OCTOBER 2023

CONGRATULATIONS DR. JANE REUSCH - FOUR PART VIDEO SERIES ABOUT T2D FEATURES IN THE NEW ENGLAND JOURNAL OF MEDICINE

Jane E.B. Reusch, MD, professor of medicine, bioengineering, and physiology, is featured in a four-part video series about type 2 diabetes that debuted in The New England Journal of Medicine on September 7. The first video, “Type 2 Diabetes – Controlling the Epidemic, Episode 1: Understanding and Preventing Type 2 Diabetes,” is an outstanding introduction. The video explains factors that are contributing to the alarming rise in cases of type 2 diabetes in our country and makes a call for improved screening and treatment. Jane is the first voice in the video. “The day I was born, it was maybe 1 million people,” she says. “When I started my training, it was 3 to 4 million people and now we have 37 million Americans affected by diabetes – 90% of those type 2 diabetes.” The presentation, based on research by Jane and colleagues in the field, is a terrific public service to raise attention to a growing health crisis.

WATCH HERE

KALIE TOMMDERDAHL, MD - PILOT & FEASIBILITY 2021 COHORT - RECIPIENT OF ADA AWARD

Dr. Tommerdahl was awarded the American Diabetes Association Type 2 Diabetes in Youth Innovative Clinical or Translational Sciences Award for her application entitled “Effects of High-Resistance Inspiratory Muscle Strength Training (IMST) on Cardiorenal and Vascular Function in Youth and Young Adults with Type 2 Diabetes”. The grant has a duration of 3 years and it is for a total of $600,000.

Project abstract: Over 70% of individuals with youth-onset type 2 diabetes develop hypertension during adolescence and young adulthood and the majority fail to achieve systolic blood pressures <130 mmHg, leading to high risk of cardiovascular disease, kidney failure, and premature death. A combination of lifestyle modifications and drug therapy is recommended to lower BP, however, adherence to time-intensive lifestyle interventions such as aerobic exercise is poor. High-resistance inspiratory muscle strength training (IMST) is a novel, safe, and time-efficient lifestyle intervention with excellent adherence in adults involving repeated inhalations against a resistive load using a hand-held device. This pilot trial seeks to leverage innovative translational methods to examine the impact and establish the underlying mechanism(s) of action of IMST for lowering systolic blood pressure and improving cardiovascular and kidney function in young persons aged 13-25 years with type 2 diabetes. We will examine IMST’s effects (i.e., 30 breaths [5 minutes]/day at 75% maximal inspiratory pressure, 6 days/week for a total of 6 weeks) on cardiorenal function with comprehensive, non-invasive biochemical and vascular assessments. Mechanistic insights into IMST’s effects on endothelial function and reactive oxygen species will be provided by serum markers, endothelial cell biopsies, and ex vivo examination of nitric oxide and reactive oxygen species regulation.
2022 PILOT & FEASIBILITY Awardee: 
Lessons & Triumphs - Kathleen Woulfe, PhD

How did the P&F award help your research?
My research has been monumen tally impacted by the Diabetes Research 
Center Pilot and Feasibility Award. This pilot award allowed my laboratory 
to expand our expertise in cardiac sarcornere mechanics to exploring 
reasons patients with diabetes have a greater risk of developing 
diabetic dysfunction (impaired cardiac relaxation). This pilot award gave 
us a chance to develop a highly novel idea that hyperglycemia impacts 
cardiac and skeletal muscle in similar ways to drive dysfunction. Since 
patients with diabetes develop heart and muscle functional declines, and 
these two systems share the organization and proteins that make up the 
sarcorne (the basic contractile unit), we hypothesize that proteins of the 
sarcornere in both systems have changes due to hyperglycemia. We are 
really excited with the fact that we have found a change in relaxation in 
the sarcorneres from the heart and skeletal muscle of 2 mouse models of 
hyperglycemia. We plan to use this data to apply for funding to explore 
this further.

