Mitchell <i>Imperial College, London, UK</i>

Session ends at 5:45 PM

Opening reception: 6:00 – 8:30 PM

Sofitel Chain Bridge Hotel

Paris Budapest Restaurant/Bar & Outdoor Terrace

Cocktails & Hors d'oeuvres

Monday, July 13, 2015

PLENARY SESSION 1

Venue: Diszterem Lecture Hall (2nd floor)

Session Chair: Jozsef Timar

8:00 AM	<i>Membranes and lipids in the cellular heat stress management (Abstract 5)</i>	Laszlo Vigh <i>Hungarian Academy of Sciences, Budapest, Hungary</i>
8:50 AM	<i>Distinct roles of two leukotriene B4 receptors (Abstract 6)</i>	Takehiko Yokomizo <i>Juntendo University School of Medicine, Tokyo, Japan</i>

Session ends at 9:40 AM

Coffee break: 9:40 AM (20 min) (Krudu Room, Lower Ground floor)

<i>Time</i>	Session 1: Lipid Therapy: Molecular Basis Chairs: Michel Lagarde & Friedrich Spener (Diszterem Lecture Hall, 2 nd floor)	Session 2: Cytochrome P450/Epoxyde Hydrolases Chairs: Ingrid Fleming & Darryl Zeldin (Nagyterem Lecture Hall, 3 rd floor)
10:00 AM	Michel Lagarde: <i>Poxytrins as double lipoxygenase products of PUFA inhibiting COX activities (Abstract 7)</i>	Ingrid Fleming: <i>Fatty acid epoxides and diols in angiogenesis and vascular repair (Abstract 12)</i>
10:30 AM	Friedrich Spener: <i>Lipidomic insights to models for neutral lipid storage diseases (Abstract 8)</i>	Darryl Zeldin: <i>Soluble Epoxyde Hydrolase Regulates Macrophage Phagocytosis and Lung Clearance of S. pneumoniae (Abstract 13)</i>
11:00 AM	Pablo Esciba-Ruiz: <i>Membrane-lipid therapy: Lipids to treat pathologies (Abstract 9)</i>	Dean R. Madden: <i>Visualizing epoxyde hydrolysis by the CFTR inhibitory factor: the stereochemistry of substrate selectivity and active-site inhibition (Abstract 14)</i>
11:20 AM	Jin-ichi Inokouchi: <i>Control of Homeostatic and Pathogenic Balance in Adipose Tissue by Ganglioside GM3; Development of Membrane Microdomain Ortho-Signaling Therapy (Abstract 10)</i>	Ernst Oliv: <i>Eight subfamilies of fungal fatty acid dioxygenases of the animal haem peroxidase gene family (Abstract 15)</i>
11:40 AM	Nicolaj Petersen: <i>Hsp70-based therapies as clinical candidates for lysosomal storage diseases (Abstract 11)</i>	Christopher Thomas: <i>Characterisation of linoleoyl-ω-hydroxyceramides and their lipoxygenase products in the human epidermal barrier (Abstract 16)</i>

Sessions end at 12:00 Noon

Lunch Break: 12:00 to 1:30 PM

Working Lunch: Courtesy of Cayman Chemical Company

Informational talk on

'Transitioning from Immunoassay to Mass Spectrometry – A Comparative Analysis of Methods, Workflow and Data for a Panel of Primary Eicosanoids'

presented by Dr. Paul Kennedy

12:15 – 1:15 PM

Venue: Sofitel Hotel (Ballroom A & B, first floor)

Monday, July 13, 2015 program continues on next page

Monday, July 13, 2015 *continued...*

<i>Time</i>	Session 3: Lysophosphatidic acid Biology Chairs: Hiroshi Ueda & Yutaka Yatomi (Diszterem Lecture Hall, 2 nd floor)	Session 4: Endocannabinoids, Cancer, and Inflammation Chairs: Vincenzo Di Marzo & George Kunos (Nagyterem Lecture Hall, 3 rd floor)
1:30 PM	Hiroshi Ueda: <i>Pharmacotherapeutic innovation against LPA-mediated chronic pain</i> (Abstract 17)	Vincenzo Di Marzo: <i>The endocannabinoid system in cancer, inflammation and related diseases: prostate carcinoma and Duchenne's muscular dystrophy</i> (Abstract 22)
2:00 PM	Yutaka Yatomi: <i>Autotaxin and Lysophosphatidic Acid as Clinical Biomarkers</i> (Abstract 18)	George Kunos: <i>Hybrid inhibitor of peripheral cannabinoid-1 receptors and inducible nitric oxide synthase for the treatment of liver fibrosis</i> (Abstract 23)
2:30 PM	Anastassis Perrakis: <i>Steroids bind an allosteric site in Autotaxin and natural bile acids inhibit LPA production and modulate LPA-ATX signaling.</i> (Abstract 19)	Alessia Ligresti: <i>Targeting pain and inflammation by combining two therapeutic modalities in a single molecule: inhibition of FAAH and antagonism of multiple prostanoid receptor</i> (Abstract 24)
2:50 PM	Wouter Moolenaar: <i>LPA-induced formation of invadopodia in melanoma cells: dissection of G protein-mediated signaling pathways</i> (Abstract 20)	Khosrow Kashfi: <i>Molecular targets of NOSH-aspirin in cancer: modulation of FoxM1, p53, β-catenin, NF-κB, and caspase-3 through S-nitrosylation, S-sulfhydration, and reactive oxygen species</i> (Abstract 25)
3:10 PM	Gabor Tigyi: <i>Rationally-Designed Third Generation Ligands of the LPA2 GPCR Reveal New Functions of the ATX-LPA Receptor Axis</i> (Abstract 21)	David Slatter: <i>Mapping the human lipidome in platelets.</i> (Abstract 26)

