December 9th, 2004
International Symposium

9:00 - 9:30	Registration
9:45 - 10:00	Introduction – Peter Friedl and Gregory Harms
10:00 – 13:30	**Session I: Molecular Imaging**
10:00 – 10:45	Gerhard Schütz, Linz, Austria Single molecule microscopy
10:45 – 11:30	Manuela Zaccolo, Padova, Italy cAMP and calcium biosensors with FRET
11:30 – 12:00	**Coffee break**
12:00 – 12:45	Tomasz Zal, Scripps Research Inst., La Jolla, USA Molecular interactions during T cell activation revealed by quantitative FRET microscopy
12:45 – 13:30	Martin Heisenberg, Würzburg, Germany Imaging the Drosophila brain
13:30 – 14:30	**Lunch break**
14:30 – 15:00	Microscope Demonstrations
15:00 – 17:45	**Session II: Imaging Cancer**
15:00 – 15:45	Katarina Wolf, Würzburg, Germany Imaging pericellular proteoysis in cancer invasion
15:45 – 16:30	Jeff Segall, Albert Einstein College, New York, USA Intravital imaging of cancer invasion by multiphoton microscopy
16:30 – 17:00	**Coffee break**
17:00 – 17:45	Aladar Szalay, Würzburg, Germany Whole mouse imaging of cancer – tumors and metastases
18:15 – 19:45	**Inauguration of the Imaging Center Rudolf-Virchow Center of Biomedicine**
18:15 – 18:30	Axel Haase, President of the University of Würzburg
18:30 – 18:45	Thomas Goppel, Minister for Culture and Science of the State of Bavaria
18:45 – 19:45	Jennifer Lippincott-Schwartz, NIH, Bethesda, USA Keynote Lecture: Molecular dynamics in vesicle and membrane trafficking
19:45 – 20:30	**Reception at the Rudolf Virchow Center**

December 10th, 2004
Workshop on Dynamic Imaging

Course topics (90 min)

A Single molecule imaging
(Gregory Harms, Gerhard Schütz)

B Dynamic confocal microscopy
(Peter Friedl, Katarina Wolf)

C Multiphoton microscopy and second harmonic generation imaging
(Gregory Harms, Peter Friedl, Jeff Segall)

D Photoactivation and photobleaching (FRAP)
(Dorothee Schroth, Jennifer Lippincott-Schwartz)

Four rotating groups (max. 9 people each)

9:00 – 9:30	**Tutorial I** **Jennifer Lippincott-Schwartz, NIH, Bethesda, USA** **Technology and practical aspects of FRAP and use of pa GFP**
9:30 – 11:00	**Course I**
11:00 – 11:15	**Coffee break**
11:15 – 12:45	**Course II**
12:45 – 13:30	**Lunch break**
13:30 – 14:00	**Tutorial II** **Jeff Segall, Albert Einstein College, New York, USA** **Intravital imaging in the live mouse by multiphoton microscopy**
14:00 – 15:30	**Course III**
15:30 – 15:45	**Coffee break**
15:45 – 16:15	**Tutorial III** **Gerhard Schütz, University of Linz, Linz, Austria** **Technology and practical aspects of single-molecule fluorescence microscopy**
16:15-17:45	**Course IV**
17:45-18:00	**Closing remarks (Gregory Harms, Peter Friedl)**

Presenter:

Dr. Gerhard Schütz, University of Linz, Linz, Austria:
Single-molecule microscopy

Dr. Manuela Zaccolo, University of Padova, Padova, Italy:
cAMP and calcium biosensors with FRET

Dr. Tomasz Zal, Scripps Research Institute, La Jolla, USA:
Imaging T-cell activation by quantitative FRET microscopy

Dr. Martin Heisenberg, University of Würzburg:
3D imaging of the drosophila brain

Dr. Katarina Wolf, University of Würzburg:
Imaging pericellular proteolysis in cancer invasion

Dr. Jeff Segall, Albert Einstein College, New York, USA:
Intravital imaging of cancer invasion by multiphoton microscopy

Dr. Aladar Szalay, University of Würzburg:
Whole mouse imaging of cancer - tumors and metastases

Dr. Jennifer Lippincott-Schwartz, NIH, Bethesda, USA:
How proteins move in cells: visualizing protein dynamics and function through photobleaching and photoactivation

Dr. Thomas Goppel, Bavarian Minister for Research:
Special introduction to the newly established Center for Microscopy at the University of Würzburg