



Colorado NORC News: July 2026

(Nutrition Obesity Research Center)

From the Director: Paul MacLean, PhD



Happy 4th of July!! We hope all of our NORC members enjoy the holiday weekend and celebrate our country's 250th anniversary. [Congratulations](#) to the Energy Balance Assessment (EBA) Core!! Matthew Jackman led an effort to acquire a grant from the Strategic Infrastructure for Research Committee (SIRC) for the latest Research Diets BioDAQ system. The BioDAQ provides real-time food intake monitoring and computer-controlled food access for interventions like intermittent fasting and time restricted feeding.

On another front, the Molecular and Cellular Analytical Core supported recently NCI-funded U01 grant to Carol Sartorius, Peter Kabos, and Paul MacLean, to investigate how plant-based and marine-based fatty acids differentially affect endocrine resistant breast cancer. Despite some of the uncertainties we are facing with federal funding, our research base continues to move forward to advance the science of nutrition and obesity. If you know of successes with grants or publications, please be sure to let us know so that we can highlight them here in our quarterly newsletter.

Quick Announcements



ASN Award given to Kristen Boyle, PhD

Dr. Boyle, Associate Professor of Pediatrics, will be honored in July as a **2026 Excellence in Nutrition Fellow of the American Society for Nutrition (ASN)**. The recognition program honors outstanding nutrition professionals who are 10 or more years past their terminal degree and have been an ASN scientist, clinician, or professional member for five or more years. Fellows have demonstrated significant impact in their respective career paths, as well as meaningful service to the Society.

Emily Hill, PhD, RDN - New Funding and Positions

Dr. Hill recently transitioned to faculty and started a new position as a **tenure track Assistant Professor in the Department of Pediatrics, Section of Nutrition**. She will continue to build her translational research program in nutrition science, behavioral program optimization, -omics integration, and cancer prevention and survivorship with a **newly-funded NCI R00 award** and additional support from DOP, the Colorado NORC, the Anschutz Health and Wellness Center, and the University of Colorado Cancer Center. Dr. Hill also began a new role as **Nutrition Research Director for the CCTSI Nutrition Core**, where she works with Nutrition Core staff to facilitate nutrition-related research on campus and beyond.



NORC Retreat scheduled for Monday, October 26th

Save the date for the **annual NORC Retreat** scheduled for Monday, October 26th, 2026 in the Krugman Conference Hall. We'll have updates about the Colorado NORC, a keynote speaker, presentations from INSPIRE Scholars, a poster session, NORC Pilot awardee updates and more!

Publication from Pilot Awardee Tyler Cook, PhD

New work from **Dr. Darleen Sandoval's lab** sheds light on an unexpected hormonal mechanism driving hypoglycemia after bariatric surgery. In work led by **postdoctoral fellow and 2024 NORC Pilot Awardee, Dr. Tyler Cook**, glucagon was found to play a paradoxical role in blood sugar regulation. Normally, glucagon is thought of as a glucose-mobilizing hormone that helps prevent low blood sugar levels, but when blood glucose is elevated, glucagon can bind the GLP-1 receptor onto pancreatic β -cells and stimulate insulin secretion to lower glycemia. After bariatric surgery, however, glucagon can elicit hypoglycemia, likely due to the many physiological changes that occur after weight loss, including improved insulin sensitivity and diminished hepatic glucose production. Blocking the GLP-1 receptor pharmacologically partially prevented the hypoglycemic effect of glucagon but did not fully restore glycemia in bariatric surgery mice. The full publication of this research, which is also in a collaboration with Dr. Richard Benninger's lab at the Barbara Davis Center, is available in the **August issue of Molecular Metabolism** and can be found [here](#).



Faculty Highlight

Katharina Hopp, PhD

Dr. Hopp is an Associate Professor in the Department of Medicine, Division of Renal Diseases and Hypertension at the University of Colorado Anschutz Medical Campus (CU AMC). She is also the Director of Basic Science Research and of the Preclinical Core within the CU AMC Polycystic Kidney Disease (PKD) Research Center. Autosomal Dominant PKD (ADPKD) is the most common monogenic kidney disease worldwide where enlargement of fluid filled cysts leads to progressive kidney function decline and organ failure. No cure exists and treatment options are limited.



