



**20TH ANNUAL MEETING OF THE
SOCIETY FOR FREE RADICAL BIOLOGY AND MEDICINE**
THE PREMIER FORUM FOR REDOX RESEARCH



20TH
ANNUAL
MEETING

SFRBM 
NOV 20-24 **2013**

GRAND HYATT SAN ANTONIO
SAN ANTONIO, TX



**PRELIMINARY PROGRAM
& REGISTRATION MATERIALS**



★ PRESIDENT'S INVITE

The Society for Free Radical Biology and Medicine's (SFRBM) Annual Meeting has long been the premier venue for cutting edge research in all aspects of redox biology, featuring the latest technologies and applications in basic and translational research. In keeping with tradition the 2013 program offers a diverse range of topics.

SFRBM continues to nurture a collegial environment for the open exchange of the latest scientific advances through poster and oral presentations. As always, some of the most exciting research will be communicated through the three-day poster symposium. Forty-five abstracts will be selected through a rigorous peer review process for oral presentations.

SFRBM 2013 meeting begins with a pre-meeting workshop on "Redox Biology of Thiols in Signaling Pathways". This workshop will show how protein thiols undergo modifications through both one and two-electron redox processes which result from some combination of localized oxidant production and chemical selectivity of given thiols. The workshop will focus on chemical mechanisms underlying cellular oxidation processes that result in thiol modifications as well as promises and pitfalls of current and emerging technologies used to better define the underlying processes.

Now in its 19th year, the popular Sunrise Free Radical School provides valuable didactic lectures especially designed for attendees who are new to the redox biology field as well as more seasoned investigators in need of a refresher course.

The SFRBM 2013 Program Committee has worked hard to select sessions, which emphasize scientific excellence, and introduces both new investigators and novel research topics. Featured plenary sessions include:

- **NADPH Oxidases as Therapeutic Targets**
- **Redox Biology of Hemoglobins: New Concepts from Biochemistry to Physiology**
- **Mitochondrial Driven Mechanisms of Redox Signaling in Disease**
- **Testing of Cancer's Redox Mettle**

In addition to the usual extensive opportunities for networking we will be offering several career and professional development sessions including:

- **Leaving the Ivory Towers: Careers Outside of Academia**
- **Working with Challenging People**
- **You're the Boss, Now What?**
- **Managing Up**
- **The Balance Between Family and Science Throughout Your Career**

SFRBM will continue its popular Young Investigator and Travel Awards to encourage and stimulate the next generation of scientists in our field throughout the Americas and worldwide.

Please come and join us this November in San Antonio to share your passion for the most creative, dynamic and groundbreaking science in our field.

Sincerely,

Henry Jay Forman, Ph.D.

University of Southern California, University of California, Merced



★ PROGRAM GOALS

- **Explore new issues in free radical chemistry, redox biology and antioxidants**
- **Instruct new members and students in the basics of free radical chemistry and biology**
- **Build personal and scientific relationships between newcomers to the field, established researchers, academicians and the private sector**

★ CONFERENCE DATES

WEDNESDAY, NOVEMBER 20 – SUNDAY, NOVEMBER 24, 2013

A full-day workshop on "Redox Biology of Thiols in Signaling Pathways" will be held on Wednesday, November 20. Workshop participants should arrive by Tuesday night, November 19 to order to attend the full-day program on November 20.

The Registration Desk will open at 4:00 pm on Tuesday, November 19.

PLAN TO ARRIVE in San Antonio no later than Wednesday afternoon as SFRBM 2013 will officially kickoff on Wednesday evening at 5:30 pm with a special session featuring a lecture by the 2013 Discovery Award Recipient and a talk from one of SFRBM's Mini-Fellowship recipients.

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KEY DATES TO REMEMBER

★ THURSDAY, AUGUST 15, 2013

Submission deadline for abstracts to be considered for a Travel Award. You must be a student or postdoc SFRBM member at the time of submission to be eligible for this award.

