

LIVER DIGEST

April 21, 2023

A bi-weekly update of PLRC happenings

PITTSBURGH LIVER RESEARCH CENTER

A partnership of University of Pittsburgh & UPMC

In this issue:

• PLRC Faculty Highlights

- * Dr. Juliane Beier and colleagues publish in Toxicology & Applied Pharmacology
- * Dr. Wen Xi obtains NIDDK-R01 Funding
- * Dr. Michael Jurczak appointed Assistant Dean of Medical Student Research.

• PLRC Seminars

- April 25th @ noon Dr. Irina Kirpich; S123 BST & Zoom
- May 16th @ noon PLRC Injury SIG Roundtable; S120 BST
- May 30th @ noon Dr. Sayee Anakk; S120 BST & Zoom

• Announcements

- NIDDK-Data Management Webinar
- CLA Program & Events
- Pathology Retreat May 17th Registration OPEN!
- AASLD "Liver Meeting" Abstract Portal OPEN!
- ASIP "Annual Meeting" Abstract Portal OPEN!

• Funding Opportunities

• Want Ads :

- 2 Open positions posted
- 6 Jobseekers CV/resumes posted

Please acknowledge all support from the PLRC in your publications and presentations. Note the grant number and all CORES used. (NIH/NIDDK P30DK120531)

Please continue to share your relevant accolades (grants, publications, awards and other news worthy items) with us, as it relates to the PLRC mission, so we can share with all of our members.

Visit the PLRC website (www.livercenter.pitt.edu) for up-to-date news, and upcoming seminar and event information. Contact Aaron Bell (bellaaaro@pitt.edu) if you have specific questions or suggestions.

Our mailing address is:

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Faculty Highlight

Dr. Juliane Beier, PhD along with PLRC colleagues **Silvia Liu, PhD, Gavin Arteel, PhD, Paul Monga, MD** and **Francisco Schopfer, PhD**

published an article in Toxicology and Applied Pharmacology entitled,

“Western diet unmasks transient low-level vinyl chloride-induced tumorigenesis; potential role of the (epi-)transcriptome”

Liu S, He L, Bannister OB, Li J, Schnegelberger RD, Vanderpuye CM, Althouse AD, Schopfer FJ, Wahlang B, Cave MC, Monga SP, Zhang X, Arteel GE, Beier JI. Toxicol Appl Pharmacol. 2023 Apr 13;116514. doi: 10.1016/j.taap.2023.116514. [Epub ahead of print. PMID: 37061008](#). Abstract

Background & aims: Vinyl chloride (VC) monomer is a volatile organic compound commonly used in industry. At high exposure levels, VC causes liver cancer and toxicant-associated steatohepatitis. However, lower exposure levels (i.e., sub-regulatory exposure limits) that do not directly damage the liver, enhance injury caused by Western diet (WD). It is still unknown if the long-term impact of transient low-concentration VC enhances the risk of liver cancer development. This is especially a concern given that fatty liver disease is in and of itself a risk factor for the development of liver cancer.

Methods: C57Bl/6 J mice were fed WD or control diet (CD) for 1 year. During the first 12 weeks of feeding only, mice were also exposed to VC via inhalation at sub-regulatory limit concentrations (<1 ppm) or air for 6 h/day, 5 days/week.

Results: Feeding WD for 1 year caused significant hepatic injury, which was exacerbated by VC. Additionally, VC increased the number of tumors which ranged from moderately to poorly differentiated hepatocellular carcinoma (HCC). Transcriptomic analysis demonstrated VC-induced changes in metabolic but also ribosomal processes. Epitranscriptomic analysis showed a VC-induced shift of the modification pattern that has been associated with metabolic disease, mitochondrial dysfunction, and cancer.

Conclusions: These data indicate that VC sensitizes the liver to other stressors (e.g., WD), resulting in enhanced tumorigenesis. These data raise concerns about potential interactions between VC exposure and WD. It also emphasizes that current safety restrictions may be insufficient to account for other factors that can influence hepatotoxicity.