Session ends at 3:30 PM

Poster Sessions I & II (Abstracts 82-151)

Monday, July 13, 2015

Poster Viewing: 9 AM – 6 PM

Venue: *Krudy Hall (Lower Ground Level)*

Poster Session I: *Posters 82-116*

Discussion Time: 3:30-4:30 PM

*Designates Santosh Nigam Memorial Outstanding Scientist Award Contestant

Abstract	Presenting Author	Abstract Title
82*	Juan Bestard-Escalas	<i>Tight regulation of arachidonic-containing phospholipid species along human colonic crypts according to cell differentiation state revealed by MALdDI-IMS</i>
83*	Emily Finch	<i>The role of dietary eicosapentaenoic acid in models of experimental leukemia</i>
84*	Bomme Gowda Siddabasave Gowda	<i>A novel approach towards efficient supply of natural sphingoid bases and their application as multi drug resistance inhibitors in cancer</i>
85*	Pradeep Shukla	<i>Colonic Radiation Sub-syndrome: Protection by LPA2 Receptor</i>
86*	Min Liu	<i>Crucial role of the 12-HHT receptor BLT2 in epidermal wound healing</i>
87*	Aritz Lopategui	<i>Resolvin D1 and Resolvin D2 inactivate the NLRP3 inflammasome in palmitate-treated and zymosan-elicited macrophages</i>

Abstract	Presenting Author	Abstract Title
88*	Tara Nordgren	<i>Docosahexaenoic acid and maresin-1 regulate the coordinated lung inflammatory response associated with organic dust exposures.</i>
89*	Bibiana Rius	<i>Maresin 1 modulates hypoxia-induced and lipotoxic ER stress in primary hepatocytes</i>
90*	Jana Gerstmeier	<i>Regulatory role of 5-Lipoxygenase-activating protein (FLAP) in 5-Lipoxygenase substrate acquisition, turnover and interaction</i>
91*	Priyanka Rai	<i>A link between Motor Proteins, Lipid dynamics and the COPI pathway in liver ?</i>
92	Keith Allen-Redpath	<i>Characterising the role of platelet 12-lipoxygenase in vascular function in mice</i>
93	Maximilian Blum	<i>Role of CYP-eicosanoids in ischemia-reperfusion induced acute kidney injury</i>
94	Peter Dancs	<i>Role of LPA and thromboxane receptors in the lysophosphatidic acid induced vasoconstriction</i>
95	Gohar Hakobyan	<i>Lipid Second Messengers Formation in Blood Mononuclear Cells in Acute Leukemia</i>
96	Samantha Hoopes	<i>Transgenic mice expressing CYP4F2 in endothelial cells exhibit altered retinal angiogenesis in vivo</i>
97	Agnieszka Kij	<i>Changes in selected eicosanoids profile and NO metabolites in NO-deficient mice; effects of MNA treatment and low NOx intake</i>
98	Rampradeep Samiappan	<i>Nanodiscs as a tool for structural studies of proteins regulating inflammation</i>
99	Karsten H Weylandt	<i>A lipidomic analysis approach in patients undergoing lipid apheresis</i>
100	Karsten H Weylandt	<i>Quantitative profiling of hydroxylated lipid metabolites in human colon tissue reveals distinct lipidomic profiles for human colon carcinoma and adenoma tissue</i>
101	Chantal Barksdale	<i>Stimulating the resolution of tumor debris to control brain cancer</i>
102	Stefanie König	<i>Dehydroarmillylorsellinate (DAO) from honey mushroom inhibits 5-lipoxygenase and suppresses eicosanoid biosynthesis in leukocytes</i>
103	Vishwanath Bhat Kumble	<i>Role of sphingosine 1-phosphate in the regulation of Merkel cell carcinoma biology</i>
104	Linda Ljungblad	<i>The ω-3 fatty acids DHA and EPA inhibit medulloblastoma tumor growth</i>
105	Gillian Moore	<i>12-Lipoxygenase activity correlates with VEGF levels in esophageal cancer and its inhibition by novel compounds in an endothelial cell model leads to a suppression of angiogenic pa</i>
106	Yuka Sasaki	<i>Microsomal prostaglandin E synthase-1 (mPGES-1) deficiency suppresses chemical carcinogen-induced carcinogenesis.</i>
107	Keisuke Toda	<i>Dioscorea japonica extract suppresses cyclooxygenase-2 and microsomal prostaglandin E synthase-1 in lung carcinoma A549 cells</i>

