



Announcement

10th Annual CMPR Symposium

Oct. 15th - 16th, 2018 | TTUHSC, Lubbock, TX

Room 2C103

Keynote Speaker

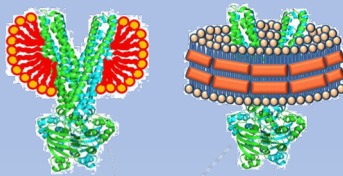


Guillermo Altenberg, MD PhD

Professor and Chair

Department of Cell Physiology and Molecular Biophysics
TTUHSC

How the Membrane Affects ABC Exporters



CMPR 10th Meeting Organizing Committee

10th Annual CMPR Symposium (Day – 1, Room 2C103)

Monday, 10/15/2018

Chair: CMPR Co-Director Dr. Lan Guan (TTUHSC)

Time	Speaker	Title/Affiliation	Presentation title
09:00 - 09:10	Jannette Dufour	Professor, Associate Dean for Research, SOM, TTUHSC	Opening Remarks
09:10 - 10:00	Guillermo Altenberg	Professor, TTUHSC	Keynote Speech How the Membrane Affects ABC Exporters
10:00 -10:10	Casey Stevens	Univ. of Oklahoma Zgurskaya's Lab	Development of a direct binding assay for the <i>Mycobacterium tuberculosis</i> transporter MmpL3
10:10 -10:20	Jigesh Patel	TTU Huang's Lab	Alternation of membrane domain compositions by nAChR protein
10:20 -10:40	Coffee Break (30min)		
10:40 -10:50	Elham Pirayesh	TTUHSC Jansen's Lab	Interaction sites of serotonin type 3A intracellular domain (5-HT3A-ICD) with chaperon protein RIC-3
10:50 -11:00	Collin G. Borcik	TTU, Wylie's Lab	An inward-rectifier potassium channel augments lipid phase properties in biologically-derived membranes
ACB Lobby 11:00 - 12:30	Poster Presentations		
12:30 - 1:30	Lunch Break (90 min)		
Afternoon Section I: MDR and Antimicrobial Agents Development			
Chair: Dr. Joe Fralick (TTUHSC)			
2:00 -2:30	Elena Zgurskaya	Professor Univ. of Oklahoma, OK	Kinetic and molecular determinants of antibiotic activities in bacteria
2:30 - 3:00	Hongjun Liang	Associate Professor TTUHSC	Environmentally degradable nanoantibiotics derived from natural resources
3:00 - 3:30	Ina Urbatsch	Professor TTUHSC	Multidrug resistance P-glycoprotein: drug interactions and cooperativity between structural domains
3:30 - 4:00	Coffee Break (30min)		
Afternoon Section II: Proteins and Diseases			
Chair: Dr. Thomas Pressley (TTUHSC)			
4:00 - 4:30	Michael Latham	Assistant Professor TTU	Disparate effects of adjacent mutations in the ABC-ATPase Rad50 D-loop
4:30 - 5:00	Andrey Karamyshev	Assistant Professor TTUHSC	Disease-associated mutations in secretory proteins induce specific mRNA degradation
5:00 -5:30	Frank Hays	Assistant Professor Univ. of Oklahoma	Oxidative stress and disease: defining novel mechanism for a ubiquitous ROS enzyme
6:30 - 10:00	CMPR Reception - The Rawls Course 3720 4th St, Lubbock TX, 79415		



10th Annual CMPR Poster Presentation

Monday, 10/15/2018

11:00 - 12:30 am

ACB Lobby

Poster #	Presenter	Title/Affiliation	Poster Title
1	Abbey Kjellgren	Undergraduate Student TTUHSC (Altenberg's Lab)	Inhibition of connexin hemichannels by new amphiphilic aminoglycosides without antibiotic activity
2	Mariana Fiori	Postdoctoral Fellow TTUHSC (Altenberg's Lab)	Polymer nanodiscs as new platforms for membrane proteins
3	Inga Leus	Postdoctoral Fellow Univ. of Oklahoma (Zgurskaya's Lab)	Specificities and efflux efficiencies of multidrug transporters in <i>Acinetobacter baumannii</i>
4	Casey Stevens	PhD Student Univ. of Oklahoma (Zgurskaya's Lab)	Development of a direct binding assay for the <i>Mycobacterium tuberculosis</i> transporter MmpL3
5	Landon Haslem	MD PhD Student Univ. of Oklahoma (Hays's Lab)	Physical characterization of p66Shc in relation to ROS production and cytochrome c interactions
6	Jigesh Patel	PhD Student TTU (Huang's Lab)	Alternation of membrane domain compositions by nAChR protein
7	Yu Mao	PhD Student TTU (Huang's Lab)	Molecular dynamics simulation of cholesterol maze pattern at high cholesterol concentration using coarse-grained force field
8	Satoshi Kastube	Postdoctoral Fellow TTUHSC (Guan's Lab)	Detergent study for improved stabilization of melibiose transporter MelB
9	Wan Zheng	Med Res Tech TTUHSC (Liang's Lab)	Anti-resistance nanoantibiotics with "switch on/off" activity in vivo and in the environment
10	Miguel Anzaldúa	MS Student TTUHSC (Liang's Lab)	Synthetic polymers that mimic naturally occurring peptides are efficient membrane-active antimicrobials