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PLRC SEMINARS

- April 25 12:00 pm – 1:00 pm **HYBRID**
S123 BST & via Zoom



Dr. Irina Kirpich, PhD, MPH

Associate Professor of Medicine
Department of Microbiology and Immunology
University of Louisville

TITLE: Alcohol-associated liver disease: role of bioactive lipids and soluble epoxide hydrolases

- May 30 12:00 pm – 1:00 pm **HYBRID**
S123 BST & via Zoom



Sayee Anakk, PhD
Associate Professor of Molecular & Integrative Physiology

University of Illinois at Urbana-Champaign

Title: TBD

- May 16 12:00 pm – 1:00 pm **S120 BST**
(Zoom ?/TBD)

Liver "INJURY"

SIG-ROUND TABLE

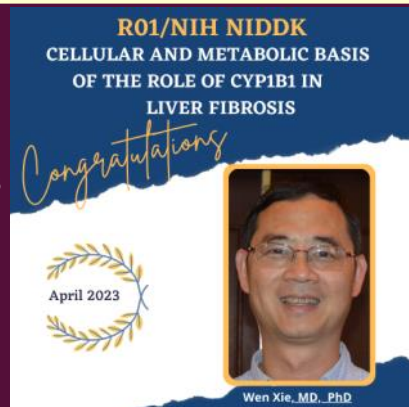


Dr. Tim Billiar –
"Multiomics applied to acute critical illness"

Dr. Yoram Vodovotz – "Computational modeling of critical illness and liver injury"

Faculty Highlight

Congratulations to Dr. Wen Xie, Professor and Endowed Chair of the department of Pharmaceutical Sciences for his new NIH-NIDDK R01 Grant entitled, "Cellular and Metabolic basis of the Role of CYP1B1 in Liver Fibrosis"



Faculty Highlight

Congratulations to Dr. Michael Jurczak, PhD on his appointment to the position of Assistant Dean for Medical Student Research.

Dr. Jurczak has been a mentor to many medical students in his laboratory over several years, and, based upon the quality of his mentoring, he was awarded the 2017 Allen Humphrey Excellence in Mentoring award and a 2022 Medical Student Mentoring Merit Award. He was chosen from an excellent pool of faculty interested in the position. Dr. Jurczak is an Associate Professor in the Department of Medicine, Division of Endocrinology and Metabolism, Center for Metabolism & mitochondrial Medicine. His basic science and translational research program primarily focuses on the relationship between overnutrition and the pathogenesis of metabolic diseases, such as fatty liver, insulin resistance, and type 2 diabetes. Dr. Jurczak is a past PLRC P&F awardee (2018) and his research is now supported by multiple NIH R01 grants and, he has published nearly 100 primary research articles. He is also the divisional representative for research opportunities for medical students in the Division of Endocrinology and Metabolism.



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ANNOUNCEMENTS

- **[Communityliveralliance.org](https://communityliveralliance.org)**



- The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) is excited to announce the ***NIDDK Data Management & Sharing (DMS) Webinar Series***. This multi-part series will provide education and outreach to the NIDDK scientific community about data management and sharing topics. For more information and to register, visit the [NIDDK DMS webpage](https://niddk.nih.gov/dms).

The first webinar (**April 25, 2023, 12–1pm ET**), “**Writing a DMS Plan**,” will provide an overview of DMS planning and highlight resources, including NIDDK-specific guidance and tools, that are available to investigators. In addition, participants will learn how data librarians can help investigators manage their data throughout the data life cycle and how one institution is supporting their investigators.

The second webinar (**May 31, 2023, 1–2pm ET**), “**Finding a Repository for Your Data**,” will provide in-depth information to guide investigators in selecting the right repositories for their scientific data. NIDDK DMS resources and tools for selecting repositories will be presented, and the presentations will highlight how NIDDK programs, such as dkNET (NIDDK Information Network) and the NIDDK Central Repository, can be utilized. In addition, participants will learn how generalist repositories, particularly those participating in the National Institutes of Health (NIH) Generalist Repository Ecosystem Initiative (GREI), can aid investigators when an existing repository is not a good match for their data.

