



NORC News April 2024

Announcements

- The NORC competitive renewal will be due in the Fall of this year. Please respond to requests for documents and information to help us prepare the proposal.

Upcoming NORC Sponsored Speakers

- 4/11:** Maria Rohm, PhD
Nutrition Seminar
- 4/17:** Jonathan Krakoff, MD
Endo Research Conference
- 5/6:** Maigen Bethea, PhD
DRC Research in Progress
- 5/8:** Martha Susiarjo, PhD
Endo Research Conference
- 5/23:** David Dunstan, PhD
Nutrition Seminar

*Nominations are open for Fall 2024 speakers. [Click Here](#) to request support from the Colorado NORC for a speaker you'd like to have on campus.

Save the Date!

- NORC Calorimetry Workshop
July 15th and 16th
- NORC Fall Retreat
October (TBD)
- NORC CIMER Training
August 28th

Cite the Grant

Did you use any of the Colorado NORC resources to support your published research? Please site the NIDDK Grant Number: **DK048520**

Membership

Not yet a member of the Colorado NORC?
Email your CV/BioSketch to:
norc@cuanschutz.edu



From the Director Kudos



Congratulations to a couple of our newest NORC Regular Members: Andrew Libby and Paul Roberson!! Andrew and Paul recently were promoted to faculty positions in the Division of Endocrinology and are making great strides in developing their independent research programs.

If you know of faculty or trainees who have had a recent success worth noting (promotion, published paper, new grant, award, etc.), please let us know so we can pass along the good news. *"Recognition is the oxygen of the soul. It breathes life into our efforts and fuels our desire to keep pushing forward."* - Oprah Winfrey

Faculty Highlight: Srividhya Iyer, PhD



Dr. Srividhya Iyer is Assistant Professor in the Department of Orthopedics where her lab investigates the role of the Unfolding Protein Response (UPR) in bone health and repair. Her research team leverages genetically modified mice, cell culture, molecular biology, imaging, and -omics approaches to uncover fundamental mechanisms that can be modulated to improve bone matrix secretion by the osteoblasts.

Trained as molecular geneticist from the Center for Cellular & Molecular Biology (India), Dr. Iyer transitioned to investigating osteoporotic bone loss during her postdoctoral training at the University of Arkansas Medical Sciences (UAMS). As a junior COBRE investigator (funded by the NIGMS) at UAMS, she developed genetic mouse models to assess impact protein folding and processing overloads in the osteoblast lineage.

Since joining the University of Colorado in 2019, Dr. Iyer obtained two pilot awards (from the NORC and DRC) to investigate how diet-induced obesity impacts UPR during fracture repair – a period of increased protein synthesis and secretion. Dr. Iyer has recently been awarded an R01 from NIAMS to identify and target novel UPR-related signaling nodes as therapeutics to alleviate the obesity-related fracture repair deficits. Dr. Iyer is very involved in training and mentoring graduate students and research personnel.

In her free time, she enjoys reading, traveling, and being outdoors with her family.

Pilot Project RFA

We are requesting applications for Pilot & Feasibility projects to support new investigators with projects relevant to nutrition or obesity who have no independent NIH (or comparable) funding. The goal of the program is to help early career investigators (post doctoral fellows and junior faculty) perform studies that will help them build their independent research program and support their efforts to acquire a career development award (K01, K08, K23, VA CDA2 or similar award) or their first independent R01 award.

The program supports a **broad range of research on nutrition and obesity**, which includes, but is not limited to, the following areas:

- Early life influences affecting long term health
- Women's health and sex differences research
- Exercise, physical (in)activity, or energy expenditure
- Metabolic regulation, dysfunction, and related co morbidities (diabetes, cancer, CVD)
- Interventions for better health

Proposals related to health disparities, the science of behavior change, personalized nutrition/medicine, and disease specific treatments are also encouraged to apply.

Application Deadline: COB May 20th, 2024
Award Start Date: September 1st, 2024

For an application packet, contact:
Caro.Henauw@cuanschutz.edu

More info can be found on our website:
<https://medschool.cuanschutz.edu/cunorc/pilot-program>

Journal Clubs

Held Monthly from Sept–May
More info on journal clubs [HERE](#).

- **FAT Chat**
4th Thursday at 3pm
Organizer: Andrew Libby
- **BAT Chat**
2nd Monday at 10am
Organizer: Ed Melanson
- **Physical Activity MADness**
3rd Tuesday at 10am
Organizer: Ana Pinto
- **Molecular Metabolism**
4th Thursday at 4pm
Organizers: Amy Keller & Kimberly Bruce
- **Skeletal Muscle Working Group**
Last Tuesday at 11am
Organizer: Andrea Bonetto
- **Bone Think Tank**
2nd Monday at 4pm
Organizers: Christine Swanson & Sarah Wherry
- **SuperMito Group**
4th Tuesday at 10:30am
Organizer: Cecilia Caino

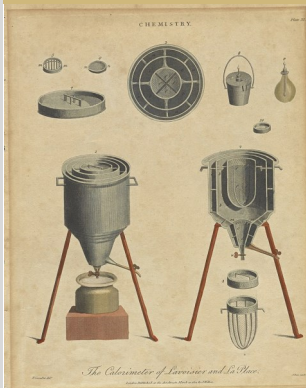
Colorado NORC Partners

Thank you to all of our partners
for your collaboration and support.

