

The Drive to Life in Submarine Hydrothermal Systems

Date: June 28th, 2016

*Venue: Earth Life Science Institute,
Tokyo Institute of Technology*

10:00-11:00 “Driving the very first steps to metabolism”
Dr. Michael Russell (JPL/CALTECH)

**11:00-11:30 “Limits of life and biosphere and energy mass
balance of habitability under deep ocean”**
Dr. Ken Takai (JAMSTEC)

**11:30-12:00 “Hydrothermal CO₂ reduction
- From origin of life to CO₂ conversion and utilization”**
Dr. Fangming Jin (Shanghai Jiao Tong University)

12:00-13:00 Lunch

13:00-14:00 Lab tour

**14:00-14:30 “From chemical reaction networks to biological
metabolism”**
Dr. Masafumi Kameya (ELSI)

**14:30-15:00 “Electrochemical evolution on deep-sea
hydrothermal vent: Electricity can drive
metabolic pathways on hydrothermal vent
minerals”**
Dr. Masahiro Yamamoto (JAMSTEC)

Organized by: Norio Kitadai (ELSI) and Ryuhei Nakamura (RIKEN)