Abstract	Presenting Author	Abstract Title
108	Izumi Tsukayama	<i>Preventive effect of Dioscorea japonica on squamous cell carcinoma of the mouse skin involving down-regulation of prostaglandin E2 synthetic pathway</i>
109	Zivile Useckaite	<i>Glucose transporter receptors, Hexokinase 2 and Pyruvate Kinase are associated with visceral obesity in oesophageal adenocarcinoma and are potential therapeutic targets in obesity-</i>
110	Laura Arbona	<i>Behind the mechanism of action of the antitumor drug 2-hydroxyoleic acid</i>
111	Mary-Clare Cathcart	<i>A novel anti-angiogenic approach of EP receptor antagonism for the prevention/treatment of oesophageal adenocarcinoma</i>
112	Paula Fernandez	<i>A first-in-man phase I/II clinical trial in patients with advanced solid tumors including grade III/IV glioblastoma multiforme (GBM).</i>
113	Molly Gilligan	<i>Control of lung cancer with aspirin-triggered stimulation of resolution</i>
114	Roberto Beteta Göbel	<i>LP226 a novel antitumor drug against pancreatic cancer</i>
115	Jan-Jong Hung	<i>Positive Feedback Regulation between IL10 and EGFR Promotes Lung Cancer Formation</i>
116	Anna Kock	<i>Microsomal prostaglandin E synthase 1 – a novel therapeutic target of an inflammatory dependent high-risk neuroblastoma</i>

Poster Session II: Posters 117-151

Discussion Time: 4:30-5:30 PM

Abstract	Presenting Author	Abstract Title
117	Raquel Rodriguez Lorca	<i>Proof of concept for the efficacy of the synthetic triacylglycerol-mimetic Hydroxytriolein against Lung cancer.</i>
118	Natalia Realini	<i>Acid ceramidase in human melanoma: expression, localization and role in cell proliferation</i>
119	Sinem Tuncer	<i>15-Lipoxygenase-1 expression inhibits angiogenesis in colorectal cancer cell lines</i>
120	Maceler Aldrovandi	<i>HETE-PLs generated by human activated immune cells and platelets promote complement C3b binding in vitro.</i>
121	Layla Barkal	<i>Microscale metabolomics platforms for studying oxylipin signaling in multikingdom cell cultures</i>
122	Kim Beilstein	<i>Post-transcriptional control of 5-lipoxygenase gene expression</i>
123	Julia Esser-von Bieren	<i>Intestinal eosinophils produce high levels of 12/15 lipoxygenase metabolites to ensure parasite debris clearance during helminth infection</i>
124	Fabiola Bonezzi	<i>The systemically active NAAA inhibitor, ARN726, alleviates inflammation in an animal model of rheumatoid arthritis</i>
125	Marc Dubourdeau	<i>Evaluation of inflammatory lipids and specialized proresolving mediators in TNFα - and zymosan-induced peritonitis</i>

Abstract	Presenting Author	Abstract Title
126	Lubna Freihat	<i>The hidden catalytic function of IRAK3: a new flair from an anti-inflammatory mediator</i>
127	Christine Hinz	<i>Lipidomic identification of Dioxolane A3, a novel eicosanoid formed via cyclooxygenase 1 in platelets that activates neutrophils</i>
128	Naoki Kobayashi	<i>Fluorescence-based rapid measurement of sphingosine 1-phosphate transport activity in rat erythrocytes</i>
129	Marielle Köberlin	<i>A Conserved Circular Network of Coregulated Lipids Modulates Innate Immune Responses</i>
130	Verena Krauth	<i>Potent inhibition of 5-lipoxygenase in human polymorphnuclear leukocytes by new benzoquinone derivatives</i>
131	Stefanie Liening	<i>Establishment of a cell-based model to study LTC4-synthase inhibitors independent on exogenous LTA4 supply</i>
132	Thierry Durand	<i>Bioactive oxylipins derived from DHA: Neuroprostanes contribute to the anti-inflammatory action of DHA through the inhibition of NFκB and independently to PPARγ</i>
133	Silvia Pontis	<i>Role of N-acylethanolamine acid amidase (NAAA) in (neuro)inflammation</i>
134	Bernadette Reiter	<i>Novel determination method of eicosanoids in the interstitial fluid of psoriatic skin</i>
135	Xiao Tang	<i>Cathelicidin LL-37 internalization by human macrophages - a process involved in regulation of eicosanoid production</i>
136	Mari Araki	<i>Purification and characterization of a soluble diacylglycerol lipase from rat brain</i>
137	Silvio Panettieri	<i>Discovery of Novel Endocannabinoid-like Compounds in Drosophila melanogaster: Chemical Characterization and Biological Roles</i>
138	Oscar Sasso	<i>Anti-inflammatory and cytoprotective effects of dual FAAH-Cox inhibition</i>
139	Olaf Diehl	<i>Compound Z – a Dual Modulator of Soluble Epoxide Hydrolase and Peroxisome Proliferator-Activated Receptor γ</i>
140	Sho Aki	<i>Phosphatidylinositol 3-kinase class II α isoform PI3K-C2α is required for transforming growth factor β-induced receptor endocytosis and endosomal signaling in endothelial cells</i>
141	Kenji Monde	<i>Stereochemical Analysis of Glycerophospholipids by Vibrational Circular Dichroism</i>
142	Cian O Malley	<i>Dual targeting of mTORC1/2 blocks obesity induced oesophageal tumour growth and resensitises to cisplatin</i>
143	Viktoria Beumler	<i>Modulation of acute DSS induced colitis by Inhibition of soluble epoxide hydrolase</i>
144	Orsolya Tunde Drozdovszky	<i>Assessment of sputum prostaglandins and leukotrienes in COPD exacerbations</i>
145	Annika Ostermann	<i>LC-MS based Targeted Metabolomics of the Arachidonic Acid Cascade</i>

