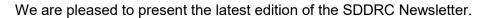


## NIDDK grant P30 DK120515

#### In this issue:

- Updates from SDDRC Cores
- New Center Members
- Center News
- SDDRC P&F Grants
- Upcoming Center Events
- Recent Center Publications

#### Dear Colleagues,



In this newsletter, you will find updates on our Core services and Center events, the 2024-25 Pilot and Feasibility grants awardees, and reports on the remarkable achievements of our members as illustrated by a list of recent publications. In addition, we are excited to announce the start of monthly Histology office hours in the Preclinical Models Core. This new offering is designed to provide even more value and support to our members.

Thank you for your continued support and engagement. We hope that this newsletter serves as a source of inspiration, connection, and valuable information for all our Center members.

Best wishes and much research success, Bernd Schnabl and Lars Eckmann SDDRC Co-Directors





#### **Core Services and Updates**

#### **Human Translational Core**

- Access to well-characterized human biospecimens for patients with Metabolic dysfunctionassociated steatotic liver disease (MASLD) and Inflammatory Bowel Disease (IBD).
- Access to archival clinical GI/liver tissue samples (stained or unstained slides) from the Pathology Department. This service can be obtained by submitting the sample request form located on the Center website, or via email to the Center.
- Consultation in pathology, biostatistics, protocol design, and training, contact: <u>sddrc@health.ucsd.edu</u>.
- Weekly Biostatistical office hour of our Center biostatistician Dr. Xinlian Zhang via Zoom, every Tuesday from 9:00 am 10:00 am, location: <u>Weekly Office Hour</u>

#### **Preclinical Models Core**

- Services in histology and microscopy including tissue preparation, help in establishing proper fixation, routine and specialized staining, slide scanning, multiplex immunofluorescence, state-of-theart microscopy, second harmonic generation collagen imaging, intravital imaging, and image analysis. The SDDRC members are eligible for a subsidy which will be applied via cost transfer to your paid invoices to LJI. Contact <u>sddrc@health.ucsd.edu</u>.
- Access to germ-free and gnotobiotic mice, and various murine models of liver and gastrointestinal disease. SDDRC members are eligible for a subsidy for using this service.
- Access to Human Liver Resource services, including isolated liver cells and tissue samples.
- SDDRC histopathology office hours by our veterinary pathologist Dr. Kenneth Kim, DACVP, 3rd Thursday of the month, 12:00-1:00pm, location: <u>Google Meet</u>
- **New Offering:** Histology office hours Zbigniew Mikulski, PhD, 2nd Tuesday of each month, 1:00 –2:00 pm, location: <u>https://meet.google.com/xrn-jzzg-ggu</u>

#### **Microbiomics and Functional Genomics Core**

- Sample processing
  - DNA/RNA extraction for microbiomics (stool, tissues)
  - DNA/RNA extraction for functional genomics (tissues)
- Sequencing-based assays (with IGM), Microbiome sequencing (16S, ITS, shotgun), RNA-seq, Single-cell sequencing (RNA, ATAC, Multiome) and other sequencing-based assays (e.g. miRNA-Seq, ChIP-Seq)
- Bioinformatics support
  - $\diamond$  Microbiomics (e.g. OTU,  $\alpha/\beta$  diversity, shotgun metagenomics, archiving)
  - ◊ Functional genomics (e.g. transcript quantitation, systems biology interpretation)
- Consultation and training in specific experimental and analytical techniques related to microbiomics and functional genomics, contact <a href="mailto:sddrc@health.ucsd.edu">sddrc@health.ucsd.edu</a> .
- SDDRC members are eligible for a subsidy for using the Core services
- Spatial Transcriptomics services



## NIDDK grant P30 DK120515

## New SDDRC Members



#### Monica Tincopa, MD, MSc

Assistant Professor, Division of Gastroenterology, Department of Medicine, UC San Diego Email: mtincopa@health.ucsd.edu

**Research Interests:** Dr. Tincopa's research interests include metabolic dysfunction-associated steatotic liver disease (MASLD), cirrhosis, liver transplantation, obesity and metabolic syndrome and health disparities in liver disease.



