

# New Non-adherent cell immobilizing Culture dishes

## BAMCOAT DI-035G

- 1) New technology for cell immobilizing systems without cell damage.
- 2) Easy-to-use pre-coated glass bottom dishes.
- 3) Available for numerous applications for observation of non-adherent cell in culture.

*ex.* Observation of intercellular calcium

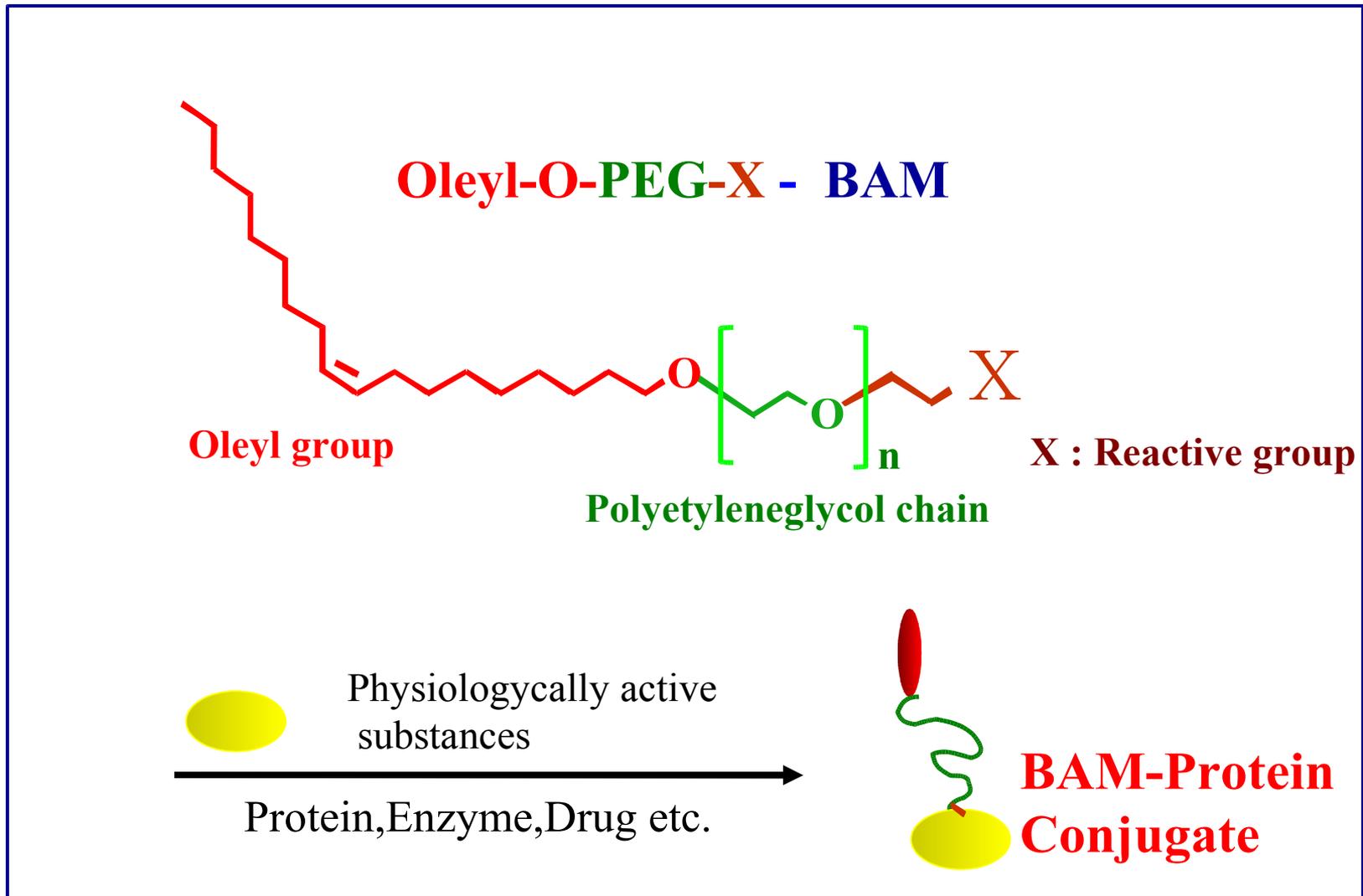
Observation of Green Fluorescence Protein (GFP) localization

Observation of mitosis (time-lapse observation)