Abstract	Presenting Author	Abstract Title
146	Annika Ostermann	<i>Evaluating the Performance of Hydrolysis Methods for the Quantitation of Esterified Oxylipins</i>
147	David Peake	<i>Rapid Phospholipid Characterization Using a Novel Intelligent Workflow on a Tribrid Orbitrap Mass Spectrometer</i>
148	Nils Schebb	<i>Can derivatization improve (RP)LC-MS analysis of oxylipins?</i>
149	Katharina Rund	<i>Characterization of the Oxylipin Pattern in 12/15-Lipoxygenase Knock Out (ALOX15 -/-) Mice</i>
150	Jan Philipp Schuchardt	<i>Short and long term effect of DHA supplementation on fatty acid and oxylipin profiles in blood in healthy young men</i>
151	Yiu Yiu Lee	<i>Evaluation of intravenous delivery of oxygenated DHA, 4(RS)-4-F4t-neuroprostane, in rodent</i>

Meet the Exhibitors Reception
Krudy Hall
(Lower Ground Level)
3:30 – 5:30 PM

Tuesday, July 14, 2015

PLENARY SESSION 2

Venue: Diszterem Lecture Hall (2nd floor)

Session Chair: Lawrence J. Marnett

8:00 AM	Outstanding Achievement Awardee <i>Sphingosine 1-phosphate signaling in vascular and immune systems (Abstract 27)</i>	Timothy Hla <i>Cornell University, New York, NY</i>
8:50 AM	<i>Lipid storage disorders and their links to more common diseases (Abstract 28)</i>	Frances Platt <i>University of Oxford, Oxford, UK</i>

Session ends at 9:40 AM

Coffee break: 9:40 AM (20 min) (Krudy Room, Lower Ground floor)

<i>Time</i>	Session 5: Lipidomics/Lipid Oxidation Chairs: Edward A. Dennis & Valerie O'Donnell (Diszterem Lecture Hall, 2 nd floor)	Session 6: Lysophosphatidic acids/Lipoxygenases Chairs: Zoltan Benyo & Junken Aoki (Nagyterem Lecture Hall, 3 rd floor)
10:00 AM	Edward A Dennis: <i>Lipidomics of Eicosanoids Highlights Infection and Inflammation Progression (Abstract 29)</i>	Zoltan Benyo: <i>Thromboxane receptor signaling in the cardiovascular system (Abstract 34)</i>
10:30 AM	Valerie O'Donnell: <i>Mass spectrometry identification and biological characterization of many new families of oxidized bioactive lipids in innate immunity and coagulation (Abstract 30)</i>	Junken Aoki: <i>LPA3-mediated regulation of uterine growth (Abstract 35)</i>
11:00 AM	Thierry Durand: <i>Remarkable F4-neuroprostane, a non-enzymatic metabolite of DHA is a novelty to our heart (Abstract 31)</i>	Evelyn Orso: <i>Altered plasma levels of lysophospholipids and sphingolipids in metabolic syndrome: implications for molecular basis of novel drug discovery (Abstract 36)</i>
11:20 AM	Florian Gruber: <i>Lipid oxidation patterns and kinetics in keratinocytes undergoing senescence-promoting stress or replicative senescence (Abstract 32)</i>	Dieter Steinhilber: <i>5-Lipoxygenase is a direct p53 and MLL target gene and is involved in leukemia development (Abstract 37)</i>
11:40 AM	Claus Schneider: <i>A novel pathway of eicosanoid metabolism? (Abstract 33)</i>	Beatrix Suess: <i>Regulation of the 5-Lipoxygenase by microRNAs (Abstract 38)</i>

Session ends at 12:00 Noon

Lunch Break: 12:00 to 1:30 PM

Working Lunch: Courtesy of Thermo Fisher

Informational talk on

'High Resolution Profiling of the Human Serum Lipidome Using Orbitrap LC MS/MS and LipidSearch Software'
presented by Dr. David Peake

12:15 – 1:15 PM

Venue: Sofitel Hotel (Ballroom A & B, first floor)

