

CAPITAL SCIENCE LECTURES

Thirteenth Season

2002
2003

TUESDAY • OCTOBER 22, 2002 • 6:30 PM



JOHN MCKINNEY
*Laboratory of Infection Biology
The Rockefeller University*

PERSISTING PROBLEMS IN TUBERCULOSIS

Once believed to be conquered, tuberculosis kills more people today than ever before in human history. Recent scientific advances are unveiling the secrets of TB's tenacity and developing new weapons against this ancient enemy.

TUESDAY • NOVEMBER 19, 2002 • 6:30 PM



MARILYN FOGEL
*Staff Scientist, Geophysical Laboratory
Carnegie Institution of Washington*

UNTANGLING A COMPLEX ECOSYSTEM: ENERGY FLOW IN TROPICAL MANGROVES

In the tropics, gnarled and twisted mangrove trees form the main buffer zone between land and sea. Now these trees are facing two big threats from humans—pollution and tourists. How does this complex ecosystem function and what does the future hold?

MONDAY • DECEMBER 9, 2002 • 6:30 PM



FILM PREMIERE

THE WEATHER'S FACE: HOW METEOROLOGY BECAME A SCIENCE

Explore the life of Norwegian scientist Vilhelm Bjerknes (1862-1951). With support from the Carnegie Institution, he integrated mathematics and atmospheric dynamics, and laid the foundations for modern meteorology. Co-hosted with the Royal Norwegian Embassy.

THURSDAY • JANUARY 16, 2003 • 6:30 PM



FILM PREMIERE

COSMIC AFRICA

Join South African astrophysicist Thebe Medupe in a journey across Africa, examining indigenous mythologies and cosmologies, and how these beliefs and practices mix with modern astronomy.

TUESDAY • FEBRUARY 11, 2003 • 6:30 PM



ERIC LANDER
*Director, Center for Genome Research,
Whitehead Institute
Massachusetts Institute of Technology*

THE HUMAN GENOME AND BEYOND

The avalanche of biological information created by the sequencing of DNA in humans and other animals has forced a hasty marriage between biology and information technology. How are they getting along and where are they headed?

TUESDAY • MARCH 25, 2003 • 6:30 PM



KIP THORNE
*Department of Physics
California Institute of Technology*

PROBING THE UNIVERSE WITH GRAVITATIONAL WAVES

Sci-Fi fans and astronomers alike will want to hear and see Kip Thorne's description of gravitational waves, those wrinkles in the fabric of space and time that are produced by collisions of black holes and by the big-bang creation of the universe.

TUESDAY • APRIL 8, 2003 • 6:30 PM



SALLY AND BENNETT SHAYWITZ
*Department of Pediatrics
Yale University*

OVERCOMING DYSLEXIA

For the millions of children and adults struggling with dyslexia, hope is on the horizon. Exciting new research has identified the neural disruption in dyslexia as well as successful methods of diagnosing and treating dyslexia.

TUESDAY • APRIL 22, 2003 • 6:30 PM



PETER AND ROSEMARY GRANT
*Department of Ecology and Evolutionary Biology
Princeton University*

EVOLUTION OF DARWIN'S FINCHES

Darwin's finches on the Galapagos Islands are a classic example of rapid evolution of a species in an isolated environment. Recent discoveries made from both field observations and molecular studies may help us understand how it happens.

TUESDAY • MAY 27, 2003 • 6:30 PM



JENNIFER DOUDNA
*Department of Molecular and Cell Biology
University of California, Berkeley
Howard Hughes Medical Institute*

THE TWISTED WORLD OF RNA: ONE MOLECULE, MANY FUNCTIONS

We have all heard a lot about DNA in the media, from scientific journals to television crime shows. But now, researchers are going a step further into the twisted world of RNA and learning about its many roles in biology and evolution.

ALL LECTURES ARE FREE AND OPEN TO THE PUBLIC

LECTURES CAN BE SIGN INTERPRETED
FOR THE HEARING-IMPAIRED
Call (202) 939-1121 to request an interpreter
Two weeks notice required

For recorded information on the 2002-2003 Capital Science Lectures, please call (202) 328-6988, or e-mail ecarpenter@pst.ciw.edu or visit our website: www.carnegieinstitution.org