

Cellular and Molecular Mechanisms of Tumor Progression and Metastasis



1st International Kloster Seeon Meeting of the DFG
SPP1190 "The tumor – vessel interface"

Kloster Seeon, Germany
September 22-25, 2007

PROGRAM

Saturday, September 22, 2007

15:00 **Welcome and introduction**

15:15 - 17:00 Session 1

GET OUT AND RUN

Discussion leader: Georg Breier

- 15:15 **Paolo Comoglio**, Torino
Invasive growth: A MET-driven genetic programme for cancer and stem cells
(page 2)
- 15:45 **Frans van Roy**, Ghent
Role of cadherins and catenins in tumor progression (page 3)
- 16:15 **Georgia Mavria**, London
Control of sprouting and vessel quiescence by MAP-kinases and
Rho-GTPase signaling (page 4)
- 16:45 **Véronique Orian-Rousseau**, Karlsruhe (short communication)
CD44v6 peptides block metastatic spreading and interfere with angiogenesis
(page 60)
- 17:00 Coffee Break

17:30 - 18:45 Session 2

GOING THROUGH THE CHANGE

Discussion leader: Christiane Bruns

- 17:30 **Gerhard Christofori**, Basel
Distinct mechanisms of tumor cell invasion and metastasis (page 5)
- 18:00 **Ian Hart**, London
The epithelial-specific integrin alpha v beta 6 and its role in tumour invasion
(page 6)
- 18:30 **Thomas Ludwig**, Heidelberg (short communication)
Direct probing of tumor cell invasion by atomic force microscopy (page 49)
- 19:00 Dinner

20:00 - 22:00 Poster Session I with wine and cheese

Sunday, September 23, 2007

8:30 - 10:00 Session 3

TUBES

Discussion leader: Jonathan Sleeman

- 8:30 **Kari Alitalo**, Helsinki
Targeting growth factor pathways for inhibition of angiogenesis, lymphangiogenesis and metastasis (page 7)
- 9:00 **Nadja Tobler**, Zürich
Tumor and lymph node lymphangiogenesis: Impact on cancer invasion (page 8)
- 9:30 **Agnes Noël**, Liege
Contribution of individual MMPs in angiogenesis and lymphangiogenesis (page 9)
- 10:00 Group photo
- 10:15 Coffee break

10:45 - 11:45 Session 4

TUMOR MEETS VESSEL

Discussion leader: Amparo Acker-Palmer

- 10:45 **Ruth Muschel**, Oxford
The role of the host in organ-specific metastasis: Lung and liver (page 10)
- 11:15 **Stefano Indraccolo**, Padova (short communication)
Crosstalk between tumor and endothelial cells involving the Notch3-Dll4 interaction marks escape from tumor dormancy (page 43)
- 11:30 **Mélanie Héroult**, Heidelberg (short communication)
EphB/ephrinB interactions controlling leukocyte and tumor cell adhesion to endothelial cell (page 37)
- 11:45 Lunch

13:00 - 19:00 Tumor-Vessel gets 'high'

- 19:00 Dinner

20:00 - 21:00 Candlelight lecture

Translational oncology: Quid est?

Christof von Kalle, Heidelberg

Monday, September 24, 2007

8:30 - 9:45 Session 5

TUMOR MICROENVIRONMENT

Discussion leader: Peter Vajkoczy

- 8:30 **Raghu Kalluri**, Boston
Tumor microenvironment in cancer progression and metastasis (page 11)
- 9:00 **Margareta Müller**, Heidelberg (short communication)
Inflammation in epithelial skin tumors (page 62)
- 9:15 **Curzio Ruëgg**, Lausanne
Modulation of tumor angiogenesis and metastasis by stroma irradiation (page 12)
- 9:45 Coffee break

10:15 - 12:15 Session 6

UPON FIRST SIGHT

Discussion leader: Frauke Alves

- 10:15 **Ann Chambers**, London, Ontario
The metastatic process: Imaging and identifying molecular mechanisms (page 13)
- 10:45 **Muhammad H. Zaman**, Austin (short communication)
Quantitative analysis of tumor cell migration in three dimensional matrices through experiments and simulations (page 65)
- 11:00 **Peter Friedl**, Würzburg (short communication)
Collective cancer cell invasion along blood and lymph vessels (page 29)
- 11:15 **Christian Schulz**, Munich (short communication)
In vivo assessment of experimental melanoma metastasis by intravital microscopy reveals a critical role of platelets and glycoprotein IIb (page 57)
- 11:30 **Jos Jonkers**, Amsterdam
Conditional mouse models of hereditary and metastatic breast cancer (page 14)
- 12:00 Lunch