Tuesday, July 14, 2015 program continues on next page

Tuesday, July 14, 2015 *continued...*

<i>Time</i>	Session 7: Sphingolipid Biology/Lipid Autoxidation Chairs: Lina Obeid & Gerd Schmitz (Diszterem Lecture Hall, 2nd floor)	Session 8: Young Investigator Award Nominees Chairs: Krishna Rao Maddipati & Gabor J. Tigyi (Nagyterem Lecture Hall, 3rd floor)
1:30 PM	Lina M. Obeid: <i>Regulation of Sphingosine Kinases in cancer</i> (Abstract 39)	1:30 PM: Rachel Kast: <i>Raman Spectrometric Fingerprinting of Adipose Tissue to Identify Risk for Diabetes</i> (Abstract 44)
2:00 PM	Gerd Schmitz: <i>Dysregulation of lysophospholipid and sphingolipid signaling in inflammation and vascular and metabolic disease</i> (Abstract 40)	1:50 PM: Chengcan Yao: <i>Regulation of Immune Inflammation by Prostaglandin E2</i> (Abstract 45)
2:30 PM	Kenji Monde: <i>Highly efficient extraction of natural sphingoids by novel chemoselective resin - towards construction of their chemical library</i> (Abstract 41)	2:10 PM: Dipak Panigrahy: <i>Control of Cancer by the Stimulation of Resolution</i> (Abstract 46)
2:50 PM	Masayuki Sugimoto: <i>Molecular imaging of tissue distribution of sphingomyelin species produced by particular ceramide synthase and sphingomyelin synthase</i> (Abstract 42)	2:30 PM: Anna Bukiya: <i>Direct regulation of vascular smooth muscle BK channel activity by leukotrienes</i> (Abstract 47)
3:10 PM	Jun Miyata: <i>Dysregulated lipid metabolism controlled by 15-lipoxygenase and cyclooxygenase in eosinophils from patients with severe asthma</i> (Abstract 43)	2:50 PM: Andrea Szuchman-Sapir: <i>5,6 δ-DHTL, a stable metabolite of arachidonic acid, is a new EDHF, that mediates microvascular dilation</i> (Abstract 48)
		3:10 PM: Valeria Vasquez: <i>Using Caenorhabditis elegans to study the effect of bioactive lipids on sensory ion channels</i> (Abstract 49)

Sessions end at 3:30 PM

Poster Sessions III & IV (Abstracts 152-222)

Tuesday, July 14, 2015

Poster Viewing: 9 AM – 6 PM

Venue: *Krudy Hall (Lower Ground Level)*

Poster Session III: *Posters 152-186*

Discussion Time: 3:30-4:30 PM

Abstract	Presenting Author	Title
152	Peter Dancs	<i>Mechanism of sphingosine-1-phosphate induced vascular smooth muscle contraction under hyperkalemic conditions</i>
153	Gillian Moore	<i>Inhibition of 12-Lipoxygenase activity in an esophageal cancer cell line decreases proliferation and angiogenic gene expression while its metabolite 12(S)HETE is mitogenic in vitro</i>
154	Karsten H Weylandt	<i>12/15-LOX deficient mice are protected from experimental acute colitis</i>
155	Corina-Daniela Ene	<i>Renoprotective effects of nicotine in rats with experimentally induced diabetes</i>
156	Hulda Soffia Jonasdottir	<i>The presence of lipid mediators in human synovial fluid of arthritis patients</i>

Abstract	Presenting Author	Title
157	Peter Dieter	<i>Prostaglandin E2 impairs osteogenic and facilitates adipogenic differentiation of human bone marrow stromal cells</i>
158	Christoph Lehmann	<i>Molecular mechanisms underlying lipoxin and resolvin biosynthesis</i>
159	Kristen Lehner	<i>Controlling breast cancer through the resolution of tumor debris</i>
160	Toshiko Suzuki-Yamamoto	<i>Purification and characterization of bovine lipocalin-type prostaglandin D synthase from cow's milk</i>
161	Karina Zoccal	<i>Tityus serrulatus venom induced inflammasome activation and eicosanoids production dependent on caspase1/11</i>
162	Andrea Balogh	<i>The autotaxin-lysophosphatidic acid receptor 2 axis is modulated in response to radiation and facilitates DNA damage repair</i>
163	Konstantin Löser	<i>Inhibition of Akt by Polyunsaturated Phosphatidylcholine - a Novel Approach for potentiating Liposomal Anti-Cancer Therapy</i>
164	Gabriella Marosi	<i>Mechanisms of action of sphingomyelinase induced enhanced vasorelaxation in db/db mice.</i>
165	Xabier Osteikoetxea	<i>Improved characterization of extracellular vesicle preparations based on protein/lipid ratio and lipid properties</i>
166	Linda Sooman	<i>Discovery of a novel linoleate dioxygenase of Fusarium oxysporum and linoleate diol synthase of Colletotrichum graminicola</i>
167	Masayuki Sugimoto	<i>Sphingomyelin synthase 2 deficiency enhances glucose clearance and tissue uptake in mice</i>
168	Ju-Ming Wang	<i>CEBPD activates PTX3 in tumor microenvironment and promotes tumorigenesis</i>
169	James Anthony Wepy	<i>Characterization of Lysophospholipase A2 – the Major Prostaglandin Glyceryl Ester Hydrolase in Human Cancer Cells</i>
170	Giuseppe Astarita	<i>A Lipid-mediated Proinflammatory Response to Ionizing Radiation</i>
171	Alyne Galvão	<i>Method validation for analysis of eicosanoids in human plasma by LC-MS/MS</i>
172	Kazutaka Ikeda	<i>Diet-induced weight loss with or without exercise in obese men influence serum lipids both in quality and quantity</i>
173	Anne Konkel	<i>Dietary omega-3 fatty acids modulate the lipid mediator profile in man</i>
174	Lori Minh Ly Nguyen	<i>Associations between plasma fatty acid composition, estimated desaturase indices, and measures of insulin resistance in 4th and 5th grade children</i>
175	Annika Ostermann	<i>Specific Analysis of the Fatty Acid Pattern in Neutral Lipids, Phospholipids and Free Fatty Acids in Food Supplements and Plasma Samples</i>
176	David Peake	<i>Processing of a Complex Lipid Dataset for the NIST Inter-laboratory Comparison Exercise for Lipidomics Measurements in Human Serum and Plasma</i>
177	Helmut Pein	<i>Influence of programmed cell death on the cellular lipid composition</i>