#### Guillaume Urtecho, PhD

Assistant Professor, Division of Gastroenterology, Department of Medicine, UC San Diego Email: gurtecho@health.ucsd.edu

**Research Interests:** Dr. Urtecho is committed to advancing our understanding of microbial communities in the mammalian gut and developing innovative strategies to engineer them for improved health outcomes. By integrating approaches from Systems Biology, Synthetic Biology, and Microbial Ecology, he seeks to unravel the complex interactions within gut microbiomes and apply these insights to design therapeutic consortia and next-generation therapies.



## NIDDK grant P30 DK120515

### **2024** Clarivate Highly Cited Researchers

Clarivate provides analytics in scientific research and recognizes researchers "who have demonstrated significant influence in their chosen field or fields through the publication of multiple highly cited papers over the last decade." In 2024, Clarivate listed 6,886 Highly Cited Researcher designations, representing researchers who rank in the top 1 percent by citations for their field and

publication year in the Web of Science citation index. Clarivate's rankings are regarded as the "who's who" of science.

Congratulations to the following Center members featured in the prestigious 2024 Clarivate listing!





## <u>Center News</u>

Congratulations to SDDRC members on the following achievements and recognitions:

John Carethers, MD

Received SUNY Downstate Health Sciences University 10th Annual Cancer Health Disparities Symposium Recognition Award (2025)





Gen-Sheng Feng, PhD

Honored as Distinguished Professor, UC San Diego

#### Bernd Schnabl, MD

Received a grant from the American Liver Foundation to study primary sclerosing cholangitis.

PI of the R21 grant from NIH. The major goal of this phase 1 clinical trial is to test safety and tolerability of fecal microbiota transplantation (FMT) in patients with auto-brewery syndrome.





## **SDDRC 2024-25 Pilot & Feasibility Grants**

The SDDRC has awarded Pilot & Feasibility grants to the following investigators with promising research projects in digestive diseases:

#### Innovation Awards



**Cynthia Hsu, MD, PhD,** Assistant Professor, Division of Gastroenterology, Department of Medicine, UC San Diego

Project Title: Beyond Additive Effects: Uncovering the Gut Microbiome's Role in the Synergistic Induction of Liver Injury by Metabolic Dysfunction and Alcohol



**D. Brent Polk MD,** Martin Brotman Professor and Chief, Division of Pediatric Gastroenterology, Hepatology & Nutrition, Department of Pediatrics, UC San Diego

Project Title: Cytokine Regulation of Intestinal Epithelial Restitution



**Monica Tincopa, MD, MSc**, Assistant Professor, Division of Gastroenterology, Department of Medicine, UC San Diego

Project Title: Reducing Health Disparities for Hispanic Adults with MASLD Through Tailored Non-Invasive Screening and Risk Stratification

#### Jon I. Isenberg Fellowship Awards



Andrés Gottfried, MD, PhD, Assistant Professor, Division of Gastroenterology, Department of Medicine and Department of Pharmacology, UC San Diego

Project Title: Studying the immunomodulatory effects of GLP-1 in gastritis

The next round of Pilot & Feasibility grants will be announced in the summer/fall of 2025



## **Upcoming Center Events**

#### 2025 Upcoming SDDRC Seminar Series

The Center invites nationally and internationally renowned speakers to facilitate and promote interactions among investigators in the San Diego area interested in digestive diseases research.

Date	Location	Time	Speaker	Affiliation
04/30/25	ACTRI Conference Room 2E-111	07:30 - 8:30 AM	John Mark Gubatan, MD	Stanford University School of Medicine
05/19/25	Leichtag- 107	12:00 - 1:00 PM	Suzanne Devkota, PhD	Cedars-Sinai
06/25/25	TBD	07:30 - 8:30 AM	Jessica B. Rubin, MD, MPH	University of California, San Francisco
07/28/25	Leichtag– 107	12:00 - 1:00 PM	Renée M. Tsolis, PhD	University of California, Davis
08/25/25	Leichtag– 107	12:00 - 1:00 PM	Arthur "Art" Beyder, M.D., Ph.D., AGAF	Mayo Clinic
09/03/25	TBD	TBD	Hashem B. El-Serag, MD, MPH	Baylor College of Medicine
10/06/25	Leichtag– 107	12:00 - 1:00 PM	Wen-Xing Ding, PhD, FAASLD	University of Kansas
11/19/25	TBD	07:30 - 8:30 AM	Folasade (Fola) P. May, MD, PhD, MPhil	University of California, Los Angeles
12/15/25	Leichtag- 107	12:00 - 1:00 PM	Howard Hang, PhD	Scripps Research

