



# Quarterly Highlights

**SUMMER 2020** QUARTERLY HIGHLIGHTS



## Hello and Best Wishes from Dr. Judy Regensteiner, CWHR Director and Co-founder

Since March, our country and the world have witnessed widespread change and disruption. However, in the midst of this rapidly changing landscape, the scientific community has displayed incredible teamwork in the quest to find solutions. Scientists are working together to find a vaccine(s) for COVID-19, and there is an immense effort to better treat the disease, including understanding sex differences in the rates, severity and prognosis of those afflicted with the virus. While there are many challenges, I am heartened by the team-based scientific approach to finding solutions. This work is built on decades of progress in medical research.

The Center for Women's Health Research was founded on the idea that research in women's health and sex differences would change lives for women and their families. We will continue increasing our research efforts and our workforce by investing in more scientists at various stages of their careers, so that we can advance the critical and under-realized fields of women's health and sex differences research. This year, we welcomed three new National Institutes of Health (NIH) Building Interdisciplinary Research Careers in Women's Health (BIRCWH) scholars as you will see in our article highlighting the success of the program. We are also looking forward to announcing, at our Annual Community Event, our new class of early career MD and PhD researchers who are becoming Center scientists by virtue of having had their projects selected by our peer review committee. All of these efforts are expanding our footprint in women's health and sex differences research. The research that we invest in today will soon enhance the health of our communities. It is exciting work and I am highly energized by the scientists working with the CWHR.

Our virtual Annual Community Event will take place on November 11. While we are disappointed that we are not able to gather in person, we will continue to celebrate the progress of the Center and share it with you since the work of the CWHR is made possible by the support of our community. This year, Laurie R. Santos, PhD, will join us as the keynote speaker. Her exciting evidence-based research on the science of well-being is a fitting topic for this challenging year. Dr. Santos is an expert on human cognition, its origins and the evolutionary biases that influence our all-too-imperfect life choices. She teaches the popular Yale course, "Psychology and the Good Life", hosts the podcast, "The Happiness Lab," and leads "The Science of Well-Being" course online. We are looking forward to her talk and hope you will find it inspiring as well as informative. We think her talk will be very timely and enlightening! Visit [www.cwhr.org](http://www.cwhr.org) to learn more about sponsorship opportunities and tickets.

As I look at the accomplishments of our researchers in the past several months, I am heartened by the progress and looking forward to the future.

Judy Regensteiner, PhD  
Professor of Medicine  
Judith and Joseph Wagner Chair in Women's Health Research  
Director, Center for Women's Health Research  
Director of Women in Medicine and Science

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# Recent and Upcoming Events

- October 16, 2020**      **Researcher Training, How to Get the Most Out of Your Collaboration with a Biostatistician, led by John Rice, PhD**
- October 29, 2020**      **Let's Talk: Living in Harmony with your Hormones**
- November 11, 2020**      **Annual Community Event**

*The University of Colorado Anschutz Medical Campus is postponing all in-person events through December 2020. The safety of our community is extremely important to us. The Let's Talk lecture series and researcher trainings are moving online so we can continue to engage with our community. We look forward to gathering in person once it is safe to do so.*

Learn more at [www.cwhr.org](http://www.cwhr.org).

# Welcome James C.T. Linfield to the Advisory Board

"I am excited to join the Advisory Board for the Center for Women's Health Research because of the outstanding faculty and mission. I believe that women's health and sex differences research is important for the health and wellbeing of our communities. I'm honored to be part of such an incredible organization." – James Linfield

A sincere welcome to our newest Advisory Board Member Jim Linfield! Jim joined the Advisory Board in July and is excited to work alongside our faculty and staff to further women's health and sex differences research.

Jim founded the Colorado office of Cooley LLP, an international law firm, in 1993 and served as its managing partner through 2013. His practice represented biotechnology, the medical device industry, information technology and clean technology companies in financing, M&A and strategic transactions, as well as venture capital and growth equity funds in their investments.

Before founding Cooley's Colorado office, Jim worked in the biotech industry for several years as Chief Financial Officer and General Counsel for Somatogen, Inc. He was previously a partner at Davis Graham & Stubbs, a Denver law firm.