Abstract	Presenting Author	Title
178	Carlos Arterio Sorgi	<i>Bone marrow-derived macrophage polarization: metabolic pathways for eicosanoid biosynthesis and lysophospholipid acyltransferases activity.</i>
179	Anneli Wennman	<i>Crystallization and biochemical characterization of manganese lipoxygenase from the rice blast fungus, <i>Magnaporthe oryzae</i></i>
180	Swathi Banthiya	<i>Structural and functional characterization of the secreted lipoxygenase from <i>Pseudomonas aeruginosa</i></i>
181	Ricardo Capelo	<i>Histamine H4 receptor expression in myeloid cells - Consequences for eicosanoid biosynthesis?</i>
182	Jasmin Fettel	<i>Mechanistic studies on 5-lipoxygenase inhibition by sulindac sulfide</i>
183	Ulrike Garscha	<i>Time-resolved assembly of the leukotriene synthetic 5-lipoxygenase (5-LOX) / 5-LOX-activating protein (FLAP) complex in primary leukocytes</i>
184	Ann-Kathrin Häfner	<i>Characterization of the interaction of human 5-lipoxygenase with its activating protein FLAP</i>
185	Dagmar Heydeck	<i>Leukotriene signaling in extinct human species.</i>
186	Bettina Hofmann	<i>Optimization and characterization of 5-aryl-2-phenylthiazoles as promising 5-lipoxygenase inhibitors</i>

Poster Session IV: Posters 187-225

Discussion Time: 4:30-5:30 PM

Abstract	Presenting Author	Title
187	Igor Ivanov	<i>On structural flexibility of rabbit ALOX15: interdomain motion, oligomerisation and catalytic activity.</i>
188	Tamas Kriska	<i>Role of the macrophage 12/15-lipoxygenase pathway in mediating experimental hypertension in mice</i>
189	Erin Schexnaydre	<i>A 5-lipoxygenase stabilizing mutation impacts leukotriene biosynthesis in stably transfected HEK 293 cells.</i>
190	Kuniyuki Kano	<i>LPA3 signal protects the heart against ischemia-reperfusion injury through vagus nerve activation</i>
191	Ryoko Tsukahara	<i>Molecular mechanisms of lysophosphatidic acid (LPA)-mediated demyelination underlying neuropathic pain</i>
192	Juan Antonio Gimenez Bastida	<i>Quantitative analysis of hemiketal eicosanoid formation in human leukocytes.</i>
193	Rafael Burgos	<i>Delphinidin reduces the intestinal glucose transport through a mechanism dependent of the free fatty acid receptor 1 (FFAR1/GPR40) and intracellular calcium release</i>
194	Xavier Busquets	<i>Therapeutic effects of hydroxy-DHA (DHA-H) in a human transgenic mouse model (5xFAD) of Alzheimer's disease.</i>
195	Tibor Hajdú	<i>Expression of N-methyl-D-aspartate type glutamate receptor subunits in cancer cells</i>

Abstract	Presenting Author	Title
196	Taiga Kato	<i>12/15-lipoxygenase defines a unique macrophage subset with potential pro-resolution function</i>
197	Suguru Komenoi	<i>Diacylglycerol kinase η is a high affinity isozyme for diacylglycerol</i>
198	Graham P Pidgeon	<i>Dual targeting of mTORc1/2 blocks obesity induced oesophageal tumour growth and resensitises to cisplatin</i>
199	Jessica Roos	<i>5-lipoxygenase: a novel target for stem cell therapy in acute myeloid leukemia</i>
200	Katharina Rund	<i>45 Day Feeding of Mice with a n3-Polyunsaturated Fatty Acid Diet: Effects on the Oxylipin and Fatty Acid Pattern</i>
201	Nils Schebb	<i>Food polyphenols fail to cause a biologically relevant reduction of COX-2 activity</i>
202	Stefanie Schlager	<i>Adipose triglyceride lipase acts on neutrophil lipid droplets to regulate substrate availability for lipid mediator synthesis</i>
203	Jan Philipp Schuchardt	<i>Levels of free blood oxylipins in obese subjects before and after weight reduction</i>
204	Erzsebet Szabo	<i>Mitigation of the gastrointestinal and hematopoietic acute radiation syndromes by a novel LPA2 receptor-specific non-lipid agonist</i>
205	Takako Usuki	<i>Expression and localization of diacylglycerol kinase δ in the developing mouse brain and phenotype of its brain-specific knockout mice</i>
206	Andrew J Gross	<i>A forgotten link? Arachidonic acid, homocysteine and the loading of iron into ferritin in neurodegenerative diseases.</i>
207	Oakkee Hong	<i>Differentially expressed gene related to skeletal muscle of OLETF rat induced by long-term insulin (glargine) treatment</i>
208	Yiu Yiu Lee	<i>Non-Enzymatic Products Of Adrenic Acid As Symptomatic Biomarker For Brain</i>
209	Willem-Jan Keune	<i>Steroids bind an allosteric site in Autotaxin and natural bile acids inhibit LPA production and modulate LPA-ATX signalling</i>
210	Remi Murase	<i>Group X sPLA2 mobilizes ω3 polyunsaturated fatty acid metabolites to protect from colitis</i>
211	Yoshitaka Taketomi	<i>Skin abnormalities in group III secreted phospholipase A2-deficient mice</i>
212	Ryo Iwasaki	<i>Prostanoid receptor signaling is involved in vasculogenesis during early development of zebrafish</i>
213	Chiung-Yuan Ko	<i>The CCAAT/enhancer binding protein delta/miR135a/thrombospondin 1 axis mediates PGE2-induced angiogenesis in Alzheimer's disease</i>
214	Gulsev Ozen	<i>Perivascular adipose tissues-dependent vasorelaxation is abolished in human atherosclerotic coronary vessels: role of EP3 receptor</i>
215	Gokce Topal	<i>In vitro relaxations of pulmonary arteries induced by prostacyclin analogues are highly dependent of the pre-contractile agents</i>