#### **R-Support Workshop:**

I	Date	Location	Time	Speaker	Affiliation
Ī	9/4/25 & 9/5/25	TBD	TBD	Jose Nino Muriel	UC Santa Barbara

#### 2025 Upcoming Science at Lunchtime:

Date	Location	Time	Speaker	Affiliation
04/14/25	BRF2 -5A03	12:15 - 1:15 PM	Seema S. Aceves, MD, PhD	UC San Diego
05/12/25	BRF2 -5A03	12:15 - 1:15 PM	Hiroshi Kiyono, DDS, PhD	UC San Diego
06/09/25	BRF2 -5A03	12:15 - 1:15 PM	Gen-Sheng Feng, PhD	UC San Diego
07/14/25	BRF2 -5A03	12:15 - 1:15 PM	Debanjan Dhar, PhD	UC San Diego
08/11/25	BRF2 -5A03	12:15 - 1:15 PM	TBD	TBD
09/08/25	BRF2 -5A03	12:15 - 1:15 PM	Pradipta Ghosh, MD	UC San Diego
10/13/25	BRF2 -5A03	12:15 - 1:15 PM	TBD	TBD
11/10/25	BRF2 -5A03	12:15 - 1:15 PM	Sushil K. Mahata, PhD	UC San Diego



# Recent Publications by Center Members acknowledging Center support

To recognize the excellence and breath of research done by our members, we highlight a number of representative papers (**members are shown in bold**). Reprints of these papers can be provided upon request.

- Jumabay M, Abud EM, Okamoto K, Dutta P, Chiang AWT, Li H, Manresa MC, Zhu YP, Frederick D, Kurten R, Croker B, Lewis NE, Kennedy JL, Dohil R, Croft M, Ay F, Wechsler JB, Aceves SS. Eosinophilic esophagitis drives tissue fibroblast regenerative programs toward pathologic dysfunction. *J Allergy Clin Immunol*. 2024 Nov 29:S0091-6749(24)01280-6. PMID: 39617290.
- Kim HY, Rosenthal SB, Liu X, Miciano C, Hou X, Miller M, Buchanan J, Poirion OB, Chilin-Fuentes D, Han C, Housseini M, Carvalho-Gontijo Weber R, Sakane S, Lee W, Zhao H, Diggle K, Preissl S, Glass CK, Ren B, Wang A, Brenner DA, Kisseleva T. Multi-Modal Analysis of human Hepatic Stellate Cells identifies novel therapeutic targets for Metabolic Dysfunction-Associated Steatotic Liver Disease. J Hepatol. 2024 Nov 8:S0168-8278(24)02667-9. PMID: 39522884.
- Fajtova P, Hurysz BM, Miyamoto Y, Serafim MSM, Jiang Z, Vazquez JM, Trujillo DF, Liu LJ, Somani U, Almaliti J, Myers SA, Caffrey CR, Gerwick WH, McMinn DL, Kirk CJ, Boura E, Eckmann L, O'Donoghue AJ. Distinct substrate specificities of the three catalytic subunits of the Trichomonas vaginalis proteasome. *Protein Sci.* 2024 Dec; 33:e5225. PMCID: PMC11590128.
- Loomba R, Bedossa P, Grimmer K, Kemble G, Bruno Martins E, McCulloch W, O'Farrell M, Tsai WW, Cobiella J, Lawitz E, Rudraraju M, Harrison SA. Denifanstat for the treatment of metabolic dysfunctionassociated steatohepatitis: a multicentre, double-blind, randomised, placebo-controlled, phase 2b trial. *Lancet Gastroenterol Hepatol.* 2024 Dec;9(12):1090-1100. PMID: 39396529.