Jim served as Chairman of the Board of the University of Colorado Foundation from 2016-18 and continues to serve on its Investment Policy Committee. He currently serves on the Advisory Board for the BioFrontiers Institute at the University of Colorado Boulder, and the Board of Directors of Fitzsimmons Innovations, the public authority that is developing the area north of the CU Anschutz Medical Campus. He is also on the Board of Directors of Opera Colorado and of the Blackstone Entrepreneurs Network and is a Founder and Executive Committee member of the Colorado Cleantech Industry Association.

Jim received his undergraduate degree from Harvard University and his JD from Harvard Law School, both magna cum laude.

"We are thrilled to welcome Jim to the Advisory Board. This is the perfect time to have him join us. We are grateful for his service to the community, the University of Colorado and now women's health. His wealth of experience and outstanding commitment to the Denver area is greatly appreciated. I look forward to working with him in the years to come," said Jan Meck, advisory board chair.

# Welcome to our Newest Staff Members

**Devin Lynn** joined the CWHR team as Communications Senior Professional in March 2020. Devin comes to us from the CU Anschutz Office of Advancement where he served as a Communications Associate. Devin brings with him experience in writing campus stories, overseeing digital engagement efforts, coordinating annual publications and leading video efforts for the Office of Advancement. We have had the pleasure of working with Devin on several occasions and are thrilled to have him join the CWHR team full time.

**Gina Daly** provides administrative support to Dr. Judy Regensteiner and is also the program assistant for the Doris Duke Charitable Foundation Fund to Retain Clinical Scientists and Building Interdisciplinary Research Careers in Women's Health Grants. Gina has many years of experience managing a Howard Hughes Medical Institute research laboratory at the University of Pennsylvania School of Medicine along with a decade of experience in legal administration. Originally from Pennsylvania, Gina holds a BA in Political Science from the College of the Holy Cross. Outside of work, Gina and her family enjoy travel, exploring the natural wonders, kayaking and interacting with people from diverse cultural backgrounds.

# Dr. Regensteiner Receives Bernadine Healy Award

On July 24, Dr. Regensteiner received the Bernadine Healy Award for Visionary Leadership in Women's Health. This annual award is given to researchers who are propelling the field of women's health forward. Dr. Regensteiner received the award during the Women's Health Conference 2020 hosted by the VCU Institute for Women's Health. The award is named in honor of Bernadine Healy, MD, the first female director of the National Institutes of Health.

## CWHR ADVISORY BOARD:

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# Fostering Research Careers

## with the Building Interdisciplinary Research Careers in Women's Health Program



"I wasn't initially focused on starting a career in research, but as I met with more transgender patients or patients with a difference in sex development, I realized how little medicine knew about these patients. I was tired of telling patients and families 'we don't know,'" said Natalie Nokoff, MD, assistant professor of pediatrics. Transgender patients are an understudied population and researchers like Dr. Nokoff are now better understanding their specific needs due to advancing research in this area.

Mid-way through her fellowship, Dr. Nokoff decided that she wanted to start a formal research career. "A lot of doctors think they are trained to do research and that is really just hubris. Unless you are trained with a PhD, you likely don't know how to build a formal research program without further training," said Dr. Nokoff. For both PhD and MD researchers, taking the initial steps of building a research program can be difficult and having dedicated time and mentorship helps this early career transition. Dr. Nokoff decided to assemble the resources and training to successfully launch her research. She applied for and was named a Building Interdisciplinary Research Careers in Women's Health (BIRCWH) scholar.

The BIRCWH program is specifically tailored to early career faculty, both MDs and PhDs, focused on starting research programs in women's health. These faculty receive BIRCWH funding when they are chosen by a peer review committee in a highly competitive selection process. This major grant from the National Institutes of Health Office of Research on Women's Health aims to provide bridge support for researchers, allowing them to build a solid foundation for an independent research career. The University of Colorado BIRCWH scholars are achieving amazing success. In total, 18 scholars have been awarded 26 grants of significance following their time in the BIRCWH program, one measure that indicates they are on their way toward establishing an independent research career.