★ SUNDAY, SEPTEMBER 1, 2013

Submission deadline for abstracts to be considered for either oral or poster presentation.

Deadline for indicating you wish an abstract to be considered for a "Young Investigator Award." You must be a student or postdoc SFRBM member at the time of submission to be eligible for this award. Presenting authors are limited to submitting one (1) abstract to be considered for a Young Investigator Award. SFRBM recommends authors submit their best work for YIA consideration.

★ TUESDAY, OCTOBER 15, 2013

Deadline for early-bird conference registration. Registrations received after this time will be charged an additional \$50 late fee.

★ MONDAY, OCTOBER 28, 2013

Reservation deadline for conference rate of \$159 USD at the Grand Hyatt San Antonio. Reservations received after this date will be accepted on a space-available basis only and a higher hotel room rate may prevail.

★ WEDNESDAY, NOVEMBER 20, 2013

Pre-meeting Workshop:
Redox Biology of Thiols in Signaling Pathways

★ NOVEMBER 20 – 24, 2013

SFRBM 20th Annual Meeting

★ FORMAT

SFRBM 2013 will feature five days of scientific communication. A full-day pre-meeting workshop on "Redox Biology of Thiols in Signaling Pathways" will be held Wednesday, November 20. Registration for the pre-meeting workshop is NOT included in your Annual Meeting registration fee and must be completed separately.

The Annual Meeting is scheduled for the following four days (Thursday through Sunday). Each day will begin with the popular Sunrise Free Radical School; continue with morning plenary lectures, afternoon professional development sessions, parallel thematic sessions and poster presentations. In addition, there will be several special programs and receptions to network with fellow scientists.

FREE RADICAL SCHOOL (8:00 am – 9:00 am)

For the 19th consecutive year, the Sunrise Free Radical School will kickoff each day of our Annual Meeting. Led by Lin Mantell, MD, Ph.D., North Shore University Hospital and Luis Netto, Ph.D., University of São Paulo, Brazil, the Free Radical School is designed to provide a detailed overview of the basic concepts of free radical chemistry and biology and is targeted towards students, fellows and those wishing to learn about new areas. A faculty of highly respected investigators in free radical research will deliver lectures and provide key literature references in their subject areas.

PLENARY SESSIONS (9:30 am – 12:00 pm)

Plenary sessions, which will be held during each morning of the annual meeting, will be comprised of speakers who will address common or closely related topics. Each will deliver a 20-25 minute talk followed by a 5-10 minutes question and answer session moderated by a 2-3 member panel. Topics to be covered include:

- NADPH Oxidases as Therapeutic Targets
- Redox Biology of Hemoglobins: New Concepts from Biochemistry to Physiology
- Mitochondrial Driven Mechanisms of Redox Signaling in Disease
- Testing of Cancer's Redox Mettle

AFTERNOON PARALLEL SESSIONS

ORAL PRESENTATIONS (2:30 pm – 4:15 pm)

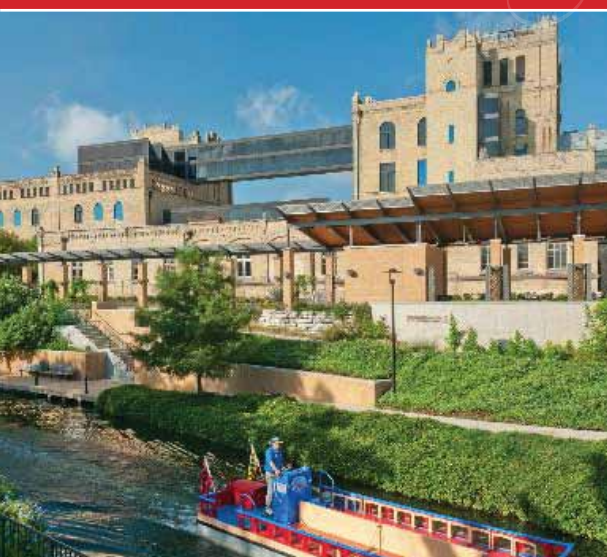
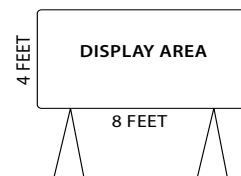
A number of high-quality abstracts are chosen from those submitted to the Society for primary authors to give 20-minute oral presentations of their research. Three concurrent sessions will be structured around basic topic areas and will feature 45 speakers.

