

# Laser-Induced Fluorescence: A Personal Account Richard N. Zare

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**Time: 18:00 - 19:00**

**Venue: West Seminar Room, 1F. Faculty of Pharmaceutical Sciences,  
The University of Tokyo**



Laser-induced fluorescence (LIF) offers many advantages. It gives a bright signal against a dark background enabling detection limits to be pushed to that of a single molecule. LIF permits preparation of a well-defined excited states whose properties, radiative and collisional, can be studied in great detail. It allows probing of molecules in extremely hostile environments, such as flames, arcs, and sparks. LIF can also be used in other amazing ways, from sorting cells, one at a time, to sequencing the human genome. I will present a personal account of my own work with LIF, beginning with the birth of the laser.

**Organizer: GCOE Program Center for Medical System Innovation through Multidisciplinary Integration,  
The University of Tokyo  
Masaru Kato, Associate Professor, Graduate School of Pharmaceutical Sciences  
The University of Tokyo**

**Cooperation: The University of Tokyo Global COE Program  
Global Center of Excellence for Mechanical Systems Innovation  
Center for NanoBio Integration, The University of Tokyo**

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