



**TARA**

Life Science Center for Survival Dynamics  
Tsukuba Advanced Research Alliance

# **TARA Seminar**

**17:00~18:00, Mon. Sep. 9th, 2019**

**Seminar room, Building A, TARA Center**

## **Dr. Robert Passier**

**Department Chair, Professor  
Applied Stem Cell Technologies  
University of Twente,  
The Netherlands**



**Advanced human stem cell-based models for mimicking cardiovascular disease. Towards personalized medicine.**

Cardiovascular disease is the leading cause of death globally, representing approximately 30 percent of all death. Although in the last decades researchers have focused on the treatment of heart disease, there is currently no cure for this disease. In addition, impaired cardiac function may be caused by unexpected drug-induced cardiotoxic side effects. One major problem is the limited ability to accurately mimic human heart disease and to predict the effects of potential heart drugs on patients using the current models. Human pluripotent stem cell (hPSC)-derived cardiac cells can be used to develop human patient-specific cell-based assays for biomedical and pharmacological research. Here, I will discuss the application of hPSC-derived cardiomyocytes to more accurately mimic human heart function in vitro and their potential for disease modelling (personalized medicine), drug discovery and regenerative medicine.

**\*The seminar will be given in English.\***

Organizer; Prof. Hiromi Yanagisawa <[hkyanagisawa@tara.tsukuba.ac.jp](mailto:hkyanagisawa@tara.tsukuba.ac.jp)>

**University of Tsukuba**

