

Volume 4, Issue 2

June 8, 2023

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A Note from the Directors



Don C. Rockey DDRCC Director

Dear All: Thanks to everyone for your enthusiastic participation in our Annual Retreat and Symposium. A stimulating time was had by all - and feedback has been extremely positive. It has been fantastic to see our digestive disease community's identity strengthen, with the strong spirit of collaboration, and its sense of common purpose. We hope this was felt by all, and we look forward to its continued growth.



Stephen Duncan CDLD Director

As we enter into our fourth year as a funded center, our efforts will focus on our competitive renewal application to NIDDK, due early next year. In addition to key metrics of our group's productivity, the review of our application will primarily consist of a critical assessment of the success of our funded cores in supporting all of our research successes. As an additional measure of the growth and strengthening of our center, we will need to emphasize our fostering and development of successful collaborations among our recruited members.

With these factors in mind, please pay particular attention to this year's

Membership and Cores Survey, which you will see soon. The results from this year's survey will be instrumental in helping us present our cores successes, and inform our proposals for modifications. Please spend some time to respond promptly and thoughtfully so that we may have your robust feedback as soon as possible.

Our **7 am Clinical / Translational** and **11 am Basic Science** virtual enrichment series are on hiatus for the summer. As always, we would like your suggestions for future seminars, so please let us know if you'd like to hear or host a particular guest speaker during the 2022-23 Seminar Series re-commencing in September. (<u>email Antonis</u> or <u>Don</u>).

Best wishes for a productive Summer,



Don and Steve

DDRC leadership, EAB members Jackie Maher, Jason Mills, Paul Monga, Rick Peek, and abstract award winners. Congratulations to speakers Andrew Schreiner and Alyssa Risner (A. Kourtidis, presenting) and poster winners Katie Chetta, Janiece Glover, Lu Han, Jade MacDonald, and Matt Savoca!



Annual Members Survey

This year, in addition to surveying our members about Core Usage and Collaborations, we will also ask about:

1. Expanded Core Services

Our survey will include some options for additional core services under consideration, as well as an opportunity for members to make further suggestions. We will also be evaluating the mechanisms through which we subsidize core use by our members to best fill their needs; e.g., supplementary vouchers or coupons rather than or in addition to subsidized rates for usage.

2. Detailed Collaborations Reporting

This year, we will ask members for details about the fruits of their ongoing collaborations; e.g. joint grant submissions, shared-author publications submitted and/or published, or novel research directions fostered by this interaction.

3. Community Expansion

We will ask members to identify any new lab or group members who should be added to the DDRC contact list, and to suggest any other MUSC investigators who may be interested in joining the DDRC as full or Associate members.

PLEASE RESPOND PROMPTLY AND COMPLETELY TO OUR SURVEY.

Start the Member Survey

THANK YOU!

Your feedback will be instrumental in our developing a strong and competitive renewal application.

PLEASE CITE OUR CORES!

In order for us to submit a successful renewal application, we need to robustly document **acknowledged core usage** in our publications and grants. Please help us to credit our centers for your publications successes by adding a statement like the samples below to the **Acknowledgements** section of your manuscript:

"This work was supported by the _____ core of the Medical University of South Carolina Digestive Disease Research Core Center (P30 DK123704)"

"This work was supported by the _____ core of the Medical University of South Carolina COBRE in Digestive and Liver Disease (P20 GM120475)"

New Pilot & Feasibility Projects

Following our Annual Retreat and Symposium, our External Advisory Boards approved the funding of our next round of Pilot & Feasibility Awardees. P & F project leaders are automatically eligible as Full Members for supported use of our cores. **Congratulations to our new investigators!**



Toros Dincman, MD, PhD. Assistant Professor, Hematology/Oncology Department

"The role of PCBP1 in colorectal cancer tumorigenesis."

July 1, 2023 - June 30, 2024 (\$40,000)

Toros Dincman, MD, PhD



"The immunotherapeutic function of cyclin Ds in colorectal cancer."

(pending) (\$50,000)



Dirk Van Der Windt, MD, PhD



Jessica H. Hartman, PhD



Dirk Van Der Windt, MD, PhD

Jessica H. Hartman, PhD. Assistant Professor, Department of Biochemistry & Molecular Biology

"The role of CYP2E1 in NAFLD."

July 1, 2023 - June 30, 2024 (\$20,000)

<u>Natalie Saini, PhD</u> Assistant Professor, Department of Biochemistry & Molecular Biology

"The role of acetaldehyde clearance pathway in liver genome stability maintenance."