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Poster #	Presenter	Title/Affiliation	Poster Title
11	Victoria Young	PhD Student TTUHSC (Artigas's Lab)	Movement of the first Na/K pump first external loop studied with Voltage-Clamp Fluorometry
12	Kerri Spontarelli	Med Res Tech TTUHSC (Artigas's Lab)	Studying ion selectivity in the Na/K pump with unnatural amino acids
13	Courtney Katz	MS Student TTUHSC (Urbatsch's Lab)	Tryptophan fluorescence to monitor drug binding in P-glycoprotein
14	Elham Pirayesh	PhD Student TTUHSC (Jansen's Lab)	Interaction sites of serotonin type 3A intracellular domain (5-HT _{3A} -ICD) with chaperon protein RIC-3
15	Akash Pandhare	Postdoctoral Fellow TTUHSC (Jansen's Lab)	Molecular determinants of pentameric assembly in the intracellular domain of serotonin type 3A (5-HT _{3A}) receptors
16	Collin G. Borcik	PhD Student TTU (Wylie's Lab)	An inward-rectifier potassium channel augments lipid phase properties in biologically-derived membranes
17	Reza Amani	PhD Student TTU (Wylie's Lab)	Functional characterization of KirBac1.1 via solid state NMR
18	Samiur Rahman	PhD Student TTU (Latham's Lab)	Studies of an Mre11 cancer mutation give insight into the mechanism of double stranded DNA damage repair
19	Elahe Masoumzadeh	PhD Student TTU (Latham's Lab)	Exploring the role of a single mutation of the RRM CstF-64 on the cleavage and polyadenylation process
20	Nermina Jahovic	MD PhD TTUHSC (Cuello's Lab)	A differential scanning calorimetry study of KcsA thermal stability

10th Annual CMPR Symposium (Day – 2, Room 2C103)

Tuesday, 10/16/2018

Morning Section:

Membrane Transport Proteins and Mechanisms

Chair: Dr. Joachim Weber (TTU)

Time	Speaker	Title / Affiliation	Presentation Title
09:00 - 09:30	Luis Cuello	Associate Professor TTUHSC	Dissecting the functional role of the two ion bound configurations within the K ⁺ channel selectivity filter.
09:30 - 10:00	Michael Blanton	Professor TTUHSC	Identification of positive allosteric modulator (PAM) binding sites in neuronal nicotinic acetylcholine receptors
10:00 - 10:30	Michaela Jansen	Associate Professor TTUHSC	Expression and purification of the proton-coupled folate transporter

10:30 - 11:00 Coffee Break (30min)

11:00 - 11:30	Kei Nanatani	Assistant Professor Tohoku Univ., Japan	Application of transporters in industry and structural and functional study of the bacterial amino acid antiporter
11:30 - 12:00	Pablo Artigas	Associate Professor TTUHSC	Na/K pump mutations and hyperaldosteronism

**12:00 - 1:30 Lunch Break (90 min)
Lunch with GSBS Students**

1:40 – 1:55 Group Photos

Morning Section:

Lipid-Protein Interactions

Chair: CMPR Co-Director Dr. Michael Blanton (TTUHSC)

2:00 - 2:30	Bryan Sutton	Professor TTUHSC	Structural advancements toward understanding the Ferlin proteins
2:30 - 3:00	Benjamin Wylie	Assistant Professor TTU	Solid-state NMR reveals functional interplay between a Kir channel and the lipid bilayer
3:00 - 3:30	Lan Guan	Associate Professor TTUHSC	Structural and functional characterization of protein–lipid interactions of MelB

**Poster Awards and Closure Remarks
CMPR Director Michael Blanton**

3:30-4:00

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