The Envirome

Humans live in complex environments that include the physical elements of geography and ecology, as well as large social networks fashioned by unique combinations of history and culture.

The entirety of environmental factors that influence human health and disease risk could be understood collectively as the Envirome.
“Learning to make decisions through a new vision of health in all of its forms.”

CHRISTY BROWN

The Envirome

The envirome is the total set of environmental conditions external to an individual that in concert with the genome enables development, growth and disease.

The Vision

The Envirome Institute will lead the scientific inquiry beyond genomics into human-environment interrelationships based on an expanded vision of health.
From left: Dr. Gregory Postel, Dr. Ted Smith, Christy Brown, Dr. Neeli Bendapudi, and Dr. Aruni Bhatnagar  |  Louisville, KY 2018
Mission

The Envirome Institute pioneers a new, interdependent vision of health, supports research on the effects of the environment on health, and promotes holistic scholarship, locally and globally.

Within the University of Louisville, the Institute develops new infrastructure for transdisciplinary knowledge, bridging academic research with community engagement. It transforms the city of Louisville into an urban laboratory and establishes the University as a repository of knowledge about the envirome.

The Envirome Institute offers global leadership in developing new models of living by making all decisions through the lens of health.
“What matters is our working together, I am deeply committed to the ideals of one university, one team, together we will win with integrity, that is what matters, in our pursuit of excellence, we will be one team. And as long as we are one team there is nothing that can hold us back.”

PRESIDENT BENDAPUDI

Component Centers

Diabetes and Obesity Center
Aruni Bhatnagar, PhD – Director

The central objective of the Center is to support molecular, cellular, experimental, translational and clinical investigations into the cardiovascular causes and consequences of diabetes and obesity. The Center fosters research in diabetes and obesity and provides education and training to the next generation of scientists with the overall goal of discovering new and effective means for preventing and treating diabetes and obesity.

Superfund Basic Research Program
Sanjay Srivastava, PhD - Director

The Center is focused on studying the effects of volatile organic chemical exposure as it relates the risk of developing cardiovascular disease, diabetes and fatty liver disease in exposed populations and those living next to Superfund sites. The Center is creating new technologies to detect Superfund chemicals in the environment and educate and train new investigators in the field of environmental science.

American Heart Association Tobacco and Addiction Center
Aruni Bhatnagar, PhD - Co-Director

The American Heart Association Tobacco Regulation and Addiction Center (A-TRAC) houses programs of multidisciplinary research to the regulatory policies of the US FDA relevant to the manufacture, distribution and marketing of tobacco products. The Center is a network of 12 academic institutions and it supports research and training in tobacco regulatory science, with a focus on the cardiovascular toxicity and health effects of tobacco products.
Center for Healthy Air, Water & Soil
To Be Named - Director

This new center will create a healthier Louisville by building a modern urban laboratory to support innovative, environmental research and projects focused on a health in all policies approach. By empowering citizens and using inventive technology, the Center aspires to improve the health and harmony of our community and our world.

Center for Integrative Environmental Health Science (CIEHS)
Chris States, PhD - Director

The University of Louisville’s (UofL) Center for Integrative Environmental Health Science (CIEHS) is building a framework to integrate the interactions of pollutants and lifestyle factors to better understand these interactions in human health and disease across life stages and how these interactions are modified by gender and to improve the health of the Louisville Regional Community.

Center for Environmental and Occupational Health Science (CEOHS)
John Wise, PhD - Director

The mission of the Center for Environmental and Occupational Health Science (CEOHS) is to provide multidisciplinary and transdisciplinary research and applied scholarship, teaching, educational outreach and public service on issues of the environment, its protection and sustainable development at the local, state, national and international levels with an emphasis on the interconnectedness of human, animal and ecosystem health.

Center for Environmental Policy and Management (CEPM)
Dr. Lauren C. Heberle - Director

The Center for Environmental Policy and Management (CEPM) provides a range of technical and research assistance to people, organizations and governments seeking to make equitable and just decisions about their environment. Work at the Center is focused on improving community and stakeholder capacity to engage in environmental decision-making at all organizational and institutional levels.

“Plans to protect air and water, wilderness and wildfire, are in fact plans to protect man.”

| STEWART UDALL |
“We have the world to live in on the condition that we will take good care of it. And to take good care of it, we have to know it. And to know it and to be willing to take care of it, we have to love it.”

| WENDELL BERRY |
The Institute brings together scholars, educators, researchers and leaders in all forms of health from departments and schools across campus. The Institute will create a new integrated Envirome curriculum and invite leading experts from around the world to participate in a unique visiting scholars program.

“A New Vision of Health in all Its Forms”

“I urgently appeal for a new dialogue about how we are shaping the future of our planet. We need a conversation which includes everyone, since the environmental challenge we are undergoing, and its human roots, concern and affect us all.”

| Laudato Si |
**Dr. Aruni Bhatnagar, PhD, FAHA**

The newly appointed director of the Envirome Institute, Dr. Bhatnagar is the Smith Lucille Gibson Professor of Medicine. He is also the Director of two University of Louisville centers, which now fall under his leadership within the Envirome Institute - the Diabetes and Obesity Center and the American Heart Association Tobacco Research and Addiction Center.

Dr. Bhatnagar’s work has led to the creation of the new field of environmental cardiology. His studies show how pollution affects the heart and blood vessel and how exposure to polluted air affects the risk of obesity and diabetes. His research, supported by several grants from the National Institutes of Health, has led to the publications of over 250 research papers and 20 book chapters. He has mentored 55 students, fellows and trainees.

**Christina Lee Brown, Activist & Philanthropist**

Christy Brown is a global leader creating new ways to empower “citizen scientists” to lead healthier lives by advocating for a culture of health using nature as the standard and encouraging all decisions to be made through the lens of health. She believes passionately in the potential of urban and rural communities to effect positive change by working together, at the same time celebrating their commonalities and differences.

A strong passion for community led Christy to become a co-founding board member of the Berry Center. It’s mission is to accept no permanent damage to the ecosphere, by taking the health of local communities into consideration.

Understanding that healthy air, water and soil are the keys to health of all life, Christy founded the Institute for Healthy Air, Water & Soil in 2014. As the institute began to lean into it’s work, a bigger mission began to occur all around, attracting both local and national ambassadors. The work of the former, Institute for Healthy Air, Water & Soil’s will now transition into the newly founded Center for Healthy Air, Water & Soil with the Envirome Institute.

“Colleges… have their indispensable office, - to teach elements. But they can only highly serve us, when they aim not to drill, but to create…

…when they gather from far every ray of various genius to their hospitable halls, and, by the concentrated fires, set the hearts of their youth on flame.”

RALPH WALDO EMERSON