(pending) (\$50,000)



Dirk Van der Windt, MD, PhD

Dirk Van Der Windt, MD, PhD. Assistant Professor, Department of Surgery

"DNase during normothermic perfusion to reduce inflammation in liver transplant."

July 1, 2023 - June 30, 2024 (\$40,000)

News from the DDRCC

New Grant: Chad Novince



<u>Chad Novince, PhD, DDS</u>, Associate Professor in the Department of Oral Health Scinces, was recently awarded a new R01 grant:

NIH/NIAMS

"Impact of tetracycline antibiotics on skeletal maturation"

1R01 AR081488-01A1 April 1, 2023 - March 31, 2028 (\$352,397 yr.)

Chad Novince, PhD, DDS

Congratulations, Dr. Novince!

New Grant: Jihad Obeid



Jihad Obeid, MD

Jihad Obeid, MD, Professor in the Department of Public Health Sciences, is the MUSC co-investigator on a \$20 million five-year project funded by the National Science Foundation's Established Program to Stimulate Competitive Research Research Infrastructure Improvement Track-1 Award.

NSF EPSCoR "AI-enabled Devices for the Advancement of Personalized and Transformative Healthcare in South Carolina."

Rll Track-1 2242812 August 1, 2023 - July 31, 2028 (\$3,000,000 total yr)

Congratulations, Dr. Obeid!

We like to hear about your progress and achievements!

Please sent your news and announcements to the DDRC Digest via email to the <u>Center Manager</u>.

DDRCC and CDLD Enrichment Seminar Series

The Enrichment Program Seminars are concluded for this academic year. The collection of recorded talks from the 7AM Gi & Hepatology Grand rounds are available to DDRCC and CDLD members <u>here</u>.

If you have suggestions for next year's speakers, please contact **Antonis** or **Dr. Rockey**.

To receive notifications for our Enrichment series seminars, please contact the DDRCC Center Manager.

Selected GI Publications by our Members

Each newsletter, we highlight a subset of the many outstanding papers published and presented by our DDRC members. We strive to mention particularly significant primary research papers where our members were lead authors or key contributors, and to represent the broad scope of clinical, basic science and clinical-translational research interests across our membership. To assist us in these efforts, we continue to encourage you to **email Kyu**, our center manager, about your particularly significant papers and presentations.

While space does not allow us to list a comprehensive month-to-month list of our member publications, such a list can be found on our DDRCC website <u>here</u>.

A complete listing of our DDRCC member publications since its inception can also be found through NCBI <u>here</u>.

April, 2023 - May, 2023

Paz MM, Ferretti GDS, Martins-Dinis MMC, Ferreira BIS, Faier-Pereira A, **Barnoud T**, Moreira OC, Silva JL, Cordeiro Y, Rangel LP. PRIMA-1 inhibits Y220C p53 amyloid aggregation and synergizes with cisplatin in hepatocellular carcinoma. Front Mol Biosci. 2023;10:1165132. PubMed PMID: 37101558; PubMed Central PMCID: PMC10123287. Liu JT, Doueiry C, Jiang YL, Blaszkiewicz J, Lamprecht MP, Heslop JA, Peterson YK, Carten JD, Traktman P, Yuan Y, Khetani SR, Twal WO, **Duncan SA**. A human iPSC-derived hepatocyte screen identifies compounds that inhibit production of Apolipoprotein B. Commun Biol. 2023 Apr 24;6(1):452. PubMed PMID: 37095219; PubMed Central PMCID: PMC10125972.

Liu L, Yin S, **Gan W**. TRAF6 Promotes PRMT5 Activity in a Ubiquitination-Dependent Manner. Cancers (Basel). 2023 Apr 27;15(9). PubMed PMID: 37173967; PubMed Central PMCID: PMC10177089.

Khalifa A, **Obeid JS**, Erno J, **Rockey DC**. The role of artificial intelligence in hepatology research and practice. Curr Opin Gastroenterol. 2023 May 1;39(3):175-180. Review. PubMed PMID: 37144534.

Keswani RN, Duloy A, Nieto JM, Panganamamula K, Murad MH, Bazerbachi F, Shaukat A, **Elmunzer BJ**, Day LW. Interventions to improve the performance of ERCP and EUS quality indicators. Gastrointest Endosc. 2023 May;97(5):825-838. PubMed PMID: 36967249.

