



# Brown Bag Seminar

ブラウンバックセミナー



Recorded data will be uploaded  
**Online (Zoom)**

# 2021.8.18

(Wed.)

Supported by Kyushu University, Q-AOS & TEMDEC

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Simultaneous Interpretation

## 12:10 ~ 12:50

12:10-12:15 ♦ Introduction

12:15-12:40 ♦ Seminar (Presentation)

12:40-12:50 ♦ Q&A

[https://temdec-med-kyushu-u-ac-jp.zoom.us/webinar/register/WN\\_-zP-FtHXS16HuLLa6XqciQ](https://temdec-med-kyushu-u-ac-jp.zoom.us/webinar/register/WN_-zP-FtHXS16HuLLa6XqciQ)

## Biological clocks in Tropical area

**Chair: Assoc. Prof. Toshinori Tanaka** (Research Promotion Coordinator of Q-AOS)

Many organisms show 24-hour rhythms in their activities. Some of them including humans have internal, self-sustained biochemical oscillators called circadian\* clocks, which are in humans the cause of jet lags. The others do not have such self-sustained clocks and rely on external signals (e.g., change in light-dark conditions). We developed a mathematical model to study evolutionary significance of the self-sustained-type clocks. With some assumptions, the model predicted that the self-sustained circadian clocks are favoured by natural selection in seasonal environments while they are evolutionarily neutral or even disadvantageous in aseasonal environments. We are testing the prediction by measuring expression of clock genes from several tropical plant species put under constant darkness in collaboration with University of Malaya, Malaysia.

\* "Circa" means "about", and "dian" means "day".

"circadian clock"

"Malaysia"

Key Words

"tropical plants"



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Dr. Motohide Seki received his doctoral degree in science from University of Tokyo in 2012, and conducted postdoctoral research in Hokkaido University between 2012 and 2015. He joined Kyushu University in 2015, and is currently belong to Faculty of Design. He was JSPS Research Fellow during 2008 - 2011.

