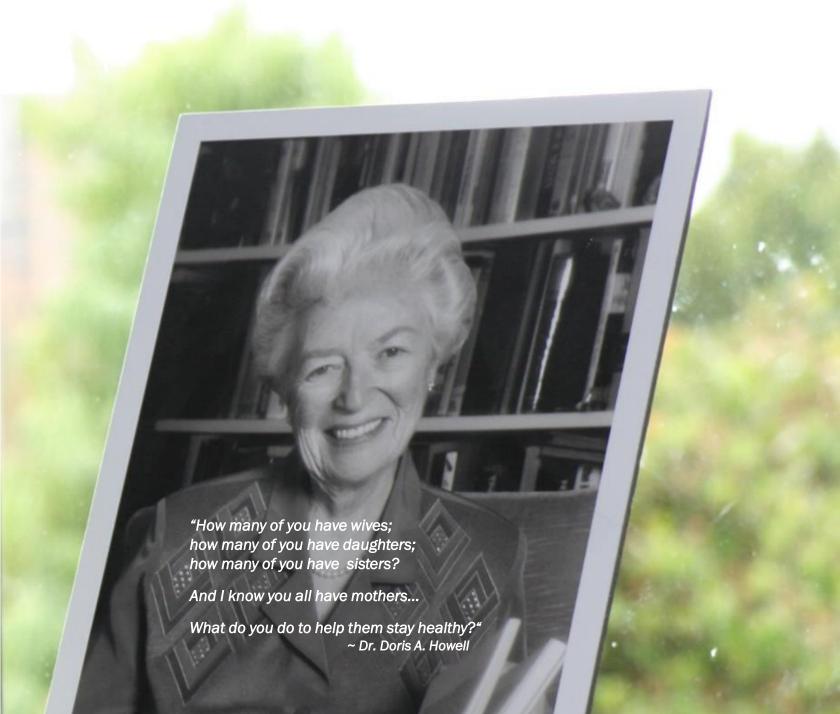


Celebrating 25 years of dedication to women's health research.

2020 Annual Review

Education • Research • Community • Outreach





Celebrating your support!

The Howell Foundation advances women's health by funding undergraduate and graduate research scholarships, awarding grants to scientists who conduct research benefiting under represented women in the community, and supporting outreach efforts and events that promote health education and self-advocacy for the long-term health and well-being of women, their families and the community in which they live.

THANK YOU! We couldn't have done it without you.



\$800,000 to undergraduate and graduate scholars pursuing a career in research applied to women's health



Over 130 events, in which 9000 + men and women have been informed about the most relevant research on women's health



\$100,000 dedicated to scientists and community organizations researching the most pressing needs of underserved women

A Year of Celebrations

What a year this has been! I want to start by sending my thoughts to those who are facing, or have faced, difficulties during 2020.

2020 marked our 25th anniversary. To inspire the next 25 years of "keeping the women we love healthy," we asked you to help create a self-sustainable fund that will help sponsor a women's health research scholarships for undergraduate and graduate scholars. I am happy to report that we have reached 80% percent of our goal. We are almost there!

With your help, we will have the funds to launch and support the careers of 18 scholars in 2021, who will be part of the new pool of scientists and researchers of the 21st century. Your donations are making a difference! It only makes sense that this year-end review feature the past Howell Scholars making an impact in our community TODAY. You have made this possible. Thank you!

During 2020 we hosted several experts in the research field who provided reliable, science-based information regarding topics of concern about women's health when our community needed it the most.

Clear and concise research information of the status of COVID-19 by Dr. Nancy Binkin, and understanding the benefits of the Moderna vaccine by Dr. Andy Geall helped many navigate these difficult times. with reliable, science-based information. Likewise, information on cognitive decline with Dr. Linda McEvoy, and information regarding the top research projects that affect women's health Drs. Andrea La Croix, Cynthia Stuenkel and Christina Chambers provided an essential overview of the impact research has in women's health.

With all the challenges COVID brought in 2020 the Howell Foundation grew in supporters, event attendance and funding. Zoom offered an important platform to deliver the latest health information. We will be including one or two additional events during 2021. Stay tuned!



I am looking forward to all that 2021 has to bring, including the opportunity to continue promoting women's health research to "keep the women we love healthy!"