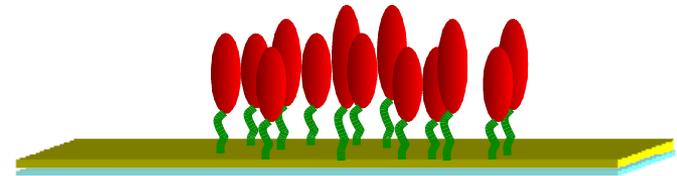
**NOF CORPORATION**

# Biocompatible Anchor for Membrane (BAM)

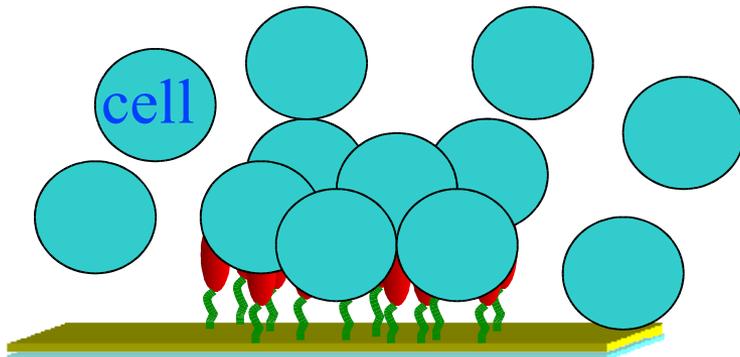


# Procedure for cell immobilization using BAMCOAT

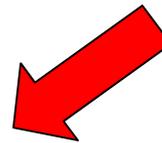
1<sup>st</sup> Pre-coated BAM



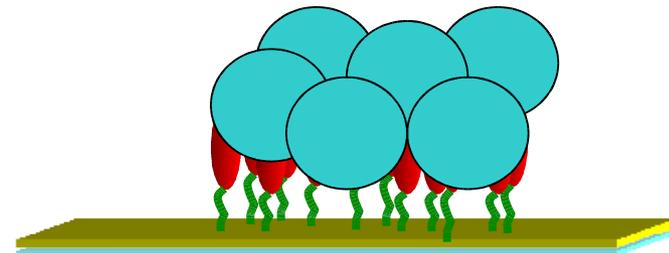
2<sup>nd</sup> Addition of cell suspension



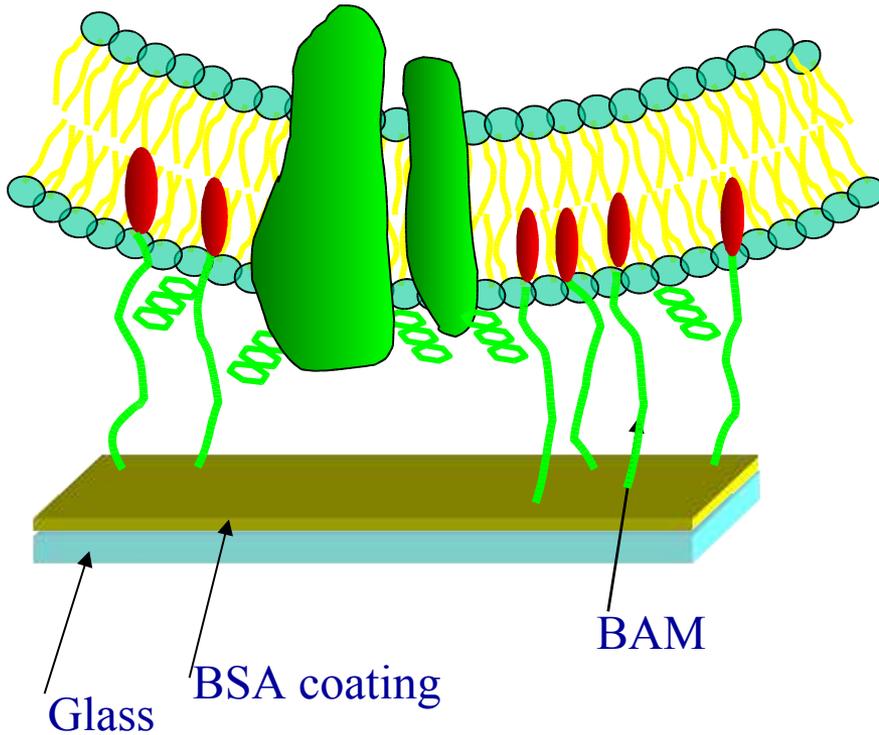
At r.t. for 10 min  
(until cells settle on the BAM surface)



