



MAGEE-WOMENS RESEARCH INSTITUTE & FOUNDATION

Women's Health



Magee-Womens Research Institute is the largest independent research institute in the nation that focuses solely on women's and infants' health.

MWRI investigators use a variety of basic, translational, and clinical research tools that support the central mission to advance scientific knowledge in the fields of reproductive biology and medicine; translate this knowledge into improved health for women, infants, and all humankind; train current and future scholars of reproductive sciences; and foster community investment and involvement in women's health.

To accomplish this mission, MWRI focuses on Three Pillars of Research: 9-90™ (the study of 9 months of pregnancy and its impact on the next 90 years of life), Infectious Diseases, and Gender-Specific Medicine. Our research yields powerful insights that affect women and men, all from the unique platform of a woman's biology.



Leslie C. Davis, President, Magee-Womens Hospital of UPMC

The relationship between scientists and physicians at Magee-Womens Hospital is a partnership built on accelerating discovery. It's the very nature of our interdisciplinary approach to research that sets us apart from other research/clinical relationships. What physicians see in clinical treatment often provides insight and validation for researchers, and what researchers study can translate to new and effective treatment for patients. Magee delivers nearly 11,000 babies each year, and our patients and the community understand that because of this focus on women's and infants' health, Magee is where our patients receive the most advanced clinical care backed by sophisticated research and delivered by incredibly compassionate staff.

Our Research Institute's mission is to advance knowledge in the fields of reproductive biology and medicine, and translate this knowledge into improved health for women and infants. The result is an outstanding level of care and focus on women's health like no other in the world.



Michael J. Annichine, CEO, Magee-Womens Research Institute & Foundation

My focus is on elevating the cause of women's health research and changing the way it's thought of, funded, and translated into practice. We want to ensure that MWRI maintains its place among the top research institutes globally. We are leading a movement to shape the future of women's health research.

The Magee Prize will create a collaborative research environment. Our segment has a tremendous growth opportunity in translation and commercialization. MWRI must take on the responsibility of pushing our philanthropy, industry partnerships, translational initiatives, and collaborative development, not only for advancement of our scientific efforts but also for others in the field of women's health.

Our goal is to combine our infrastructure, our expertise, and our funding, and share those assets with the rest of the world to move the needle in women's health research.



Robert P. Edwards, MD, Chair, Department of OB-Gyn

The women's health program that I lead at Magee is unique in the country. We have a hospital with national and international recognition. Magee's faculty includes the most highly funded group of women's health researchers in the U.S. with the most NIH dollars awarded. We have the backing of a philanthropic foundation that does fundraising around women's health. On the clinical side, unprecedented access to patient information is put through advanced analytics to quickly change how we approach clinical care. Our advancements in disease prevention and technology innovation are changing the future healthcare financial model, allowing us to treat underserved communities and offer high-quality outcomes.

Women are the center of society, often making the lifelong family decisions affecting diet, healthcare, and financial outcomes. By making women a priority in health research, Magee is a center of quality for all women who have reproductive health issues. We view that as our brand's strongest message.

In 2016, MWRI announced the Magee Prize of \$1 million annually to research collaborators who make the most significant contributions to women's health research.

"The Magee Prize firmly establishes the Magee-Womens Movement as a guiding force in the global effort to change the world's thinking about human health."

*Laura E. Ellsworth,
Partner, Jones Day,
Member of the
Board, MWRI*

The Three Pillars of Research



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**Yoel Sadovsky, MD, Executive Director,
Magee-Womens Research Institute**

9-90™

The Magee-Womens Research Institute's focus on 9-90™ research is extremely significant, not just for reproductive health, but in its concentration on the nine months of gestation to determine the course of a person's health through the next 90 years of life. This groundbreaking program that I am fortunate to lead captures our view that the nine months of pregnancy have a great impact on 90-years-plus of health and wellness or risk for disease. The moment of greatest plasticity in life occurs in the first nine months before birth. Any exposure to different influences during gestation can shape fetal development. The nine months of pregnancy truly leave a lasting mark on a developing embryo. By better understanding the "human blueprint" we can help alter the trajectory of a person's life by predicting and even changing the course of a multitude of conditions. Our approach is unprecedented: It could change lives and create a better future for everyone.

Infectious Diseases

Although the treatment of HIV has significantly advanced over the past 30 years, the infection continues to spread. Globally, for every two people who go onto treatment, five more will become infected; we need to find better ways to prevent transmission. At Magee, our research is focused on preventing the initial infections. We're trying to develop products that both men and women can use to reduce their risk of contracting HIV. For example, we've been working on a vaginal ring for women, one that looks like a diaphragm without the middle and that fits snugly as it releases a bit of drug over time. If women use that consistently, it can reduce their risk of contracting HIV from 75 to 90 percent. It's a breakthrough in giving women control of their own health. This and other innovations show the depth and breadth of the science underway at MWRI.



**Sharon L. Hillier, PhD, Director,
Reproductive Infectious Diseases**



**Kyle Orwig, PhD, Professor, Department of
Obstetrics, Gynecology & Reproductive Sciences**

Gender-Specific Medicine

In a departure from medical protocols that have treated disease in men and women in the same way, Magee-Womens Research Institute is pushing the focus back onto women to find answers that transform the health and wellness of everyone. Focusing on the genetic differences between men and women, Magee is poised to make huge strides in understanding how diseases affect them in different ways: how women present with illnesses differently from men; how they respond to medication differently; and how wellness should be enhanced in a gender-specific manner. For example, infertility impacts one in seven couples in the United States and can have a devastating impact on relationships and emotional well-being. My research focuses on stem cells, germ lineage development, fertility, and infertility. Our progress investigating reproductive function in fertile individuals provides a basis for understanding the mechanisms of infertility caused by disease, medical treatments, genetic defects, or aging.

The need has never been greater...

For a more focused, more dedicated approach to women's health, specifically in the areas of maternity and early human development, gender-specific medicine, and infectious disease. Magee-Womens Research Institute & Foundation is a movement to transform the way the medical world studies and treats women. No other institute is more qualified to impact the world of women's health in dramatic and lasting ways. ●