Do you believe this award helped develop you professionally? If so, how?
This award has helped me develop professionally in multiple ways. 
First, the mentorship and guidance have provided fundamental instruction 
in extending a current research interest to address a critical clinical need. 
Second, the resources offered through the DRC have opened up new 
avenues of inquiry in my lab and enabled us to explore other questions. 
Third, this award and the membership have provided guidance and career 
advice.

What advice would you give to yourself in April 2022, when you first 
received this award?
The advice I would give myself in 2022 when I first received the award, 
would be to take my mentorship team up on their offer of professional 
advice sooner rather than later. This program has helped me so much.

6th Childhood Diabetes Prevention Symposium
General Population Screening for T1D

Novem ber 9-10, 2023

Anschutz Medical Campus, Aurora, Colorado, USA

We would like to invite you to participate in the forthcoming 6th Symposium on General Population 
Screening for T1D. It will be held as a hybrid meeting on November 9-10, 2023. 
Review the program here & Register here for either or both days.
Please join us for this event, even if only for one or two sessions.
Share the invitation with any of your colleagues or collaborators who may be interested.

JOIN US FOR THE ANNUAL CAROUSEL BALL IN DENVER

This year will mark The 37th Annual Carousel Ball. 
Attendees will enjoy dinner, cocktails & hors 
doëuvres, live & silent auctions, and exciting 
entertainment. All proceeds from the event benefit 
the Children’s Diabetes Foundation and the 
Barbara Davis Center for Diabetes.

Click here to learn more & get tickets.

Diabetes Research Center Events

Research in Progress Seminar Series
## FALL 2023

**Mondays at 12:00pm**  
**BDC Main Conference Room 2104**

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<th>DATE</th>
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<tbody>
<tr>
<td>Monday, October 2, 2023</td>
<td>Liudmila Kulik, PhD</td>
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<td>Monday, October 9, 2023</td>
<td>Cristy Geno, PhD</td>
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<td>Monday, October 16, 2023</td>
<td>Rachel Friedman, PhD</td>
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<td>Monday, October 23, 2023</td>
<td>Kathleen Woulfe, PhD</td>
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<td>Monday, October 30, 2023</td>
<td>Sarit Polsky, PhD</td>
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<td>Monday, November 6, 2023</td>
<td>Neda Rasouli, PhD</td>
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<td>Monday, November 13, 2023</td>
<td>Anne Gresh</td>
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<td>Monday, November 20, 2023</td>
<td><strong>Thanksgiving Break</strong></td>
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<tr>
<td>Monday, November 27, 2023</td>
<td><strong>City of Hope Diabetes Research Symposium</strong></td>
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<td>Monday, December 4, 2023</td>
<td>Elliott Brooks</td>
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<td>Monday, December 11, 2023</td>
<td>Maria Hansen</td>
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<td>Monday, December 18, 2023</td>
<td><strong>Holiday Break</strong></td>
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<td>Monday, December 25, 2023</td>
<td><strong>Holiday Break</strong></td>
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## 2023-2024 BDC & DRC DIABETES SPEAKER SERIES

Seminars will take place in person on Fridays at 12pm MT  
All seminars will have a link provided for registration.