3<sup>rd</sup> Addition of culture medium  
Observe



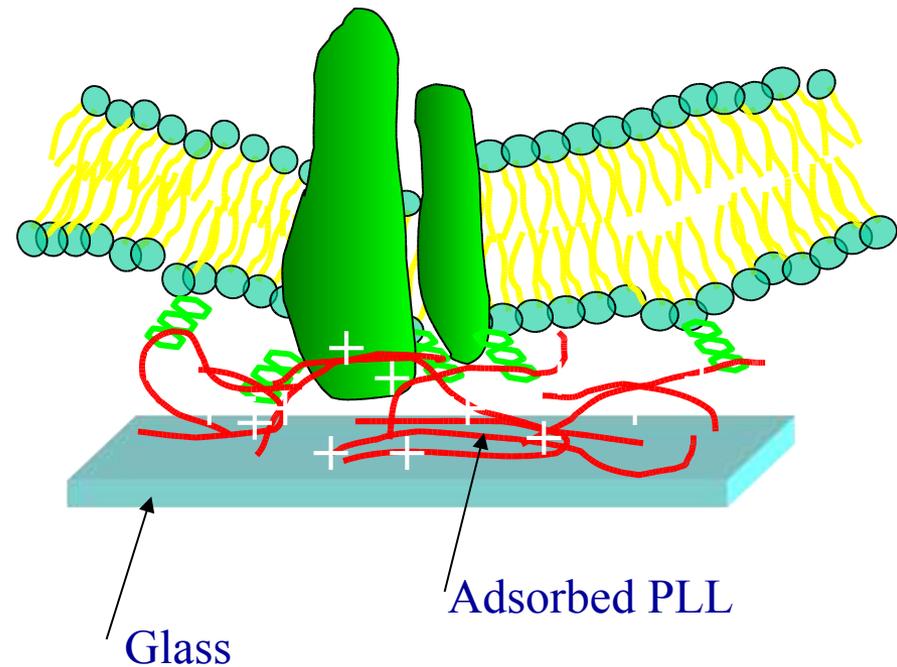
# Comparison of cell immobilization between BAM and PLL-modified surfaces



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**BAM modified surface**

**Membrane-active immobilization**



**Others**

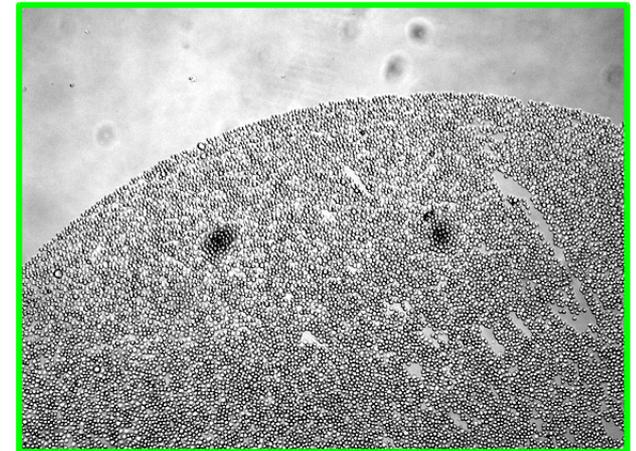
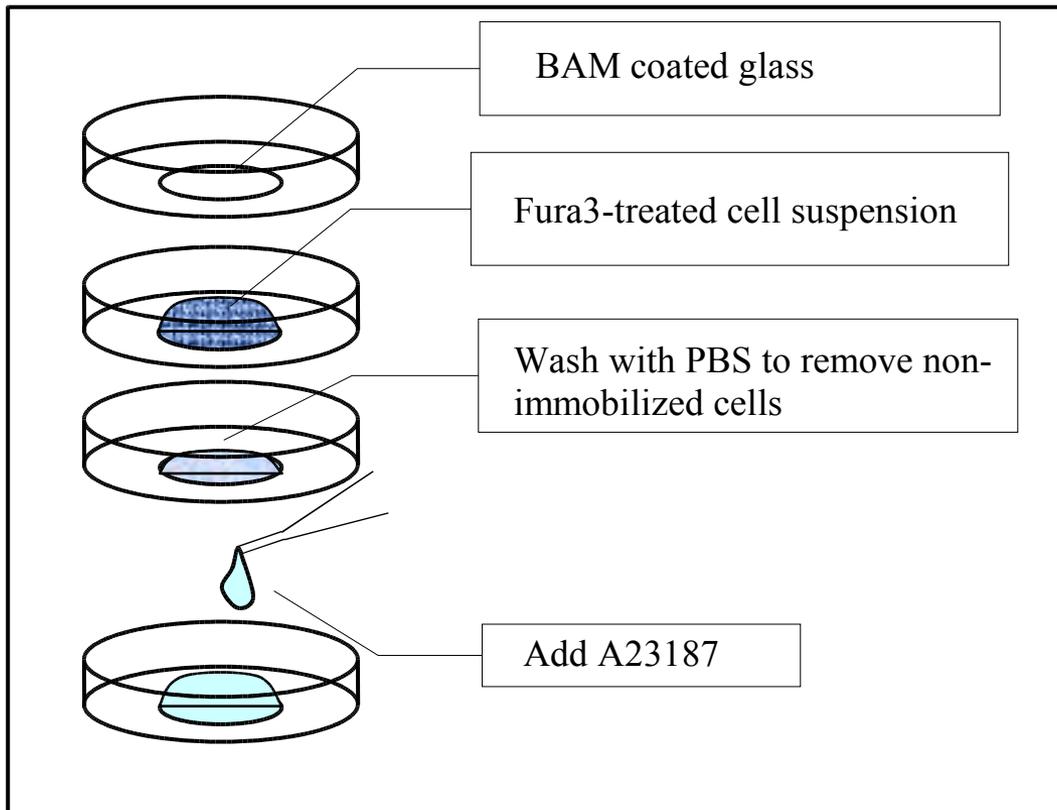
**PLL-coated surface**

