

Scientific Programme of ABC2012

Saturday

March 3

Meeting Registration & Hotel Check-In 10:00 am - 6:00 pm

Opening Ceremony 6:30 pm - 7:00 pm
Karl Kuchler, Susan P.C. Cole, Susan Michaelis, Kazumitsu Ueda & Richard Callaghan

ABC2012 Keynote Opening Lecture 7:00 pm - 8:00 pm

Michael C. Dean
ABC Genes in Human Disease, Evolution and Therapy

Dinner 8:00 - 9:30 pm

Poster Mounting and Informal Mixer 9:30 pm - 11:30 pm

Sunday

March 4

Breakfast 7:00 - 8:30 am

Symposium 1 8:30 am - 11:50 pm

Structural Studies on ABC Transporters

Chair & Introduction: Kazumitsu Ueda 8:30 - 8:45

Joe Chen 8:45 - 9:25
Structural and functional studies of the maltose transporter

Dirk Slotboom 9:25 - 10:05
The structural basis of modularity in ECF-type ABC transporters

Coffee & Refreshment Break 10:05 - 10:30 am

Elisabeth P. Carpenter 10:30 - 11:10
The structure of the human mitochondrial ABC transporter ABCB10

Kei Wada 11:10 - 11:50
Structural biology of the SUF machinery involved in de novo iron-sulfur cluster biosynthesis

Lunch & Afternoon Break 11:50 - 5:00 pm

Afternoon Talks Selected from Abstracts 5:00 pm - 7:00 pm

Chair: Megan L. O'Mara

ST1 - Carlo W.T. van Roermund 5:00 - 5:15
Mechanism of uptake of fatty acids into peroxisomes of *Saccharomyces cerevisiae*

ST2 - Anja S. Strauss 5:15 - 5:30
Disarming leaf beetle larvae: The crucial role of CpMRP in the defensive system

ST3 - Santiago Alejandro Martinez 5:30 - 5:45
An ABC transporter mediates glutathione disulfide transport in stress conditions

ST4 - Richard Darby		5:45 - 6:00
The influence of phosphorylation on ABCG2 conferred multidrug resistance		
WS1 - Voula Kanelis		6:00 - 6:20
Insights into the role of phosphorylation of SUR2A NBD1 in regulation of KATP channel gating		
WS2 - Ingrid C. Gelissen		6:20 - 6:40
Protein kinase A modulates the activity of a human-specific isoform of ABCG1: implications for the use of murine models in ABCG1 research		
WS3 - Alice Rothnie		6:40 - 7:00
Detergent free purification of ABC transporters		
<i>Welcome Dinner</i>	<i>7:30 - 9:00 pm</i>	
Poster Session 1	Odd Numbers	9:00 pm - 12:00 pm
Meet the Speakers		8:30 pm - 9:30 pm

Monday	March 5
---------------	----------------

<i>Breakfast</i>	<i>7:00 - 8:30 am</i>	
Symposium 2		8:30 am - 11:50 pm
The Multidrug Efflux ABC Transporters		
<i>Chair & Introduction: Margarida D. Amaral</i>		
		8:30 - 8:45
Murray D. Norris		8:45 - 9:25
Targeting ABCC multidrug transporters in childhood cancer		
Anika M. S. Hartz		9:25 - 10:05
Blood-brain barrier P-glycoprotein: a new target for Alzheimer's disease?		
<i>Coffee & Refreshment Break</i>	<i>10:05 - 10:30 am</i>	
Hiroaki Kato		10:30 - 11:10
Crystal structure of a multidrug exporter-type ABC transporter		
Marc Boutry		11:10 - 11:50
Plant drug smugglers		
<i>Lunch & Afternoon Break</i>	<i>11:50 - 5:00 pm</i>	
Afternoon Talks Selected from Abstracts		5:00 pm - 6:40 pm
<i>Chair: Frederica Theodoulou</i>		
ST5 - Benesh Joseph		5:00 - 5:15
Translocation gate movements in the type II ABC importer BtuCD-F during nucleotide cycle		
ST6 - Jamie Snider		5:15 - 5:30
Mapping the <i>Saccharomyces cerevisiae</i> ABC transporter interactome using the Membrane Yeast Two-Hybrid (MYTH) system		
ST7 - Kristen Whalen		5:30 - 5:45
Actin-dependent translocation of ABCB1a during early embryogenesis revealed by 3D-structured illumination microscopy		
ST8 - Till Luckenbach		5:45 - 6:00
Abcb4 is a multidrug transporter in zebrafish		
WS4 - Thomas Eitinger		6:00 - 6:20
BioMNY as a model for ECF-type ABC transporters		
WS5 - Jinrang Kim		6:20 - 6:40
Observing the conformational changes in an ABC importer one molecule at a time provides insight into transport mechanism and dynamics		

Dinner 7:30 - 9:00 pm

Poster Session 2 **Even Numbers** 9:00 pm - 12:00 pm

Meet the Speakers 8:30 pm - 9:30 pm

Tuesday

March 6

Breakfast 7:00 - 8:30 am

Symposium 3 8:30 am - 12:30 pm

Molecular Mechanisms of ABC Transporters

Chair & Introduction: Robert Tampé 8:30 - 8:45

John Golin 8:45 - 9:25

Functional analysis of the yeast Pdr5 multidrug transporter signaling interface

Erwin Schneider 9:25 - 10:05

Dynamics and regulation of the maltose ABC importer

Oded Lewinson 10:05 - 10:45

The two ATPase sites of the ABC transporter BtuCD-F are highly cooperative, completely inter-dependent, and both are required for activity