The BIRCWH grant protects up to 75% of a physician-researcher's time, allowing them to spend the majority of their time conducting research — critical for building independent research careers. Researchers are paired with a primary mentor and surrounded by a formal interdisciplinary mentorship team consisting of senior investigators from various disciplines. "We believe that mentorship is the cornerstone for launching an

independent research program. By surrounding talented early career faculty with funding, training and mentorship, we believe we are starting them on a path of success and hopefully a fruitful career in research," said Judith Regensteiner, PhD, director of the Center for Women's Health Research. Dr. Regensteiner is the principal investigator for this grant, which has been renewed three times.

The BIRCWH Program jumpstarted Dr. Nokoff's research to understand the health effects of hormone medications for transgender individuals. "The support and mentorship of Dr. Regensteiner and Dr. Nanette Santoro is invaluable," said Dr. Nokoff. "They are all such great human beings and researchers. These relationships are helping me be more successful and I don't feel like I'm doing this on my own." Dr. Nokoff recently finished her time as a BIRCWH scholar after receiving an independent K23 award from the National Institutes of Health (NIH). This award gives her five more years of protected time to continue her research and produce initial data in the hopes of garnering even more support. "It is difficult to get funding without preliminary data. The BIRCWH Program and the K23 award are helping me get those data so I am

competitive for larger grants moving forward," said Dr. Nokoff.

In 2008, Laura Brown, MD, senior faculty at the CWHR, became a BIRCWH scholar to continue her research. "I saw the grant come through and knew I wanted to apply. From a practical standpoint, it is really difficult to get enough protected time from clinical work and teaching responsibilities to successfully build your research program," said Dr. Brown. "What I didn't realize at the time, was how valuable the mentorship aspect of the BIRCWH would be." Today, Dr. Brown is a well-funded member of senior faculty for the CWHR with mentees of her own. "The Center gave me my start in research, and I want to pay it forward. I feel like staying connected to the Center is the most direct and effective way that I can give back. It brings me so much joy to see early career researchers progress through the BIRCWH Program and start independent research careers. We are helping the next generation of researchers and I am excited to see how each of these researchers progress throughout their careers." Laura Brown, MD, CWHR senior faculty and former BIRCWH Scholar.

*The BIRCWH grant protects up to 75% of a physician-researchers' time, allowing them to spend the majority of their time conducting research – critical for building independent research careers.*

## Congratulations to the 2020 BIRCWH Scholars



Sean Iwamoto, MD



Phoutdavone Phimphasone-Brady, PhD



Layne Dylla, MD, PhD



## Women's Health and Sex Differences Research Creates Healthier Communities

Men and women are clearly different, and in 2001, the Institute of Medicine, now the National Academy of Sciences, published a comprehensive article detailing some of the key biological differences between the sexes and how understanding the differences may impact health and disease. Throughout the history of medicine, until recent times, these differences have been largely understudied or even ignored.

The reasons health research was conducted almost entirely on men prior to this century were detailed in the article *Women's involvement in clinical trials: historical perspective and future implication*. Males were considered the standard for medical research and clinical care, while women were viewed as "more complicated" to study because of their cycling hormone levels (specifically, the menstrual cycle). Furthermore, there was concern about exposure to experimental risk during childbearing years, and the assumption that women would have the same response to treatments as men. Vivian Pinn, MD, the first full-time director of the Office of Research on Women's Health at the National Institutes of Health (NIH), specifically noted that the widespread misconception that assumed that diseases behaved the same in both men and women was detrimental to fully understanding women's health. This resulted in a knowledge gap in women's health and sex differences with dire consequences for women around the world.

"When I was with my grandkids, I often had to tell them that granny was running out of steam," said Sherry Delaney, community advocate for women's health. "At the time, we didn't fully understand why I was so tired. I also had unexplained shortness of breath at times." Sherry

arranged for a visit to her doctor specifically to talk about exhaustion and was diagnosed with sleep apnea. Her doctors hoped that by caring for her sleep apnea, the fatigue would subside. Unfortunately, the exhaustion persisted.