**Electrostatic immobilization**

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# Direct observation of intracellular calcium in situ

1. Apply the treated cell suspension (50 $\mu$ l) by Fura-3(4 $\mu$ M).
2. Wash with PBS to remove non-immobilized cells.
3. After 10 minutes, apply the calcium ionophore, A23187(50 $\mu$ M,100 $\mu$ l), to the immobilized cells.

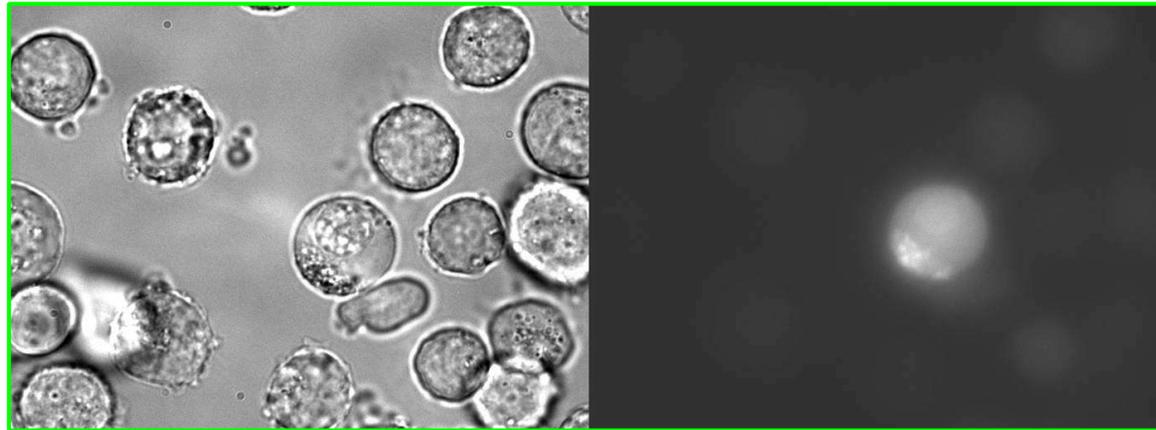


Phase contrast view of cell immobilization using BAM

# Observation of intracellular calcium in K562 cell line

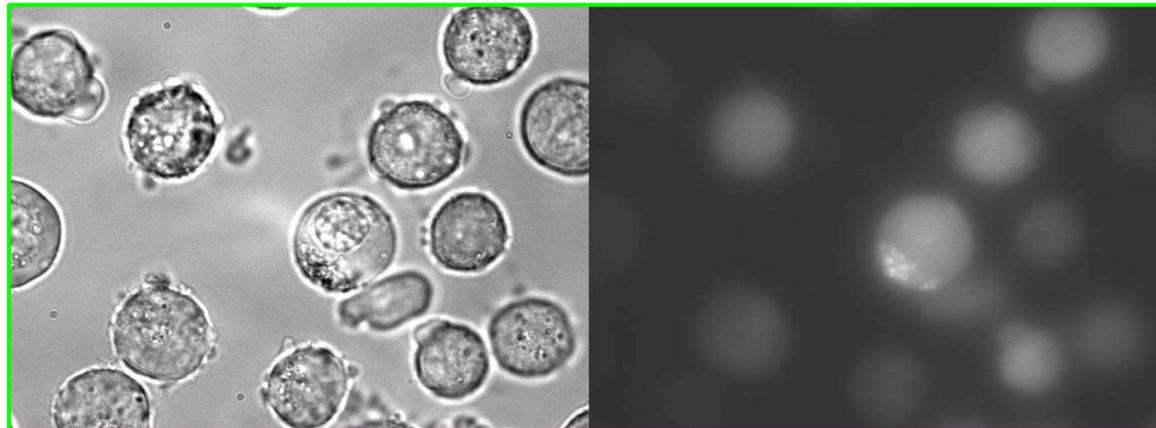
Optical microscope

Fluorescence microscope



Calcium Ionophore

Before



After

(Data from Prof. Nagamune, Department of Chemistry and Biotechnology, School of Engineering, The University of Tokyo, Japan).

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