POSTER SESSIONS (Thursday – Saturday)

4:15 pm – 6:45 pm formal poster presentation

Authors must be present during this poster session time.

During each day of this three-day session, posters will be on display all day (9:00 am – 9:00 pm) and can be viewed at any time during this period. Each day, two and half hours of formal presentation time (4:15 pm – 6:45 pm) will be scheduled for authors to be available to discuss their work with other attendees. Poster boards for display of abstracts will again be 4 feet (122 cm) wide x 8 feet (244 cm) long for greater display area.



★ ABSTRACTS AND AWARDS

ABSTRACTS

Abstracts for oral or poster presentation consideration should be submitted online at <http://www.sfrbm.org/sections/annual-meeting/20th-annual-meeting>.

The deadline for submitting abstracts for SFRBM 2013 is Sunday, September 1. Submitted abstracts must be previously unpublished work. Abstracts submitted for either oral and poster presentation consideration will be subject a double blind review process. Decisions on abstract acceptance for SFRBM 2013 will be posted on the SFRBM site during the week of October 7, 2013.

Abstracts must fit into a 3 in. (7.62 cm) wide x 4.75 in. (12.1 cm) high space within the online form. This is approximately 1900 characters. Abstracts that exceed this size will display a "TOO LONG" message during the proofreading stage and authors will be asked to resubmit an edited version. The site will set the font size of your abstract to an 8 pt. font and the abstract will appear in the abstract book in 8 pt. font.

All submitted abstracts will be published in the meeting's program and abstract book.

TRAVEL AWARDS

SFRBM's Outreach Committee are making Travel Awards available to students and postdocs who wish to attend SFRBM 2013 to present their research. Ten (10) awards at \$500 each will be presented to postdoc and student SFRBM members in the US. An additional ten (10) awards at \$1,000 each will be given by SFRBM to postdoc or student SFRBM members throughout the rest of the world.

Any student or postdoc wishing to submit an abstract for Travel Award consideration must check the appropriate box on the online abstract form and submit the abstract no later than Thursday, August 15, 2013.

- Abstract judging will be based on research merit only and applicants must be the first author of the abstract.
- Winners will be notified during the week of October 7 and will be given their check at the SFRBM 2013 Awards Banquet on November 23 as well as free meeting registration for the 2014 SFRBM Annual Meeting in Seattle, WA or 2015 SFRBM Annual Meeting in Boston, MA.
- Travel Award winners are not eligible for Young Investigator Awards (YIA) given at the meeting.
- You may simultaneously apply for SFRBM membership when submitting an abstract for a Travel Award.
- Decisions on Travel Awards for SFRBM 2013 will be posted on the SFRBM site during the week of October 7, 2013.

YOUNG INVESTIGATOR AWARDS

SFRBM's "Young Investigator Awards" (YIAs) will be presented to graduate students and postdoctoral fellows based on the submitted abstract and the presentation of the work at the annual meeting, either in oral or poster symposia.

- Candidates must be first authors on a submitted abstract, must check the appropriate box on the electronic abstract form and must be fully registered to attend the meeting.
- Eligible graduate students must be enrolled in an accredited full-time doctoral degree program at the time of abstract submission.
- Eligible postdoctoral fellows must be engaged in full-time postdoctoral research and must have no more than five years of research experience beyond their doctoral degree.
- Finally, to be considered for the award, the author must be a postdoc or student SFRBM member. You may simultaneously apply for SFRBM membership when submitting an abstract for a YIA.