13:00 - 14:30 Session 7

CANCER STEM CELLS

Discussion leader: Till Acker

- 13:00 **Piero Dalerba**, Stanford
Cancer stem cells: Definitions and clinical implications (page 15)
- 13:30 **Jean-Paul Thiery**, Singapore
Normal mammary stem cells and tumor progression (page 16)
- 14:00 **Thomas Brabletz**, Freiburg
Malignant progression in colorectal cancer: EMT, β -Catenin and cancer stem cells (page 17)

14:30 - 16:00 **Session 8**

CHEMOKINES

Discussion leader: Bernhard Homey

- 14:30 **Albert Zlotnik**, San Diego
Chemokines and cancer (page 18)
- 15:00 **Marina Kochetkova**, Adelaide (short communication)
Chemokine receptors CXCR4 and CCR7 mediate inhibition of anoikis
in cancer cells (page 47)
- 15:15 **Michele de Palma**, Milan
Role of Tie2-expressing monocytes (TEMs) in tumor angiogenesis (page 19)
- 15:45 **Bence Sipos**, Kiel (short communication)
The role of chemokine/chemokine receptor system in tumor-vessel interactions
(page 59)
- 16:00 Coffee break

16:30 - 18:15 **Session 9**

TUMOR SIGNALING

Discussion leader: Peter Huber

- 16:30 **Peter Angel**, Heidelberg
Identification and functional analysis of the serine protease kallikrein 6 in tumor
development and malignant progression (page 20)
- 17:00 **Silvio Gutkind**, Bethesda
High-throughput animal models: Molecular mechanisms in AIDS-malignancies
and a role for the Semaphorin-Plexin signaling system in tumor-induced
angiogenesis (page 21)
- 17:30 **Heike Beck**, Munich (short communication)
Phospholipid hydroperoxide glutathione peroxidase (PHGPx) as a key enzyme
governing arachidonate and linoleic metabolism (page 56)
- 17:45 **Carl-Henrik Heldin**, Uppsala
Signaling via receptors for PDGF and TGF- β – possible targets in tumor
treatment (page 22)
- 18:15 Free time around the lake
- 19:00 Dinner

20:00 - 21:30 **Poster Session II**

Tuesday, September 25, 2007

8:30 - 10:00 Session 10

METASTASIS SIGNATURES

Discussion leader: Rüdiger Liersch

- 8:30 **Adrian Harris**, Oxford
The role of delta4 notch signalling in tumour angiogenesis and response to therapy (page 23)
- 9:00 **Klaus Preissner**, Giessen (short communication)
From tumor to vessel and back: The extracellular RNA-protein interface (page 35)
- 9:15 **Margot Zöller**, Heidelberg (short communication)
Complex formation between EpCAM, claudin-7 and CD44 variant isoforms in tetraspanin-enriched microdomains promotes colorectal cancer progression (page 66)
- 9:30 **Don Nguyen**, New York
Identification and characterization of metastasis progression gene (page 24)
- 10:00 Coffee break

10:30 - 12:00 Session 11

FROM BENCH TO BEDSIDE

Discussion leader: Klaus Preissner

- 10:30 **Laura Benjamin**, Boston
Akt/mTOR signalling in the tumor stroma (page 25)
- 11:00 **Andrea Horst**, Hamburg (short communication)
Modulation of tumor angiogenesis by CEACAM1 in a mouse model for mammary carcinogenesis (WAP-T mice) (page 41)
- 11:15 **Leander Huyghe**, Ghent (short communication)
Inhibition of the PI3K-Akt pathway sensitizes the tumor vasculature to TNF (page 42)
- 11:30 **Dario Neri**, Zürich
Vascular targeting antibody derivatives: from bench to the clinic (page 26)

End of meeting

- 12:00 Lunch
- 13:30 Departure of buses