Abstract	Presenting Author	Title
216	Adam Uzieblo	<i>Stimulation of Osteoblast Differentiation and Increased Rate of Bone Defect Repair by Novel Potent Lactam Acetylene EP4 Receptor Agonists</i>
217	Thierry Durand	<i>Differential mobility of leukotriene and protectin isomers</i>
218	Zoltán Pataj	<i>Quantification of oxysterols by liquid chromatography high-resolution tandem mass spectrometry</i>
219	Mohamed Amessou	<i>EHD3: a protein that interacts with phospholipids and regulates vesicular transport, is silenced and exhibits features of a tumor suppressor in glioblastoma</i>
220	Miho Asahara	<i>The absence of the leukotriene B₄ receptor BLT1 attenuates peripheral inflammation and spinal nociceptive processing following intraplantar formalin injury</i>
221	Monica de Gaetano	<i>Anti-inflammatory activity of novel heteroaromatic-containing lipoxin analogues</i>
222	Allison Gartung	<i>Lipidomic Characterization of Adipose Lipolysis-Produced Eicosanoids: Implication of Cyclooxygenase-2 in Adipose Inflammation</i>
223	Michel Lagarde	<i>LC-MS/MS profile of lipid mediators in rat brain homogenates</i>
224	Thierry Durand	<i>Total Synthesis of Phytofurans</i>
225	Thierry Durand	<i>Synthesis and evaluations of lipo-phenolic derivatives</i>

Meet the Exhibitors Reception
Krudy Hall
(Lower Ground Level)
3:30 – 5:30 PM

Tuesday, July 14, 2015 program continues on next page

GALA DINNER

Venue: Europa Boat Dinner Cruise

(Depart Sofitel Hotel at 6:45 PM)

Cocktails and Hungarian Folk Music Concert:

7:00 – 7:30 PM

Dinner:

7:30 – 10:00 PM

Presentation of ERF Outstanding Achievement Award

to:

Timothy Hla, Ph.D.

(Sponsored by Avanti Polar Lipids)

Presentation of

ERF Travel Awards

(Sponsored by NIEHS/NIH)

Presentation of

ERF Young Investigator Awards

(Sponsored by ENZO Life Sciences)

Presentation of

Santosh Nigam Memorial Outstanding Young Scientist Award

(Sponsored by Santosh Nigam Memorial Fund)

Wednesday, July 15, 2015

PLENARY SESSION 3

Venue: Diszterem Lecture Hall (2nd floor)

Session Chair: Darryl C. Zeldin

8:00 AM	<i>Visualizing SIP receptor signaling in live animals</i> (Abstract 50)	Richard L. Proia NIDDK/NIH, Bethesda, MD
8:50 AM	<i>Role of SIP2 in inflammation and fibrosis</i> (Abstract 51)	Yoh Takuwa Kanazawa University Graduate School of Medical Sciences, Ishikawa, Japan

Session ends at 9:40 PM

Coffee break: 9:40 AM (20 min) (Krudy Room, Lower Ground floor)

<i>Time</i>	Session 9: Cyclooxygenases Chairs: Lawrence J. Marnett & John A. Oates (Diszterem Lecture Hall, 2 nd floor)	Session 10: Epoxide hydrolases/Lipoxygenases Chairs: Nancy Brown & William Campbell (Nagyterem Lecture Hall, 3 rd floor)
10:00 AM	Lawrence J. Marnett: <i>Optical and PET Imaging Agents for the In Vivo Detection of COX-2 and COX-1</i> (Abstract 52)	Nancy Brown: <i>Arg287Gln variant of EPHX2 and epoxyeicosatrienoic acids are associated with insulin sensitivity in humans</i> (Abstract 57)
10:30 AM	John A. Oates: <i>Low dose aspirin, which prevents adenocarcinoma mortality, inhibits both platelet COX-1 and the biosynthesis of PGE2.</i> (Abstract 53)	William Campbell: <i>Inducible endothelium-derived hyperpolarizing factor: adapting vasodilation to physiological changes</i> (Abstract 58)
11:00 AM	Sreeparna Banerjee: <i>p38α/β activity modulates the post-transcriptional regulation of cyclooxygenase-2 in Caco-2 and HT-29 cells treated with sodium butyrate</i> (Abstract 54)	Peiyang Yang: <i>Dietary sugar induces tumorigenesis in mammary gland partially through 12 lipoxygenase pathway</i> (Abstract 59)
11:20 AM	Alan R Brash: <i>Occurrence and catalytic activities of prokaryotic cyclooxygenase-related enzymes</i> (Abstract 55)	Shlomo Sasson: <i>4-Hydroxnonenal, a product of peroxidation of polyunsaturated fatty acids, amplifies insulin secretion from pancreatic β-cells by activating PPARδ</i> (Abstract 60)
11:40 AM	Xavier Norel: <i>In contrast to COX-2 inhibitors, mPGES-1 inhibitors reduce human vascular tone under inflammatory conditions</i> (Abstract 56)	Johan Van de Voorde: <i>Regulation of vascular tone by adipocytes</i> (Abstract 61)

