

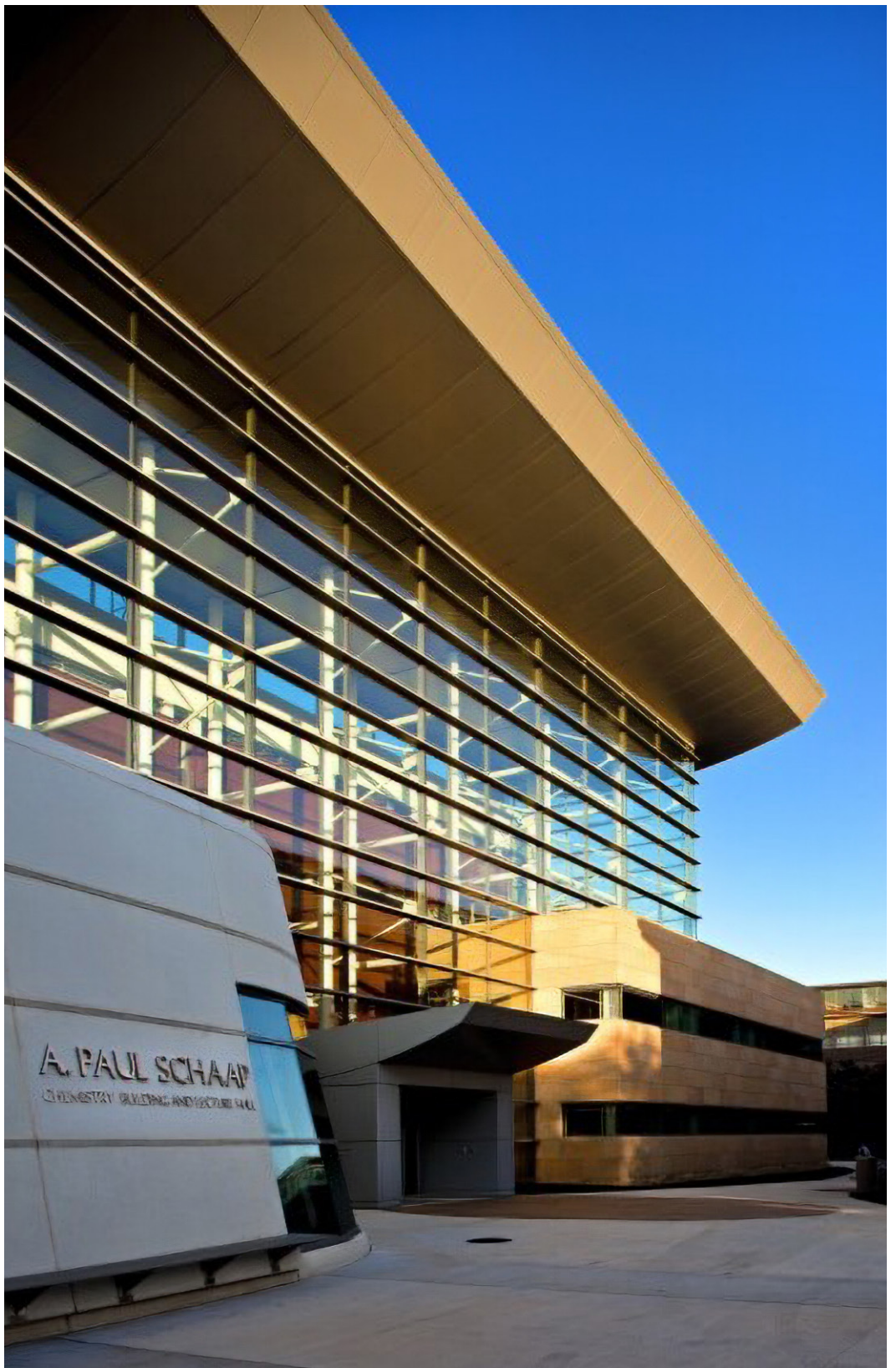


Lipids@Wayne Symposium



*Special forum in tribute to
Kenneth V. Honn, Ph.D.*

Wednesday, November 8, 2023
A. Paul Schaap Chemistry Building and Lecture Hall
Detroit, MI



A. PAUL SCHAAR
CHEMISTRY BUILDING AND SCIENCE HALL

Special Forum

Lipids@Wayne Symposium

Tribute organizing committee

Miriam L. Greenberg, Ph.D.

