

SfRBM & MCW Redox Biology Symposium



The fifth annual SfRBM & MCW Redox Biology Symposium was hosted by the MCW Redox Biology Program. The symposium was presented virtually on May 13 - 14, 2021, and consisted of two days of state-of-the-art research talks, both invited and chosen from submitted abstracts.

Featured Topics

- Immunology and Inflammation
- Redox Signaling
- Epigenetics
- Redox Systems

Featured Speakers

- **Ines Batinic-Haberle, PhD**, Duke University
- **Eduardo Chini, MD, PHD**, Mayo Clinic
- **Cristina Furdui, PhD**, Wake Forest University
- **David Harrison, MD**, Vanderbilt University
- **Roy Silverstein, MD**, Medical College of Wisconsin
- **Ming Xian, PhD**, Washington State University

Symposium Chairs:

- **Neil Hogg, PhD**, Medical College of Wisconsin
- **Jeannette Vasquez Vivar, PhD**, Medical College of Wisconsin



Program/Schedule

All times are listed in Central Time (CT)

Thursday, May 13th

SfRBM & MCW Redox Biology Symposium

8:50 am - 9:00 am

Welcome

Session I: Immunology and Inflammation

9:00 am - 9:30 am

Beta Cell Selective Inhibition of Picornavirus Replication by Nitric Oxide

John A. Corbett, PhD - Medical College of Wisconsin

9:30 am - 10:00 am

Gaseous intoxication by invasive bacteria

Rodney Willoughby, MD, Medical College of Wisconsin

10:00 am - 10:30 am

Reigniting Immune Suppressed Tumors with Mitochondria-Targeted Inhibitors

Michael B. Dwinell, PhD, Medical College of Wisconsin

10:30 am - 10:45 am

Break & Visit Virtual Exhibits

Session II: Redox Signaling

10:45 am - 11:15 am

The redox path: from chemical tools to cancer theranostics

Cristina M Furdui, PhD, Wake Forest School of Medicine

11:15 am - 11:45 am

Redox signaling in platelets promotes a pro-thrombotic phenotype

Roy L. Silverstein, MD, Medical College of Wisconsin

11:45 am - 12:15 pm

Targeting nitrophenyl to mitochondria in cancer cells - bioenergetics and redox effects

Jacek Zielonka, PhD, Medical College of Wisconsin

12:15 pm - 1:30 pm

Break & Visit Virtual Exhibits

Session III: Oral Presentations

1:30 pm - 2:45 pm

Inhibition of the forward-mode sodium-calcium exchange induces infection-independent NETotic cell death via activation of NADPH oxidase

Minoru Inoue, MD, PhD, Kyoto University Graduate School of Medicine

Nitric Oxide Inhibits Human Cytomegalovirus Infection in Neural Cells While Disrupting Cortical Development

Rebekah L. Mokry, College of Wisconsin

Oxidative stress facilitates nitrite bioactivation and augments its potentiation effects on S-nitrosothiol-mediated vasodilation

Taiming Liu, PhD, Loma Linda University

Exploiting redox vulnerabilities to trigger apoptosis in ovarian cancer cells: a new role for δ -tocotrienol

Fabrizio Fontana, PhD, University of Milan

Role of reversible oxidation in the regulation of the antiviral protein MAVS

Natalia Zamorano Cuervo, PhD, CRCHUM - Université de Montréal

Detection and quantitation of peroxynitrite generated in NO/H₂S/O₂ and NO/RSH/O₂ systems

Adam Sikora, PhD, DSc, Institute of Applied Radiation Chemistry/Lodz University of Technology

Nitric Oxide and heme-NO stimulate superoxide production by NADPH Oxidase 5

Elizabeth A. Sweeny, PhD, Lerner Research Institute Cleveland Clinic

Mito-diquat - an efficient redox cycling agent targeted to mitochondria

Matea Juric, BS - Medical College of Wisconsin

Oxidized and native mitochondrial polynucleotides as inflammatory mediators

Dana Crawford, PhD, Albany Medical College

Evaluation of mitochondrial damage induced by MnCITPP/AA system

Mariia Mollaeva, N.M. Emanuel Institute of Biochemical Physics RAS

Ubiquitination as a key regulatory mechanism for O3-induced cutaneous redox Inflammasome activation

Francesca Ferrara, PhD – University of Ferrara

A role for mitochondrial dysfunction in inflammasome activation in Autism Spectrum Disorder

Alessandra Pecorelli, North Carolina State University

3:00 pm - 3:30 pm

Break & Visit Virtual Exhibits

Session IV: Epigenetics

3:30 pm - 4:00 pm

CD38 links inflammaging and NAD metabolism

Eduardo N. Chini, MD, PhD, Mayo Clinic

4:00 pm - 4:30 pm

Epigenetic regulation of inflammatory transcription through bromodomain inhibition

Brian Smith, PhD, Medical College of Wisconsin

Friday, May 14th

Session V: Redox Systems

9:00 am - 9:30 am

Mn porphyrin-based anticancer drugs and normal tissue radioprotectants - from SOD mimicking to thiol signaling to clinical trials

Ines Batinic-Haberle, PhD, Duke University School of Medicine

9:30 am - 10:00 am

Chemical probes for reactive sulfur species

Ming Xian, PhD, Washington State University

10:00 am - 10:30 am

'Not-so-vulnerable' beta-cell: resistance to oxidative damage relies on thioredoxin reductase

Jennifer Stancil, PhD, Medical College of Wisconsin

10:30 am - 10:45 am

Break & Visit Virtual Exhibits

Session VI: Poster Session

10:45 am – 12:30 pm

Poster Presentations

12:30 pm - 1:30 pm

Break & Visit Virtual Exhibits

Session VII: Keynote Presentation

2:00 pm - 2:30 pm

Novel mechanisms of immune activation by oxidation

David G. Harrison, MD - Vanderbilt University Medical Center

2:30 pm - 2:45 pm

Concluding Remarks

2:45 pm

Adjourn