

The 8th ELSI Annual Public Lecture

Extremophiles -Enchanted by the Mystery of Life-

February 4th
(Tue), 2020

19:00 - 20:30

(Doors open at 18:30)

Venue: Digital Hall, Tokyo
Institute of Technology
(Ookayama station, Tokyu
Line, 3 min. walk)

Organizer: The Earth-Life Science Institute (ELSI), Tokyo Institute of
Technology (<http://www.elsi.jp/en>)

Language: Japanese/English
(Simultaneous interpretation)

Fee: Free (Prior registration
required: first 350 people)

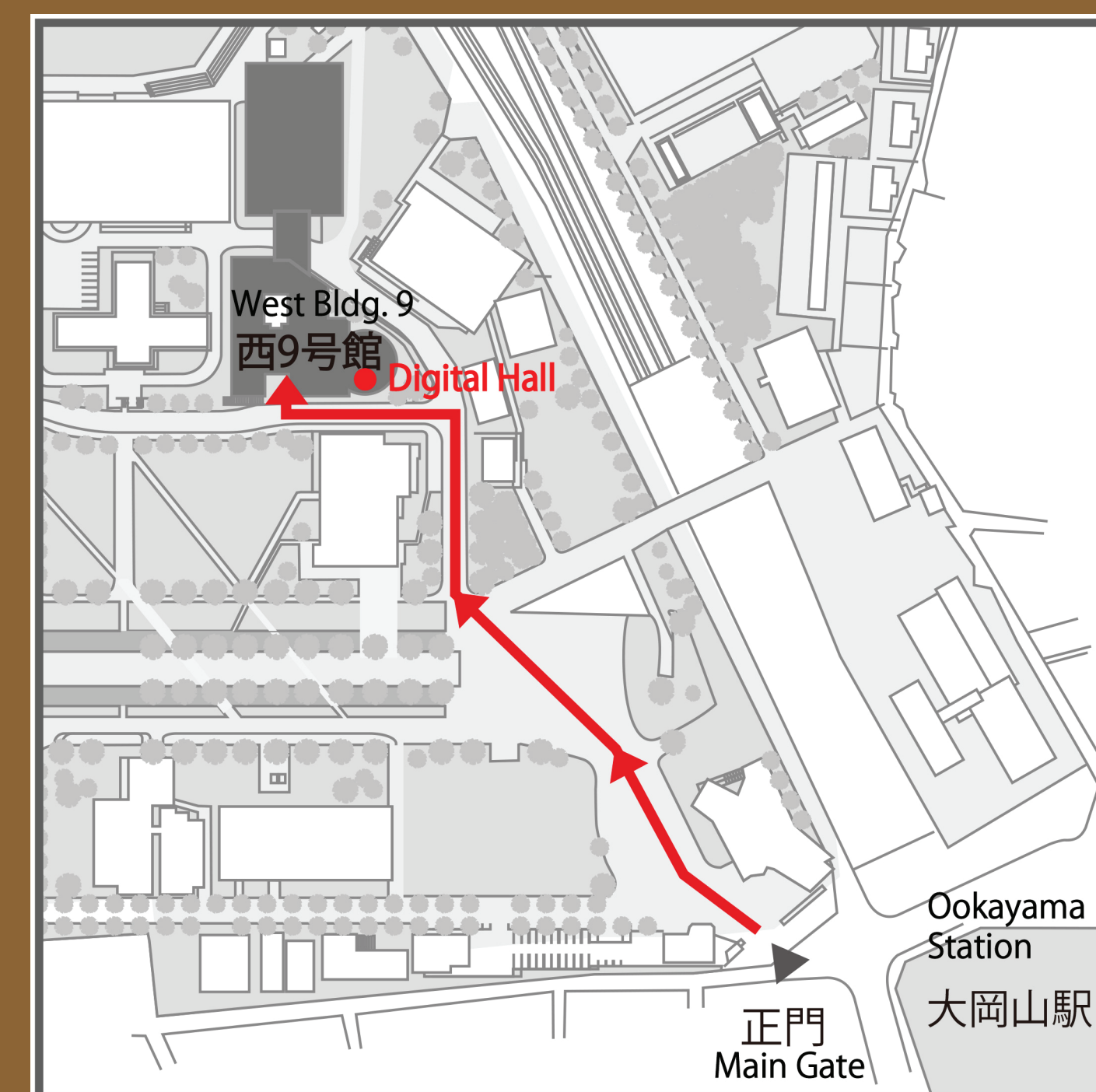
Registration:



*Or from our official website
above.

Deadline: 2nd (Sun), Feb, 2020
(*We will close application
once all the places are taken.)

Contact: pr@elsi.jp



Lecture 1 Deep-Sea Battery -Seeking the Riddle of Origin of Life-



Ryuhei Nakamura
Professor

ELSI, Tokyo Institute of Technology

In recent years, we detected massive flows of electrical current at the hydrothermal vents on the deep ocean floor. This naturally generating electrical current supports microbial life in present day, and may have supported the creation of early life. In this presentation, I will present our over-10-years research for understanding how deep-sea electric currents may have provided the spark for the origin of life on Earth.

Lecture 2 The Mystery of Life in Extreme Environments: A Molecular Viewpoint



Toshiko Ichiye
Professor

Georgetown University

Life has been found flourishing at amazing extremes of temperature and pressure, such as above the boiling point of water or over a thousand times atmospheric pressure. At a cellular level, “extremophiles”, organisms that live in extreme conditions, are composed of surprisingly similar proteins, nucleic acids, and membranes as “mesophiles”, organisms that live in normal conditions. Our biophysical studies of proteins are revealing the mechanisms that extremophiles use to adapt to living in extreme environments.