

9th North American ABC Workshop 2012 Program

Thursday September 27th 2012

8:00 –9:00am		Registration
9:00am		Welcome Remarks: Dr. Michael Dean
9:10-10:40am		Session 1: Genetic Diseases and ABC Transporters Chairs William Gahl and Karobi Moitra
9:10am	Talk 1	William Gahl The NIH Undiagnosed Diseases Program (UDP)
9:30am	Talk 2	Karobi Moitra Next Generation sequencing reveals novel mutations in PXE patients
9:50-10:00am		Break
10:00am	Talk 3	Tamas Aranyi <i>ABCC6</i> expression is regulated by a primate-specific sequence located in the first intron of the gene
10:20am	Talk 4	Olivier Le Saux The level of hepatic <i>Abcc6</i> expression determines the severity of mineralization following myocardial necrosis
10:40-10:50am		Break
10:50-12:00pm		Session 2: P-glycoprotein structure and function- what have we learned? Chairs: Saibal Dey and Suneet Shukla
10:50 am	Talk 5	Saibal Dey Molecular basis of stereospecific response by the human multidrug transporter
11:10am	Talk 6	Khyati Kapoor Role of intracellular loops 1 and 3 in folding and cell surface expression of P-glycoprotein (ABCB1)
11:30am	Talk 7	Eduardo E. Chufan Chemical Flexibility of P-glycoprotein for Interaction with Substrates and Modulators
11:50-1:40am		Lunch and posters

1:40-3:10am		Session 3: ABC Transporters in Multidrug Resistance Chairs: Zhe-Shen Cheng and JP Gillet
1:40pm	Talk 8	Maria Bauer ABC proteins in drug resistance in acute myeloid leukemia: Can we improve treatment outcomes?
2:00pm	Talk 9	Kamlesh Sodani Nilotinib potentiates anticancer sensitivity in murine multidrug resistance xenograft models.
2:15pm	Talk 10	Saurabh G Vispute Vemurafenib, a <i>BRAF</i> enzyme inhibitor, modulates ABCB1-, ABCG2-, and ABCC10- mediated multidrug resistance
2:30pm	Talk 11	Rishil Kathawala Masitinib (AB1010) antagonizes multidrug resistance (MDR) mediated by ATP-binding cassette (ABC) transporters ABCC10 and ABCG2
2:45pm	Talk 12	Danweng Yang AV-951 Reverses Multidrug Resistance by Inhibiting ABCB1(P-gp) and ABCG2(BCRP) Activity
3:00-3:20pm		Break and Posters
3:20-4:40pm		Session 4: Structural Analysis of ABC Transporters Chairs: Robert Ford and Eric Lee
3:20pm	Talk 13	Jorge Lopez NMR and fluorescence studies of drug binding to the first nucleotide binding domain of SUR2A
3:40pm	Talk 14	Eric Lee Purification and Crystallization of Heterodimeric Human Sterol Transporter ABCG5/ABCG8
4:00pm	Talk 15	Naomi Pollock Purification and biophysical analysis of the cystic fibrosis transconductance regulator protein (CFTR) expressed in <i>S. cerevisiae</i>
4:20pm	Talk 16	Elvin de Araujo Structural and functional studies of the first nucleotide binding domain of SUR2A

4:40-5:00pm

Break and posters

5:00-6:00pm

Session 5: ABC Transporters in Yeast and Bacteria
Chairs: Matthew Hall and Khyati Kapoor

5:00pm

Talk 17

Som Chaterjee
Identification and characterization of a novel bacterial ABC transporter for important virulence determinants in community associated MRSA

5:20pm

Talk 18

Jitender Mehla
Interplay of the three phenylalanine residues in TMH 11 and 12 in the proposed drug binding pocket of the Pdr5 efflux pump

5:40pm

Talk 19

Guillermo Altenberg
Dissociation of ATP-binding cassette nucleotide-binding domain dimers into monomers during the hydrolysis cycle

6:00pm

Dinner TBD

Friday September 28th 2012

8:30am		Registration
9:00-10:00am		Session 6: Regulation and expression of ABC transporters Chairs: Olivier L Saux and Andy Fung
9:00am	Talk 20	Andy Fung Functional expression of human ABC transporters in polarized cell monolayers using a baculovirus (BacMam) expression vector
9:20am	Talk 21	Kevin G Chen Regulation and Expression of the ATP-binding Cassette (ABC) Transporter ABCG2 in human embryonic cells
9:40pm	Talk 22	Tufan Gorkhimak Conservation and fine tuning of Polyspecificity in MDR Transporters
10:00-10:20pm		Break
10:20-12:00pm		Session 7: ABC transporters in Physiology Chairs: Hossein Ardehali and John Scheutz
10:20pm	Talk 23	Hossein Ardehali ABCB10 Regulates Heme Synthesis by Promoting Mitochondrial Export of δ -Aminolevulinic Acid
10:40pm	Talk 24	Yu Fukada The Role of ABCG2 in the N-MYC-Mediated Leukemogenesis
11:00pm	Talk 25	JP Gillet Multidrug Resistance in Relapsed AML: Evidence of Biological Heterogeneity
11:20pm		Concluding remarks/Discussion/Feedback
12:00pm		Conference Ends