Presenting authors are limited to submitting one (1) abstract to be considered for a Young Investigator Award. SFRBM recommends authors submit their best work for YIA consideration. Submission deadline to be considered for a Young Investigator Award award is September 1, 2013.

YIA awardees will receive a \$500 stipend in recognition of their work as well as free meeting registration for the 2014 Annual Meeting in Seattle, or the 2015 Annual Meeting in Boston.

★ LOCATION

Grand Hyatt San Antonio

600 E. Market Street
San Antonio, TX 78205
Phone: (210) 224-1234
Reservations: (800) 633-7313
www.grandsanantonio.hyatt.com



HOTEL RESERVATIONS

The Grand Hyatt is the host hotel for SFRBM 2013. The hotel is located on the Riverwalk close to many restaurants. A special room rate of \$159 USD per night single/double is available for all meeting participants. This rate is offered on a space-available basis through October 28, 2013. Please contact the Hyatt Reservations at (800) 633-7313 or (210) 224-1234 and indicate you are with "SFRBM 2013" to receive the special room rate or make your reservations online by visiting <http://www.sfrbm.org/sections/annual-meeting/20th-annual-meeting> and clicking on "online hotel reservations".

ROOM SHARE PROGRAM

If you plan to attend the conference and wish to share a room with another conferee you do not know, please indicate this request (as well as your gender) on the enclosed registration form. SFRBM staff will then contact you to match you with a roommate as they become available. Matched roommates will be responsible for paying half of the room cost per night.

★ WORKSHOPS AND SPECIAL PROGRAMS

PRE-MEETING WORKSHOP

Wednesday, November 20, 2013

8:15 am – 3:30 pm

Redox Biology of Thiols in Signaling Pathways

Chairs: *Leslie Poole, Ph.D., Wake Forest School of Medicine and Christian Schöneich, Ph.D., University of Kansas*

Protein thiols undergo modifications through both one and two-electron redox processes which result from some combination of localized oxidant production and chemical selectivity of given thiols. Such modifications are important in regulating signal transduction pathways within cells. This workshop will focus on chemical mechanisms underlying cellular oxidation processes that result in thiol modifications as well as promises and pitfalls of current and emerging technologies used to better define the underlying processes.

Registration fees for the workshop, which includes lunch and course materials, are not included in the annual meeting tuition. Persons wishing to attend the workshop must clearly indicate their participation on the enclosed registration form. Attendance will be limited to the first 175 applicants, so it is advisable to register early! Participants should plan to arrive in San Antonio on Tuesday to be ready for the Wednesday morning start.

Cost is \$175 per person for SFRBM members & \$200 for non-members.

SFRBM DISCOVERY AWARD LECTURE

Wednesday, November 20, 2013

6:10 pm – 6:40 pm

Pathogenesis and Progression of Alzheimer's Disease and Potential Mechanisms of Chemotherapy Induced Cognitive Impairment: Roles of Oxidative Stress and Insights from Redox Proteomics

D. Allan Butterfield, Ph.D., University of Kentucky

WELCOME RECEPTION

Wednesday, November 20, 2013

7:00 pm – 9:00 pm

SFRBM ANNUAL MEMBERSHIP MEETING

Thursday, November 21, 2013

12:00 pm – 12:30 pm

The member meeting will discuss past and future financial, administrative and academic activities of the society and recruit suggestions and comments from the general membership.

11TH ANNUAL OPENING DOORS EVENT

Thursday, November 21, 2013

6:45 pm – 9:00 pm

The Balance Between Family and Science Throughout Your Career

Organized by Samantha Giordano, University of Alabama at Birmingham, Sumitra Miriyala, Ph.D., LSU Health Sciences Center – Shreveport, and the Women in Science Committee (WIS)

As we develop as scientists our personal life also grows and changes. This topic will explore good ways to balance your family and career throughout your lifetime, whether you are a man, woman, married, single, etc. Young scientists will hear ideas on how to manage time between their career and personal lives. In addition, hearing experiences from senior scientists about what works and doesn't work will be invaluable.

