41st RAP Seminar

The 41st Seminar on RIKEN Center for Advanced Photonics

Language: Japanese

Date: **Mar.17(Fri) 16:00 - 17:00, 2017**

Location: **Cooperation Center, 3F, W319, Wako Campus, RIKEN**

(理研 和光キャンパス 研究交流棟 3階会議室 W319)

Title: **Optical Bioimaging in OTN Near Infrared – Seeking for Transparency –**

OTN近赤外におけるバイオイメージング
―生体の透明度の追求―

Speaker: **Prof. Kohei SOGA**

Department of Materials Science and Technology,
Tokyo University of Science

曽我 公平
（東京理科大学基礎工学部 教授）

Over 1000-nm (OTN: over thousand nm) near infrared (NIR) is the wavelength region with the highest transparency of biological objects for optical imaging. The optical loss of light is mainly dominated by scattering and absorption. Since the absorption only darkens the image, the absorption loss can be recovered by improving the light strength and sensitivity of devices. However, the scattering causes haze to the image, which cannot be recovered anyway. Because of the reason, the wavelength for bioimaging has become longer and longer. The authors has developed the both fluorescent materials and imaging systems for the OTN-NIR bioimaging for the past decade. The seminar will review the optical imaging, including fluorescence imaging, hyper spectral imaging and nanothermometry, in the OTN-NIR wavelength region with some demonstrative works for biomedical applications.

Contact: rap-seminar_contact@riken.jp（ext.8532） 連絡先：光量子工学研究領域 セミナー担当