

Programme Outline	February 27 Saturday	February 28 Sunday	March 1 Monday	March 2 Tuesday	March 3 Wednesday	March 4 Thursday	March 5 Friday
Breakfast		7:00 - 8:30 am	7:00 - 8:30 am	7:00 - 8:30 am	7:00 - 8:30 am	7:00 - 8:30 am	7:00 - 9:30 am
Symposia	10:00 am -6:00 pm Registration & Check-In	8:30 - 12:30 pm Symposium 1 Structure(s) & Mechanism(s) <i>Chair: R. Deeley</i> Amy L. Davidson Kaspar Locher Rachelle Gaudet Richard Callaghan Stephen G. Aller	8:30 - 12:30 pm Symposium 2 Modulation & Regulation <i>Chair: L. Aguilar Bryan</i> J. Marc Simard Helen Hobbs Susan Bates Robert Tampé Piet Borst	8:30 - 12:30 pm Symposium 3 Assembly, Trafficking & Targeting <i>Chair: S. Michaelis</i> Rupert Abele Anjaparavanda Naren Balázs Sarkadi Tsuneo Imanaka Colin G Nichols	8:30 - 12:30 pm Symposium 4 Diversity of Biological Functions <i>Chair: K. Kuchler</i> Thomas J. Silhavy Jian Feng Ma Ruth Lehmann Marc Ouellette Kazumitsu Ueda	8:30 - 12:30 pm Symposium 5 Human Health & Environment <i>Chair: M. Amaral</i> John Riordan Alfred H. Schinkel Curtis D. Klaassen Toshihisa Ishikawa Michael Köttgen	End of ABC2010 Check-Out
Lunch & Break		12:30 - 5:00 pm	12:30 - 5:00 pm	12:30 - 6:00 pm	12:30 - 5:00 pm	12:30 - 5:00 pm	
Workshop & Short Talks	until 6:00 pm Registration & Check-In 6:30 – 7:00 pm Opening	5:00 – 7:00 pm Selected Talks <i>Chair: J. Hunt</i> ST1 - Bordignon ST2 - Bertsson ST3 - Babenko ST4 - Csanady WS1 - Ford WS2 - George WS3 - Balan	5:00 – 7:00 pm Selected Talks <i>Chair: B. Poolman</i> ST5 - Boël ST6 - Quilichini ST7 - Pagant ST8 - Ritchie WS4 - Arias WS5 - Moestrup WS6 - Le Saux	FREE Afternoon	5:00 – 7:15 pm Selected Talks <i>Chair: C. Hrycyna</i> ST9 - v. d. Wetering ST10 - Nagata ST11 - Kim Chiaw ST12 - Hopper-Borge WS7 - Riganti WS8 - Kerr	5:00 – 6:00 pm Final Keynote Address <i>Hajime Tokuda</i> 6:15 - 7:00 pm ABC2010 Summary Perspectives Lecture <i>Dietrich Keppler</i> 7:00 – 7:30 pm Concluding Remarks	1:00 pm Check-Out Shuttles Airport & Train Station
Dinner		7:30 - 9:00 pm Welcome Dinner	7:15 - 8:30 pm	6:00 - 7:30 pm Women's Career Dinner	7:15 - 8:30 pm	7:30 - 8:00 pm ABC2010 Awards	
Posters Sessions	7:00 - 8:00 pm Keynote Opening Lecture <i>Enrico Martinoia</i> 8:00 – 11:30 pm Poster Mounting Informal Mixer	9:00 – 12:00 pm Poster Session 1 Posters ODD 8:30 – 9:30 pm Meet the Speakers	9:00 – 12:00 pm Poster Session 2 Posters EVEN 8:30 – 9:30 pm Meet the Speakers 8:30 – 9:30 pm ABC2010 SAB Meeting	7:30 – 8 30pm Keynote Plenary Lecture <i>Michael M. Gottesman</i> 8:45 - 10:15 pm Special Workshop Will Structures Reveal ABC Mechanisms? <i>Chair: L. Schmitt</i> Dirk Jan Slootboom Satoshi Murakami	9:00 – 12:00 pm Poster Session 3 Posters EVEN/ODD 8:30 – 9:30 pm Meet the Speakers	8:00 pm – open end Dinner & Farewell Party	

Scientific Program of ABC2010

Saturday

February 27

Meeting Registration & Hotel Check-In	10:00 am - 6:00 pm
Opening Ceremony Karl Kuchler, Susan P.C. Cole, Susan Michaelis & Kazumitsu Ueda	6:30 pm - 7:00 pm
Keynote Opening Lecture Enrico Martinoia (Introduced by Karl Kuchler) Plant ABC transporters: hormones, stress and signaling	7:00 pm - 8:00 pm
Poster Mounting and Informal Mixer	8:00 pm - 11:30 pm

