



# 87th CRC Seminar

Dr. Noriko Inada

Nara Institute of Biological Sciences (NAIST)  
Graduate School of Biological Sciences, Plant Global  
Education Project

We are honored to host Dr. Noriko Inada of Nara Institute of Biological Sciences (NAIST) as our 87<sup>th</sup> CRC seminar speaker. Dr. Inada is a leading scientist in the field of bio-imaging and microscopy. Recently her group, in collaboration with the University of Tokyo, has managed to measure intracellular temperature using cutting edge microscopy techniques. Dr. Inada will also share with us her work on bio-imaging of plant-pathogen interactions and the involvement of host factors regulating membrane trafficking.

## “The plant-microbe interaction revealed by bio-imaging”

時間：2013 年 10 月 18 日（金）16:30～18:00

場所：総合教育研究棟（生命系）1 階 遠隔講義室

I have been involved in education of cutting-edge bio-imaging techniques for young plant scientists since I started to work in NAIST in 2006. Besides the educational activity, I have continued my research regarding plant-microbe interactions that I started when I was a post-doctoral researcher at the University of California, Berkeley.

The powdery mildew disease is one of the most common plant diseases in the world. Besides the economical importance, powdery mildew fungus is of great scientific interest, with its high host specificity and obligate biotrophic (meaning that it establishes infection in only living host cells) life style. Its superficial lifestyle makes this system ideal for live-imaging analyses. In this seminar, I will talk of my recent findings about the involvement of host factors regulating membrane trafficking in the support of powdery mildew fungal infection.

In addition to the research on host-microbe interactions, I am also involved in the development of new imaging technology particularly using fluorescence lifetime imaging microscopy. Recently, in collaboration with scientists at the University of Tokyo, we introduced a new technology to image the distribution of temperature inside of living cells (Okabe et al., 2012. *Nature Communications* 3, 705). I would like to briefly introduce the results, and my future research plans to analyze plant immunity by using temperature imaging.

（問合先：Karen Sanguinet : [kasang@iwate-u.ac.jp](mailto:kasang@iwate-u.ac.jp)）