- [Anschutz Health & Wellness Center \(AHWC\)](#)
- [Anschutz Medical Campus](#)
 - [Dept of Orthopedics](#)
 - [Division of Endocrinology](#)
 - [Dept of Pediatrics, Section of Nutrition](#)
- [Barbara Davis Center \(BDC\)](#)
- [Centers on Aging \(CoA\)](#)
- [Centers for American Indian & Alaska Native Health \(CAIANH\)](#)
- [Colorado Clinical Translation Science Institute \(CCTSI\)](#)
- [LEAD Center](#)
- [Ludeman Center for Women's Health Research](#)
- [Office of Laboratory Animal Research \(OLAR\)](#)
- [Perinatal Research Center](#)
- [UC Cancer Center \(UCCC\)](#)

NORC News: April 2024

NORC Calorimetry Workshop July 15th and 16th



The 2024 Colorado NORC Calorimetry Workshop will review the technical aspects of indirect calorimetry. There will be sessions on metabolic carts, room calorimetry, and animal calorimetry systems. Scheduled speakers include Eric Ravussin, PhD, John Lighton, PhD, Kong Chen, PhD, MSCI, Leanne Redman, PhD, MS, and Jon Moon among many others. A continental breakfast will be served on both days and a reception will follow the day's programming on Monday July 15th. We are planning this workshop to be in-person only on the CU Anschutz Campus and it is **free and open to all!**

If you plan to attend, please register [HERE](#).
More information can be found on our website [HERE](#).

Lahm Lab

Department of Veterans Affairs Merit Award Renewal



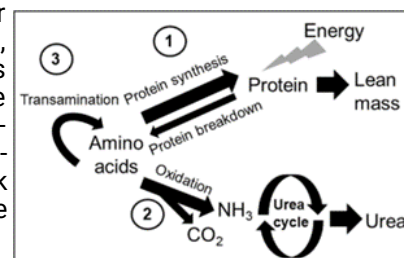
The Lahm lab recently renewed their Department of Veterans Affairs Merit Award. The goal of the proposal is to identify novel and therapeutically targetable mechanisms by which 17 β -estradiol (E2) exerts protective effects on right ventricle endothelial cell (RVEC) function in pulmonary hypertension (PH). PH is a progressive and devastating pulmonary vasculopathy that is a common complication of chronic obstructive pulmonary disease, pulmonary fibrosis, sleep disordered breathing or left heart dysfunction (either systolic or diastolic). If left untreated, PH frequently leads to RV failure and death.

The proposal builds on novel evidence that in RVECs, E2 increases expression of the enzyme carnitine palmitoyltransferase 1a (CPT1a), a rate-controlling enzyme of fatty acid oxidation (FAO) responsible for importing fatty acids into the mitochondria. The Lahm lab now suggests a new mechanism by which E2, via its receptor ER α , enhances FAO in RVECs to increase their angiogenic function, thus leading to increased RV resilience and better adaptation to increased afterload. The hypothesis is that E2 improves RV function in PH by ER α -dependent up-regulation of RVEC CPT1 and FAO. Specific aims of the proposal are: 1) To determine whether ER α is necessary for E2 to increase CPT1a expression and activity and to stimulate FAO in RVECs, 2) To identify transcriptional regulators employed by E2 to regulate FAO in RVECs, and 3) To establish that an ER α -BMPR2-apelin axis in RV cardiomyocytes enhances CPT1a expression, FAO, and angiogenesis in RVECs. The work is being performed in rodents with PH and RV failure, as well as in RVECs from patients with PH and RV failure. These studies may ultimately allow for the development of new RV-directed, non-hormonal treatments for both female and male patients with PH and RV failure. The Lahm lab is excited to collaborate on these studies and investigate novel hypotheses stemming from this work.

Publication Highlight from Laura D. Brown, MD *Journal of Perinatology*



Laura Brown, MD, is a professor in the Department of Pediatrics, Section of Neonatology at CU Anschutz. Dr. Brown had a paper published this past December in the *Journal of Perinatology* titled "Targeting optimal protein delivery in parenteral and enteral nutrition for preterm infants: a review of randomized, controlled trials". This review summarizes the randomized controlled trials that have been performed to test the impact of higher vs. lower protein delivery to the preterm infant. Cumulative evidence from these trials provides a framework for current recommendations for protein intake in the preterm infant. You can access this publication [here](#).



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Have questions or an idea for the next NORC News?

Email our Program Administrator:

Olivia.Schmidt@cuanschutz.edu