- Tincopa MA, Díaz LA, Huang DQ, Arab JP, Arrese M, Gadano A, Oliveira CP, Bettencourt R, Madamba E, Kim S, Siddqi H, Barreyro FJ, Marciano S, Martínez Morales J, Villela-Nogueira C, Leite N, Couto CA, Theodoro R, Joyner de Sousa Dias Monteiro M, Pessoa MG, Alvares-da-Silva MR, Higuera de la Tijera F, Sabate CD, Mendizabal M, Richards L, Sirlin CB, Loomba R. Disparities in screening and risk stratification for hispanic adults with metabolic dysfunction-associated steatotic liver disease. *Hepatology.* 2024 Oct 18. PMID: 39423341.
- Chilukuri A, Kim M, Mitra T, Gubatan JM, Urrete J, Saxon LD, Ablack A, Mikulski Z, Dobaczewska K, Shen Z, Keir M, Yi T, Kaur P, Oliveira P, Murillo-Saich J, Chang EY, Steiner CA, Jedlicka P, Guma M, *Rivera-Nieves J*. A Similar Mutation in the AAUU-Rich Elements of the Mouse TNF Gene Results in a Distinct Ileocolitic Phenotype: A New Strain of TNF-Overexpressing Mice. *Inflamm Bowel Dis*. 2025 Jan 4:izae307. PMID: 39756463.
- Kaur P, Karuppuchamy T, Chilukuri A, Kim M, Urrete J, Shen Z, Saxon L, Lundborg LR, Mikulski Z, Jedlicka P, *Rivera-Nieves J.* S1P Lyase Inhibition Increased Intestinal S1P, Disrupted the Intestinal Barrier and Aggravated DSS-Induced Colitis. *Inflamm Bowel Dis.* 2025 Feb 17:izaf030. PMID: 39960746.
- Tavaglione F, Amangurbanova M, Yang AH, *Tincopa MA, Ajmera V*, Richards L, Butcher C, Hernandez C, Madamba E, Singh S, Bettencourt R, Sirlin CB, Loomba R. Head-to-Head Comparison Between Phosphatidylethanol Versus Indirect Alcohol Biomarkers for Diagnosis of MetALD Versus MASLD: A Prospective Study. *Aliment Pharmacol Ther.* 2025 Mar; 61:1043-1054. PMCID: PMC11870800.
- Spalinger MR, Sanati G, Chatterjee P, Hai R, Li J, Santos AN, Nordgren TM, Tremblay ML, Eckmann L, Hanson E, Scharl M, Wu X, Boland BS, McCole DF. Tofacitinib Mitigates the Increased SARS-CoV-2 Infection Susceptibility Caused by an IBD Risk Variant in the PTPN2 Gene. *Cell Mol Gastroenterol Hepatol*. 2025 Jan 3;19(5):101447. PMID: 39756517.
- Reina-Campos M, Monell A, Ferry A, Luna V, Cheung KP, Galletti G, Scharping NE, Takehara KK, Quon S, Challita PP, **Boland B**, Lin YH, Wong WH, Indralingam CS, Neadeau H, Alarcón S, Yeo GW, Chang JT, Heeg M, Goldrath AW. Tissue-resident memory CD8 T cell diversity is spatiotemporally imprinted. *Nature*. 2025 Mar; 639:483-492. PMCID: PMC11903307.



