



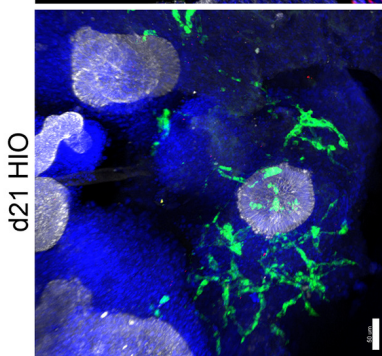
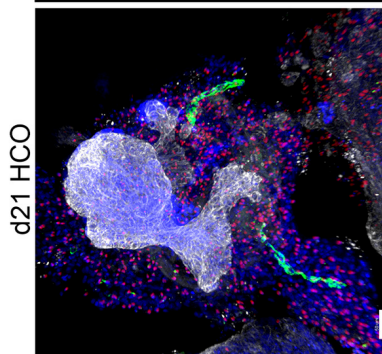
Digestive Disease Research Center

AT THE MEDICAL UNIVERSITY OF SOUTH CAROLINA

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SPI1 CD34 CDH1 DAPI



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Differential BMP signaling determines anterior-posterior identity *in vitro*, inducing *SPI1*+ hemogenic endothelial cells in human colonic organoids (HCO) but not human intestinal organoids (HIO). From Munera *et al.*, 2023; PMID [37922878](https://pubmed.ncbi.nlm.nih.gov/37922878/) (see publications below).

A Note from the Directors



Don C. Rockey
DDRCC Director

With the close of 2023, time is flying and we are already turning the corner on the fourth year of both our P30 (DDRCC) and P20 (CDLD) grants. While the time has passed quickly, we feel humbled and grateful for what our membership has accomplished in a seemingly short time span. A year ago, we had just completed our successful hosting of the Annual DDRCC Directors' Meeting, a feat we noted with



Stephen Duncan
CDLD Director

both satisfaction and a little relief while attending this year's annual meeting at the Cincinnati Children's DDRCC. We have continued to note your publication and grant successes this year, particularly those of our past pilot award grantees, who have realized a gratifying return on investment for our center. We know that there are yet other successful grant efforts waiting in the wings, pending further progress with the federal budget process. We look forward to highlighting them in the near future in this newsletter.

We are now fully in the throes of drafting the competitive renewal applications for both the DDRCC and the CDLD while soliciting input and critiques from our external advisory boards. We are truly grateful for everyone's continuing hard work and combined contributions of our cores leadership and staff. We would ask that you, our members, stay mindful from now through our February and March 2024 submission deadlines of any requests for details about your research accomplishments that come from us, from Kyu our center manager, and from our colleagues at ORD, Andie Edwards and Carla Stipe. Please also carefully read the note from Kyu about PubMed/PMC compliance and our renewal application in the Publications portion of the newsletter.

Finally, we want to leave you with our very best wishes for the holiday season and New Year.

Sincerely,

Don and Steve

SAVE THE DATE: FRIDAY, APRIL 12, 2024

The 5th Annual

MUSC DDRC Retreat & Symposium

Details to follow

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 our publications successes by adding a statement like the samples below to the **Acknowledgements** section of your manuscripts:

"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 GM130457)"

News from the DDRC

GI Grand Rounds Series: Thank you Dr. Cotton!



Beginning in the New Year, 2024, **Peter Cotton, MD**, will step down from his long-running leadership of the 7am GI Grand Rounds series. Organization will now be handled by Drs. Don Rockey and Garth Swanson, with ongoing logistical support from Center Manager Kyu-Ho Lee.

We look forward to Dr. Cotton's valedictory Grand Rounds presentation on **December 13** (see below)

New NIH Grant Funding: Wang Lab



Hongjun Wang,
PhD

Hongjun Wang, PhD (Dept. of Surgery) was recently awarded a UG3 grant for the first phase of a clinical trial from NIDDK:

"Safety and Efficacy of Mesenchymal Stem Cells in the Treatment of Chronic Pancreatitis and Its Associated Pain."