My best wishes for a healthy year!

Marla Black
Executive Director



Our Mission:

The Howell Foundation is dedicated to making a long-term, positive impact on women's health as the premier organization advancing women's health research and education.

Your Donations at Work! In this issue:

- Howell Scholars creating an impact in our community TODAY
- 2020 scholars making us proud!
- A look back at our outreach efforts
- With deep appreciation to our Donors
- Howell Happenings

Donate @ www.howellfoundation.org

Stay Connected!







Earning your trust!



To all our Board Members who are committed to serve in the advancement of women's health research, and to our volunteers and donors who with their support help us accomplish our mission, THANK YOU!

The Howell Foundation is a 501(c)(3) non-profit organization. Tax ID #33-0715532.

The impact of YOUR donations

Celebrating the Success of our Scholars during our 25th Anniversary.

Your donations have championed women's health! Celebrating our 25th Anniversary is also about celebrating the success of our scholars. That the next pool of researchers and physicians are inspired by a Howell Scholarship to pursue a career in sciences not only motivates us to keep advocating for women's health, but exemplifies the vision that Dr. Doris Howell had in eliminating the bias in research. By funding exemplary students wishing to pursue a career in women's health, you have contributed to keeping Dr. Howell's legacy and our mission alive!

Meet some of the Howell Scholars making an impact in women's health TODAY!



"My current priority in women's health is ensuring that the studies I'm involved in include women and consider the differences in how women might be affected by disease or respond to treatments."

Charles Mordaunt, 2013 Howell-CSUPERB Scholar

"The Howell Scholarship Award provided recognition, encouragement, and funding that greatly improved my application and transition into a PhD program. It also helped to instill in me the importance of including women in scientific research. As a PhD student, I studied the role of epigenetics in both autism and Wilson disease, a rare liver disorder. I recently started a new position at a pharmaceutical company, where I'll be using genomic data to identify new drug targets."



"Women are two times more likely than men to develop autoimmune disease than men. If we can understand better how T-cells develop, then we can design novel therapeutic strategies for the treatment of autoimmune diseases."

Laura McIntyre 2013 Howell-CSUPERB Scholar

"Receiving the Howell Scholarship allowed me to conduct research during my last semester at SDSU while not worrying about paying for tuition. I was able to focus on research that I enjoyed without having to work in addition to my studies. I was also able to interview for graduate school, and build research skills that benefited me significantly in graduate school. I am currently working as a post doctoral researcher at the University of California, Berkeley studying T-cell development. My project focuses on understanding how T-cells develop, which has implications in autoimmune diseases. Women are two times more likely than men to develop autoimmune disease than men. If we can understand better how T-cells develop, then we can design novel therapeutic strategies for the treatment of autoimmune diseases."



Alicia Zamudio 2014 Howell –UCSD Scholar "My primary concern are neurological diseases."
Some of these disproportionally affect women such as Alzheimer's disease and multiple sclerosis. My hope is that through my work I will be able to develop treatments for these types of diseases."

"The financial support from this award enabled me to conduct full time research in a lab at my home university instead of working in retail. I am sure it was thanks to this research experience that I was accepted into 10 different PhD programs after I finished my undergrad at SDSU. I think my research experience also allowed me to complete my PhD at MIT in four and half years, about a year faster than average. I'm currently a scientist in the Neuroscience Department at Genentec, and my primary concern are neurological diseases. Some of these disproportionally affect women such as Alzheimer's disease and multiple sclerosis. My hope is that through my work I will be able to develop treatments for these types of diseases."

The impact of YOUR donations

Celebrating the Success of our Scholars during our 25th Anniversary.



"My main focus on women's health is to decrease the stigma associated with postpartum depression and anxiety through increased awareness, research, and policy change."

Ellen Fleishman, Ph.D 2018 Howell-USD Scholar

"With the assistance of the Howell I was able to present my research at an international women's mental health research conference. Attending this conference significantly broadened my awareness of challenges and solutions to women's health worldwide. Currently, I am a part-time Professor at the University of San Diego and Manager of Performance Improvement at Scripps Green Hospital. My main focus on women's health is to decrease the stigma associated with postpartum depression and anxiety through increased awareness, research, and policy change; and continue to expand my knowledge of the barriers to improved health faced by women across the world."



