Dr. Sailen Barik recently received an NIH grant to investigate how Respiratory Syncytial Virus (RSV), a major pediatric virus, causes severe respiratory disease in infants.

Dr. Barik's primary research interest is to understand how viruses infect their host cells and promote pathogenesis. Practically all animals, including humans, are constantly exposed to a variety of viruses, many of which are infamous for causing deadly or debilitating infections that often turn into pandemics.

Some of the easily recognizable names are: influenza, measles, mumps, pox, HIV-1 (causing AIDS), and recently, SARS, West Nile virus and Ebola. The Ebola virus, for example, has exhibited a mortality rate of up to 90% in recent pandemics in Africa.

Although there are reasonably effective vaccines against some viruses, such as childhood measles, Flu and some forms of Pox, the vast majority of viruses mutate so rapidly that there is no reliable vaccine or antiviral against them. Moreover, viruses as a rule are resistant to all antibiotics.

RSV is by far the most feared name in the pediatric (neonatal) wards of all hospitals worldwide. Although it is the most severe respiratory pathogen in children, RSV also affects the elderly, the immunocompromised, and organ recipients. In an average year, RSV infects 64 million people globally, and causes 50,000 hospitalizations and 10,000 deaths in the US alone. All attempts to create an anti-RSV drug have failed so far, and the goal of Dr. Barik's research is to explore novel, previously unexplored mechanisms to combat this virus.

Dr. Barik is a Member of the Center for Gene Regulation in Health and Disease (GRHD) and a Professor in the Department of Biological, Geological, and Environmental Sciences in the College of Sciences and Health Professions at Cleveland State University.
Grant Workshop - Space is Limited - Register Today

In response to faculty request, the Office of Research is pleased to offer a workshop, *Logistics of Proposal Development*, on Friday, November 7, 2014 from 1:00-4:00pm (location to be determined), which is open to all tenured and tenure-track faculty interested in developing proposals for external research funding.

For more information, including how to register by the deadline of 5:00pm on Thursday, October 23, 2014, please read the recent [Call for Participation](#).

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Faculty Innovation Fund Awards

Grants up to $40,000 are available for the [Faculty Innovation Fund](#) (FIF). All eligible faculty are invited to submit a letter of intent. FIF proposals are accepted on a rolling basis until June 30, 2015, or upon commitment of all available funds, whichever comes first.

- [Faculty Innovation Fund Guidelines](#)
- [Faculty Innovation Fund Letter of Intent Cover Page](#)
- [Dr. Anthony Berdis Wins CSU Faculty Innovation Fund Award](#)
- [Dr. Andrew Resnick Wins CSU Faculty Innovation Fund Award](#)

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Meet CSU’s New Research Faculty

Dr. Eric M. [Schearer](#), assistant professor in the Department of Mechanical Engineering, joined CSU this fall. Dr. Schearer’s research program is aimed at reanimating the paralyzed arms of people with high spinal cord injuries. After a high spinal cord injury, a person has little or no ability to move his or her arms. A person cannot perform basic daily tasks like feeding, combing hair, or opening doors.

To restore these abilities to people with high spinal cord injuries, Dr. Schearer develops strategies to control a functional electrical stimulation neuroprosthesis (pictured on the right) that has been developed by colleagues at the Cleveland Functional Electrical Stimulation Center.

The neuroprosthesis electrically stimulates muscles in the arm and shoulder, causing the muscles to contract, exert forces on the skeleton, and induce arm movement. Dr. Schearer uses techniques from machine learning and robotics to control human arms with functional electrical stimulation and restore the ability of people with spinal cord injuries to independently perform daily tasks that require reaching.
Communication Professor Recipient of the 2013 McQuail Award

The Amsterdam School of Communication Research (ASCoR) recently announced that an international jury has selected Dr. Richard Perloff's article entitled "Progress, paradigms, and a discipline engaged: A response to Lang and reflections on media effects research," as the winner of the 2013 ASCoR McQuail Award. The McQuail Award is given annually to the best article advancing communication theory published in an international journal in the previous 1.5 years.

Dr. Perloff, professor in CSU's School of Communication, has been invited to give the annual McQuail Lecture and is this academic year's McQuail Honorary Fellow in the Amsterdam School of Communication Research. For more information about the award and previous laureates, click here.

