

**IMAGING SINGLE FUSION EVENTS**  
**AT THE PLASMA MEMBRANE**  
**USING**  
**TOTAL INTERNAL REFLECTION FLUORESCENCE**  
**MICROSCOPY**  
—  
**APPLICATIONS IN MEMBRANE TRAFFIC**

**Dissertation**

zur Erlangung des Doktorgrades (Dr. rer. nat.) am  
Fachbereich für Biologie, Chemie und Pharmazie der  
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Durchgeführt im 'Laboratory for Cellular Biophysics'  
Rockefeller University, New York

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Die vorliegende Arbeit wurde im „Laboratory for Cellular Biophysics“ von Dr. Sanford M. Simon an der „Rockefeller University“ in New York durchgeführt.

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Große Teile dieser Arbeit sind/werden veröffentlicht:

**1. Imaging Constitutive Exocytosis with Total Internal Reflection Fluorescence Microscopy**

Jan Schmoranzer, Mark Goulian, Dan Axelrod, Sanford M. Simon  
J. Cell Biology 149(1):23-31, April 3, 2000

**2. Insulin-regulated Release from the Endosomal Recycling Compartment is Regulated by Budding of Specialized Vesicles**

Michael A. Lampson, Jan Schmoranzer, Anja Zeigerer, Sanford M. Simon, and Timothy E. McGraw  
Molecular Biology of the Cell, 12(11):3489-501, Nov. 2001

**3. Role of Microtubules in Delivery and Fusion of Post-Golgi Transport Intermediates**

Jan Schmoranzer, Geri Kreitzer, Sanford M. Simon  
Submitted (see Chapter 4)

**4. Targeted Exocytosis of Apical Proteins and Distribution Syntaxin 3 in Polarized Epithelial Cells Depend on Microtubules**

Geri Kreitzer, Jan Schmoranzer, Yunbo Gan, Seng Hui Low, Zhizhou Zhang, Thomas Weimbs, Sanford M Simon and Enrique Rodriguez-Boulan  
In preparation (see Chapter 5)

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1. Gutachter: Prof. Dr. Ralf Erdmann (FU Berlin)
  2. Gutachter: Prof. Dr. Sanford M. Simon (Rockefeller University)  
Disputation: 8.Aug. 2002
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Hiermit erkläre ich, daß ich diese Arbeit selbständig verfaßt und keine anderen als die angegebenen Quellen und Hilfsmittel verwendet habe.  
New York, Februar 2002 Jan Schmoranzer

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