Sunday

February 28

<i>Breakfast</i>	<i>7:00 am - 8:30 am</i>	
Symposium 1		8:30 am - 12:30 pm
Structure(s) & Mechanism(s)		
Chair & Introduction: Roger G. Deeley		8:30 - 8:45
Amy L. Davidson ABC importers: Conformational changes promoting transport		8:45 - 9:25
Kaspar Locher Structure and coupling mechanism of bacterial ABC importers and exporters		9:25 - 10:05
Rachelle Gaudet The transporter associated with antigen processing as a model for asymmetric ABC transporters		10:05 - 10:45
<i>Coffee & Refreshment Break</i>	<i>10:45 am - 11:10 am</i>	
Richard Callaghan Mechanism of drug translocation by ABCB1: inter-domain coupling		11:10 - 11:50
Stephen G. Aller Structure of P-glycoprotein reveals a molecular basis for poly-specific drug binding		11:50 - 12:30
<i>Lunch & Afternoon Break</i>	<i>12:30 pm - 5:00 pm</i>	
Afternoon Talks Selected from Abstracts		5:00 pm - 7:00 pm
Chair: John F. Hunt		
ST1 - Enrica Bordignon Modeling missing regions in the crystal structures of ABC-transporters with site directed spin labeling EPR		5:00 - 5:15
ST2 - Ronnie Berntsson The structural basis for peptide selection by the transport receptor OppA		5:15 - 5:30
ST3 - Andrey P. Babenko Biophysical analysis of a pathogenic mutation in a structurally undefined domain of an ABCC clarifies its mechanism		5:30 - 5:45

ST4 - László Csanády 5:45 - 6:00
 Strict coupling between CFTR's catalytic cycle and gating of its Cl⁻ ion pore revealed by distributions of open channel burst durations

WS1 - Robert C. Ford 6:00 - 6:20
 Structure of the cystic fibrosis transmembrane conductance regulator (ABCC7) determined by electron crystallography

WS2 - Tony M. George 6:20 - 6:40
 ATP-binding cassettes - Which mechanism?

WS3 - Andrea Balan 6:40 - 7:00
 The structure of SsuA protein from *Xanthomonas axonopodis* pv. *citri* reveals how alkanesulfonates enter into the cell

Welcome Dinner 7:15 pm - 8:30 pm

Poster Session 1 **Odd Numbers** 9:00 pm - 12:00 pm

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

Monday	March 1
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Breakfast 7:00 am - 8:30 am

Symposium 2 8:30 am - 12:30 pm

Modulation & Regulation of ABC Protein Function

Chair & Introduction: Lydia Aguilar-Bryan 8:30 - 8:45

J. Marc Simard 8:45 - 9:25
 Sur1 and Trpm4 – new molecular partners form SUR1-regulated NCCa-ATP channels

Helen Hobbs 9:25 - 10:05
 Genetic protection from sterol accumulation by heterodimer of ABCG5 and ABCG8

Susan Bates 10:05 - 10:45
 Regulation and Modulation of ABCG2

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

Robert Tampé 11:10 - 11:50
 Modulation of the antigen translocation complex TAP by host and viral factors

Piet Borst 11:50 - 12:30
 The contribution of ABC-transporters to drug resistance in a realistic mouse mammary tumor model

Lunch & Afternoon Break 12:30 pm - 5:00 pm

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

Chair: Bert Poolman

ST5 - Gregory Boël 5:00 - 5:15
 YjjK, a member of the ATP binding cassette superfamily, is a novel translational factor

ST6 - Teagen Quilichini 5:15 - 5:30
 Examining the role of ABCG26 in *Arabidopsis thaliana* pollen wall formation: a putative sporopollenin monomer transporter

ST7 - Silvere Pagant 5:30 - 5:45
 Isolation and characterization of second site mutations that rescue ER-retained variants of Yor1p, a yeast ABC transporter homologous to CFTR

ST8 - Tasha K. Ritchie 5:45 - 6:00
 Phospholipid bilayer nanodiscs as a tool for investigating the mechanism of P-glycoprotein

WS4 - Irwin Arias 6:00 - 6:20
 Regulation of hepatocyte polarization and ABCB1 trafficking by AMP-activated protein kinase

WS5 - Søren K. Moestrup 6:20 - 6:40
ABC protein-mediated transport of vitamin B12

WS6 - Olivier Le Saux 6:40 - 7:00
ABCC6: Structural and functional consequences of disease-causing mutations

Dinner 7:30 am - 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 2

Breakfast 7:00 am - 8:30 am

Symposium 3 8:30 am - 12:30 pm

Assembly, Trafficking & Targeting

Chair & Introduction: Susan Michaelis 8:30 - 8:45

Rupert Abele 8:45 - 9:25

Two is better than one: Functional identification of the interaction partners of the lysosomal peptide transporter TAPL

Anjaparavanda Naren 9:25 - 10:05

Functional coupling of ABC transporters

Balázs Sarkadi 10:05 - 10:45

Cellular Regulation of the Expression, Function and Localization of the ABCG2 Multidrug Transporter

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

Tsuneo Imanaka 11:10 - 11:50

Organelle selective targeting of ABC subfamily D proteins: Importance of the NH2-terminal hydrophobic motifs

Colin G. Nichols 11:50 - 12:30

Biogenesis, function and disease in SUR-dependent KATP channels: recent insights and surprises

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

Women's Career Dinner 6:00 pm - 7:30 pm

Dinner 6:00 pm - 7:30 pm

ABC2010 Keynote Plenary Lecture

Michael M. Gottesman (Introduced by Susan Michaelis) 7:30 - 8:30

What have we learned about multidrug resistance in cancer?