Dr. Hopp's NIH, DoD, and Foundation funded research focuses on understanding the mechanisms that drive kidney cyst growth with an emphasis on the kidney immune microenvironment. In particular, she is interested in understanding how immune cells communicate with the cystic kidney epithelium and vice versa and whether therapeutic targeting of this communication could be a novel, feasible approach to slow kidney cyst growth. Her approaches, in part, are founded on research avenues building the future for cancer treatments; PKD has been considered a neoplasia in disguise. For example, her lab found that kidney T cells display an exhausted phenotype and that immune checkpoint blockade slows disease progression in murine models of ADPKD. Further, FDA compounds known to alter cancer cell metabolism and production of immunosuppressive metabolites, such as the tryptophan metabolism enzyme inhibitor epacadostat, are translatable as PKD therapy as investigated by her lab. Further, in collaboration with the CU AMC NORC, Dr. Hopp adopted a more global approach on how to alter dysregulated epithelial metabolism and production of immune metabolites in PKD through studies of caloric restriction (CR). Here, her lab showed that CR slowed PKD progression remarkably while also re-activating T cells and limiting harmful kidney macrophage populations.

Beyond the research conducted in her laboratory, and as part of the PKD Preclinical Core, Dr. Hopp leads therapeutic intervention studies using murine models mimicking the disease. She teams up with the PKD Center clinical leadership team, Drs. Chonchol and Nowak, as well as industry to test rapidly translatable as well as highly innovative therapeutics in their efficacy to slow kidney cysts growth in mice and rats.

Finally, Dr. Hopp is a member of the scientific advisory council of the PKD Foundation whose core pillars are to advocate for patients, build a supportive community, and bolster basic, translational, and clinical research. She is also an Associate Editor for the *Journal of the American Society of Nephrology* where she alongside the whole editorial team assures that rigorous, cutting-edge science reaches the nephrology community.

Outside of work, Dr. Hopp enjoys spending time with her husband and two kids. Together, they go on hikes and bike rides, camp in the Rockies, kick the soccer ball around in the backyard, or splash in pools. Dr. Hopp recharges through trail running adventures in the mountains, either with her husband or solo.



Ginger Johnson Celebrates 40 Years at CU!

Ginger Johnson, Research Services Professional in the MacLean Lab, recently celebrated her 40 year anniversary working at the University of Colorado! How does someone get to 40+ years of service with one institution? It starts with the decision to seek a new job. In 1982, Ginger and her husband, Steve, agreed that Phoenix was no place to raise their family. They specifically aimed for Colorado because Ginger wanted to work with Jerrold Olefsky in Endocrinology at UCHSC. There was a hiring freeze at the time, but the Division was able to offer her a yearly contract. Within a few months, Dr. Olefsky left for La Jolla, CA, but Endocrinology found ways to keep Ginger under contract.

By 1985, Ginger wanted a bit more security so she became a PRA in Pathology. She worked for Paul Shanley studying renal reperfusion injury for 8 years. When Dr. Shanley moved to Syracuse, Ginger stayed in Pathology with Gary Miller studying prostate cancer. Dr. Miller died suddenly in 2001 and Ginger was looking for a new direction.

Jim Hill was pretty new to the CU Health Sciences Center campus, and he was building a research program with bright young faculty in Endocrinology. Paul MacLean and Janine Higgins thought Ginger was a good fit so she joined their lab. They left the old campus for Anschutz in 2004, landing on the 5th floor of RC1 North. They watched the campus grow around them over the next couple of years, including the Health and Wellness Center. Soon, researchers and clinical faculty successfully brought the NIH's Nutrition and Obesity Research Center grant to Anschutz and it continues to support research and training all over campus.

Ginger shares that she has "been most fortunate to work for creative well-funded researchers for over 40 years" and can't believe how fast time passes.



MoTrPAC Symposium
Exploring the Molecular Map of Exercise: The Molecular Transducers of Physical Activity Consortium (MoTrPAC)

July 20th, 2026 | 8am-3:30pm

Donald E. Elliman Conference Center, AHSB

MoTrPAC is an NIH Common Fund initiative that aims to map the molecular response to acute and chronic exercise. An important objective of MoTrPAC was to create data resources now available to the research community in a freely accessible data hub that can be used for exploratory and hypothesis-drive research.

Who Should Attend? Researchers, data scientists, trainees, and anyone interested in exercise biology, multi-omics, computational biology, or large-scale consortium science. The symposium will include presentations by MoTrPAC investigators including an overview of MoTrPAC, Human and Animal Study Protocols and the MoTrPAC Hub resource.

[Registration, Agenda and Event Info](#)

KERN Lipid Conference Travel Awardees

We're excited to announce the recipients of NORC's travel award to the KERN Lipid Conference taking place in Breckenridge, Colorado from August 10-12, 2026. This year's conference, titled "Lipids and Lipoproteins in Cardiometabolic and Neurodegenerative Diseases", is chaired by Dr.'s Kimberly Bruce of Anschutz Medical Campus and Clair Crewe of Washington University.

