



# FASEB

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**SRC: Science Research Conferences**

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## **Trace Elements in Biology and Medicine June 1-6, 2014 Steamboat Springs, CO**

### **Co-Organizers:**

**Caryn Outten**

University of South Carolina  
Columbia, SC

**Kerry Kornfeld**

Washington University School of Medicine  
St. Louis, MO

### **Sunday, June 1, 2014**

4:00PM – 9:00PM

Conference Registration

6:00PM – 7:00 PM

FASEB Opening Reception

7:00PM – 8:30 PM

Dinner

8:45PM – 10:00PM

**Thomas V. O'Halloran**, Northwestern University, USA  
*"Transition metals in control of microbial physiology and mammalian development"*

### **Monday, June 2, 2014**

7:30AM – 8:45AM

Breakfast

#### **Session 1: 8:45AM – 12:30PM**

**Trace Element Acquisition and Trafficking in Microorganisms**  
**Valeria Culotta**, Johns Hopkins University, USA

8:45AM – 9:00AM

Welcome from FASEB

9:00AM – 9:15AM

Chair's Overview

9:15AM - 9:45AM

**Dennis Winge**, University of Utah, USA

*“Assembly of succinate dehydrogenase: interplay between iron-sulfur cofactor insertion and subunit assembly”*

9:45AM – 10:15AM

**Andrew Dancis**, University of Pennsylvania, USA  
*“Bypass suppressor of frataxin – how it works to regulate Fe-S cluster assembly and iron trafficking in mitochondria”*

10:15AM – 10:30 AM

Short Talk Selected From Submitted Abstracts

10:30AM – 11:00AM

FASEB Sponsored Coffee Break

11:00AM – 11:30AM

**James Imlay**, University of Illinois at Urbana-Champaign, USA  
*“Oxidative stress is a metal-focused pathology”*

11:30AM – 11:45PM

Short Talk Selected From Submitted Abstracts

11:45AM – 12:15PM

**Mike Maroney**, University of Massachusetts-Amherst, USA  
*“Is H. pylori HypA a nickel traffic cop?”*

12:15PM – 12:30PM

Short Talk Selected From Submitted Abstracts

12:30PM – 1:30PM

Lunch

### **Free Afternoon**

4:00PM – 6:00PM

Poster Session 1

6:00PM – 7:00PM

Dinner

### **Session 2: 7:00PM – 9:30PM**

**Trace Element Acquisition and Trafficking in Higher Eukaryotes**  
**Caroline Philpott**, NIDDK, USA

7:00PM - 7:15PM

Chair's Overview

7:15PM - 7:45PM

**Barry Paw**, Brigham & Women's Hospital and Boston Children's Hospital, USA  
*“The cell biology of intracellular iron and heme trafficking in erythropoiesis”*

7:45PM – 8:15PM

**Shannon Kelleher**, Penn State University, USA  
*“Zinc trafficking in secretory tissues: Implications for breast health and disease”*

8:15PM – 8:30PM

Break

8:30PM – 9:00PM

**Jaekwon Lee**, University of Nebraska-Lincoln, USA  
*“Title of talk”*

9:00PM – 9:30PM

**Vadim Gladyshev**, Harvard Medical School, USA  
*“Genomics of trace elements”*

**Tuesday,  
June 3, 2014**

7:30AM – 8:45AM	Breakfast
<b>Session 3</b> <b><u>8:45AM – 12:15PM</u></b>	<b>Trace Element Metabolism in Plants</b> <b>Elizabeth Pilon-Smits</b> , Colorado State University, USA
8:45AM – 9:00AM	Chair's Overview
9:00AM - 9:30AM	<b>Ute Kraemer</b> , Ruhr University Bochum, Germany <i>"Environmental adaptation of the plant metal homeostasis network"</i>
9:30AM –10:00AM	<b>Mary Lou Guerinot</b> , Dartmouth College, USA <i>"Integrating metal uptake and distribution in plants"</i>
10:00AM – 10:15AM	Short Talk Selected From Submitted Abstracts
10:15AM – 10:45AM	Group Photo & FASEB Sponsored Coffee Break
10:45AM – 11:15AM	<b>Manuel Gonzalez-Guerrero</b> , Universidad Politécnica de Madrid, Spain <i>"Metal transport in the legume-rhizobia interface"</i>
11:15AM – 11:30AM	Short Talk Selected From Submitted Abstracts
11:30AM – 12:00PM	<b>Terri Long</b> , North Carolina State University, USA <i>"Molecular mechanisms for iron sensing and response in plants"</i>
12:00PM – 12:15PM	Short Talk Selected From Submitted Abstracts
12:15PM – 1:15PM	Lunch
1:15PM – 2:15PM	Meet the Expert
	<b>Free Afternoon</b>
4:00PM – 6:00PM	Poster Session 2
6:00PM – 7:00PM	Dinner
<b>Session 4:</b> <b><u>7:00PM – 9:30PM</u></b>	<b>Metal Cofactor Assembly and Trafficking</b> <b>William Walden</b> , University of Illinois-Chicago, USA
7:00PM - 7:15PM	Chair's Overview
7:15PM - 7:45PM	<b>Ralf Mendel</b> , Braunschweig University of Technology, Germany <i>"The molybdenum cofactor - assembly and medical implications"</i>
7:45PM – 8:15PM	<b>F. Wayne Outten</b> , University of South Carolina, USA <i>"Iron and sulfur mobilization for stress-responsive Fe-S cluster assembly by the Suf pathway"</i>
8:15PM – 8:30PM	Break
8:30PM – 9:00PM	<b>Iqbal Hamza</b> , University of Maryland-College Park, USA <i>"Hrzs, worms, and heme"</i>