1UG3DK136705-01

9/15/2023 - 6/30/2024

\$230,434

CONGRATULATIONS Dr. Wang!

We like to hear about your progress and achievements!

Please send your news and announcements to the DDRC Digest via email to the [Center Manager](#).

Enrichment Activities and Series

DDRCC / CDLD / GI & Hepatology Grand Rounds

Wednesday, 7 am EST ([Teams](#))

December 6

Andrew Brock, MD GI & Hepatology, MUSC

Small bowel capsule endoscopy

December 13

Peter Cotton, MD GI & Hepatology, MUSC

Gastroenterology in seven decades: some highlights and reflections

December 20, 27: Holiday, no seminar

January 3 : Fellows Case Conference

January 17

Dan Judge, MD Dept. of Medicine / Cardiology, MUSC

In Our DNA SC: what's in it for you?

January 24

Juan-Carlos Garcia-Pagan, MD, PhD Clínic Barcelona

TIPS for EVH

January 31

Jihad Obeid, MD Public Health Sciences, MUSC

Leveraging AI for Clinical Research Using EHRs and Clinical Text

DDRCC / CDLD / RMCB Seminar Series

Wednesday, 11 am EST Basic Science Building Rm 611

December 13

Victoria Weis, PhD Wake Forest School of Medicine

Intestinal disease in the NICU: novel diagnostic and therapeutic approaches for necrotizing enterocolitis

December 20, 27; January 3: Holiday, no seminar

January 10

Heather Francis, PhD Indiana University

Fanning the flames within: mast cells and the intricate pathways of liver fibrosis

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 DDRCC 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 here](#).

A complete listing of our DDRCC member publications since its inception can also be found through [NCBI here](#).

**A note from the Center Manager:
PUBLICATION COMPLIANCE**

Particularly as we prepare to submit our renewal application and finalize our complete listing of DDRCC-associated publications, it is **vital** that all of the papers that we cite are **PubMed and PMC compliant**. The majority of our papers so far have been deposited with NIHMS and so fulfill this requirement, but we will be working to vet the rest. We will need the cooperation of our member authors - usually by responding to an automated email from PubMed or NIHMS - to complete this task.

PLEASE RESPOND PROMPTLY TO ANY REQUESTS YOU MAY RECEIVE IN THE COMING MONTHS REGARDING ANY COMPLIANCE ISSUES WITH YOUR PUBLICATIONS.

Hu J, **Nieminen AL**, Weemhoff JL, Jaeschke H, Murphy LG, Dent JA, **Lemasters JJ**. The mitochondrial calcium uniporter mediates mitochondrial Fe(2+) uptake and hepatotoxicity after acetaminophen. *Toxicol Appl Pharmacol*. 2023 Nov 15;479:116722. PubMed PMID: [37848124](#); NIHMSID:NIHMS1940141.

Gudi RR, Johnson BM, Gaudreau MC, Sun W, **Ball L**, **Vasu C**. Intestinal permeability and inflammatory features of juvenile age correlate with the eventual systemic autoimmunity in lupus-prone female SWR × NZB F1 (SNF1) mice. *Immunology*. 2023 Nov 10;. PubMed PMID: [37947218](#).

Múnera JO, Kechele DO, Bouffi C, Qu N, Jing R, Maity P, Enriquez JR, Han L, Campbell I, Mahe MM, McCauley HA, Zhang X, Sundaram N, Hudson JR, Zarsozo-Lacoste A, Pradhan S, Tominaga K, Sanchez JG, Weiss AA, Chaturvedi P, Spence JR, Hachimi M, North T, Daley GQ, Mayhew CN, Hu YC, Takebe T, Helmrath MA, Wells JM. Development of functional resident macrophages in human pluripotent stem cell-derived colonic organoids and human fetal colon. *Cell Stem Cell*. 2023 Nov 2;30(11):1434-1451.e9. PubMed PMID: [37922878](#).