**Questions? Contact:**  
Christy Vasey, christy.vasey@columbia.edu , 303-724-9787

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<tr>
<th>DATE</th>
<th>PRESENTER</th>
<th>Institution/Department</th>
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<tbody>
<tr>
<td>Friday, October 20, 2023</td>
<td>Paige Geiger, PhD</td>
<td>Molecular and Integrative Physiology, University of Kansas Medical Center</td>
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<td>Friday, November 3, 2023</td>
<td>Jill Kenaley, PhD</td>
<td>Nutrition and Exercise Physiology, University of Missouri</td>
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<td>Friday, November 10, 2023</td>
<td><em>Childhood Diabetes Prevention Day</em></td>
<td>Symposium AMC 780</td>
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<td>Friday, November 17, 2023</td>
<td>Aaron Kelly, PhD</td>
<td>Division of Pediatric Epidemiology and Clinical Research, Co-Director, Center for Pediatric Obesity Medicine, University of Minnesota Medical School</td>
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<tr>
<td>Friday, December 1, 2023</td>
<td>Julie Sheddin, PhD</td>
<td>UCSF School of Medicine, Diabetes Center</td>
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<tr>
<td>Friday, January 19, 2024</td>
<td>Maria J. Redondo, MD, PhD, MPH</td>
<td>Pediatric Diabetes &amp; Endocrinology, Baylor College of Medicine</td>
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<tr>
<td>Friday, February 2, 2024</td>
<td>Emily K. Sims, MD</td>
<td>Pediatric Endocrinology and Diabetology, Indiana University School of Medicine, Center for Diabetes and Metabolic Diseases</td>
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<td>Friday, February 16, 2024</td>
<td>Donna L. Farber, PhD</td>
<td>Director, Human Tissue Immunity and Disease Initiative, Chair, Division of Surgical Sciences, Columbia University</td>
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<td>Friday, March 1, 2024</td>
<td>Lukas K. Tamm, PhD</td>
<td>Chair, Department of Molecular Physiology and Biological Physics, Director, Center for Membrane and Cell Physiology, University of Virginia School of Medicine</td>
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<tr>
<td>Friday, March 15, 2024</td>
<td>Fiorello Brown, MD</td>
<td>Co-Director JoAnn and BISMC Diabetes in Pregnancy Program, Harvard Medical School</td>
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**Gossard Forum**
OPPORTUNITIES FOR FUNDING

Click Here to see all current JDRF RFAs

Click Here to see all current NIH NIDDK RFAs

Click here to see current CU INTERNAL Limited Submission Funding Opportunities

Have you considered using a DRC core service?

The DRC contains four biomedical cores that provide services and resources to DRC investigators. These cores are designed to facilitate and broaden CU Denver DRC research by expanding access to shared equipment, enhancing availability and training for emerging technologies, and allowing scientists to have greater access to clinical tissue and data.

Cell and Tissue Analysis
Access to state-of-the-art multicolor confocal microscopy, flow cytometry analysis and cell sorting services, and expert assistance for mass cytometry and ion-beam imaging technologies.

Learn More about Cell & Tissue Analysis

Clinical Resources
Access to an integrated, campus-wide, research registry enabling informatics-based clinical studies.

Learn More about Our Clinical Resources

Disease Modeling
Access and training in stem cell technologies for in vitro human disease modeling of diabetes & molecular core services.

Learn More about Disease Modeling

Tissue Procurement & Processing
Access to Tissue Isolation and transplantation services along with access to commonly used cell lines and diabetes-related technology techniques.

Learn More about Tissue Procurement & Processing
DRC WELCOMING NEW MEMBERS
APPLY NOW!

Now is a great time to consider applying to become a DRC Member. We welcome members who are broadly engaged in all aspects of diabetes research, including complications associated with diabetes. As a member, you would get a discount for core usage and prioritized services.

Browse our website to learn more: https://medschool.cuanschutz.edu/diabetes-research-center

Here is a list of our current membership criteria

1. Full-time University of Colorado faculty
2. Pursuing research broadly relating to diabetes or metabolism that is funded by the NIH, ADA, JDRF or other diabetes-related funding source
3. Current recipients of DRC Pilot & Feasibility Awards, regardless of funding source
4. New faculty (within 5 years of first faculty appointment) who are developing independent diabetes-related research programs

If you are interested in joining as a member please click HERE to fill out an application.

Want us to feature you or a colleague on an upcoming DRC newsletter? Have an important research update?

Click Here to Submit a Story to the DRC Monthly Newsletter
Click Here to Follow us on Twitter

Please remember to acknowledge support from the University of Colorado Diabetes Research Center and our associated cores by referencing NIDDK grant #P30-DK116073 in your presentations and publications.

Click here to visit the DRC Website
Click Here to Subscribe to this Newsletter

Contact Lisbel.Woods@CUAnschutz.edu with any questions or feedback about this newsletter