

# THE 2001 POLYAMINE GORDON RESEARCH CONFERENCE

*Program*



## **Session 1: Metabolism/Regulation**

Discussion Leader: Lisa Shantz (Penn State University)

Diane McCloskey (Penn State University):

The relationship between SSAT and cellular resistance to polyamine analogues.

Stephane Pyronnet (McGill University):

Cell-cycle dependent translational control of ODC.

Sidney Morris (University of Pittsburgh):

Arginine metabolic enzymes as potential regulators of polyamine synthesis.



## **Session 2: Cell Cycle Regulation/Cell Death**

Discussion Leader: Debra Kramer (Roswell Park Cancer Institute)

Stina Oredsson (University of Lund):

Early molecular consequences on cell cycle regulatory proteins by polyamine biosynthesis inhibition.

Kazuei Igarashi (Chiba University):

Physiological functions of polyamines at the molecular level and in vivo.

Craig Byus (University of California at Riverside):  
Regulation of gene expression following ODC over expression.



### **Session 3: Transgenic Approaches**

Discussion Leader: Leena Alhonen (University of Kuopio)

Susan Gilmour (Lankenau Medical Research Center):  
Essential role of ornithine decarboxylase and polyamines in epidermal tumorigenesis.

Catherine Coleman (Penn State University):  
Targeted expression of SSAT increases susceptibility to chemically-induced skin carcinogenesis.



### **Session 4: Transport**

Discussion Leader: Carl W. Porter (University of Buffalo and RPCI)

Chaim Kahana (Weizmann Institute):  
Phosphorylation cascades regulate polyamine transport and ion homeostasis.

Richard Poulin (Laval University):  
Mammalian polyamine transport mechanism and novel competitive inhibitors.

Joseph Satriano (University of California, San Diego):  
Agmatine, the other polyamine, in mammalian cells.



### **Session 5: Plants and Food**

Discussion Leader: Nello Bagni (University of Bologna)

Antonio Tiburcio (University of Barcelona):  
Localization of polyamine biosynthetic enzymes in plants.

Tony Michael (Institute of Food Research):  
Unwrapping the enigma of polyamine function in plants.



### **Session 6: Ion Channels**

Discussion Leader: Charles Henley (AMGEN)

Anne Delcour (University of Houston):  
Polyamines and the control of bacterial outer membrane permeability.

Colin Nichols (Washington University):  
Polyamine block of Kir channels: towards a molecular picture.

Jian-Ying Wang (University of Maryland, VA Medical Center):  
Regulation of K<sup>+</sup> channel expression by polyamines during intestinal epithelial cell migration.



### **Session 7: Chemistry**

Discussion Leader: Alex Khumatov (Russian Academy of Sciences)

Patrick M. Woster (Wayne State University):  
Terminally aralkylated polyamine analogues with significant antiparasitic activity.

Jean-Guy Delcros (University of Renne):  
Using or inhibiting the polyamine transport system: one and the same thing?



### **Session 8: Enzyme Structure and Function**

Discussion Leader: John Cleveland (St. Jude Children's Research Hospital)

Meg Phillips (University of Texas Southwestern):  
Structure and functional analysis of *Trypanosoma brucei* ornithine decarboxylase.

Andrea Mattevi (University of Pavia):  
Structural and crystallographic studies on polyamine oxidase.



### **Session 9: Parasites**

Discussion Leader: Olle Heby (Umea University)

Rolf Walter (Bernhard Nocht Institute):  
The bifunctional ODC/AdoMetDC of *Plasmodium falciparum* and its role and function in the polyamine metabolism of the human malaria parasite.

Nigel Yarlett (Pace University):  
Polyamine scavenging by parasitic protozoa.



### **Session 10: Clinical Aspects**

Discussion Leader: Gene Gerner (University of Arizona)

Bruce Zetter (Harvard Medical School):  
Regulation of prostate cell growth by antizyme.

Nancy Davidson (Johns Hopkins University):  
Polyamine analogs as treatment for breast cancer.

Graham Shaw (Trinity College, Dublin):  
Behavioural indices of polyamine function in the CNS.



**Session 11: Keynote Address**

Laurence Marton (SLIL Biomedical)

Therapeutic implications for polyamine analogs in a new paradigm for disease  
causation.