9:00PM – 9:30PM

**Tracey Rouault**, NICHD, USA

*“Motifs that facilitate specific transfer of nascent Fe-S clusters to recipient proteins by the ISCU, chaperone-co-chaperone complex”*

**Wednesday,  
June 4, 2014**

7:30AM – 9:00AM

Breakfast

**Session 5**

**8:45AM – 12:15PM**

**Regulation of Trace Element Homeostasis**

**David Eide**, University of Wisconsin-Madison, USA

8:45AM – 9:00AM

Chair's Overview

9:00AM - 9:30AM

**Betty Leibold**, University of Utah, USA

*“Mechanisms of iron metabolism in C. elegans”*

9:30AM – 10:00AM

**Sarah Michel**, University of Maryland-Baltimore, USA

*“New families of zinc finger proteins involved in RNA regulation and neuronal development”*

10:00AM – 10:15AM

Short Talk Selected From Submitted Abstracts

10:15AM – 10:45AM

FASEB Sponsored Coffee Break

10:45AM – 11:15AM

**Sabeeha Merchant**, UCLA, USA

*“Visualization of dynamic sites of Cu(I) accumulation in Chlamydomonas”*

11:15AM – 11:30AM

Short Talk Selected From Submitted Abstracts

11:30AM – 12:00PM

**Scot Leary**, University of Saskatchewan, Canada

*“Towards a mechanistic understanding of the SCO1-dependent mitochondrial regulation of cellular copper homeostasis”*

12:00PM – 12:15PM

Short Talk Selected From Submitted Abstracts

12:15PM – 1:15PM

Lunch

**Free Afternoon**

4:00PM – 6:00PM

Poster Session 3

6:00PM – 7:00PM

Dinner

**Session 6:**

**7:00PM – 9:30PM**

**Session 6: Trace Elements and Disease**

**Jonathan Gitlin**, Woods Hole Marine Biological Laboratory, USA

7:00PM - 7:15PM

Chair's Overview

7:15PM - 7:45PM

**Svetlana Lutsenko**, Johns Hopkins University Medical School, USA

*“The role of copper in lipid metabolism”*

7:45PM – 8:15PM

**Marla Berry**, University of Hawaii, USA

*“Targeted deletion of selenium transport and recycling pathways in mice: neurological and metabolic consequences”*

8:15PM – 8:30PM

Break

8:30PM – 9:00PM

**Larisa Nonn**, University of Illinois at Chicago, USA  
*“Regulation of prostatic zinc homeostasis by the miR-183 family cluster”*

9:00PM – 9:30PM

**Matam Vijay-Kumar**, Penn State University, USA  
*“The role of lipocalin 2 in inflammatory bowel disease”*

## **Thursday, June 5, 2014**

7:30AM – 8:45AM

Breakfast

### **Session 7 8:45AM – 12:15PM**

**Trace Elements and Immunity**  
**Dennis Thiele**, Duke University Medical School, USA

8:45AM – 9:00AM

Chair's Overview

9:00AM - 9:30AM

**Heran Darwin**, NYU Langone Medical Center, USA  
*“Copper control of Mycobacterium tuberculosis”*

9:30AM – 10:00AM

**Roland Strong**, Fred Hutchinson Cancer Research Center, USA  
*“The role of siderocalins in anti-bacterial iron sequestration and endogenous cellular functions”*

10:00AM – 10:15AM

Short Talk Selected From Submitted Abstracts

10:15AM – 10:45AM

FASEB Sponsored Coffee Break

10:45AM – 11:15AM

**Jeffrey Henderson**, Washington University School of Medicine, USA  
*“Functional diversity among pathogen-associated siderophores”*

11:15AM – 11:30AM

Short Talk Selected From Submitted Abstracts

11:30AM – 12:00PM

**Thomas Kehl-Fie**, University of Illinois, USA  
*“Title of talk”*

12:00PM – 12:15PM

Short Talk Selected From Submitted Abstracts

12:15PM – 12:45PM

Business Meeting

12:45PM – 1:45PM

Lunch

### **Free Afternoon**

### **Session 8: 4:00PM – 6:00PM**

**Novel Approaches for Monitoring Trace Elements in Cells**  
**Amy Palmer**, University of Colorado-Boulder, USA

4:00PM – 4:15PM

Chair's Overview

4:15PM - 4:45PM

**Lucia Banci**, University of Florence, Italy  
*"Cellular pathways for metal trafficking: a molecular level description through in-cell NMR"*

4:45PM – 5:15PM

**Michael Adams**, University of Georgia, USA  
*"Microbial metalloproteomics"*

5:15PM – 5:45PM

**Lydia Finney**, Argonne National Laboratory, USA  
*"Tuning the 'lens' of x-ray fluorescence imaging: in pursuit of chemical speciation"*

6:30PM

Closing of Meeting and Banquet

**Friday,  
June 6, 2014**  
7:30AM – 9:00AM

Breakfast

9:00AM

Departures

### **END OF CONFERENCE**

For additional information contact:

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