



Department of Biotechnology  
Ministry of Science and Technology  
Government of India  
**DBT**



National Institute of  
Advanced Industrial Science  
and Technology  
**AIST**



# DBT - AIST International Laboratory for Advanced Biomedicine



## DAILAB

### Classroom for Advanced & Frontier Education CAFE

# DAI*i*LAB-CAFE

## Series - 38

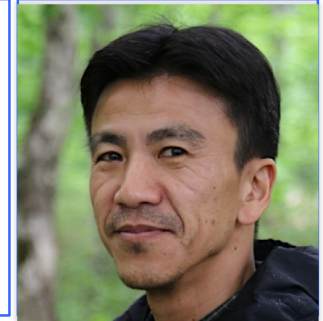
Date and Time: June 17, 2019 (3:30 JST)

Venue: Central 5-41 2F (Meeting Room #1)

Speaker: **Y. Mitani**

Affiliation: National Institute of Advanced Industrial Science and Technology (AIST), Japan

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## Title: Luminous animals from fields to the Lab

Maybe some people have experiences to see fireflies in the field. They emit mild green light and attracted eyes of human beings from the ancient times as described in many old documents from all over the world. However, the diversity of luminous animals is not well recognized by most people because real diversity of these animals are under the ocean. Some reports say that luminous animals are widespread and scattered over diverse branches of the tree of life, and more than 700 genus include luminous species and 80% of them are living in ocean. Until now, bioluminescence systems have been revealed from a diverse array of animals, as many as more than 10 phyla. The luminous mechanisms including luciferin and luciferase have been characterized for many species, particularly for terrestrial animals including fireflies, click beetles, and railroad worms. Recently, a novel luciferin was identified from an annelid, the Siberian earth worm. However, we still have much more luminous animals with unknown molecular mechanism(s). In this seminar I will talk about recent topics about luminous animals including fireworm luciferase that originally discovered.



**Series 38 and 39**

**Speaker 1:**

**Y. Mitani**

Topic: Luminous animals  
from fields to the Lab

**Speaker 2:**

**D. Sundar**

Topic: The foundations of  
Synthetic Biology

**Date: June 17, 2019**  
(15:30-17:30 hours JST)

**Host: AIST Tsukuba,**  
Japan

**Thanks for participation !**



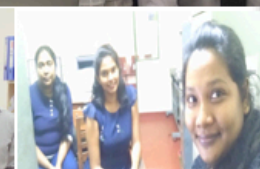
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**IIT-Delhi**



**ILAS, China**



**USJP, Sri Lanka**



**Brawijaya Univ, Indonesia**

**GNDU, Amritsar**



**Manipal Univ. India**