

VERMONT GENETICS NETWORK (INBRE)

The Vermont Genetics Network (VGN) is the Vermont IDeA Network for Biomedical Research Excellence (INBRE), located at the University of Vermont (UVM), the lead institution for the state. We build biomedical research capacity *throughout the state* by promoting faculty and student research at our Baccalaureate Partner Institutions (BPIs). Our BPI Institutions include: Castleton State College, Green Mountain College, Johnson State College, Lyndon State College, Middlebury College, Norwich University and Saint Michael's College. We achieve our goals with research awards and renovations; reaching out to BPIs and other colleges with delivery of curriculum modules for students to have hands-on opportunities to carry out realistic research protocols and use VGN's facilities; developing Microarray and Proteomics facilities that serve the entire network; providing Bioinformatics services. The support for the BPI faculty, college and high school students and also science education Outreach efforts help build student interest in biomedical careers and supports the biomedical workforce. The principal investigator is Judith Van Houten, PhD (Judith.VanHouten@uvm.edu). For more information, visit <http://vgn.uvm.edu/>

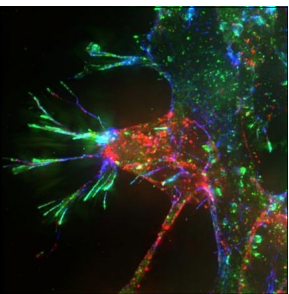


Vermont Lung Center (COBRE)

Lung disease is a significant cause of mortality and especially morbidity in the U.S. While the six other leading causes of death have decreased over the last decade, all forms of lung disease continue to rise. If we are to make significant progress in combating this pressing health problem, we will need to have trained scientists and resources to study the causes and cures of lung disease. The Vermont Lung Center (VLC), a Program on Lung Biology and Disease, has been in existence at the UVM College of Medicine since 1972. It has had a rich and productive past that has had a significant impact nationally. The keystone to the VLC program is translational research. The goals of the VLC are to investigate the mechanisms of lung biology and disease, and to train and retain outstanding translational scientists at UVM. Our key product is excellence. The current program centers around a 5-year award by the National Center for Research Resources (NCRR) of the NIH. The VLC is a NCRR Center of Biomedical Research Excellence (COBRE). The goals of the VLC-COBRE are to: Train and mentor a group of talented MD and PhD biomedical investigators, Provide career development and guidance with skilled mentoring, and Create a stimulating, supportive, and cutting edge research milieu. The principal investigator is Charles Irvin, PhD (Charles.Irvin@uvm.edu). To learn more, visit <http://www.vermontlung.org/>

Center of Biomedical Research Excellence in Neuroscience (COBRE)

The Center of Biomedical Research Excellence (COBRE) in Neuroscience at the University of Vermont (UVM) is designed to integrate and expand neuroscience research and training at UVM by building a collaborative intellectual infrastructure and developing cutting-edge shared core facilities. The Neuroscience COBRE facilitated the development of a University-wide Neuroscience Graduate Program and supports a neuroscience seminar series and retreat, as well as research support for medical and undergraduate students. The research focus of the Neuroscience COBRE is the pursuit of questions related to neuronal development and differentiation. The long-term goal is to apply knowledge of normal development and differentiation to understand the processes of stroke, neurodegenerative disease and tumors of the nervous system and thus inform prevention and treatment strategies. The Neuroscience COBRE supports two technical core facilities, an imaging/physiology core and a cellular/molecular core, to support the research projects of the neuroscience community. The Neuroscience COBRE also supports a translational core that facilitates dialogue between basic and clinical scientists to promote development of collaborative and translational research. A key aspect of the translational core is an annual course on the Neurobiology of Disease that focuses on a single disease each year with lectures and seminars by both clinicians and basic scientists. The principal investigator is Rodney L. Parsons, PhD (Rodney.Parsons@uvm.edu). To learn more, visit <http://www.uvm.edu/neuroscience/>



Vermont Center for Immunology and Infectious Diseases (COBRE)

The Vermont Center for Immunology and Infectious Diseases (VCI2) is designed to integrate the studies of immunology and infectious diseases since the primary function of the immune system is a defense against infection. Microorganisms interact with two fundamental components of the immune system, the evolutionarily older innate immune system using largely invariant non-polymorphic receptors, and the newer adaptive immune system that uses highly polymorphic receptors. Center investigators are examining genes that regulate the pathogenicity of infectious organisms as well as how the immune system responds to these agents. Some of the findings will lead to better vaccine development. The goals of the VCI2 COBRE are to build a robust and vibrant center that supports and mentors talented young faculty, will recruit additional faculty, provide a dynamic seminar series, and expand core facilities in proteomics and microarray. The Center also provides support for students, postdoctoral fellows, and retreats. A special emphasis is placed on promoting an atmosphere that fosters stimulating discussions between basic and clinical scientists. These interactions will also include the state health department in an effort to directly improve the health of Vermonters. The principal investigator is Dr. Ralph Budd (Ralph.Budd@uvm.edu). To learn more, visit <http://www.med.uvm.edu/>