The third webinar (**June 27, 2023, 12–1pm ET**), “**Metadata and Data Standards for NIDDK Research Data**,” will cover the importance and utility of metadata and data standards in maximizing the value of scientific data and how these standards intersect with the NIH DMS policy. Participants will learn about NIDDK DMS resources and tools to help select appropriate metadata and data standards when drafting a DMS Plan. In addition, several NIDDK and NIH projects that have developed and implemented rigorous data and metadata schema will share best practices, lessons learned, and how these efforts have enhanced the quality of the data.

- **2023 Pathology Research Day & Retreat May 17th 2023**. Registration is **OPEN!**
Register at: <https://www.path.pitt.edu/events/departments-pathology-2023-research-day-and-retreat>
- **AASLD “THE LIVER MEETING” Nov. 10-14, 2023 @ Boston MA.**
Abstracts due by 5/24/23: [Link to Abstract Submission Site](https://www.aasld.org/abstracts)
- **ASIP “Tissue, Matrix, and Pathobiology: Joint Meeting of ASMB, HCS and ASIP” Oct. 22-25, 2023 @ Salt Lake City Utah.** Abstracts due by 6/28/23:
[Abstract Submission Site](https://www.asip.org/abstracts) [Meeting Registration Site](https://www.asip.org/meeting)

FUNDING OPPORTUNITIES

Gilead Research Scholars-Liver Disease program. [Junior Faculty . May 1, 2023](https://www.gilead.com/research-scholars)

AGA-Pfizer Pilot Research Award in Non-Alcoholic Steatohepatitis. [ESI/New to field 5/1-10/13](https://www.aga-pfizer.com/research-award)

- To see all NIH Grants sorted by week, please visit: [NIH Guide: 2023](https://www.nih.gov/grants)
- Or click below:

Week of: [Apr 07](#)

[Apr 14](#)

[Apr 21](#)

[Click here](#) for all current NIDDK Funding opportunities

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WANT ADS

This section is available for PLRC members to communicate wants or needs in your laboratories.

Available positions / Collaboration ideas / Equipment needs

Please send any "wants/needs" to be advertised to Aaron Bell (bellaaro@pitt.edu)

OPEN POSITIONS:

- Postdoc/Technician: Bone cell Differentiation \$45K; PI: Harry Blair: US citizen ONLY! Contact: 412-383-9616 or hcblair@pitt.edu
- Postdoc: engineering immune tolerance by combining mRNA technologies, nanoparticles and epigenetic editing (CRISPR): PI: Dr. Samira Kiani skiani@pitt.edu ([more JOB details here](#))

JOB SEEKERS:

- An ECFMG certified medical graduate from Hyderabad, India, currently working as a research fellow at Mayo Clinic, Rochester, MN in the department of Gastroenterology and Hepatology Artificial Intelligence lab is seeking a 1 yr paid research fellow position starting from June/July 2023 in Gastroenterology at UPMC ([More info and CV available here](#)) or email bellaaro@pitt.edu
- Research Assistant Professor, Pathology Dept, UPMC Hillman Cancer Ctr. With experience in Bioinformatics, proteomics, genomics, molecular biology. liz45@pitt.edu [link to CV](#)
- Research Assistant Professor, UPMC Dept of Pediatrics, with specialized skills and immense knowledge of liver and cholangiocyte biology and function. Qin.li7@chp.edu [Link to Resume](#)
- Senior Lab Scientist, UPMC Dept of Pediatrics, with broad molecular biology experience and work in liver and breast cancer. suk85@pitt.edu [Link to CV](#)
- Research Tech/Assistant/Associate: Clinical molecular and microbiology & virology experience Seeking position July 2023. anneudoh22@gmail.com [Link to Resume](#)