"My mom died young from heart failure, so heart issues were top of mind for me," said Sherry. Because she did not have any traditional risk factors such as high cholesterol or diabetes, her physicians did not initially test her heart. Since heart problems often present differently in women than men, it frequently takes longer to diagnose women with heart disease and physicians may look for other health issues first. There are also issues with the pervasive view that women do not often get heart disease. "I went to a lecture at the Center for Women's Health Research where they talked about heart health," said Sherry. "I asked the speaker about some of my symptoms and he encouraged me to have my physicians test my heart."

After receiving this information and learning from the lecture that heart disease was the number one killer of women, Sherry had specific questions for her doctor about heart health. Because of the lecture, she was able to ask the right questions and advocate for heart tests with her physician. Following a series of tests, her doctors found a heart arrhythmia that helped explain her exhaustion. "I felt like I was being heard. My exhaustion and shortness of breath were terrifying and having an answer was a blessing." This answer also allowed her to take control of her health. "I was prescribed some medications and I took ownership of my health by watching my diet and staying active," said Sherry. "So often women are taking care of their families and homes that they forget to take care of themselves. I started taking control of my health and it has been incredibly rewarding."

In 1994, the NIH put forth a policy in the Inclusion of *Women and Minorities as Subjects in Clinical Research*. This policy mandated that all NIH-funded research must address plans for the inclusion of women and minorities in research grant applications. In the following years, women's health and sex differences slowly emerged as topics of importance, one that continues today. "The scientific community started to realize that the reasons for excluding women from research were not only

inaccurate, but they were harming the health of women," said Judy Regensteiner, PhD, co-founder and director of the Center for Women's Health Research. "We still have a lot of work to do, but it is encouraging that answers about women's health and sex differences are now more and more being sought for."

A recent article in *Women's Health Issues* found an increase in female participation in phase one clinical trials. This critical phase of a clinical trial aims to prove the safety of a new therapy or drug. By including women, researchers can identify how safe a drug is for women compared to men. This study found that 34.1% of phase one clinical trials still excluded women. While this number is lower than in previous decades, it demonstrates the importance of ongoing work in sex differences research.

In addition to simply including women in clinical trials, researchers must also report the data disaggregated by sex. In a study published in *The Lancet*, researchers found that between 1980 and 2016, reporting of disaggregated data by sex increased from 59% to 64% – an improvement due to the increased focus on sex disparities.

Still there are issues. The New York Times recently reported a host of additional issues surrounding women's health and sex differences. Women's physical symptoms are still more often attributed to psychiatric causes than men's. They also reported that women suffering from abdominal pain go without pain medication an average of 16 minutes longer than men, and women are more likely to be erroneously sent home when suffering from a stroke. In contrast to findings where women are seen to have worse

medical consequences, men often have worse physical manifestations of COVID-19 than women. Dr. Regensteiner said, "Some of the issues we see with sex differences result from a lack of knowledge within healthcare as well as with the public. One of the primary goals at the Center for Women's Health Research is to educate medical professionals as well as people in the community — keeping people up-to-date on the latest evidence-based health information is critical."

Sex differences research has significantly progressed in the past three decades, but more work is necessary to continue closing the knowledge gap and give healthcare providers the information they need to make accurate health decisions with their female and male patients. The CWHR is empowering women to ask questions and advocate for their own health by arming them with the knowledge and data about how various health issues impact women specifically. Sex differences research helps all people by determining the differences and the optimal treatments for women and their families.

"It is encouraging to see so much progress happening in the field of women's health and sex differences research. When I first started my career, this wasn't on the radar for most health professionals. Today, I am hopeful that we will continue together to improve the lives of women and their families with a continued focus on sex (biological) and gender (psychosocial) research," said Dr. Regensteiner.

Sherry hopes that continued outreach into the community will help women take care of their health. "We are responsible for our own health, and we need to make time to take care of ourselves."

**"...the widespread misconception that assumed that diseases behaved the same in both men and women was detrimental to fully understanding women's health."**

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# Researcher Trainings



**Tim Lockie, MBA, MS, CRA**

*Presented Grants Administration Basics: Requirements of the PI, Budgets and Expense Reconciliation*

MAY 14, 2020

Dr. Lockie is the Director of Administration and Finance for the Colorado Clinical and Translational Sciences Institute (CCTSI). Dr. Lockie has more than 25 years of experience in research operations and grants management. Throughout his career, he has been responsible for overseeing the finances of many dozens of research grants representing over \$150M in combined research funding.

