



TECHNISCHE  
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WIEN

Vienna University of Technology

INSTITUT FÜR  
ANGEWANDTE PHYSIK  
Institute of Applied Physics  
vormals/formerly  
Institut für Allgemeine Physik



Wiedner Hauptstraße 8-10/E134, 1040 Wien/Vienna, Austria – Tel: +43 1 58801 13401 / Fax: +43 1 58801 13499 – E-mail: [office@iap.tuwien.ac.at](mailto:office@iap.tuwien.ac.at) / <http://www.iap.tuwien.ac.at>

# IAP-SEMINAR

## EINLADUNG

- Termin: **Dienstag, 13.5.2014 um 16:00 Uhr**  
Ort: **Technische Universität Wien,  
Institut für Angewandte Physik,  
Seminarraum 134A, Turm B (gelbe Leitfarbe), 5. OG  
1040 Wien, Wiedner Hauptstraße 8-10**
- Vortragende: **Dr. Eva Sevcsik**  
TU Wien, IAP
- Thema: **Creating obstacle courses for raft proteins – How micropatterning  
can help decipher plasma membrane organization**

### Kurzfassung

According to the prevailing theory, sterol- and sphingolipid enriched nanodomains exist in the mammalian plasma membrane but are too small and dynamic to allow for proper characterization. Attempts to artificially enhance putative tendencies in the plasma membrane to create optically resolvable phase separation have yielded new model systems like Giant Plasma Membrane Vesicles, bridging the gap between synthetic lipid bilayers and live cell membranes.

In this work, we take those approaches one step further and attempt to create large scale phase separation in a live cell situation. To this end, we use a micropatterning technique to artificially create regions in the PM of live cells where we use a model raft protein glycosylphosphatidylinositol (GPI-GFP) is immobilized and highly enriched (via surface-immobilized antibodies) at different densities to monitor the effects on plasma membrane organization and properties.

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*Alle interessierten Kolleginnen und Kollegen sind zu diesem Seminar  
(45 min mit anschließender gemeinsamer Diskussion) herzlich eingeladen.*

*G. Schütz e.h.  
(Seminar-Chairperson)*

*H. Störi e.h.  
(LVA-Leiter)*