Sessions end at 12 Noon

Lunch Break: 12:00 to 1:30 PM

Working Lunch: Courtesy of SCIEX

Informational talk on

'The Convergence of Differential Mobility Spectrometry and Mass Spectrometry: Next Generation Global and Targeted Lipid Analysis'

presented by Dr. Paul R. Baker

12:15 – 1:15 PM

Venue: Sofitel Hotel (Ballroom A & B, first floor)

Wednesday, July 15, 2015 program continues on the next page

Wednesday, July 15, 2015 *continued...*

<i>Time</i>	Session 11: Phospholipases & Glycerophospholipid Biology Chairs: Miriam L. Greenberg & Makoto Murakami (Diszterem Lecture Hall, 2 nd floor)	Session 12: Lipid Mediators: Inflammation and Resolution I Chairs: Richard Phipps & Anna Nicolaou (Nagyterem Lecture Hall, 3 rd floor)
1:30 PM	Miriam L. Greenberg: <i>Elucidating the function of cardiolipin remodeling</i> (Abstract 62)	Anna Nicolaou: <i>Bioactive lipid mediators in skin inflammation</i> (Abstract 67)
2:00 PM	Makoto Murakami: <i>sPLA2 in health and disease</i> (Abstract 63)	Richard Phipps: <i>Resolvin D1 blunts tobacco smoke-induced lung inflammation and increases alternatively activated macrophages (M2) with anti-inflammatory and pro-resolving properties</i> (Abstract 68)
2:30 PM	Sarah Nicol Lauder: <i>Immune cell derived phospholipid-esterified eicosanoids in Antiphospholipid Syndrome; A novel antigenic target for autoantibodies.</i> (Abstract 64)	Martin Hersberger: <i>Resolvin D1 polarizes primary human macrophages towards a pro-resolution phenotype through GPR32</i> (Abstract 69)
2:50 PM	Andreas Koeberle: <i>Phosphatidylcholine-bound arachidonic acid as regulator of protein kinase B: impact on cell cycle control, apoptosis and astrocyte signaling</i> (Abstract 65)	K. Sandeep Prabhu: <i>Endogenous cyclopentenone prostaglandins derived from dietary n-3 PUFA and n-6 PUFA selectively target cancer stem cells in rodent models of leukemia</i> (Abstract 70)
3:10 PM	Kei Yamamoto: <i>Plasmalogen-lysophosphatidylethanolamine driven by group IIF sPLA2 underlies epidermal-hyperplastic disorders</i> (Abstract 66)	Esther Titos: <i>p38 Mitogen-activated protein kinase signals the immunoresolving actions of resolvin D1 in inflamed human visceral adipose tissue</i> (Abstract 71)

Sessions end at 3:30 PM

Coffee break: 3:30 PM (30 min) (Krudy Room, Lower Ground floor)

<i>Time</i>	Session 13: Lipoxygenases: Cancer/Inflammation Chairs: Kenneth V. Honn & Gadiparthi N. Rao (Diszterem Lecture Hall, 2 nd floor)	Session 14: Lipid Mediators: Inflammation and Resolution II Chairs: Nan Chiang & Janos Filep (Nagyterem Lecture Hall, 3 rd floor)
4:00 PM	Kenneth V. Honn: <i>Convergence of eicosanoid and integrin biology</i> (Abstract 72)	Nan Chiang: <i>Pro-resolving mediators and receptors in inflammation and infection</i> (Abstract 77)
4:30 PM	Gadiparthi N. Rao: <i>Role of 12/15-Lipoxygenase in Vascular Inflammation</i> (Abstract 73)	Janos Filep: <i>Neutrophil apoptosis and resolution of inflammation: Distinct actions of lipoxins and resolvins</i> (Abstract 78)
5:00 PM	Hartmut Kuhn: <i>Evolutionary change in ALOX15 specificity is aimed at optimizing inflammatory resolution</i> (Abstract 74)	Makoto Arita: <i>Lipidomic approach to uncover anti-inflammatory properties of omega-3 polyunsaturated fatty acids</i> (Abstract 79)
5:20 PM	Jozsef Timar: <i>Differential antitumoral effects of prenylation inhibitor aminobisphosphonate in RAS mutant and wild type lung carcinoma and melanoma cells</i> (Abstract 75)	Misako Shigematsu: <i>BLT2 protects against mouse acute lung injury caused by a pneumococcal toxin pneumolysin</i> (Abstract 80)
5:40 PM	Yukihiko Sugimoto: <i>Roles of prostaglandin E2 in acute inflammation of skin.</i> (Abstract 76)	Krishna Rao Maddipati: <i>Fatty acyl lipidomic profile of human amniotic fluid at term</i> (Abstract 81)

Sessions end at 6:00 PM

Conference Adjourns at 6:00 PM Wednesday, July 15, 2015