This talk covered the responsibilities of principal investigators such as financial management, record keeping and documentation. It also covered the basic guidelines for budget management including:

- Payroll and fiscal administrators.
- Department and division procurement procedures.
- Simple budget templates.



**Vik Bebart, MD**

*Leads Training on Career Resiliency*

JUNE 17, 2020

Vik Bebart, MD, is the Director of the CU Anschutz Center for COMBAT Research and TRIAD Research Colorado as well as the Vice Chair of Strategy and Growth and Professor in the Departments of Emergency Medicine and Medical Toxicology, Pharmacology.

"Without resilience, you will at some point become bored, burned out and exhausted. We don't want that for our faculty," said Dr. Bebart. This training covered four main categories for building resilience including:

1. Find your tribe.
2. Learn to fail.
3. Learn to pivot.
4. Recharge and stay in shape.

Dr. Bebart's unique experiences following his fellowship helped him build resilience. He was in the military and deployed to Joint Base Balad in Iraq and also spent time in Afghanistan. He quickly went from a fellowship to leading one of the busiest trauma centers since the Vietnam War. These experiences helped him build resiliency and have led him to speak about the topic to fellow researchers.



**Kerrie Moreau, PhD,**

*Presents the K to R Transition*

JULY 29, 2020

Kerrie Moreau, PhD, professor of Geriatric Medicine, presented on career development. It is crucial in the development of early career researchers to learn the skills and requirements necessary to progress from a "K" grant to an "R" grant.

A "K" grant is a career development award (CDA) that provides a protective period of intensive mentored research that prepares scientists for independence. Meanwhile, "R" grants are typically used to support a discrete, specified research project and signal that a scientist has reached a level of independence in their career.

Dr. Moreau emphasized the importance of mentorship in the successful transition from "K" to "R", which is a major tenet of the Center for Women's Health Research's mission.

## Community Talks



**Josiane Broussard, PhD**

*Talks to AMG About Sleep and Overall Health*

JUNE 17, 2020

On June 17, CWHR Researcher, Josiane Broussard, PhD, presented to AMG National Trust clients on behalf of the Center. Her talk was titled The Impact of Sleep and Circadian Disruption on Metabolic Disease Risk. This was our first virtual talk for AMG National Trust clients, and over 100 people registered for the event.

Key Takeaways:

- Since the 1960s, Americans have seen a reduction in sleep of two hours per night.
- There is a lot to learn about sleep, but we do know that it is restorative and total sleep deprivation is fatal.
- Sleep loss is connected to other areas of women's health such as diabetes, heart disease, stroke risk and bone mass.
- Sleep is just as important for health as diet and exercise.





## Seed Grant Funds Fetal Growth Restriction Research

The stories of three women helped solidify Emily Su's, MD, interest in severe fetal growth restriction. Following a diagnosis of fetal growth restriction, they were all given two options — fetal monitoring with delivery if fetal status became non-reassuring, which meant a premature birth or no intervention which risked resulting in a stillbirth. Some of the long-term effects of premature births include cerebral palsy, impaired learning and vision problems so this choice is a very difficult one. The first woman was 24 weeks pregnant, chose full intervention, and delivered a liveborn infant. However, after six weeks, the baby died from complications of prematurity and severe growth restriction. The second woman opted to not monitor the fetus prior to 28 weeks, understanding that she would be taking on risks of stillbirth but that the risks of prematurity lessen as gestation progresses. Unfortunately, she had a stillbirth at about 26 weeks. The third woman was pregnant with twins — each having their own placenta. One baby had fetal growth restriction, the other was growing normally. She opted for monitoring and delivery, knowing that a premature birth would put both children at risk for lifelong complications. Today, both of those children are alive but are unfortunately dealing with some

lasting effects of premature birth. These three patients exemplified to Dr. Su the stress and difficult decisions being forced on women during their pregnancy and underscored the need to better understand why some placentas function so poorly. "We spend so much time trying to optimize delivery timing, but women dealing with fetal growth restriction are having to decide between premature delivery and the associated complications or the possibility of a stillbirth — a terrible decision for these women with a lot of significant consequences," said Dr. Su.

