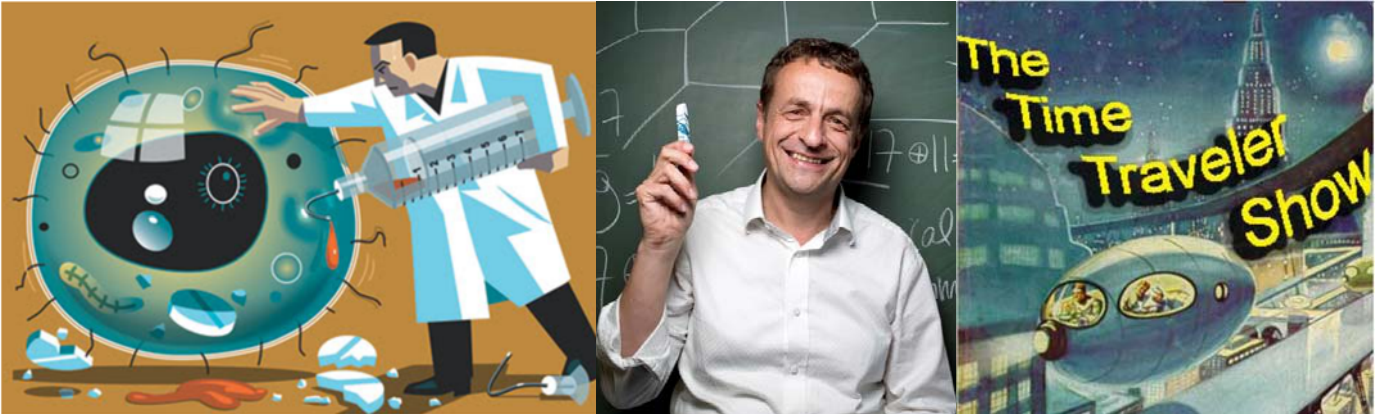The Humboldt State University
Department of Mathematics
presents

The 67th Harry S. Kieval Lecture

Thursday, March 24, 2016

7:30 pm, Science B, Room 135

"Mathematics of Antibiotic Resistance"

Bernd Sturmfels, Ph.D.
University of California at Berkeley

A recent project with the Barlow Lab at UC Merced was aimed at developing antibiotic treatment plans that can reverse the evolution of antibiotic resistance. A key contribution was the "time machine" we built using linear algebra and probability theory. This lecture discusses the relevant bio-medical background, and then offers a tour of the "New Mathematics" that is promised in the Scientific American article

http://www.scientificamerican.com/article/new-mathematics-could-neutralize-pathogens-that-resist-antibiotics/

Dr. Bernd Sturmfels received doctoral degrees in mathematics in 1987 from the University of Washington, Seattle, and the Technical University Darmstadt, Germany. He is Professor of Mathematics, Statistics and Computer Science at UC Berkeley. His many honors include a Sloan Fellowship, an Alexander von Humboldt Senior Research Prize, and an Einstein Fellowship in Berlin. He served as Vice President of the American Mathematical Society, and he was awarded an honorary doctorate from Goethe University Frankfurt in 2015. His current research connects computational algebraic geometry to problems in statistics, optimization, and biology.

The Kieval Lecture presents some popular and broad aspects of mathematics attractive to undergraduates and the general public

For more information go to: http://www.humboldt.edu/math/kieval/index.html

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