Lu Z, Li Y, Chowdhury N, Yu H, Syn WK, Lopes-Virella M, **Yilmaz Ö**, **Huang Y**. The Presence of Periodontitis Exacerbates Non-Alcoholic Fatty Liver Disease via Sphingolipid Metabolism-Associated Insulin Resistance and Hepatic Inflammation in Mice with Metabolic Syndrome. Int J Mol Sci. 2023 May 5;24(9). PubMed PMID: 37176029; PubMed Central PMCID: PMC10179436.

Moore JA, Wheless WH, Zhang J, Marsden J, Mauldin PD, Moran WP, **Schreiner AD**. Gaps in Confirmatory Fibrosis Risk Assessment in Primary Care Patients with Nonalcoholic Fatty Liver Disease. Dig Dis Sci. 2023 May 16;. PubMed PMID: 37193930.

Lu X, McDowell CT, Blaschke CRK, Liu L, Grimsley G, Wisniewski L, Gao C, **Mehta AS**, Haab BB, **Angel PM**, **Drake RR**. Bioorthogonal Chemical Labeling Probes Targeting Sialic Acid Isomers for N-Glycan MALDI Imaging Mass Spectrometry of Tissues, Cells, and Biofluids. Anal Chem. 2023 May 16;95(19):7475-7486. PubMed PMID: 37126482; PubMed Central PMCID: PMC10193362.

Accessing DDRC Cores

Quick Links for DDRCC and CDLD Core Use

A reminder that Full Members receive subsidized usage of our cores. Below are some summary details for accessing the cores and initiating projects.

This project was supported in part by NIH P30 DK123704 (*core facility*) at the MUSC Digestive Disease Research Core Center. This project was supported in part by NIH P20 GM120475 (core facility) at the MUSC Digestive Disease Research Core Center.

Analytical Cell Models Core:

- The DDRCC and CDLD both fully subsidize the use of the ACC by its members.
- For iPSC projects, please contact the Core Director, Dr. Steve Duncan.
- For primary cell isolation, please contact Dr. Don Rockey.

Advanced Imaging Core:

- The DDRCC and CDLD both provide **full members** with a **25% discount** on facility fees.
- For imaging projects, please contact the Core Director, Dr. John Lemasters and Core Manager Li Li.

CDLD Animal Models Core:

- The CDLD fully subsidizes the use of the Animal Models Core for its Junior Investigators.
- Other **discounts** may currently apply for DDRCC members.
- For animal projects please contact the Core Director, Dr. Kristi Helke.
- For gnotobiotic mouse models, please contact Dr. Caroline Westwater.
- For transgenic and CRISPR/Cas9 projects, please contact the TGE Director, Dr. Fulei Tang, or Executive Director, Dr. Alexander Awgulewitsch.

DDRCC Proteomics Core:

- DDRCC full members will receive a 50% discount from facility fees.
- For MS projects, please contact the Core Co-Director, Dr. Lauren Ball.

Clinical Component Core:

- The DDRCC and CDLD fully subsidize biostatistical consultations with the Clinical Component Core by all of its members, including biostatistical support and mentoring for its Junior Investigators and Pilot & Feasibility applicants and awardees.
- To start a project, visit the SPARC website and submit a Biostatistics, Design & Epidemiology request, and contact:
 - DDRCC Core Director, Dr. Paul Nietert
 - CDLD Director Dr. Ramesh Ramakrishnan.

CITE OUR GRANTS

FOR THE DDRCC: P30 DK123704

For queries regarding DDRCC news, membership and cores, please contact the Center Manager:

Kyu-Ho Lee, MD-PhD

Gastroenterology and Hepatology Department of Medicine CSB HE903B 96 Jonathan Lucas St Charleston, SC 29425 (843) 792-1689 Email Dr. Lee

FOR THE COBRE CDLD: P20 GM120457

For queries regarding the COBRE in Digestive and Liver Disease, please contact the COBRE PI:

Stephen Duncan, DPhil

Department Chair Regenerative Medicine and Cell Biology BSB 657A MSC508 173 Ashley Ave Charleston, SC 29425 (843) 792-9104 Email Dr. Duncan

Visit the DDRCC Website:

https://medicine.musc.edu/departments/dom /divisions/gastroenterology/research/labsand-centers/ddrcc

Visit the CDLD Website:

https://medicine.musc.edu/departments/rege nerative-medicine/cobre-digestive-liverdisease



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