Dr. Su joined the CU Anschutz Medical Campus in 2015 largely because of the outstanding reputation of the campus for research on fetal growth restriction. This area of research is important and has a direct impact on health decisions of pregnant women. "We've mapped and cloned the human genome. Humans have gone to the moon and as just one example of how little we understand human pregnancy, we have no idea why people go into labor," said Dr. Su. "Using this example, how will we ever be able to effectively treat preterm labor when we don't understand why labor starts in the first place?"

*The vision, though, is to find preventative or therapeutic measures for fetal growth restriction to give women more treatment options.*

At CU Anschutz, Dr. Su cares for patients in the clinic while also growing a robust research portfolio. "I get the best of both worlds. I see patients, which motivates me to better understand the disease process, while research motivates me to look at patient care from a different perspective."

Currently, Dr. Su's research is focused on pregnancies complicated by severe fetal growth restriction. This is an issue diagnosed oftentimes in the second trimester and is most often caused by placenta dysfunction. This is when the placenta stops working properly, which can happen at any point during the pregnancy. However, the earlier the diagnosis, the riskier the pregnancy — meaning that there is a higher chance of stillbirth. The only medical intervention currently available for these women is preterm delivery, forcing women to weigh the risks of a preterm birth and the lasting effects it may have on their child.

Dr. Su's research is focused on the most extreme cases of fetal growth restriction and she hopes that we will eventually have a better understanding of the molecular underpinnings of the disorder, which could lead to new testing modalities or surveillance options. The vision, though, is to find preventative or therapeutic measures for fetal growth restriction to give women more treatment options.

To bolster Dr. Su's research efforts, she applied for a Center for Women's Health Research Seed Grant. "This funding was critical in my ability to generate preliminary data that was used to write an NIH grant," said Dr. Su. This R01 renewal was just funded and will continue through June 2024. In addition to the funding provided by the seed grant, Dr. Su was amazed at the resources available to researchers. "Being part of the Center gives you so many different opportunities. As an example, I've developed friendships with several members of the community."

Several years ago, Dr. Su was seated at a table with Cathy Hollis, a member of the CWHR's Advisory Board. Since then, they have fostered a close relationship. "We've continued to meet since that initial lunch and it has been a very rewarding friendship," said Dr. Su. "She is such a great supporter, especially when I'm feeling down about research. This is a unique opportunity that I haven't seen anywhere else."

That connection between Dr. Su and Cathy not only provides support but also is an avenue to share the work happening at the Center with the broader community and build a coalition of support for women's health and sex differences research. "The opportunities at the Center are so unique. I am very appreciative for all the funding and support I've received," said Dr. Su.

### What is fetal growth restriction?

The most common definition of fetal growth restriction (FGR) is a fetal weight that is below the 10th percentile for gestational age as determined through an ultrasound. FGR may be caused by placental, genetic or environmental factors. FGR increases the risk for stillbirth or preterm delivery compared to an infant with normal in utero growth.

## Let's Talk Livestream

MAY 14, 2020

During the 2020 National Women's Health Week, we offered a special livestream Let's Talk titled Taking Care of your Whole Self – Body and Mind – in this Time of Uncertainty. This event gave participants resources for taking care of themselves during the COVID-19 pandemic. Speakers included:

**Rebecca Scalzo, PhD** Little fires everywhere: A CWHR researcher's thoughts on work and life during the COVID-19 crisis

**Amy Huebschmann, MD** Managing health and illness in these "safer at home" times

**Helen L. Coons, PhD** Women's mental health and well-being during COVID-19: Resilience for the short and long term



Rebecca Scalzo, PhD



Amy Huebschmann, MD



Helen L. Coons, PhD

### DID YOU KNOW?

- Emergency departments nationally noted a 50% decrease in overall patient volumes from March to April 2020
- There was also a 60% decrease in hospital admissions for stroke in April 2020 in Harborview Hospital in Seattle.
- Many patients delayed seeking care for heart attack symptoms resulting in a four-fold delay between time of symptom onset and first medical contact in March 2020.

