

# LIVING SOIL: A Universe Underfoot

Scoop up some soil and consider this astonishing fact: there are more organisms in that handful of soil than humans who have ever lived. Soil is a complex ecosystem that undergirds all life on the planet—a community of micro- and macro-organisms that interact with the earth's mineral resources. The Nobel Conference invites participants to consider the vast diversity and complexity of soil, and to ponder the challenges we face in protecting this most fundamental resource.

## WAYS HIGH SCHOOLS CAN PARTICIPATE

- 1 Join 4,000 people on campus for one or both days to experience the presentations and Q&A sessions
- 2 Gather students on your own campus to watch the livestream or archive
- 3 Utilize classroom-ready resources with supplemental readings and activities



THE  
**Nobel**  
CONFERENCE  
GUSTAVUS ADOLPHUS COLLEGE

### HOW IS SOIL ALIVE?

Dr. Jack Gilbert, microbiologist, University of Chicago, and founder of the Earth Microbiome Project, an ambitious endeavor to catalogue and characterize microbial life in different environments across the globe.

### HOW CAN AGRICULTURE BE A SOLUTION TO ENVIRONMENTAL PROBLEMS?

Dr. David Montgomery, geologist, University of Washington, and MacArthur fellow.

### HOW DO TREES USE THE SOIL TO COMMUNICATE WITH EACH OTHER?

Dr. Suzanne Simard, forest ecologist, University of British Columbia, and developer of the concept of “mother trees.”

### HOW CAN WE IMPROVE SOIL TO SLOW CLIMATE CHANGE?

Dr. Rattan Lal, soil scientist, Ohio State University, and member of the 2007 Nobel Peace Prize-winning Intergovernmental Panel on Climate Change.

### HOW DO STORIES OF SOIL FRAME A CULTURE'S VIEW OF THE WORLD?

Dr. Frank Uekotter, environmental historian, University of Birmingham, and author of the forthcoming *The Vortex: An Environmental History of the Modern World*.

### HOW CAN WE BALANCE SOIL CONSERVATION AND FINANCIAL REALITIES OF FARMING?

Ray Archuleta, conservation agronomist, Soil Health Consulting, and retired Natural Resources Conservation Service soil educator, “Ray the Soil Guy.”

### HOW DOES ORGANIC MATTER IN SOIL CONTRIBUTE TO CARBON SEQUESTRATION?

Dr. Claire Chenu, soil scientist, AgroParisTech, and United Nations Special Ambassador for the 2015 International Year of Soils.

For more information and a complete schedule, visit [GUSTAVUS.EDU/NOBELCONFERENCE](http://GUSTAVUS.EDU/NOBELCONFERENCE).

*The Nobel Conference, the only ongoing educational conference of its kind in the United States to receive the official authorization of the Nobel Foundation, is made possible through a core endowment funded by Adeline and the Reverend Drell Bernhardson, major legacy gifts, and annual contributors.*