Cost is \$25 for student & postdocs, \$35 for senior investigators.

NEW MEMBER MEETING

Saturday, November 23, 2013

12:00 pm – 12:30 pm

This session will inform you of the activities and benefits of being a member of the Society and give you the opportunity to have all of your questions answered about SFRBM.

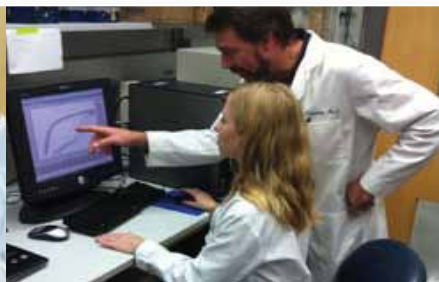
CLOSING/AWARDS BANQUET

Saturday, November 23, 2013

7:30 pm – 9:30 pm

The Awards Banquet on Saturday, November 23 will feature the recognition of Young Investigator and Travel Award winners and outstanding leaders in the field. The Opening Reception and Awards Banquet are included in your registration fee.





★ CONFERENCE PROGRAM

WEDNESDAY - NOVEMBER 20, 2013

PRE-MEETING WORKSHOP

Redox Biology of Thiols in Signaling Pathways | 8:15 am - 3:30 pm

Chairs: Leslie Poole, Ph.D., Wake Forest School of Medicine and Christian Schöneich, Ph.D., University of Kansas

8:15 am – 8:20 am	Welcome Leslie Poole, Ph.D., Wake Forest School of Medicine Christian Schöneich, Ph.D., University of Kansas
8:20 am – 8:55 am	Introduction Leslie Poole, Ph.D., Wake Forest School of Medicine
8:55 am – 9:30 am	One- and Two-Electron Oxidations of Cysteine and Selenocysteine: Why Softer May be Better <i>Willem Koppenol, Ph.D., Institute of Inorganic Chemistry, Switzerland</i>
9:30 am – 10:05 am	Chemistry of Amino Acid and Protein Thiol Radicals: Novel Reactions and the Role of Cysteine pKa <i>Christian Schöneich, Ph.D., University of Kansas</i>
10:05 am – 10:30 am	Break
10:30 am – 11:05 am	A Case for Radical Mechanisms in Redox Regulation Christine Winterbourn, Ph.D., University of Otago, New Zealand
11:05 am – 11:40 am	Mechanisms of S-nitrosation Neil Hogg, Ph.D., Medical College of Wisconsin
11:40 am – 12:15 pm	Cytosolic Glutathione Redox Potential and its Implications for Redox Regulation <i>Jakob Winther, Ph.D., University of Copenhagen, Denmark</i>
12:15 pm – 1:15 pm	Lunch
1:15 pm – 1:50 pm	Understanding the Catalytic Power of Nature's Dominant Peroxidases Andrew Karplus, Ph.D., Oregon State University
1:50 pm – 2:25 pm	Investigation of Protein Thiol Chemistry by Mass Spectrometry: Opportunities and Caveats <i>Cristina Furdui, Ph.D., Wake Forest School of Medicine</i>
2:25 pm – 3:00 pm	CxxC Motifs - Lessons in Redox Communication and Cellular Redox Status Colin Thorpe, Ph.D., University of Delaware
3:00 pm – 3:35 pm	Protein Sulfenic Acid Redox in Cancer Daniel Liebler, Ph.D., Vanderbilt University
6:00 pm – 6:10 pm	ANNUAL MEETING BEGINS SFRBM President's Welcome Henry Jay Forman, Ph.D., University of Southern California
6:10 pm – 6:40 pm	Discovery Award Lecture - Pathogenesis and Progression of Alzheimer's Disease and Potential Mechanisms of Chemotherapy Induced Cognitive Impairment: Roles of Oxidative Stress and Insights from Redox Proteomics <i>D. Allan Butterfield, Ph.D., University of Kentucky</i>
6:40 pm – 7:00 pm	Mini-Fellowship Research Presentation
7:00 pm – 9:00 pm	Welcome Reception
9:00 pm – 12:00 am	Hospitality Room