Coffee & Refreshment Break 10:45 - 11:10 am

Peter Chiba 11:10 - 11:50

Interaction of ABC subfamily B transporters with small molecules

Ina Urbatsch 11:50 - 12:30

A Directed Evolutionary approach to building a Tryptophan-free P-glycoprotein for fluorescence drug binding studies

Lunch & Afternoon Break 12:30 - 6:00 pm

Dinner 6:00 - 7:30 pm

ABC2012 Keynote Plenary Lecture

Alfred H. Schinkel 7:30 - 8:30

New insights into interactions between ABC efflux and OATP uptake transporters

Special Workshop I 8:45 pm - 11:15 pm

ABC Proteins & the Blood-Tissue Interfaces

Chair & Introduction: Susan Bates 8:45 - 9:00

Dirk M. Hermann 9:00 - 9:25

Role of ATP-binding cassette transporters in the ischemic brain

Paul Lockman 9:25 - 9:50

The role of efflux proteins in limiting chemotherapeutic efficacy in brain metastases of breast cancer

Thomas Litman 9:50 - 10:15

ABC transporters in skin

WS6 - Olivier Le Saux 10:15 - 10:35

The hepatic expression of ABCC6 determines the severity of mineralization following myocardial injury

WS7 - Gabriele Jedlitschky 10:35 - 10:55

ABC transporters in human platelets: physiological function and impact for pharmacotherapy

WS8 - Hossein Ardehali

10:55 - 11:15

Disruption of ABCB8 in mice leads to cardiomyopathy through a decrease in mitochondrial iron export

Wednesday

March 7

Breakfast

7:00 - 8:30 am

Symposium 4 - Sponsored by SFB35-TMTs in Health & Disease 8:30 am - 12:30 pm

Impact of ABC Proteins in Disease

Chair & Introduction: Lydia Aguilar-Bryan

8:30 - 8:45

Bruno Stieger

Canalicular ABC transporters: Role in bile formation and liver disease

8:45 - 9:25

Michael Trauner

Role of canalicular phospholipid export pump (ABCB4) for pathogenesis and therapy of cholestatic liver diseases

9:25 - 10:05

Allen R. Tall

ABCA1, ABCG1 and APOE regulate hematopoietic stem cell proliferation, leukocytosis and atherosclerosis

10:05 - 10:45

Coffee & Refreshment Break

10:45 - 11:10 am

Kevin L. Kirk

CFTR: a ligand-gated ion channel in the image of an ABC transporter

11:10 - 11:50

Sian Ellard

Activating SUR1 mutations causing neonatal diabetes

11:50 - 12:30

Lunch & Afternoon Break

12:30 - 5:00 pm

Special Workshop II

5:00 pm - 6:55 pm

Experimental Models to Study ABC Transporters

Chair & Introduction: Karl Kuchler

5:00 - 5:15

Hassane S. Mchaourab

Conformational dynamics of ABC transporters from Spin labeling EPR spectroscopy

5:15 - 5:40

Bert Poolman

Traffic in crowded environments and osmosensing mechanism of an ABC transporter

5:40 - 6:05

Gergely Szakacs

Shifting the paradigm: the putative mitochondrial porphyrin transporter ABCB6 resides in the endolysosomal compartment of cells and in the plasma membrane of mature erythrocytes

6:05 - 6:30

Koen van de Wetering

Transportomics: screening for substrates of ABC transporters using vesicular transport assays

6:30 - 6:55

Sven Rottenberg

ABC transporters and in vivo drug resistance in a mouse model for BRCA1-associated breast cancer

6:55 - 7:20

Women's Career Dinner

7:30 pm - 9:00 pm

Dinner

7:15 - 8:30 pm

Poster Session 3

Odd & Even Numbers

9:00 pm - 12:00 pm

Meet the Speakers

8:30 pm - 9:30 pm

Thursday

March 8

Breakfast

7:00 - 8:30 am

Symposium 5

8:30 am - 11:50 pm

Diversity of ABC Transporter Function

Chair & Introduction: Piet Borst

8:30 - 8:45

John Schuetz

ABC transporter deficiencies provide insights into pathways and pathology

8:45 - 9:25

Jan Willem Kok

MRP1 (ABCC1) function as well as its localization in lipid rafts depends on cortical actin, but not on raft lipids

9:25 - 10:05

Coffee & Refreshment Break

10:05 - 10:30 am

Kenji Sonomoto

Lantibiotic transporter, NukT, requires cooperative functioning of the peptidase domain and the ATP binding domain

10:30 - 11:10

Takashi Kuromori

Diverse half-size transporters of ABCG subfamily in plants

11:10 - 11:50

Lunch & Afternoon Break

11:50 - 5:00 pm

ABC2012 Final Keynote Address

Susan P.C. Cole

MRP1 (ABCC1): Two decades of intrigue....

5:00 pm - 6:00 pm

ABC2012 Summary & Perspectives Lecture

Anthony M. George

6:15 pm - 7:00 pm

Concluding Remarks

ABC2012 Organizers

7:00 pm - 8:00 pm

ABC2012 Young Investigator Awards

8:00 pm - 8:30 pm

Dinner & Farewell Party

8:30 pm - open end

Friday

March 9

Breakfast

7:00 - 9:30 am

End of ABC2012

Check-out - Shuttles to Airport and Main Train Station