Laura McIntyre 2013 Howell –UCSD Scholar

"The Howell Scholarship Award gave me a sense of belonging in these places of higher education. In the span of a year, I went from struggling to put on a glove to presenting my project on tracking stem cell-like cells in the placenta over gestation. The award was like a wind against my back, letting me know my pursuit towards medicine was the right path."

"Hoejeong is currently working as the Program Assistant & Peer Education Coordinator for CARE at SARC, the Sexual Assault Resource Center at UCSD. She develops the training practicum for new volunteers, mentor students, and creates educational programs that are aimed to prevent violence and create a safer campus culture through community engagement — all that while applying for medical schools...

Loralie Woods (left) and Teresa Nguyen (right) were the 2019 recipients of the Cheryl A. Wilson Award in Nursing. Coincidentally, both research projects studied the outcomes of substance abuse and recovery programs for pregnant women.



"The Howell Scholarship
Award has given me
invaluable tools and
resources to succeed in my
research. In addition, the
award has helped me to feel
validated in the importance
of my work in supporting
women's health."

"I am a psychiatric mental health nurse practitioner and clinical assistant professor. My focus is women's mental health:

- Perinatal mood and anxiety disorders.
- Premenstrual Dysphoric disorder.
- Peri-menopasual depression and anxiety.
- Supporting families through infertility and pregnancy loss
- · Racial inequities in maternal mental health."



"The Howell Scholarship Award was essential to completing my PhD dissertation. I was able to use the funds to purchase a computer to run high powered statistics. Thus, I was able to analyze three years of data."

Today, she is responsible for creating the vision for nursing practice and creating a safe environment for patients and nurses.

"I am the Director of Inpatient Operations at Sharp Mesa Vista Hospital. I am responsible for creating the vision for nursing practice and creating a safe environment for patients and nurses. My focus areas are:

- Supporting women who need substance use treatment and recovery services.
- · Supporting working mothers.
- Fighting Stigma of Mental Illness."

Howell Scholar Update

Succeeding amid the 2020 COVID Challenges.



Mandy Butler, PhD, Scholarships Review Committee Chair Associate Professor of Teaching Emerita, Division of Biological Sciences, UC San Diego

We realize 2020 has been a challenging year for our scholars and would like to recognize the tremendous determination in continuing with their research efforts for the rest of the year.

All of the Howell Scholars had already been working in the lab and most had collected significand data prior to their respective campus shutdowns. They spent the rest of the school quarter working on personalized, work-from-home plans with their faculty mentor, presented in virtual lab meetings, and worked with faculty member to prepare abstract(s) to present at conferences and/or meetings or to write manuscripts.

While the Howell undergraduate scholars work on their projects in women's health from the scientific research analysis perspective, the recipients of the USD-Cheryl Wilson Awards in Nursing recipients will be focusing on women's health from a community-outreach approach with two outstanding projects, both adapting to the "new normal" with telemedicine, data and analysis.

This year's topics are very interesting and highlight the relevance of women's health research:

- · Polycystic ovarian syndrome
- Stress and reproduction
- Lung disease due to chemical constituents in airborne matter
- Developmental disorders, infertility, and hormoneresponsive cancers.
- Latest in cardiac development & cardiovascular disease
- Gestational diabetes
- · Maternal exposure to toxicological data
- Thyroid cancer
- Antibiotic resistance
- Stress & metabolic syndrome development
- Next generation RNA sequencing
- · Telomerase inhibitors in anti-cancer therapies
- Cervical cancer
- Vulvovaginal candidiasis
- Weight gain for obese women during pregnancy

We congratulate our 2020 Howell Scholars!