Weigand MR, Moore AM, Hu H, **Angel PM**, **Drake RR**, Laskin J. Imaging of N-Linked Glycans in Biological Tissue Sections Using Nanospray Desorption Electrospray Ionization (nano-DESI) Mass Spectrometry. *J Am Soc Mass Spectrom*. 2023 Nov 1;34(11):2481-2490. PubMed PMID: [37779241](#).

Misare KR, Ampolini EA, Gonzalez HC, Sullivan KA, Li X, Miller C, Sosseh B, Dunne JB, Voelkel-Johnson C, Gordon KL, **Hartman JH**. The consequences of tetraploidy on *Caenorhabditis elegans* physiology and sensitivity to chemotherapeutics. *Sci Rep*. 2023 Oct 23;13(1):18125. PubMed PMID: [37872247](#); PubMed Central PMCID: PMC10593782.

Ventura C, Junco M, Santiago Valtierra FX, **Gooz M**, Zhiwei Y, Townsend DM, **Woster PM**, **Maldonado EN**. Synergism of small molecules targeting VDAC with sorafenib, regorafenib or lenvatinib on hepatocarcinoma cell proliferation and survival. *Eur J Pharmacol*. 2023 Oct 15;957:176034. PubMed PMID: [37652292](#); PubMed Central PMCID: PMC10586475.

Erno J, **Gregoski MJ**, **Rockey DC**. The diagnostic utility of CT angiography compared to endoscopy in patients with acute gastrointestinal hemorrhage. *Gastrointest Endosc*. 2023 Oct 5;. PubMed PMID: [37804874](#).

Kwon JY, **Nietert PJ**, **Rockey DC**. Hyperbilirubinemia in hospitalized patients: Etiology and outcomes. *J Investig Med*. 2023 Oct;71(7):773-781. PubMed PMID: [37386866](#).

Hijazi N, **Shi Z**, **Rockey DC**. Paxillin regulates liver fibrosis via actin polymerization and ERK activation in hepatic stellate cells. *J Cell Sci*. 2023 Sep 15;136(18). PubMed PMID: [37667902](#); PubMed Central PMCID: PMC10560551.

Hudson KM, Klimczak LJ, Sterling JF, Burkholder AB, Kazanov MD, **Saini N**, Mieczkowski PA, Gordenin DA. Glycidamide-induced hypermutation in yeast single-stranded DNA reveals a ubiquitous clock-like mutational motif in humans. *Nucleic Acids Res*. 2023 Sep 22;51(17):9075-9100. PubMed PMID: [37471042](#); PubMed Central PMCID: PMC10516655.

Lach LE, **Chetta KE**, **Gregoski MJ**, Katikaneni LD. Trends in Preterm Body Composition and Neurodevelopmental Outcomes after Discharge. *Neonatology*. 2023 Sep 6;:1-9. PubMed PMID: [37673056](#).

Srivastava RP, **Nietert PJ**, Bobo JFG, Haj M, Forbes N, **Elmunzer BJ**. Serum Amylase as a Biomarker for Proof-of-Concept Studies in Post Endoscopic Retrograde Cholangiopancreato-graphy Pancreatitis Prevention. *Clin Gastroenterol Hepatol*. 2023 Sep;21(10):2676-2678.e2. PubMed PMID: [36029968](#); PubMed Central PMCID: PMC9958270.

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 GM130457** (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:

- 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](#).

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 Core Director, [Dr. Paul Nietert](#).

Cite our grants

For the DDRCC:

P30 DK123704

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

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(843) 792-1689

[Email Dr. Lee](mailto:kyuho.lee@muscc.edu)

Visit the DDRCC Website:

<https://muscc.edu/ddrcc>

For the COBRE CDLD:

P20 GM130457

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

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Department Chair
Regenerative Medicine and Cell
Biology
BSB 657A MSC508
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(843) 792-9104

[Email Dr. Duncan](mailto:stephen.duncan@muscc.edu)

Visit the CDLD Website:

<https://medicine.musc.edu/departments/regenerative-medicine/cobre-digestive-liver-disease>



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