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Wayne State University

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Department of Physics and Astronomy
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Special acknowledgment

Caryn M. Volpe

Eicosanoid Research Foundation

Wayne State University School of Medicine
Alumni Association

Kenneth V. Honn, Ph.D.

Distinguished Professor



This symposium is dedicated to the late Kenneth V. Honn, Ph.D., in memory of his outstanding contributions to the Bioactive Lipid and Lipid Mediators fields for more than four decades.

A native of Detroit, Dr. Honn was a proud alumnus of De La Salle high school. He graduated with a degree in Biological Sciences and received his doctoral degree in Endocrinology at Wayne State University (WSU). Following graduate training, he was hired as an assistant professor of Radiology, promoted to associate professor in 1981, full professor of Radiation Oncology in 1988, and awarded the title of Distinguished Professor of Pathology in 2004. Dr. Honn directed the WSU Bioactive Lipids Research Program and was a member of the Cancer Biology Graduate Program and the Barbara Ann Karmanos Cancer Institute.

Dr. Honn published more than 360 manuscripts. His pioneering research efforts led directly to 6 clinical trials. He held 17 U.S. patents, 7 of which describe the generation of novel chemotherapeutic/radiation sensitizing compounds. He received more than 50 grants totaling more than \$25 million.

Dr. Honn's groundbreaking work focused on the interaction of bioactive lipids with integrin receptors, and their role in various aspects of tumor progression, cell growth, apoptosis, angiogenesis and tumor cell matrix interactions. He discovered that prostacyclin plays an important role in tumor metastasis. This discovery opened the opportunity to investigate the role of bioactive lipids in cancer biology and oncology practice. He is internationally known for his work in prostate cancer. He was a firm believer in good health through omega-3 PUFA-derived lipid mediators. His relentless pursuit on the role of lipid mediators in cancer led to the seminal discovery of the elusive receptor for 12-HETE, which plays an important role in tumorigenesis and vascular medicine. In the last decade, he collaborated with Dr. Rao Maddipati and scientists at the Perinatology Research Branch of the National Institute of Health, studying the role of the lipidome in human parturition and their role in preterm and term labor.

His work led to numerous awards and honors, including a citation from the Board of Governors as the most-cited scholar at WSU, School of Medicine Alumni awards, WSU Outstanding Researcher Award, and the Chancellors Award at Louisiana State University. Just weeks ago, the John McGiff Memorial Lecture Award was bestowed to him at the Winter Eicosanoid Conference in Baltimore.

Dr. Honn reviewed grants for the NIH's National Cancer Institute and National Institute of Environmental Health Sciences, and the Department of Defense. He provided consultation to pharmaceutical companies and served on the editorial boards

of 11 scientific journals. He was co-editor-in-chief of Springer Nature's Cancer and Metastasis Reviews, alongside his friend and colleague, Dr. Avraham Raz. Under their leadership, the journal rose to the rank of 32 of 240 oncology journals, with a five-year impact factor that exceeded 10.

Dr. Honn was a founding member and president of the Eicosanoid Research Foundation and chair of the International Conference on Bioactive Lipids in Cancer, Inflammation and Related Diseases. A meeting he co-organized in 1981 in Georgetown on Prostaglandins and Cancer served as a precursor to the international conference series. A few years later, Dr. Honn's department chair, Dr. William Powers, pointed out that prostaglandins were important in both cancer and inflammation, but investigators in those two fields never got together. Noting the association between inflammation and cancer, Dr. Powers felt so strongly about the synergy that might occur if scientists from the two fields met that he was willing to fund such a meeting. This prompted Dr. Honn, in partnership with Drs. Larry Marnett and Santosh Nigam, to organize a meeting titled Eicosanoids and Bioactive Lipids in Cancer and Radiation Injury held in Detroit in 1989.

The success of the Detroit meeting prompted Drs. Honn, Marnett and Nigam to organize a second meeting in Berlin in 1991. The Berlin Wall had recently fallen, and East and West Berlin were reunited. This made Berlin an incredible venue for the meeting, which boasted the largest attendance (more than 400 scientists) in the series' history. The Berlin conference generated great enthusiasm and led to a series of international meetings that occurred in venues including Washington, D.C., Hong Kong, La Jolla, Boston, Nashville, Chicago, San Francisco, Montreal, Cancun, Seattle, Puerto Rico, Budapest, Puerto Vallarta, St. Petersburg and New Orleans. Drs. Ed Dennis, Charlie Serhan and Gabor Tigyi served as local organizers for individual meetings and became permanent members of the organizing committee. They were eventually joined by Drs. Takehiko Yokomizo and Makoto Arita. The 2022 meeting in New Orleans welcomed the second-largest attendance after Berlin, with more than 330 attendees. Sadly, that was the last meeting Dr. Honn presided over.

