

Circle of Giving

Driving Innovation in Women's Health

Impact Report 2019



Dear Circle of Giving members:

Your thoughtful generosity is a constant source of inspiration. Each time you choose to make a \$125,000 grant, you enable a researcher (or team of researchers) to test a theory — an idea too new to qualify for federal funding — that could change women's lives. Circle of Giving awards help up-and-coming researchers gather the preliminary data they need to move from theory to concept, and win career-changing grants from organizations such as the National Institutes of Health.

Since 2006, the Circle of Giving has awarded more than **\$2.5 million** to support 22 pilot studies. That original investment has yielded an additional **\$25.6 million** in funding from other sources. This is philanthropy at its best: targeted and timely.

As our program's impact on research continues to grow, so does our membership. This fiscal year we welcomed three new members to our circle, Deanna Bitar, Jeanette Heinz and Julie Saugstad, PhD. I have no doubt the Circle of Giving will be strengthened by their unique passions and perspectives.

In this report you will find details on this year's extraordinary grantees and updates on three projects that have gone on to fulfill their early promise. Thanks to your investment, our grantees are going after some of the most difficult challenges facing women today. Together, we can transform women's health.

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Sincerely,

Michelle Berlin, MD, MPH

Director, OHSU Center for Women's Health

CIRCLE OF GIVING 2019 Awarder

Milky Kohno, PhD

Exploring how women's brains respond to methamphetamine dependence and treatment

The National Institute on Drug Abuse estimates that nearly 965,000 Americans reported methamphetamine use disorder in 2017. Previous research has shown that women are particularly vulnerable to the addictive properties of meth and are more likely to have severe withdrawal symptoms. However, there is little understanding of how women are more vulnerable to methamphetamine-related inflammation, which is caused by the drug's extreme toxicity.

Dr. Kohno, an assistant professor of psychiatry in the OHSU School of Medicine, has compiled neuroimaging data that indicate that female methamphetamine users exhibit more inflammation than their male counterparts due to stronger connections between brain regions that process reward and emotion. Kohno's Circle of Giving grant will reduce barriers for women to participate in an existing clinical trial of ibudilast, an anti-inflammatory drug used to treat methamphetamine use disorder. By recruiting more women, this study has the potential to identify sex-specific abnormalities in inflammation, brain dysfunction and the efficacy of treatment to limit drug dependence and withdrawal.

"Our forthcoming work has the potential to reduce the barriers that women face when trying to obtain, or stay in, drug treatment."

- Milky Kohno, PhD



Wassana Yantasee, PhD, Amanda Lund, PhD, and Shiuh-Wen Luoh, MD, PhD

Developing new cancer vaccines for triple negative breast cancer

In the U.S., more than 268,000 women are expected to be diagnosed with invasive breast cancer this year. Approximately 20 percent of these cases will be triple-negative breast cancer, or TNBC, a highly aggressive form of the disease that doesn't contain any common breast cancer receptors.

With the help of their Circle of Giving grant, School of Medicine faculty Wassana Yantasee, PhD, an associate professor of biomedical engineering; Amanda Lund, PhD, an assistant professor of cell, developmental and cancer biology; and Shiuh-Wen Luoh, MD, PhD, associate professor of medicine with the OHSU Knight Cancer Institute and medical oncologist at the VA Portland Health Care System, will work to develop a vaccine strategy to boost antitumor T cells in TNBC patients.

Using a mouse model and a novel delivery mechanism, their goal is to train women's own immune systems to fight cancer in a more personalized, efficacious and cost-effective way.

Opposite page: (Left to right) OHSU Center for Women's Health Director Michelle Berlin, MD, MPH; Shiuh-Wen Luoh, MD, PhD; Wassana Yantasee, PhD; Amanda Lund, PhD; Circle of Giving Co-chair Patti Warner.



"This generous grant not only allows us to extend our cancer vaccine work, but it inspires us to work even harder and faster toward our goal to translate our research into a viable therapeutic that will increase TNBC survivorship across the globe."

Wassana Yantasee, PhD

RETURN ON Investment

The following are three examples of how Circle of Giving awardees have leveraged early investment into promising results and significant funding.

Martha Goetsch, MD, 2011 Awardee

Dr. Goetsch received a Circle of Giving Grant for her research into treating women who experience sexual pain after surviving breast cancer. Goetsch's study sought to learn more about where pain occurs, and to understand if a topical lidocaine liquid (numbing medicine) was an effective method of relieving pain.

Her study has yielded significant results. Dr. Goetsch found that 95 percent of breast cancer survivors could avoid pain by strategically applying lidocaine liquid. Those findings have been cited in several cancer journals, influencing medical practice around the globe. Thanks to her Circle of Giving grant, which allowed her to gather preliminary data, Dr. Goetsch has secured funding for a follow-up study involving women with no history of breast cancer. She continues to publish discussions in prominent journals on the benefits of lidocaine, a simple alternative to the many more expensive and less effective options.

Pepper Schedin, PhD, 2015 Awardee

In 2015, Dr. Schedin was awarded a Circle of Giving grant to investigate why young women with postpartum breast cancer are at increased risk for metastatic cancer in the liver. Preliminary data suggested that the liver shrinks after weaning, and Dr. Schedin studied whether this created an environment for cancer to metastasize.

"What does it take to turn a promising theory into a proven treatment? Creativity, years of hard work and early philanthropic funding, like the grants provided by the Circle of Giving."

Sharon Anderson, MD,Dean, OHSU School of Medicine

Member Barbara Silver discusses opportunities presented by a grant candidate.



In 2018, thanks to the strength of the early data, Dr. Schedin's lab was awarded a \$1,147,431 Department of Defense grant to continue and expand their research. In addition, Dr. Schedin's team has established new collaborations with groups across OHSU, including medical oncology, surgical oncology and SMMART (Serial Measurements of Molecular and Architectural Responses to Therapy), a flagship project of the Knight Cancer Institute's new Precision Oncology program.

Philip Copenhaver, PhD, 2016 Awardee

Dr. Copenhaver and his collaborators used their grant to investigate the potential of STX, a novel selective estrogen receptor modulator, to have long-term protective effects on neurons in the brain. By studying these effects in mice, they hoped to ascertain whether STX could be used as an alternative to estrogen in preventing dementia and Alzheimer's disease in humans.

Based on promising preliminary data from that original study, the team received \$600,000 in funding from the Veterans Administration for a follow-up project. Dr. Copenhaver expects to publish their new results very soon.

We're shaping the future of women's health. Join us!

Membership in the Circle of Giving means your donation will join contributions from other members to invest annually in studies like those included in this report. Put your research passion to work alongside like-minded donors.

Explore the complete list of funded projects online at ohsuwomenshealth.com/circle. You can also call Maggie Bolger to find out more at 503-552-0708.

Thank Jou for sowing the seeds of innovation at OHSU.

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