



The Women's Heart Health Program at Stanford

Sex differences in medicine have been in the news a good deal recently and rightly so. After decades of medical research and treatment that failed to discern between the sexes, physicians and the broader scientific population are now realizing that these differences can be vital to treatment and are dangerously understudied. Beginning January 2016, sex became a required factor in all research projects funded by the National Institutes of Health. Finally, there was awareness that – pervasively and fundamentally – sex matters.

Philanthropic support has allowed the Stanford Women's Heart Health Program (WHH) to become a leader in investigating sex differences and pioneering new treatments for women with cardiovascular disease. The WHH program is paving the way for change in a world where women with heart disease are still often misdiagnosed and under-treated. New pathways are being forged to reverse the trend, first documented in 1984, that revealed more women than men were dying of cardiovascular disease every year. Thank you for your consideration of partnering with us.

Leveraging Philanthropic Support

With philanthropic funding, the Women's Heart Health program has been able to focus on deepening research efforts, publishing findings to educate medical and lay communities, and expanding clinical services to a growing number of patients. The WHH team wrote four papers this past year, two of which were published and two of which are awaiting editorial review for publication. "Invasive Evaluation of Patients with Angina in the Absence of Obstructive Coronary Artery Disease" was published in *Circulation*, which is considered one of the two most influential journals in the field of cardiovascular medicine, as measured by citations by others in the field.

These recent publications have brought well-deserved recognition to the WHH program, with important benefits. There has been a marked increase in the requests from other cardiologists throughout the region and the nation for collaboration and consultation. The program's growth and demonstrable success is significantly increasing the likelihood of future NIH funding for the program, as well as support from the local Silicon Valley community. The WHH program is now positioned as one of the premier academic cardiovascular centers devoted to the research and clinical care of women.

Expanding Research

A central area of evolution in the program's research agenda is promoting the inclusion of sex differences in cardiovascular research projects through seed grants to other Stanford scientists. Philanthropic support in the form of seed grants is crucial to

researchers, allowing for creativity, innovation, and risk-taking during early stage investigations that can result in vital discoveries, and eventually lead to new therapies. Examples include:

- ▶ Examining sex differences in myocarditis, an inflammation of the heart muscle caused by infections, viruses, or autoimmune diseases such as lupus. Myocarditis occurs more commonly in men than women. Understanding why women are less susceptible to this disease may help physicians design better treatments for all genders.
- ▶ Investigating whether the success of using stem cells to repair heart damage is affected by the sex of the cells' origin and the sex of the recipient.

Growth in Clinical Care

The WHH program has demonstrated significant success in providing enhanced care to an ever increasing number of patients. In addition to adding more clinical cardiologists, the program has grown to include two dieticians and two psychologist to better address women's holistic health needs. The benefits to patients of these psychological services have been so evident that their use has expanded even more broadly through the Department of Cardiovascular Medicine at Stanford. The dramatic clinical growth of the program and heightened visibility of the program through research has resulted in an increase in clinical referrals from cardiologists across the country.

Our Thanks

Thank you for considering supporting Women's Heart Health and Dr. Sandra Tsai as the team works to push research boundaries while continuing to deliver extraordinary care. The WHH program at Stanford has emerged as a leader of innovation in sex-based cardiovascular research and care in medicine and as we move ahead, we would be so deeply appreciative of your partnership.



The Stanford Women's Heart Health Team



GIVING OPPORTUNITIES

Supporting Women's Heart Health at Stanford	Annual Cost (exceptions noted)
Endowed Clinical Directorship	\$3 Million – Funding Secured
Clinical Care and Research Fund (Expendable)	\$2 Million
Endowed Scholar	\$2 Million
Biomedical Innovation Funds and Seed Grants* (Expendable)	\$2 Million
Innovator Recruitment Funds (Expendable)	\$1 Million
Clinical Care Psychologist	\$130,000
Postdoctoral Research Fellows (funding goal - 2 candidates for 2 years each)	\$100,000 per candidate per year
Research Materials & Supplies	\$110,000
Clinical Care Dietician / Exercise Physiologist	\$100,000
Statistician / Research Assistant	\$100,000
Clinical Care Devices (ultrasound, EKG, etc.)	\$100,000
Research Coordinator	\$90,000
Research Coordinator for Education Component	\$90,000
Individual Awards supporting Biomedical Innovation (see above Biomedical Innovation Funds and Seed Grants*)	\$50,000 - \$100,000 (each)
Educational Collaboration with Experts	\$30,000
Community Outreach Activities for 5 Years	\$25,000 (cost for 5 years)
Visiting Professors	\$25,000
Annual Sex Difference Educational Seminar	\$25,000
Community Outreach Collateral/Materials, Website	\$25,000
Travel to Conferences for Research Presentation / Education	\$25,000

For more information, please contact

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