


OCTOBER 2023

**CONGRATULATIONS DR. JANE REUSCH -
FOUR PART VIDEO SERIES ABOUT T2D
FEATURED 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](#)

 The NEW ENGLAND
JOURNAL of MEDICINE



**KALIE TOMMERDAHL, 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 my 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 monumentally impacted by the Diabetes Research Center Pilot and Feasibility Award. This pilot award allowed my laboratory to expand our expertise in cardiac sarcomere mechanics to exploring reasons patients who have diabetes have a greater risk of developing diastolic 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 sarcomere (the basic contractile unit), we hypothesize that proteins of the sarcomere 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 sarcomeres 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 developed 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 mentorship 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.



Barbara Davis Center for Diabetes
UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

6th Childhood Diabetes Prevention Symposium General Population Screening for T1D

NOVEMBER 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 d'oeuvres, 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*

DATE	PRESENTER
Monday, October 2, 2023	Liudmila Kulik, PhD
Monday, October 9, 2023	Cristy Geno, PhD
Monday, October 16, 2023	Rachel Friedman, PhD
Monday, October 23, 2023	Kathleen Woulfe, PhD
Monday, October 30, 2023	Sarit Polsky, PhD
Monday, November 6, 2023	Neda Rasouli, PhD
Monday, November 13, 2023	Anne Gresch
Monday, November 20, 2023	Thanksgiving Break
Monday, November 27, 2023	City of Hope Diabetes Research Symposium
Monday, December 4, 2023	Elliott Brooks
Monday, December 11, 2023	Maria Hansen
Monday, December 18, 2023	Holiday Break
Monday, December 25, 2023	Holiday Break

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@cuanschutz.edu , 303-724-9787

Friday, October 20, 2023	Paige Geiger, PhD Professor	<i>Molecular and Integrative Physiology University of Kansas Medical Center</i>
Friday, November 3, 2023	Jill Kanaley, PhD Professor	<i>Nutrition and Exercise Physiology University of Missouri</i>
Friday, November 10, 2023	Childhood Diabetes Prevention Day	<i>Symposium AMC- TBD</i>
Friday, November 17, 2023 *joint visit with CHCO*	Aaron Kelly, PhD Professor	<i>Division of Pediatric Epidemiology and Clinical Research Co-Director, Center for Pediatric Obesity Medicine University of Minnesota Medical School</i>
Friday, December 1, 2023	Julie Sneddon, PhD Assistant Professor	<i>UCSF School of Medicine Diabetes Center</i>
Friday, January 19, 2024	Maria J. Redondo, MD, PhD, MPH Professor	<i>Pediatric Diabetes & Endocrinology, Baylor College of Medicine</i>
Friday, February 2, 2024	Emily K. Sims, MD Associate Professor	<i>Pediatric Endocrinology and Diabetology Indiana University School of Medicine Center for Diabetes and Metabolic Diseases</i>
Friday, February 16, 2024 *joint visit with Immunology*	Donna L. Farber, PhD Professor	<i>Director, Human Tissue Immunity and Disease Initiative Chief, Division of Surgical Sciences Columbia University</i>
Friday, March 1, 2024	Lukas K. Tamm, PhD Professor	<i>Chair, Department of Molecular Physiology and Biological Physics Director, Center for Membrane and Cell Physiology University of Virginia School of Medicine</i>
Friday, March 15, 2024 Gossard Forum	Florence Brown, MD Assistant Professor	<i>Co-Director Joslin and BIDMC Diabetes in Pregnancy Program Harvard Medical School</i>

Friday, March 29, 2024	BDC Diabetes Day Symposium Keynote Speaker: Jane Buckner, MD	Director, Translational Research Program President- Benaroya Research Institute at Virginia Mason
Friday, April 12, 2024	Lu Cai, MD, PhD Professor	Director, Pediatric Research Institute University of Louisville School of Medicine
Friday, April 26, 2024	Roland Tisch, PhD Professor	Microbiology and Immunology University of North Carolina, Chapel Hill
Friday, May 10, 2024	Senta Georgia, PhD Assistant Professor	Endocrinology, Diabetes and Metabolism Keck School of Medicine, University of Southern California

OPPORTUNITIES FOR FUNDING



[Click Here to see all current JDRF RFAs](#)



[Click Here to see all current NIH NIDDK RFAs](#)

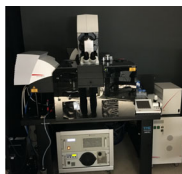


University of Colorado
Anschutz Medical Campus

[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 multi-color confocal microscopy, flow cytometry analysis and cell sorting services, and expert assistance for mass cytometry and ion-beam imaging technologies.

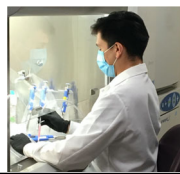
[Learn More about Cell & Tissue Analysis](#)



Clinical Resources

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

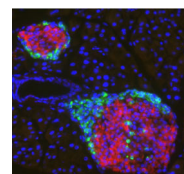
[Learn More about our Clinical Resources](#)



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 islet isolation and transplantation services along with access to commonly used cell lines and diabetes-related histology 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

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