

ELSI ANNUAL PUBLIC LECTURE 2021

SCIENCE IN THE WILD

**THIS EVENT WILL BE
HELD IN JAPANESE**

Participation: Live stream

Organiser: Earth-Life
Science Institute (ELSI),
Tokyo Institute of
Technology

Language: Japanese

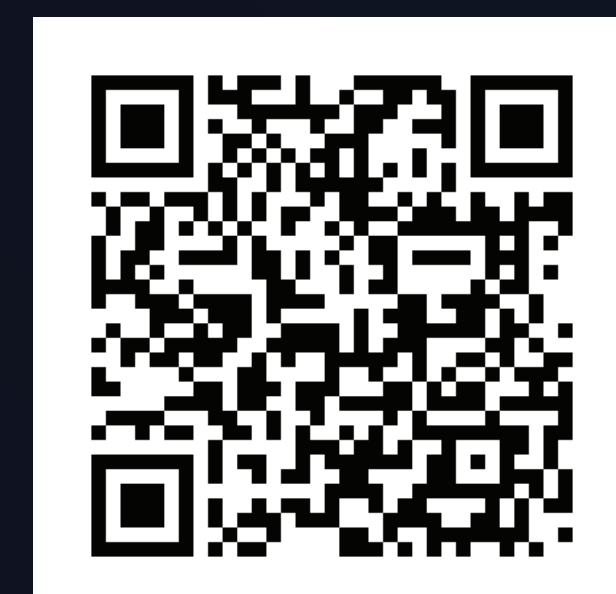
Fee: Free



twitter.com/ELSI_origins

JANUARY 27
(WED), 2021
19:00-20:30

Registration: Prior registration
required. Use the code or
website to register.



www.elsi.jp/en

Deadline for registration:
January 22 (Fri), 2021

Contact: pr@elsi.jp

LECTURE 1

VIRUSES IN EXTREME ENVIRONMENTS ILLUSTRATE ORIGIN AND EVOLUTION OF EARLY LIFE



TOMOHIRO MOCHIZUKI
Earth-Life Science Institute,
Tokyo Institute of
Technology

Unicellular microbes exist in almost every environment of this planet, including extreme environments. However, viruses easily outnumber cellular particles. I will first present about various viruses that infect hyperthermophilic Archaea, found in boiling hot springs worldwide, with bizarre morphologies such as lemon, bottle, and spring shapes. In the second part, I will describe how a virological approach can provide an alternative perspective to studying the origin and evolution of life.

LECTURE 2

HIDDEN HOT SPRING REVEALS HISTORY OF NITROGEN-FIXING MICROORGANISMS



ARISA NISHIHARA
The National Institute of
Advanced Industrial
Science and Technology

Nitrogen-fixing microorganisms can convert atmospheric nitrogen into nitrogen compounds. They may have appeared as early as 3.2 billion years ago and diversified, thriving in a wide range of environments. What were the properties of nitrogen-fixing microorganisms in the early stages of evolution and how have they evolved since then? In this lecture, I will introduce the history of nitrogen-fixing microorganisms that have been revealed through field experiments in hot springs.

MODERATOR

RYUHEI NAKAMURA



Earth-Life Science Institute,
Tokyo Institute of
Technology