



## Environmental Medicine



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## How Your Environment Affects Your Health

Think about the rate at which some diseases like autism, cancer, and Alzheimer's are increasing. Accumulating evidence indicates that this cannot be explained by genetics alone. We must recognize the critical role of environment, including environmental chemical exposures, in the development and progression of disease. Within the next five years, one of our primary goals in the Department of Environmental Medicine at the University of Rochester Medical Center, is to lead one of the most important areas of research in the future: environmental epigenetics.

You are born with certain DNA which form the molecular basis of who you are, and whose sum total make up your genome. Your epigenome tells your genes what to do, serving as the juncture between your genome and your environment. Your lifestyle, diet, exercise, stressors, and exposure to pesticides, smoke, lead, and other toxins and chemicals affects your epigenetics. Epigenetic changes have already been linked to various cancers, diabetes, autoimmune diseases and mental illnesses; changes that we can pass on to our children and grandchildren. We have the opportunity now to use our renowned research expertise and lead the exploding field of environmental epigenetics to improve the health of future generations.

We also have the opportunity to guide the development of new energy technologies that have the least impact on our environment and our health. In collaboration with colleagues at the Center for Energy and the Environment on the University's campus, we are leading studies devoted to determining the potential effect of alternative forms of energy.

In addition, we have one of the most state-of-the-art inhalation facilities in the country to study the effects of air pollution throughout our lifetimes. Our pre-clinical studies show that air pollution is a key factor in autism and schizophrenia, as well as neurodegenerative diseases and behavioral issues.

***Your support can help us lead environmental research that improves people's health today and in the future.***

The  
**MELIORA**  
CHALLENGE

THE CAMPAIGN  
for the UNIVERSITY  
OF ROCHESTER

# Your Gift Will Help Us Lead Environmental Research to Improve Your Health

*For more than 60 years, the University of Rochester Medical Center has been a national and international leader in environmental health research as it affects your lungs, heart, bones, and muscular health.*

*With your support, will we not only create new knowledge of the basic changes that accompany a disease, but we will transform this into ways to detect, control, and prevent a host of diseases. Please join us.*

## **ENDOWED CENTER FOR ENVIRONMENTAL MEDICINE—\$3,000,000 to \$7,000,000 (minimum)**

A named center for environmental medicine will take advantage of our multi- and inter-disciplinary approach to research, and our expertise at examining a wide variety of environmentally-caused health issues across the lifespan—from inflammation to lead exposure, from the development of obesity and diabetes to the impact of airborne particles, and from the role of metal exposures in osteoporosis development to the effects of environmental chemicals on women's reproductive health. The center will support the salary, benefits, and programming for our research team, leveraging the unique capabilities and talents of our scientists.

## **ENDOWED PROFESSORSHIPS—\$1,500,000 to \$2,000,000 OR MORE**

Professorships are among the most coveted and defining rewards that a faculty member can receive, recognizing and fostering excellence. They also serve as a powerful recruitment tool, drawing new faculty and researchers of established distinction in epigenetics, inhalation toxicology, and biostatistics from around the world to complete our internationally-recognized environmental health sciences research team.

## **ENDOWED RESEARCH FUNDS—\$750,000 to \$1,000,000 OR MORE**

Supports mid-career scientists who have not yet attained the rank of full professor, providing a vital connection between the work of our most eminent scientists and tomorrow's future scientific leaders in environmental medicine. Priority recruitments include faculty and highly-skilled technical staff with strength in epigenetics, inhalation toxicology, and obesogens research needed to help us.

## **TEAM SCIENCE FUNDS—\$500,00 to \$1,000,000 (multi-year)**

Most scientific discoveries are not made by one lone scientist. Generally, they are the result of years of intensive work by teams of researchers that include graduate students, post-doctoral fellows, and laboratory technicians. You can support the contributions of our entrepreneurial, innovative research teams who have a legacy of working collaboratively across disciplines and with scientists from other institutions. You can also support the gene sequencing technology needed to help us.

## **RISING STAR FUNDS—\$250,000 to \$500,000 (multi-year)**

Support at this level can help the best and brightest, early-career researchers fund promising science that may be too cutting-edge to attract external funding from traditional avenues of support like the National Institutes of Health (NIH); work that is vital to scientific discoveries and advances.

## **PILOT PROJECTS/SEEDS FUNDS—\$50,000 to \$100,000 (annually)**

Gifts for seed funding are "risk capital." They allow scientists to shift the direction of their research to follow promising leads or new ideas, propelling scientific discoveries in new ways. You can help give researchers the time they need to push the boundaries of science and allow innovative ideas to reach their full potential.

## **POSTDOCTORAL AND STUDENT FELLOWSHIPS—\$25,000 to \$75,000 (a one-year fellowship)**

Funds support an aspiring scientist while providing research training and mentorship in the laboratory setting.

For more information about how your gift can make an impact, please contact Dianne Moll at: (585)273-5506 • [dianne.moll@rochester.edu](mailto:dianne.moll@rochester.edu)



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**MEDICINE**

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