Michelle He

Androgen mediated effects on ovarian morphology in an AMHinduced mouse model of polycystic ovarian syndrome (PCOS) Mentor: Pam Mellon

Alexandria Tso

The Role of Neuronal Precursor Cellexpressed Developmentally Downregulated 4 (Nedd4) in Cardiac Development Mentor: Ju Chen

Aditi Gnanasekar

"The Role of Neuronal Precursor Cellexpressed Developmentally Downregulated 4 (Nedd4) in Cardiac Development" Mentor: Weg Ongkeko

Kirollos Tadrousse

The Role of the Urocortin-CRHR2 Pathway in Kiss1 neurons in Stress Induced Suppression of Reproduction Mentor Kellie Breen



Edna Esquer

"The Relationship of Metabolic Syndrome and Health Behaviors among Hispanic Women" Mentor: Dr. Mary Barger

Rebecca Mattson

"Online Nutritional Counseling on Gestational Weight Gain for Obese Pregnant Women" Mentor: Dr. Mary Barger

Howell Scholar Update

Succeeding amid the 2020 COVID Challenges.



The California State University

Kyla Anderson (CSU, Long Beach)

"HDL Nanodiscs as Platforms for Cellular Delivery of Luteolin, an Antioxidant and Anti-inflammatory Agent" Mentor: Vasanthy Narayanaswami

Xiangyi Fang (San Francisco State University)

"Association between Expression of Telomerase and CXCR7/ACKR3 in Breast Cancer Cells" Mentor: Nicole Velmeshev

Mandeep Kaur (CSU, Fresno)

"Understanding the Biological Mechanisms behind PM2.5 Induced Oxidative Stress" Mentor: Laurent Dejean

Anita Kelleher (CSU, San Luis Obispo)

"Evaluation of Women & Infants' Mobile Health Unit" Mentor: Suzanne Phelan

Jude Khatib (CSU, Long Beach)

"To study the effect of cyclin dependent kinase 5 on survival and migration of HeLa, a cervical cancer cell line" Mentor: Deepali Bhandari

Lauren McMichael (CSU, San Luis Obispo)

"Assessment of Biomarkers for the Prediction of Gestational Diabetes Occurrence"

Mentor: Michael La Franco

Julian Navarrete (SDSU)

"Assessment of developmental toxicity from embryonic exposures to the emerging contaminant TCPMOH" Mentor: Kari Sant

Jennifer Nguyen (CSU, Los Angeles)

"Synergistic effects of pyrvinium pamoate and fluconazole against Candida albicans biofilms" Mentor: Hyunsook Park

Tina Nguyen (San Jose State University)

"Investigating the role of sirtuin 4 in ovarian function"

Mentor: Frank Huynh

Kiran Rao (CSU, Chico)

"Comparative Study of Biomechanosensitive Gene Activity during Embryogenesis of the..." Mentor: Kristen Gorman

Souvixada Somsacksy (CSU, Fresno)

"Examining Biomarkers in Aggressive Tumor Types of Thyroid Cancer" Mentor: Jason Bush

Evelyn Tran (SDSU)

"Bacteriophages as therapeutic option for antibiotic-resistant Escherichia coli causing sepsis during childbirth" Mentor: Dwayne Roach

2020 Howell Lecture Series



February, 2020

Top Women's Health Stories of the Year.

Christina Chambers, PhD

Professor of Pediatrics and Co-Director of the Center for Better Beginnings, UCSD

Andrea LaCroix, PhD

Distinguished Professor and Chief of Epidemiology, Director, Women's Health Center of Excellence, UCSD

Cynthia Stuenkel, MD

Clinical Professor of Medicine Founding member and Past President of the North American Menopause Society, UCSD

For the first and only in-person event of 2020, the Howell Foundation hosted three experts in the field of women's health research: The presentation "Top Ten Stories in Women's Health" walked us through the top research impacting women's health, determined research needs for the betterment of women's health, explored how to integrate the latest research findings into the diagnosis and treatment of women, and presented an overall update on the pressing issues that affect women in our community.



May, 2020

What We've Learned from COVID-19.

Dr. Nancy Binkin

Renowned virologist and Professor Practice at UCSD

In May, we hosted renowned virologist Dr. Nancy Binkin. The webinar — a first for the Foundation — "What we've learned from COVID-19" — presented reliable and science-based information on the background and status of the disease, discussed the effects of COVID-19 on our bodies, provided an up-to-date status of cases in our community, and importantly, laid out the actions we can take to stay healthy and safe.

*The status on COVID changes every day. Please visit the CDC, FDA and local Health and Human Services Office for an update.



August, 2020

What Science Tells Us about How to Stay Cognitively Healthy as we Age. Linda McEvoy, Ph.D.