★ CONFERENCE PROGRAM

THURSDAY - NOVEMBER 21, 2013

☞ SUNRISE FREE RADICAL SCHOOL ☞

Back to the Basics

Chairs: Lin Mantell, MD, Ph.D., North Shore University Hospital and Luis Netto, Ph.D., University of São Paulo, Brazil

8:00 am – 8:30 am	NADPH Oxidase Enzymes: Structure, Biology and Evolution, and Perspectives on NOX Based Therapeutics <i>Ajay Shah MD, FMedSci, King's College London, UK</i>
8:30 am – 9:00 am	NADPH Oxidases in Vascular System: From Health to Disease <i>Ralf Brandes, MD, Goethe-University, Frankfurt, Germany</i>

☞ PLENARY SESSION ☞

NADPH Oxidases as Therapeutic Targets

Chairs: Shampa Chatterjee, Ph.D., University of Pennsylvania and Rui-Ming Liu, Ph.D., University of Alabama at Birmingham

NADPH oxidase (NOX) family of enzymes, including NOX1, NOX2, NOX3, NOX4, NOX5, dual oxidase 1 (DUOX1) and DUOX2, has been increasingly recognized as important sources of reactive oxygen species (ROS) in virtually all mammalian tissues. As ROS contribute importantly to the pathogenesis of many diseases, suppressing NOX expression or inhibiting NOX activity may represent a promising approach for the treatment of these diseases. In this plenary session, we will have top tier scientists evaluate new and ongoing research on NOX-mediated pathologies/diseases and the therapeutic potential of NOX inhibitors for various diseases.

9:30 am – 10:00 am	Nox Enzymes as Drug Targets in CNS Diseases <i>Karl-Heinz Krause, MD, Centre Medical University, Switzerland</i>
10:00 am – 10:30 am	An Evolutionary Perspective on NOX Enzymes in Lung Biology and Disease <i>Victor Thannickal, MD, University of Alabama at Birmingham</i>
10:30 am – 11:00 am	Break
11:00 am – 11:30 am	A Novel Inhibitor of the PLA2 Activity of Peroxiredoxin 6 Inhibits NADPH Oxidase Activation <i>Aron Fisher, MD, University of Pennsylvania</i>
11:30 am – 12:00 pm	Hepatocyte Nox Proteins in Chronic Hepatitis C and Hepatocellular Carcinoma <i>Jinah Choi, Ph.D., University of California, Merced</i>
12:00 pm – 12:30 pm	SFRBM MEMBER MEETING
12:30 pm – 2:30 pm	Lunch <i>attendees on own or attend a professional development session</i>

PROFESSIONAL DEVELOPMENT SESSION I 12:30 pm – 2:00 pm

Leaving the Ivory Towers: Careers Outside of Academia | *Sally Nelson, Ph.D., SomaLogic, Inc. and Brian Dranka, Ph.D., Seahorse Bioscience*

PROFESSIONAL DEVELOPMENT SESSION II 12:30 pm – 2:00 pm

Working with Challenging People | *Judith Albino, Ph.D., and Anne Libby, Ph.D., University of Colorado*

2:30 pm – 4:15 pm	Oral presentations from submitted abstracts <i>(3 concurrent sessions)</i>
4:15 pm – 6:45 pm	Formal Poster Presentations
6:30 pm – 8:00 pm	FRBM Editorial Board Reception

OPENING DOORS EVENT

The Balance Between Family and Science Throughout Your Career | **6:45 pm – 9:00 pm**