What began as a single meeting to bring together investigators in cancer and inflammation developed into a 33-year series of premier international conferences that has had a huge impact on the field of bioactive lipids in many disease settings. Dr. Honn was the originator and driving force behind this series. His loss will be greatly felt in the biomedical research community.

Dr. Honn later served as an organizer of the Winter Eicosanoid Conference with Drs. Darryl Zeldin (NIH/NIEHS), Dipak Panigrahy (Harvard) and others. He was a mentor to many young investigators including Dr. Megan Falsetta (URMC), a recent recipient of the ERF Young Investigator Award and Dr. David Menter (MD Anderson), a student of Dr. John Taylor and TT Chen in Biological Sciences in the late 1970s at WSU. Dr. Honn, together with Dr. Miriam Greenberg, professor of Biological Sciences, initiated and fostered the Lipids@Wayne community, which has been ongoing since 2014.

The collaborations Dr. Honn developed and fostered throughout his career ensure his legacy will carry forward. ●

Symposium format

Wednesday, Nov. 8, 2023

**Morning
Moderator:**

Krishna Rao Maddipati, Ph.D.

Professor, Department of Pathology
Director of Lipidomics Core Facility
Wayne State University

8:30 a.m.

Coffee and poster set-up

9:15 a.m.

Introductions and welcoming remarks

Christopher Kelly, Ph.D.

Associate Professor and Director of
The Richard Barber Interdisciplinary Research Program
Department of Physics and Astronomy
Wayne State University

Timothy L. Stemmler, Ph.D.

Interim Vice President for Research
Professor, Pharmaceutical Sciences
Wayne State University

Wael Sakr, M.D.

Dean, School of Medicine
Professor, Pathology
Wayne State University

9:30 - 10 a.m.

The structural biology of cyclooxygenase-2 inhibition and imaging

Lawrence J. Marnett, Ph.D.

University Distinguished Professor
Vanderbilt University School of Medicine
Nashville, TN

10 - 10:30 a.m.

*Attenuation of the COVID-19 eicosanoid storm by
soluble epoxide hydrolase inhibitors*

Darryl C. Zeldin, M.D.

Scientific Director NIEHS/NIH
Research Triangle Park, NC

10:30 - 11 a.m.

*Novel lipidomics platform to determine phospholipase A2 specificity
and PUFA-Derived mediators in macrophages*

Edward A. Dennis, Ph.D.

Distinguished Professor of Chemistry & Biochemistry
University of California at San Diego
San Diego CA

11 - 11:30 a.m.

*Cardiolipin at the epicenter of energy metabolism -
implications for Barth syndrome*

Miriam L. Greenberg, Ph.D.

Professor of Biological Sciences
Wayne State University
Detroit, MI

**11:30 a.m. -
Noon**

LPA in cancer: The stem cell, the microenvironment, and tumor immunity

Gabor J. Tigyi, M.D., Ph.D.

Harriet Van Vleet Professor of Physiology & Chemistry
University of Tennessee Health Science Center

**Afternoon
Moderator:**

Lawrence J. Marnett, Ph.D.

University Distinguished Professor
Vanderbilt University School of Medicine
Nashville, TN

Noon - 2 p.m.

Lunch and poster viewing

2 - 2:30 p.m.

*Pro-resolving mediators in the resolution of inflammation
are leukocyte traffic controllers*

Charles N. Serhan, Ph.D., D.S.c.

Simon Gelman Professor of Anaesthesia,
Biochemistry and Molecular Pharmacology
Harvard University
Boston, MA

2:30 - 3 p.m.

*SPMs in cancer: promoting innate and adaptive
anti-tumor immunity*

Dipak Panigrahy, M.D.

Assistant Professor of Pathology
Harvard University
Boston, MA

3 - 3:30 p.m.

*Revisiting vulvar vestibulitis: inflammation,
lipid dysbiosis, and chronic vulvar Pain*

Megan L. Falsetta, Ph.D.

Assistant Professor of Obstetrics & Gynecology
University of Rochester Medical Center
Rochester, NY

3:30 - 4 p.m.

Platelets, prostaglandins, and tumor-immune interactions

David G. Menter, Ph.D.

Assistant Professor of Gastrointestinal Medical Oncology
The University of Texas MD Anderson Cancer Center
Houston, TX

4 - 4:15 p.m.

