



**ICDP Scientific Drilling Workshop:  
Deep Geothermal Test Borehole, Cornell Campus**

January 8-10, 2020, in Ithaca, New York, USA

**Deadline for registration: November 10**

Cornell University is advancing a plan to drill a test geothermal borehole to 4 – 5 km depth, traversing 3 km of lower and middle Paleozoic sedimentary rock and about 1 km of mid- to high-grade metamorphic basement. The university seeks to extract geothermal energy for “direct use” to heat campus buildings, to replace fossil fuels. To test that potential, a pilot borehole is planned to test reservoir conditions and to minimize risks, which require an understanding of the mechanical conditions of the solid rocks and fluids. This “borehole of opportunity” will be suitably located for examination of the variability in mechanical response of heterogeneous, low porosity rocks to stress perturbations caused by fluid circulation, to enable investigation at the spatial scale of the natural variability of lithology, fabric, and inherited fractures.

The objective of this workshop is to develop scientific priorities and particular monitoring and sampling strategies that can be used to advance a broad understanding of subsurface processes and conditions, beyond the minimum required to meet operational goals. The workshop will lead to preparation of a scientific drilling proposal, to collect the necessary data and samples. Specific topics that may be feasible with this project include research into the controls of fluid flow and pressure gradients through metamorphic and tight sedimentary rocks, improved understanding of the strain response to stress perturbations in this type of environment, and development and testing of downhole instruments and technologies. The workshop may identify other meritorious research areas and experiments worthy of proposals that focus on features of the subsurface system.

We invite interested individuals from academia and industry to attend the workshop. We seek particularly participants from the fields of rock mechanics, hydrogeology, seismology, microbiology, borehole engineering, and regional geology of northeastern North America, as well as representatives from the drilling and geothermal industries. Please submit a brief application with 1-page resume and a summary of relevant expertise to Dr. Teresa Jordan ([tej1\(at\)cornell.edu](mailto:tej1@cornell.edu)) and Dr. Patrick Fulton ([pfulton\(at\)cornell.edu](mailto:pfulton@cornell.edu)). A scientific committee will decide on invitations and travel support (fully or partially). Preference will be given to scientists from ICDP member countries (or countries with an interest in joining ICDP) and to scientists or engineers whose expertise complements that of existing project participants. Early career scientists are encouraged to apply.

*Further information about the workshop is available at <http://ccgeotherm.icdp-online.org>*