Organized by Samantha Giordano, University of Alabama at Birmingham, Sumitra Miriyala, Ph.D., LSU Health Sciences Center – Shreveport, and the Women in Science Committee (WIS)

9:00 pm – 12:00 am	Hospitality Room
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★ CONFERENCE PROGRAM

FRIDAY - NOVEMBER 22, 2013

☞ SUNRISE FREE RADICAL SCHOOL ☞

Back to the Basics | Chairs: Lin Mantell, MD, Ph.D., North Shore University Hospital and Luis Netto, Ph.D., University of São Paulo, Brazil

8:00 am – 8:30 am | **Nitric Oxide Bioavailability in Hemolytic Anemias** | Elizabeth Klings MD, Boston University

8:30 am – 9:00 am | **Physiology and Pathophysiology of Iron in Hemoglobin Associated Diseases**
Thomas Coates, MD, University of Southern California

☞ PLENARY SESSION ☞

Redox Biology of Hemoglobins: New Concepts from Biochemistry to Physiology

Chairs: David Jourdain, Ph.D., Albany Medical College and Nadine Hempel, Ph.D., University of Albany, SUNY

Vertebrate hemoglobins perform essential roles in oxygen transport, scavenging of reactive oxygen species, and nitric oxide bioavailability. While hemoglobin and myoglobin have long served as model systems for structure-function studies, recent discoveries have spurred new life and renewed interests into the physiological implications of globin expression in vertebrates. Neuroglobin, cytoglobin, and globin X are some of the most recent additions to the vertebrate globins and studies have uncovered unexpected insights on the structure, biochemistry, and physiology of mammalian globins. This session will introduce novel concepts with respect to the biochemistry and physiology of globins.

9:30 am – 10:00 am | **Structure and Reactivity of Hexacoordinated Hemoglobins** | Mark Hargrove, Ph.D., Iowa State University

10:00 am – 10:30 am | **Myoglobin Functions in the Heart** | Tienush Rassaf, MD, Ph.D., University Hospital Düsseldorf, Germany

10:30 am – 11:00 am | **Break**

11:00 am – 11:30 am | **Neuroglobin as a Neuroprotectant** | David Greenberg, MD, Ph.D., Buck Institute for Research on Aging

11:30 am – 12:00 pm | **Regulation of NO by Hemoglobin in the Endothelium** | Brant Isakson, Ph.D., University of Virginia

12:30 pm – 2:30 pm | **Lunch** | attendees on own or attend a professional development session

PROFESSIONAL DEVELOPMENT SESSION III 12:30 pm – 2:00 pm

You're the Boss, Now What? | Sruti Shiva, Ph.D., University of Pittsburgh and Suhendan Ekmekcioglu, MD, Ph.D., Anderson Cancer Center

PROFESSIONAL DEVELOPMENT SESSION IV 12:30 pm – 2:00 pm

Managing Up | Judith Albino, Ph.D., and Anne Libby, Ph.D., University of Colorado

2:30 pm – 4:15 pm | **Oral presentations from submitted abstracts** | (3 concurrent sessions)

4:15 pm – 6:45 pm | **Formal Poster Presentations**

9:00 pm – 12:00 am | **Hospitality Room**



★ CONFERENCE PROGRAM

SATURDAY - NOVEMBER 23, 2013

☞ SUNRISE FREE RADICAL SCHOOL ☜

Back to the Basics | Chairs: Lin Mantell, MD, Ph.D., North Shore University Hospital and Luis Netto, Ph.D., University of São Paulo, Brazil

8:00 am – 8:30 am	AIF, Mitochondrial Reactive Oxygen Species, and Neurodegeneration: A "Complex" Problem <i>Brian Polster, Ph.D., University of Maryland</i>
8:30 am – 9:00 am	Interaction of ROS Derived From Respiratory Chain With ROS From Other Sources in Mitochondrial Redox Signaling <i>Andreas Daiber, Ph.D., University Medical Center Mainz, Germany</i>