Professor, Department of Radiology, Department of Family Medicine & Public Health, University of California, San Diego

Dr. Linda McEvoy, guest speaker for our August webinar, walked us through the changes the brain goes through as we progress in life, and why women are more prone to cognitive decline. She is one of the Principal Investigators of the Rancho Bernardo Study, a local research project leading the way in cognitive health and aging at a national level. As a matter of fact, it is one of the longest, continuously funded, NIH observational studies in the US.



November, 2020

What are RNA Vaccines? Why is the New Vaccine Technology Being Used Against COVID-19?

Andrew Gaell, Ph.D.

Chief Scientific Officer, Precision Nanosystems

RNA vaccines are a relatively recent innovation but are at the forefront of the many vaccine technologies providing solutions for the COVID-19 pandemic. This talk will described the different types of vaccines being developed, with a focus on how RNA vaccines are different to conventional vaccine technologies and how they work. It concluded with a review of the available published clinical data.



Major Gifts

Estate of Dr. Doris Howell & Peggy Oechsle

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25th Anniversary Innovators

women we love healthy for the next 25 years.

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Howell Happenings



Carol Tuggey
2020 Chairperson

As part on the Foundation's strategic plan, the Board of Directors frequently evaluates its composition to ensure it delivers its mission of becoming the premier organization advancing women's health.

We were excited to welcome Susan Baxter, Jane Georges, Stanely Maloy, Diana Hill and Bill Littlejohn as new directors to the Howell Board. We especially value their experience in the scientific, non-profit and community outreach fields.

Message from the Chair

They join the Howell Foundation at an exciting time as we solidify our strategic partnerships with the major academic institutions in our community, and value their in-depth perspective on advancing women's health.

The addition of these directors complements the Board's skills and experiences, and we are confident they will provide valuable perspectives as we continue to enhance our organization's programs. We look forward to their contributions and are excited they chose the Howell Foundation. We are appreciative they accepted to serve on our board.

As we welcome new board members, we also say goodbye to Kay Pierce. She served the Howell Board in many capacities for 18 years! Her leadership greatly contributed to form the Foundation's philosophy.

Kay is now part of the Howell Foundation's Legacy Council, where she will continue to provide valuable feedback as we move forward well beyond 2021. We will miss you, Kay!

I wish you a healthy 2021!



Susan Baxter, Ph.D



Jane Georges, PhD, RN



Diana Hill, MS



Stanley Maloy, Ph.D



Bill Littlejohn

Kay Pierce stepping down after 18 years. Our deepest appreciation for your service!



Kay served on the Howell Foundation Board of Directors since 2001 and held many positions over the years including Board Chair. She served as Secretary/Treasurer, Chair of the Advisory Council, and was a Finance Committee member until her retirement from the board in 2020.

Voted unanimously for Board Emeritus, Kay will now serve in the Foundation's Legacy Council, where she will continue to provide valuable feedback on the best road to *keep the women we love healthy*.

Thank you for your dedication and support! Your leadership will be missed, and wish you a happy retirement.

Legacy Council

Carole Banka, PhD **Brad Benter Betty Brayshay** Cher Conner

Hamilton Loeb, Jr. Jean McGrath Priscilla Moxley Kay Pierce*

Abigail D'Agostino Kathleen Franklin Gladys Kohn*

Beatrice Rose, MD, MPH* Pattie Wellborn Cheryl Wilson, RN*

*Howell Board Emeritus are recognized for their 18+ years of service to the Howell Foundation.

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Diana Hill

Soroptimist International of La Jolla

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How can you help keep the women you love healthy?

- **Become a Friend of Howell.** Your donation can help us achieve BIG things; among them, helping emerging undergraduate and post graduate scholars further their knowledge on women's health.
- Attend our educational webinars (and our events, soon!). Learn about the latest findings in women's health first hand from prominent researchers and spread the word on the importance of women's health.
- **Donate on behalf of your organization.** Women and men in your company or foundation will have the opportunity to learn more about the health of the women in their lives.
- Have us over, virtually or in person. Get up close and personal with experts in the field of women's health research.
- Consider us in your planned giving efforts. Celebrate the life and legacy of the women and men who mean the most to you.
- Remember us while shopping at Amazon Prime.