**Why did these things happen?** One unintended consequence of stay at home and safer at home orders was a decrease in patients accessing care. This delay put many lives at risk. As the COVID-19 situation continues, it is important that people feel comfortable seeking care both for physical and mental health.

## Thank You to Our Benefactors

Your generosity makes our work possible. By giving to the Center for Women's Health Research, you are fueling innovative research and making our communities healthier. We believe that by conducting leading research, mentoring the next generation of researchers and educating the community, we can make a tangible difference in the lives of women and their families.

## Healthy Women. Healthy World.

If you would like to learn more about how to give to the Center, please visit [www.cwhr.org](http://www.cwhr.org).

## Donor Spotlight

### AMG National Trust



In 2014, AMG National Trust first sponsored a table at the Annual Community Event and found that the topic was relevant and informative — leading them to partner with the Center for Women's Health Research (CWHR) in subsequent years. "We were impressed by the quality of the research and the speakers," said Sheryl Bollinger, president and CEO of AMG National Trust. "The researchers distilled complex topics in a way that was engaging and informative for the entire room."

In the coming years, AMG continued to sponsor the Annual Community Event and partnered with the CWHR to produce four research talks for their staff and clients. They hope that by philanthropically supporting the CWHR, they will help researchers pursue innovative ideas that will improve the health of communities around the world.

The recent lectures bring medical information from researchers directly to people in the community. Some of the research being supported by AMG, and other generous donors, is now being disseminated through lectures and community education programs. These talks cover a variety of health topics ranging from sleep to brain development and cardiac arrest outcomes. "Our clients are busy people. Yet, they, like so many of us, are curious to learn about health so they can enhance their own lives even further," said Emily Musser, vice president of client relations at AMG. In total, hundreds of people in the Denver area and beyond have attended these lectures.

"It is important to us that we provide our clients with information beyond financial education," said Sheryl. AMG provides comprehensive integrative wealth management to their clients. By partnering with the Center, AMG supports the CWHR's commitment to

bringing scientific information to the community, so that evidence-based research is accessible and useful in everyday life.

"More is becoming known every day. As people age, there are new solutions, and there are new ways to deal with health problems. This is an important message for everyone," said Sheryl. These lectures are an integral part of AMG's ability to disseminate thought-provoking information to its national client base. Recently, AMG was able to invite even more clients to a virtual lecture.

"COVID-19 has presented a lot of challenges, but because we were all remote, we offered the latest lecture to our clients around the country," said Emily. "That was one positive aspect of moving to a virtual format. We had very engaged clients who were excited about Q&A with the speaker."

Community outreach is a central tenet of the CWHR. Research is a powerful tool for improving the lives of women and men around the world, but it is critical that they are given the necessary information. Partnerships like the one with AMG provide critical avenues for disseminating information to the community.

"We built AMG National Trust with our client's best interests in mind and that includes bringing them information that may not be directly related to wealth management. I hope that the partnership between AMG and the Center for Women's Health Research not only improves the health of our clients, but that it also enhances the health and wellbeing of women, men and their families throughout the country," said Earl Wright, co-founder and chairman of the board for AMG National Trust.



# Researcher Accolades



Josiane Broussard, PhD



Natalie Nokoff, MD



Rebecca Scalzo, PhD



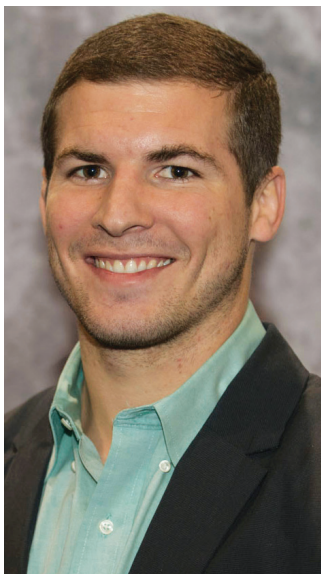
Andrew M. Novick,  
MD, PhD



Christopher Knoepke, PhD,  
MSW



Emily Su, MD



Seth Creasy, PhD



Chelsea Magin, PhD

## Josiane Broussard, PhD

Recently received a five-year R01 grant titled “Time-restricted feeding to mitigate metabolic impairments during circadian misalignment.” This project will examine whether avoiding food intake during the biological night can mitigate metabolic impairments associated with circadian misalignment in adults during simulated night shift work.

