

PRESS RELEASE

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Vermont Scientists Featured in VPT's 'Emerging Science'

Vermont is home to remarkable scientists who expand human knowledge and help to solve problems everywhere from outer space to a mud puddle in Africa. Vermont Public Television features them in its "Emerging Science" project. The Emmy and National Educational Telecommunications Association award-winning project features broadcast programs, video podcasts and community events, as well as educational outreach to help high school teachers spark students' interest in scientific careers.

A new season of four broadcasts premieres Tuesday, Feb. 2, at 9 p.m. on VPT and online at [www.vpt.org](http://www.vpt.org). Programs will repeat on VPT Sundays at 1 p.m. and be archived online.

Vermont EPSCoR (Experimental Program to Stimulate Competitive Research) is the project's funder.

Located at UVM, Vermont EPSCoR supports Vermont scientists and business leaders -- many of whom appear in the series -- through funding, outreach and technology development.

Amy Seidl, an ecologist, author and research scholar at Middlebury College, is program host.

Producer Vic Guadagno said, "Viewers will be inspired by the scientific research Vermonters are doing. They are attempting to quantify the value of nature in our economic models and solve global pandemics through the cross-disciplinary approach of One Health."

On Tuesday, Feb. 2, at 9 p.m., "Emerging Science" explores the wonders of the cosmos with two of Vermont's leading astronomical physicists. John O'Meara of St. Michael's College uses infrared technology to view galaxy formations 12 billion light years away. Joanna Rankin of the University of Vermont uses radio astronomy to explore one type of celestial body -- the pulsar. Others featured are former astronauts Alan Bean, keynote speaker at the 2009 Stellafane telescope makers convention in Springfield, Vt., and Gerald Carr, a resident of Vermont, who talk about their experiences.

With the recent failings of our financial system, new economic models need to be considered. Bob Costanza and Jon Erickson of the University of Vermont's Gund Institute for Ecological Economics explain the concepts of their field. As ecological systems continue to be strained, the aim of the Gund Institute is to shift the world's economies away from their present emphasis on infinite growth and toward a focus on sustainable human well-being. As a case study, "Emerging Science" explores a new interdisciplinary project at UVM bringing together chemists, soil scientists, agronomists, ecologists and economists to test whether small-scale biofuel production can aid dairy farming in Vermont. Heather Darby of UVM Extension, an agronomist and farmer, visits a farm in Alburgh where test crops are being grown for fuel. Others on the team are Mary Watzin and Don Ross of the University of Vermont, who explain the aspects of water and soil in the project. The program will air Tuesday, Feb. 9, at 9 p.m.

From tainted spinach to recalled hamburgers, the U.S. has seen health scares involving salmonella, E. coli and other causes of food-borne illness. On Tuesday, Feb. 16, at 9 p.m., "Emerging Science" follows researchers who identify and track food pathogens. The University of Vermont's Jane Hill explains the complex issues of pathogen migration and the work her lab is doing to prevent it. UVM scientists Catherine Donnelly and Paul Kindstedt contrast large scale and regional food production. Vermont state

epidemiologist Patsy Kelso emphasizes consumer education in food safety. Ken Puzey of QuantaSpec Inc. in Burlington, Vt., shows how his company is making strides in early detection of harmful bacteria.

Infectious diseases such as SARS and the H1N1 virus threaten people throughout the world. The final “Emerging Science” broadcast, airing Tuesday, Feb. 23, at 9 p.m., reports on the science of disease origins and transmission. Much of the current research is going on in Africa. University of Vermont professor Arne Bomblies' work models hydrology and entomology factors related to malaria. Jon Erickson and Michel Masozera of UVM's Gund Institute introduce viewers to the HALI Project in Tanzania and explain the concept of One Health, which encourages interaction among physicians, veterinarians, ecologists and others in the study and prevention of disease transmission among humans, domestic animals and wild animals.

Podcasts and full episodes from the two previous seasons of “Emerging Science” are available on demand at [www.vpt.org](http://www.vpt.org).

Executive producer of “Emerging Science” is Enzo Di Maio. Community outreach director is Elizabeth Ottinger.

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