## Recent Publications by Center Members acknowledging SDDRC Support (cont'd)

To recognize the excellence and breath of research done by our members, we highlight a number of representative papers (**members are shown in bold**). Reprints of these papers can be provided upon request.

- 11. Al Bakir I, *Curtius K,* Cresswell GD, Grant HE, Nasreddin N, Smith K, Nowinski S, Guo Q, Belnoue-Davis HL, Fisher J, Clarke T, Kimberley C, Mossner M, Dunne PD, Loughrey MB, Speight A, East JE, Wright NA, Rodriguez-Justo M, Jansen M, Moorghen M, Baker AM, Leedham SJ, Hart AL, Graham TA. Low-coverage whole genome sequencing of low-grade dysplasia strongly predicts advanced neoplasia risk in ulcerative colitis. *Gut*. 2025 Jan 29:gutjnl-2024-333353. PMID: 39880602.
- 12. Varanasi SK, Chen D, Liu Y, Johnson MA, Miller CM, Ganguly S, Lande K, LaPorta MA, Hoffmann FA, Mann TH, Teneche MG, Casillas E, Mangalhara KC, Mathew V, Sun M, Jensen IJ, Farsakoglu Y, Chen T, Parisi B, Deota S, Havas A, Lee J, Chung HK, Schietinger A, Panda S, Williams AE, Farber DL, *Dhar D*, Adams PD, **Feng GS**, Shadel GS, Sundrud MS, Kaech SM. Bile acid synthesis impedes tumor-specific T cell responses during liver cancer. *Science*. 2025 Jan; 387(6730):192-201. PMID: 39787217.
- Gu L, Zhu Y, Nandi ŠP, Lee M, Watari K, Bareng B, Ohira M, Liu Y, Sakane S, Carlessi R, Sauceda C, Dhar D, Ganguly S, Hosseini M, Teneche MG, Adams PD, Gonzalez DJ, Kisseleva T; Liver Cancer Collaborative; Tirnitz-Parker JEE, Simon MC, Alexandrov LB, Karin M. FBP1 controls liver cancer evolution from senescent MASH hepatocytes. Nature. 2025 Jan;637(8045):461-469. doi: 10.1038/s41586-024-08317-9. Epub 2025 Jan 1. Erratum in: Nature. 2025 Feb;638(8051):E30. PMID: 39743585.
- 14. Diaz LA, Morris S, Dave S, Kim SM, Sarik W, Richards L, Madamba E, Bettencourt R, Fulinara C, Pham T, Miller G, Carvalho-Gontijo Weber R, Momper JD, He F, Jain S, Jamieson C, Kisseleva T, Brenner D, Loomba R. Clinical Trial to Assess the Safety and Tolerability of Anti-IL 23 Monoclonal Antibody Guselkumab in Patients With Alcohol-Associated Liver Disease. *Aliment Pharmacol Ther.* 2025 Apr;61 (7):1140-1151. PMID: 39949265.
- Tesfai K, Pace J, El-Newihi N, Martinez ME, *Tincopa MA*, Loomba R. Disparities for Hispanic Adults With Metabolic Dysfunction-associated Steatotic Liver Disease in the United States: A Systematic Review and Meta-analysis. *Clin Gastroenterol Hepatol.* 2025 Feb;23(2):236-249. PMID: 39025254.
- Özdirik B, Berger H, Tonetti FR, Cabré N, Treichel N, Clavel T, Tacke F, Sigal M, Schnabl B. Faecal Cytolysin is Associated With Worse Survival in Patients With Primary Sclerosing Cholangitis. *Liver Int.* 2025 Apr;45(4):e16181. PMID: 40083245.
- Münte E, Viebahn G, Khurana A, Fujiki J, Nakamura T, Lang S, Demir M, Schnabl B, Hartmann *P*. Faecalibacterium prausnitzii Is Associated with Disease Severity in MASLD but Its Supplementation Does Not Improve Diet-Induced Steatohepatitis in Mice. *Microorganisms*. 2025 Mar 18;13(3):675. PMID: 40142567.
- Li D, Morgan DR, Corral JE, Montgomery EA, Riquelme A, Shah SC. Gastric Cancer Screening in the United States: A Review of Current Evidence, Challenges, and Future Perspectives. Am J Gastroenterol. 2025 Mar 12. PMID: 40072512.
- Morgan DR, Corral JE, Li D, Montgomery EA, Riquelme A, Kim JJ, Sauer B, Shah SC. ACG Clinical Guideline: Diagnosis and Management of Gastric Premalignant Conditions. Am J Gastroenterol. 2025 Mar 12. PMID: 40072510.
- 20. Liu D, Ton PM, Zong D, **Zarrinpar A**, Ding Y. Expression of Fluorescence Reporters and Natural Products in Native Gut Escherichia coli. ACS Synth Biol. 2025 Mar 26. PMID: 40138712.

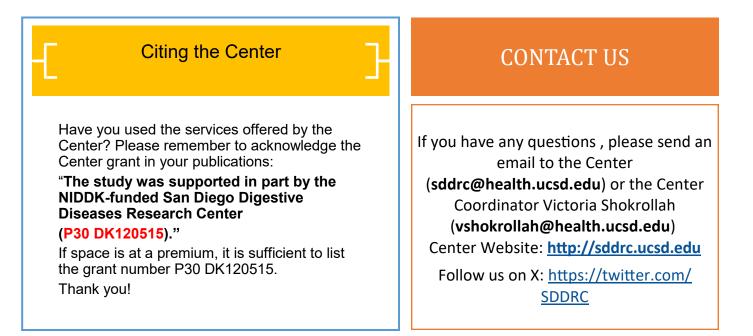


## NIDDK grant P30 DK120515

### **Letters of Support**

The Center can provide you with support for your grant application. If you need a letter of support, please contact us:

#### sddrc@health.ucsd.edu



## Thank you for attending the 2025 SDDRC Symposium

