

# West Coast Salt & Water Club

30<sup>th</sup> Annual Meeting

The Inn at Morro Bay, March 11-12, 2011

**--Preliminary Program II--**

All events will be held in the Morro Bay Room unless noted otherwise

## FRIDAY, March 11<sup>th</sup>, 2011

6:00 PM Registration

6:25 PM Welcome – Jonathan Kaunitz, M.D., UCLA, WCSWC President

6:30 PM Meeting Introduction – Scott Boitano, Ph.D., Univ. Arizona

### 6:35 PM Keynote Lecture

Introduction: Scott Boitano, Univ. Arizona

## Structure-function studies of paracellular claudin pores

**Alan Yu, M.B., B.Chir.**

Associate Professor of Medicine

Keck School of Medicine

University of Southern California

7:45 PM Wine Tasting / Buffet (Cayucos Room)

9:00 PM Council Meeting (Restaurant Alcove)

## Saturday, March 12<sup>th</sup>, 2011

7:00 - 8:30 AM Continental Breakfast (served in the Bay Club, please bring tickets)

### 8:30 - 9:45 AM Session 1: Epithelial Transporters and Channels

Chairs: David Pearce and Timo Rieg

Yasutada Akiba, M.D., Ph.D. West LA VAMC	Mdr 1a knockout enhances luminal ATP release in duodenum
Bethzaida Astorga, M.Sc. University of Arizona	Comparative selectivity of human organic cation transporters
Johanna Salomon, M.Sc. Trinity College, Dublin	$\beta$ -agonists attenuate OCT function at the respiratory epithelial barrier
Terry Machen, Ph.D. University of California, Berkeley	Cross kingdom signaling: <i>P. aeruginosa</i> homoserine lactone trigger Cl <sup>-</sup> secretion and apoptosis in airway epithelial cells
Douglas Eaton, Ph.D. Emory University	The Ins and Outs of ENaC Trafficking

9:45 AM – 10:00 AM Break

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## **10:00 AM – 11:00 AM Session 2: Epithelial Signaling Pathways**

*Chairs: Alicia McDonough and Declan McCole*

Timo Rieg, M.D. USCD & VA San Diego Healthcare System	Role of adenylyl cyclase 6 in phosphate homeostasis
Tom Roeschel Oregon Health Sciences University	Phospholipase A2 group VI is a target for vasopressin signaling in the thick ascending limb
Ming Lu, Ph.D. University of California, San Francisco	Activation of SGK1 by mTOR
David Ellison, M.D. Oregon Health Sciences University	SPAK and the kidney: yin <u>and</u> yang

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## **11:00 AM – 11:15 AM Break**

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## **11:15 AM – 12:00 Noon Session 3: Mechanisms in Epithelial Injury/Cancer**

*Chairs: Jessica Dominguez and Carsten Erhardt*

Takuya Inoue, M.D., Ph.D. West LA VAMC	DPPIV inhibition prevents intestinal mucosal injury in rats
Sergly Rudenkeyy, M.D. West LA VAMC	The mechanisms of ATP release in Caco2 cell monolayers
Diane Barber, Ph.D. University of California, San Francisco	Dysregulated pH – a perfect storm for cancer progression

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## **12:00 PM – 1:45 PM Lunch (Restaurant)**

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## **2:00 PM – 3:00 PM Session 4: Epithelial Barrier Function: From Cell Models to Intestinal Epithelial Integrity**

*Chairs: Kim Barrett and Cara Sherwood*

Declan McCole, Ph.D. University of California, San Diego	Protection of epithelial barrier function by the inflammatory bowel disease-associated gene PTPN2
Jessica Dominguez, Ph.D. University of Colorado Anschutz Medical Campus	Probiotics improve intestinal integrity and decrease mortality in weanling mice with septic peritonitis
Jiahua Li, M.D. University of Southern California	Role of highly conserved cysteines in claudin-2
James Frank, M.D. University of California, San Francisco	Bolstering breached barriers: claudin-4 in the alveolar epithelium

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## **3:00 PM – 3:15 PM Break**

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**3:15 PM – 4:15 PM Session 5: Functional Tools to Evaluate the Epithelium**

*Chairs: Kwang-Jin Kim and Horst Fischer*

Carsten Ehrhardt, Ph.D. Trinity College Dublin	Atomic Force Microscopy (AFM) and High Content Analysis (HCA) as novel tools to quantify alveolar EMT
James Crothers, Ph.D. University of California, Berkeley	Computer modeling of the gastric parietal cell's secretory mechanisms
Farnoosh Fazlollahi, M.Sc. University of Southern California	PEGylated quantum dots: Interaction with rat alveolar epithelial monolayers
Scott Boitano, Ph.D. University of Arizona	Drug development in academia: PAR <sub>2</sub> Ligands

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**4:15 PM – 4:30 PM Break**

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**4:30 PM – 5:30 PM Keynote Lecture**

Introduction: Terry Machen, University of California, Berkeley

## **A polarized epithelium organized by the catenin complex predating animal origins**

**W. James Nelson, Ph.D.**

Department of Biology  
Stanford University School of Medicine

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**5:30 PM – 6:30 PM Break**

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**6:30 PM Dinner (Cayucos Room)**

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**Note: There has been a request for the return of Karaoke in the Bay Room following dinner in the Cayucos Room until 11:00 PM.**



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