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UMBI's Dan Morhaim Lecture Series on Environmental Matters: Inaugural Lecture by Eric J. Mathur to be held October 5, 2007

The remarkable growth of microbiology in the past 30 years has entered a new and exciting phase, as scientists shift their focus from individual microbes to collaborative communities of microorganisms.

The myriad of ways in which microbes interact with other species; the new technologies for isolating potentially useful natural products; and how they can be deployed for preservation and restoration of the environment are all topics to be covered in the first of a new lecture series sponsored by UMBI, honoring Maryland State Delegate Dan Morhaim M.D. for his legacy and leadership in environmental matters.

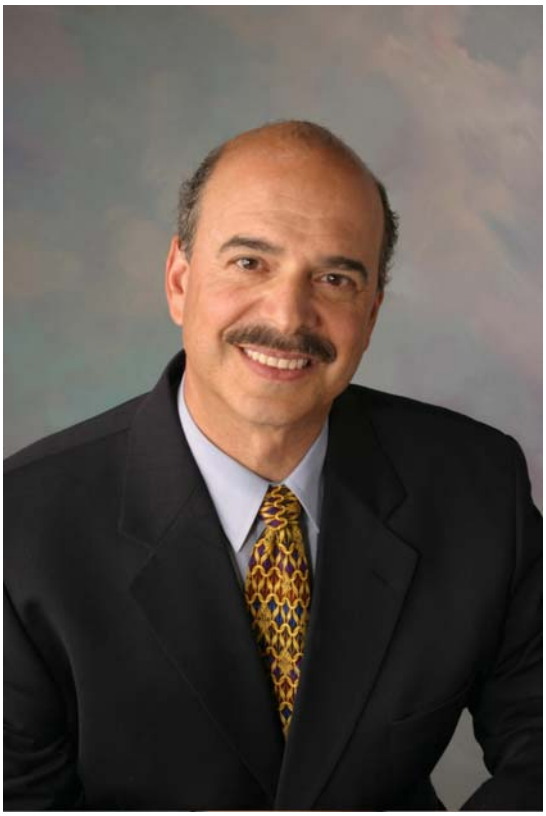
This inaugural event in the new Dan Morhaim Lecture Series on Environmental Matters will be held at 2:00 P.M. on October 5, 2007 at UMBI's Center of Marine Biotechnology, located in Baltimore's Inner Harbor, 701 East Pratt Street.

Eric J. Mathur, above, Visiting Distinguished Scientist of the J. Craig Venter Institute, will present "21st Century Frontiers in Biotechnology and Progress Toward a Sustainable Environment". Eric J. Mathur holds a Visiting Distinguished Scientist non-paid position at the J. Craig Venter Institute. He also serves as Vice President of Metagenomics at Synthetic Genomics, Inc. Prior to working with Dr. Venter, Eric served

as Vice President of Scientific Affairs & Molecular Diversity at Diversa Corporation where he developed the company's metagenomics (gene recovery from the environment), high throughput cultivation and biodiversity access discovery programs. Prior to Diversa, he was a founding scientist at Stratagene Cloning Systems. Mr. Mathur has published over 60 scientific papers, is named inventor on more than 50 issued US and World patents and has been invited to present over 100 scientific lectures.

Journalists and the general public are welcome to attend; reservations are requested: please RSVP to Yvonne Cook by email at cooky@umbi.umd.edu , or by telephone at 410-385-6313.

The lecture series is sponsored by UMBI, the biotechnology institution of the University System of Maryland. Many of UMBI's research projects have direct applications to preservation and restoration of the environment. For more information please visit http://www.umbi.org.



Maryland Delegate Dan Morhaim

Maryland State Delegate Dan Morhaim, for whom the lecture series is named, is a physician and legislator who is a leader in environmental preservation and restoration. He often compares his work as a physician--healing the human body-- to the challenge of working proactively to help heal and sustain the health of the environment.

"The environment is of obvious importance for sustaining all forms of life on this planet, including our own", Morhaim said. "There are things to be done locally, regionally, and globally to preserve the environment, but they all come down to the choices and actions of individuals—along with the help and support of public institutions."

“Obviously, the role of life sciences is critical—both to understanding the impact of environmental problems and how to relieve them, but also how to restore the damage that has already been done to the environment. The work done at UMBI, ranging from basic research revealing critical migration corridors of the Chesapeake blue crab, to applied biotechnology such as fully self-contained aquaculture—from microbes that can remove PCBs in the Baltimore Harbor to replacement of malaria-bearing mosquitoes with strains that are harmless—from ethnobotanical studies for new natural products and medicines to microalgae as alternative sources of energy--these are all examples of the new and critical ways that environmentally sound science is already leading toward a bright future.

“We not only want to slow the rush to the precipice. We also want to show the way to turn around and go the other direction; to heal and restore the environment, so that it is more than sustained for generations to come”.

In his wide-ranging lecture, Eric Mathur will describe novel and powerful approaches that are now being deployed by a new generation of molecular investigators. Powerful new techniques make it possible to isolate and characterize novel microbes. Some of these microbes were previously undetected, while others can be detected but are difficult to cultivate. Mathur will discuss new frontiers in high-throughput characterization of the genetic information of formerly unknown microbial species—including methods for cultivation as well as methods for genetic characterization without cultivation.

To take just one example, Mathur describes the striking results from Venter’s major new survey of marine life, in which over a million new genes were first described. For more information, see

http://www.bio-itworld.com/newsitems/2007/march/03-12-07-venter-expedition

This is but one example of broad efforts in biotechnology to find new and useful genes and natural products, with applications ranging from drug discovery to reversal of global warming and development of alternative fuels. Mathur has also been involved in efforts to deploy newly discovered microbial enzymes for generation of alternative energy sources, for example by using these enzymes to convert the biomass of cellulosic materials from plants into clean, renewable energy.

With research centers in Baltimore, Rockville, and College Park, the University of Maryland Biotechnology Institute is the newest of 13 institutions forming the University System of Maryland. UMBI has more than 60 ladder-ranked faculty and a 2007 budget of $59 million. Celebrating the institution's 20th year of service to Maryland and the world, UMBI is led by microbiologist and former biotechnology executive Dr. Jennie C. Hunter-Cevera. For more information visit http://www.umbi.org.

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