

# Minoru NAKANO



**Associate Professor, Graduate School of  
Pharmaceutical Sciences, Kyoto University**

**[E-mail]mnakano@pharm.kyoto-u.ac.jp**

**[Speciality]Surface Chemistry and Biophysical Chemistry**

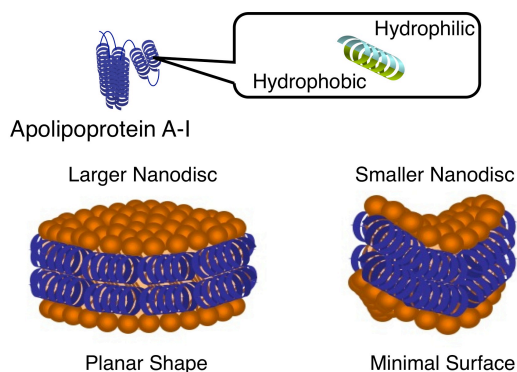
**[Keywords]Neutron Scattering, Fluorescence Lifetime, and  
Lipid Membrane**

**[ Research Subject ] Evaluation of Structural Transition and Lipid Dynamics of Nanodiscs by Time-Resolved Fluorescence and Neutron Scattering**

## Research Group Activity

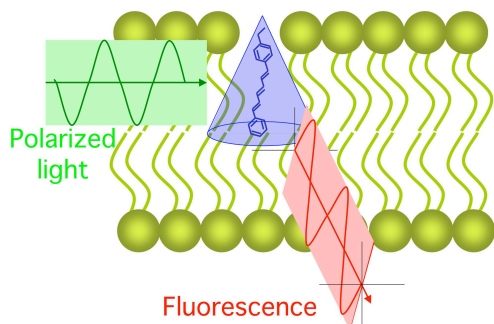
• Preparation and Structural Investigation of Phospholipid Bilayer Nanodiscs

Effects of temperature and lipid compositions on the structure of nanodiscs



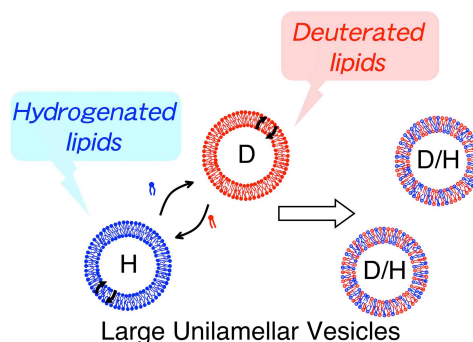
• Membrane Structural Analysis by Time-Resolved Fluorescence Methods

Evaluation of the degree of hydration and order parameter by fluorescence lifetime and depolarization measurements



• Membrane Dynamics Analysis by Time-Resolved Neutron Scattering

Determination of intervesicular lipid transfer and flip-flop using isotopic lipids



• Evaluation of Dynamics of Disc Structure by Neutron Spin Echo

Detection of thermal structural fluctuation of nanodiscs