Poster awards and closing remarks

4:15 - 5:30 p.m.

Reminiscing Dr. Honn's legacy with
reception to follow

Abstracts

1. **Daniel Adebayo** *Exploring the role of the ER-lysosome contact site in aging*
2. **Michael Adu** *Investigating the impact of Inositol deprivation on Cellular functions: Implications for human health and therapeutic strategies*
3. **Chisom Onu** *Mood stabilizer Valproate depletes inositol by Opi1 nuclei translocation*
4. **Zhuqing Liang** *Dual mechanisms contributing to pyruvate dehydrogenase activity deficiency in a Barth syndrome cell model*
5. **Mohamed Dabaja** *Sensory neurons, insulin signaling and fatty acids modulate oogenesis in *C. elegans**
6. **Angela Belanger** *Protein interactions of Histone Deacetylase enzymes*
7. **Livia Philip** *Design and synthesis of sulfated Paromomycin analogs for Heparanase inhibition*
8. **Michael Hotor** *Design and synthesis of Aminoglycoside-based HS mimetics as Heparanase inhibitors*
9. **Rei Fejzulla** *Unlocking the cyclization of exocyclic Azetines*
10. **Matthew Maliskey** *Synthesis of different β -Carboxylic activating Dbz and MeDbz linkers to hinder Aspartimide formation*
11. **Leila Almounajed** *Carbohydrate vaccine adjuvants*
12. **Sai Shiva Bhaskar Emani** *Metabolomics software libraries and tools using Python*
13. **Zhenjie Liu** *Co-inhibition of FADS1 and SCD-1 synergizes suppression of renal cancer cell growth via induction of ER stress*
14. **Laimar Garmo** *PFAS accumulation in bone marrow promotes adipogenesis and facilitates metastatic progression*
15. **Abdo Najy** *Identification of a novel regulator for the exit of bone-resident prostate cancer cells from dormancy*
16. **Alexis Wilson** *Stearoyl-CoA Desaturase: A key modulator of adipocyte-driven stress pathways to promote survival of metastatic prostate cancer in bone*
17. **Enrique Ostrea, Jr.** *Improving neurobehavioral outcomes of offspring of alcoholic pregnant rats with Docosahexaenoic Acid*
18. **Dipak Yadav** *Effects of alcohol dose and DHA supplementation on the pro-inflammation and pro-resolution lipid mediators in the brain of newborn rats prenatally exposed to alcohol*

19. **Insha Zahoor**..... *Pro-resolution lipid mediator Maresin1 ameliorates inflammation, promotes neuroprotection, and prevents disease progression in multiple sclerosis*
20. **Zheyun Peng**..... *PNPLA3-148M is associated with decreased cellular methylation activity and reduced antioxidative stress capacity in the progression of non-alcohol fatty liver disease*
21. **Arifur Rahman**..... *Proteomic profiling of PNPLA3 mutants in human hepatocytes reveals potential pathways in nonalcoholic fatty liver disease*
22. **Lexi Soltesz**..... *Mild intermittent hypoxia improves autonomic dysreflexia and orthostatic hypotension individuals with motor incomplete spinal cord injury*
23. **Li Tao**..... *A modified method to extract DNA from FFPE samples*
24. **April Sweet Tapayan**..... *Effects of heparan sulfate trisaccharide containing Oleanolic Acid in attenuating hyperphosphorylated Tau-induced endoplasmic reticulum stress apoptosis and pro-inflammation associated Alzheimer's disease*
25. **Zeeshan Ahmad**..... *Untargeted and temporal analysis of retinal lipidome in bacterial endophthalmitis*
26. **Madison Myers**..... *Endocannabinoid biosynthesis and release are modulated by lipolysis pathway activation in the adipocytes of dairy cows*
27. **Deep Patel**..... *Effects of transitioning from morphine to buprenorphine (medication for opioid use disorder) during pregnancy on maternal care and offspring neurodevelopment in a translational rodent model*
28. **Sugasini Dhavamani**..... *New form of DHA could prevent visual decline with Alzheimer's disease*
29. **Aravinda De Silva**..... *Biochemical and biophysical characterization of human secretory phospholipases*
30. **David LaGory**..... *Characterization of extracellular vesicle lipids in pre-diabetic mice*
31. **Kendall Muzzarelli**..... *Discovery of novel heterocycle inhibitors: Hit to lead compound in <10 months*

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Special Forum

Lipids@Wayne Symposium



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