What impact do mass media exert on society? What are the effects of mass media on children and adolescents? We all ponder these questions. For mass communication scholars, these are the core issues that animate the field, stimulating research, new theories, and vital debate. The debate about media effects - the strength of media impact, processes underlying media influence, and the theoretical direction the field should take - formed the focus of the award-winning article Dr. Perloff wrote for the flagship theory journal, Communication Theory, last year.

Dr. Perloff reviewed theoretical advances in the still-controversial area of television (and video game) violence effects, political communication, and meta-analytic studies to argue that mass communication theory and research have made tangible and conceptual advances. Importantly, Perloff called on epistemological ideas and broader concepts of scientific progress to suggest criteria for progress in the study of mass communication effects. For instance, his article emphasized that uncovering the particular psychological and neuroscientific bases of video game effects constitutes a legitimate marker of scientific advancement, all the more interesting given the extremities of the video game violence debate, which stretches from concerns about the Newtown killer's preoccupation with an interactive video game to the Supreme Court's ruling that violent video games merit First Amendment protection.

New Webinars to Connect Applicants to NIH Peer Review Experts

The NIH Center for Scientific Review will host four Meet the Experts in NIH Peer Review Webinars in early November 2014 to give new NIH grant applicants and others useful insights into the submission and review processes. Click here more information.

Featured Researcher Video Series

Dr. Justin Perry's research is the focus of the latest installment of the Featured Researcher Video series. Dr. Perry is an Associate Professor at Cleveland State University, where he is the Director for the Center for Urban Education. His research includes practical, policy-relevant applications of college and career readiness, or the school-to-work transition, school dropout prevention, high school graduation, and diverse pathways for post-secondary education and training. We encourage you
to learn about Dr. Perry’s work, and to take a look at our previous Featured Researcher Videos.

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**Undergraduate Research Award - Deadline Approaching**

The purpose of the Undergraduate Research Award program is to allow undergraduate students to obtain funding to offset the costs associated with doing research undertaken in a CSU credit-bearing course. There are two deadlines for applications each academic year, one for the fall semester and one for the spring semester. The deadline for fall funding is the last Monday of April, and the deadline for spring funding is the last Monday of November. Click here for more information.

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**CSU Scholar News**

The Energy Policy Center (EPC) at the Levin College of Urban Affairs, in collaboration with the Urban College’s Center for Economic Development, recently completed a study entitled "Electricity Markets in Ohio." The study was funded by the Ohio Manufacturing Association, which asked CSU to untangle and explain the complex components that make up today's deregulated electricity market. The study helps manufacturers and other large commercial users to understand how restructured electricity markets work, and how electricity costs can be managed and constrained. This study came after the Centers previously collaborated on another electricity study for the Ohio Manufacturing Association, entitled "Distributed Generation as a Response to the Rising Cost of Electricity in Ohio."

The EPC was begun at CSU in 2008 with a grant from the Mandel Foundation, and is led by Executive-in-Residence Andrew Thomas (pictured right) and Professor William Bowen from the Maxine Goodman Levin College of Urban Affairs. Its mission is to identify and help enable public policies that lead to a sustainable economy and environment. Dr. Lendel leads the energy related research for the Center for Economic Development. Additional contributions to the center come from research fellows Dave Fornari and Jim Samuel, and from Cleveland Marshall Law Professor Heidi Gorovitz Robertson. All write regularly on the subject of energy policy for Crain's Business weekly magazine, Ohio Energy Reporter. The EPC also relies on student research from both the urban and law schools.

The EPC and the Center for Economic Development are currently collaborating on a major study funded by JobsOhio to identify strategies for economic development downstream of the Utica and Marcellus shale gas production. The two centers previously published a report on the likely economic effect of shale development in Ohio. In addition, the EPC has been funded by the National Science Foundation to develop an energy policy short course for STEM high school students, which will be rolled out this fall at the Cleveland MC2 High School and hosted by Cleveland State University.

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Please share with us important news or updates on your research, scholarly, or creative activities. Updates may be related to a paper that has been accepted for publication in a high-impact journal, a book you’ve just published, your work that will be exhibited at a prominent institution, or other updates you wish to share with our office. Send details to j.yard@csuohio.edu and c.mclennan@csuohio.edu.

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**Center for Faculty Development and Leadership Workshop**
On Tuesday, October 28th at 11:30am Conor McGinnan, associate vice president for research, will provide an overview of several research-related topics, including internal awards, resources for locating external funding opportunities, upcoming proposal development workshops, and CSU's Institutional Review Board at a workshop hosted by the Center for Faculty Development and Leadership. Click here for more information.