[Conference Registration.](#)



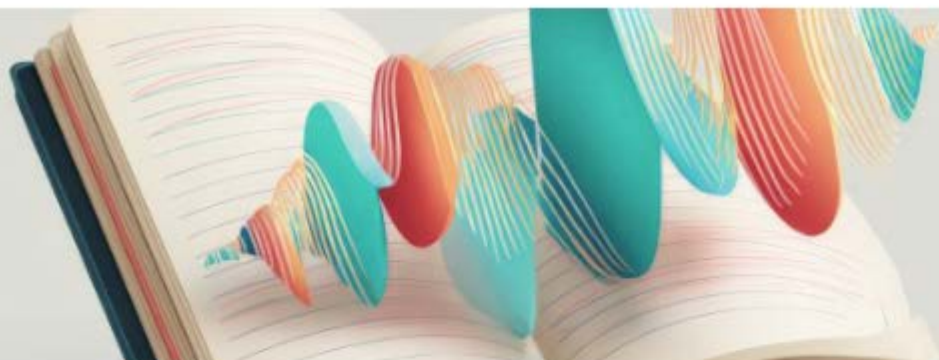
Zhiwei Sun

Zhiwei Sun is a postdoctoral fellow in Dr. Yuwen Zhu's lab. His research focuses on the molecular mechanisms governing lipoprotein transport and metabolism. His recent work identified GPR182 as a novel lipoprotein receptor involved in dietary lipid transport, and his current studies investigate how GPR182 in liver sinusoidal endothelial cells (LSECs) regulates the clearance of circulating lipoproteins and its role in metabolic dysfunction-associated steatotic liver disease (MASLD).



Marta Hita Hernandez

Marta Hita Hernandez is a postdoctoral fellow in Dr. Powell-Jansson's lab. Her research focuses on the impact of maternal metabolic disease and placental dysfunction on fetal and adult health with a focus on lipid metabolism and transfer, sex differences and neurobehavioral disorders. She currently investigates maternal-fetal transfer of the omega 3 fatty acid, DHA, in healthy and complicated pregnancies and the long-term consequences of DHA deficit during the prenatal period on brain function in male and female offspring by focusing on placental transport capacities of this essential fatty acid.



Publication Highlight:

"GPR182 is a lipoprotein receptor for dietary fat absorption"

Unlike nutrients such as glucose and amino acids, dietary fat is absorbed through the lymphatic system in the form of large lipoprotein particles known as chylomicrons (CMs). Traditionally, this process has been considered largely passive, with CMs freely entering the highly permeable lymphatic capillaries of the small intestine. However, in [a recent study published in the *Journal of Clinical Investigation*](#), Yuwen Zhu and colleagues challenge this longstanding view by demonstrating that dietary fat absorption is an active, regulated process.

The researchers identified GPR182, an endothelial-specific cell-surface receptor, as a key mediator of chylomicron transport across intestinal lymphatic vessels. Genetic deletion of GPR182 impaired dietary lipid absorption and protected mice from diet-induced obesity. Building on these findings, Dr. Zhu's laboratory developed a monoclonal antibody targeting GPR182. Treatment of obese mice with this antibody resulted in approximately 10% body weight loss over an 8-week period.

NORC members Kimberley Bruce and Paul MacLean are co-authors of the publication. Dr. Zhiwei Sun, the study's first author, will present this work at the 2026 Kern Lipid Conference in August 2026 as mentioned above.



NORC Partners

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

- Adult & Child Center for Outcomes Research & Delivery Science (ACCORDS)
- Anschutz Health & Wellness Center (AHWC)
- Anschutz Medical Campus
 - Dept of Orthopedics
 - Division of Endocrinology
 - Dept of Pediatrics
- Barbara Davis Center (BDC)
- Centers on Aging (CoA)
- Centers for American Indian & Alaska Native Health (CAIANH)
- Colorado Clinical Translation Science Institute (CCTSI)
- Colorado State University (CSU)
- CU Boulder
- LEAD Center
- Ludeman Family Center for Women's Health Research
- UC Cancer Center (UCCC)
- VA Medical Center - Diabetes Team

Ongoing Journal Clubs

Typically held monthly from Sept-May.
More info on our [website](#).

- FAT Chat
- BAT Chat
- Physical Activity MADness
- Molecular Metabolism
- Muscular Skeletal Working Group
- Bone Think Tank
- SuperMito Group

Membership

Not yet a member of the Colorado NORC?
Request Membership on our website.

Cite the Grant

If you use Colorado NORC resources to support your published research, please site our grant: **DK048520**

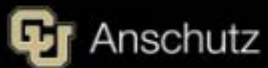
Have a question or an idea for the next NORC News?

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