Special Workshop 8:45 pm - 10:15 pm

Will Structures Reveal Mechanisms of ABC Proteins?

Chair & Introduction: Lutz Schmitt 8:45 - 9:00

Dirk Jan Sloatboom 9:00 - 9:25

Vitamin transporters in Bacteria

Satoshi Murakami 9:25 - 9:50

RND transporter, AcrB - The pumping mechanism

Wednesday		March 3
<i>Breakfast</i>	<i>7:00 am - 8:30 am</i>	
Symposium 4		8:30 am - 12:30 pm
Diversity of Biological Functions		
Chair & Introduction: Karl Kuchler		8:30 - 8:45
Thomas J. Silhavy ABC transporters and the outer membrane of Gram-negative bacteria		8:45 - 9:25
Jian Feng Ma A bacterial-type ABC transporter for detoxification of aluminum in plants		9:25 - 10:05
Ruth Lehmann ABC transporter mediated export of a geranyl-geranylated germ cell attractant		10:05 - 10:45
<i>Coffee & Refreshment Break</i>	<i>10:45 am - 11:10 am</i>	
Marc Ouellette ABC proteins and antimicrobial resistance		11:10 - 11:50
Kazumitsu Ueda Mechanism and regulation of HDL formation by ABCA1		11:50 - 12:30
<i>Lunch & Afternoon Break</i>	<i>12:30 pm - 5:00 pm</i>	
Afternoon Talks Selected from Abstracts		5:00 pm - 7:00 pm
Chair: Christine Hrycyna		
ST9 - Koen van de Wetering Using targeted metabolomics to identify new substrates of MRP2 <i>in vivo</i>		5:00 - 5:15
ST10 - Koh Nagata Analysis of ABCA1 dynamics in the plasma membrane by single-molecule tracking		5:15 - 5:30
ST11 - Patrick Kim Chiaw A chemical corrector VRT-325 modifies the function of $\Delta F508$ -CFTR		5:30 - 5:45
ST12 - Elizabeth Hopper-Borge Impact of endogenous <i>Mrp7</i> on taxane sensitivity		5:45 - 6:00
WS7 - Chiara Riganti New modulators of ABC-transporters: from nitric oxide to small GTPases		6:00 - 6:20
WS8 - Ian D. Kerr Direct visualization of ABCG2 dimers in living cells using bimolecular fluorescence complementation		6:20 - 6:40
<i>Dinner</i>	<i>7:15 am - 8:30 pm</i>	
Poster Session 3	Odd & Even Numbers	9:00 pm - 12:00 pm
Meet the Speakers		8:30 pm - 9:30 pm

Thursday	March 4
<i>Breakfast</i>	<i>7:00 am - 8:30 am</i>
Symposium 5	8:30 am - 12:30 pm
Human Health & Environment	
Chair & Introduction: Margarida D. Amaral	8:30 - 8:45
John Riordan	8:45 - 9:25
Intramolecular communication in CFTR	
Alfred H. Schinkel	9:25 - 10:05
Pharmacological and toxicological functions of multidrug transporters	
Curtis D. Klaassen	10:05 - 10:45
Regulation of hepatic ABC transporters in mice	
<i>Coffee & Refreshment Break</i>	<i>10:45 am - 11:10 am</i>
Toshihisa Ishikawa	11:10 - 11:50
Pharmacogenomics of human ABC transporters: from functional validation to clinical application	
Michael Köttgen	11:50 - 12:30
ABCG2 is novel urate transporter with a common functional polymorphism causing gout	
<i>Lunch & Afternoon Break</i>	<i>12:30 pm - 5:00 pm</i>
Final Keynote Address	
Hajime Tokuda (Introduced by Kazumitsu Ueda)	5:00 pm - 6:00 pm
Sorting of lipoproteins to the outer membrane of Gram-negative bacteria	
ABC2010 Summary & Perspectives Lecture	
Dietrich Keppler (Introduced by Susan P.C. Cole)	6:15 pm - 7:00 pm
Concluding Remarks	7:00 pm - 8:00 pm
ABC2010 Organizers	
ABC2010 Young Investigator Awards	8:00 pm - 8:30 pm
Dinner & Farewell Party	8:30 pm - open end
Friday	March 5
<i>Breakfast</i>	<i>7:00 am - 9:30 am</i>
End of ABC2010	
Check-out - Shuttles to Airport and Main Train Station	