## Natalie Nokoff, MD

Was awarded a K23 grant from the National Heart, Lung and Blood Institute of NIH for a project titled *Pubertal Blockade and Estradiol Effects on Cardiometabolic Health for Transitioning Youth* to evaluate the impact of gonadotropin-releasing hormone analogue and estradiol on vascular function and insulin sensitivity among transgender females. Dr. Nokoff is also a recent BIRCWH Scholar. She also received a CCTSI CO-Pilot Junior Faculty Award with CWHR Researcher Petter Bjornstad, MD, titled, *The effects of hormone therapy on renal hemodynamic function in transgender youth*. Their goal is to evaluate the effects of gender-affirming hormone therapy on kidney function.

## Rebecca Scalzo, PhD

Received a pilot award from the Colorado Nutrition Obesity Research Center titled, *The impact of diabetes on the estrogen gene expression signature associated with skeletal muscle mitochondria*, to investigate the impact of type 2 diabetes on the gene expression signature associated with estrogen mediated support of mitochondrial content in skeletal muscle.

## Andrew M. Novick, MD, PhD

Published a review in *Frontiers in Neuroendocrinology* on the psychiatric effects of the breast cancer drug, tamoxifen.

## Christopher Knoepke, PhD, MSW

Was awarded a K23 grant through the National Heart, Lung and Blood Institute titled *Decision Support for Older and Frail Patients Considering Advanced Cardiovascular Therapies: Improving Models of Personal Values Clarification*, to explore the manner in which we can pragmatically match treatment choices to patient wishes, using advanced cardiovascular treatment choices as the use case.

## Emily Su, MD

Was awarded an R01 grant from the NIH to better understand regulatory features governing placental vessel development in hopes of targeting methods of improving fetoplacental blood flow and neonatal health.

## Seth Creasy, PhD

Received a NORC pilot award for a project titled “Feasibility and Acceptability of Morning Versus Evening Aerobic Exercise for Adults with Overweight and Obesity: A Randomized Pilot Study.” This project aims to gather preliminary data to determine whether morning or evening exercise is better for weight loss.

## Chelsea Magin, PhD

Began her primary appointment as assistant professor in the Department of Bioengineering. She continues to hold secondary appointments in the Departments of Pediatrics and Medicine. Dr. Magin also received two grants. One which aims to use a hydrogel-embedding technique to encapsulate precision cut lung slices that can be exposed to chemical carcinogens to recapitulate mouse models of lung cancer. Her second grant will allow her to engineer new biomaterials that incorporate synthetic components and natural lung proteins to build 3D in vitro models of fibrotic disease. Dr. Magin also published two papers: *Decellularized Extracellular Matrix as a New Tool for Building Dynamic, Hybrid Hydrogels to Model Chronic Fibrotic Diseases in Vitro* and *How to Leverage Collaborations Between the BME Community and Local Hospitals to Address Critical Personal Protective Equipment Shortages During the COVID-19 Pandemic*. Both articles were featured on the cover of their respective journals.





CENTER FOR WOMEN'S HEALTH RESEARCH  
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## 2020 Annual Community Event

*Bringing the Science to You!*

THE CENTER FOR WOMEN'S HEALTH RESEARCH

2020 ANNUAL COMMUNITY EVENT IS COMING TO YOU

*Wednesday, November 11*

LIVESTREAM EVENT 12:00 – 1:30 PM

*Dopamine*

*Adrenaline*

Women's health and sex differences research doesn't stop, so we are bringing the science to you during our **Annual Community Event**. While we will miss gathering in person, we will feature the exciting work happening at the Center, celebrate our researchers' accomplishments, and hear from world-renowned expert Laurie Santos, PhD, who will speak about an extremely relevant topic, the science of well-being.

To become a sponsor or to inquire about attending the livestream event, contact us at [cwhr@cuanschutz.edu](mailto:cwhr@cuanschutz.edu).  
Learn more at [www.cwhr.org](http://www.cwhr.org).