☞ PLENARY SESSION ☜

Mitochondrial Driven Mechanisms of Redox Signaling in Disease

Chairs: Marcelo Bonini, Ph.D., University of Illinois at Chicago and Rodrigo Franco, Ph.D., University of Nebraska – Lincoln

Recent studies have challenged the paradigm that ROS produced by mitochondria are mere by-products of respiration elevating these species to the status of central elements in cell signaling in health and disease. This session will review and provide new insight through examples about the involvement of mitochondrial ROS in the promotion of cellular adaptations and maladaptations that prevent or determine the onset of human pathologies.

9:30 am – 10:00 am	Mitochondria and Arrhythmias <i>Samuel Dudley, MD, Ph.D., The Warren Alpert Medical School of Brown University</i>
10:00 am – 10:30 am	Mechanisms Linking mtDNA Damage and Aging <i>Carlos Moraes, Ph.D., University of Miami</i>
10:30 am – 11:00 am	Break
11:00 am – 11:30 am	Mitochondrial-Cytosolic Crosstalk in Heart Failure <i>Ivor Benjamin, MD, FAHA, FACC, Medical College of Wisconsin</i>
11:30 am – 12:00 pm	Mitochondria as Signaling Organelles <i>Navdeep Chandel, Ph.D., Northwestern University</i>
12:00 pm – 12:30 pm	NEW MEMBER MEETING
12:30 pm – 2:30 pm	Lunch <i>attendees on own</i>
2:30 pm – 4:15 pm	Oral presentations from submitted abstracts <i>(3 concurrent sessions)</i>
4:15 pm – 6:45 pm	Formal Poster Presentations
7:30 pm – 9:30 pm	Closing/Awards Banquet
9:00 pm – 12:00 am	Hospitality Room

SUNDAY - NOVEMBER 24, 2013

☞ PLENARY SESSION ☜

Testing of Cancer's Redox Mettle

Chairs: Michael Graham Espey, Ph.D., NCI, NIH and Neil Hogg, Ph.D., Medical College of Wisconsin

The fundamental redox interplay between oxygen and transition metals has a profound impact on the initiation, progression and treatment of cancer. This session will update the field on mechanisms centered on the metallo-redox state space of cancer cells and illuminate how these dynamics can shape the tumor micro-environment. Presentations will cross length of scales from DNA molecules to synthetic biology in an effort to understand key physicochemical, spatiotemporal properties and therapeutic strategies involving metals and oxygen in the tumor microenvironment.

9:00 am – 9:30 am	Cancer, Cells with Irons in the Fire <i>Stefano Rivella, Ph.D., Weill Cornell Medical College</i>
9:30 am – 10:00 am	DNA - Metal Interactions: Biology and Therapy <i>Thomas O'Halloran, Ph.D., Northwestern University</i>
10:00 am – 10:30 am	Break
10:30 am – 11:00 am	Wiley and Mysterious Dinitrosyl-iron Complexes <i>Douglas Thomas, Ph.D., University of Illinois at Chicago</i>
11:00 am – 11:30 am	Engineering a Tumor Biomimetic: Redox in a Box? <i>Sharon Gereht, Ph.D., Johns Hopkins University</i>
11:30 am	Adjourn

★ OTHER IMPORTANT INFORMATION

ANNUAL MEETING REGISTRATION

Annual Meeting Conference Registration includes:

- Networking opportunities with scientists and potential collaborators from around the world
- Access to three days of educational sessions and symposia (Thursday – Sunday)
 - ▶ Sunrise Free Radical School
 - ▶ Plenary Sessions
 - ▶ Oral Presentations from selected abstracts
 - ▶ Poster Sessions
- Continental breakfast & coffee breaks (Thursday – Sunday)
- Complimentary attendance to Professional Development Sessions
- Opening Reception (Wednesday evening)
- One (1) ticket to the Awards Banquet (Saturday evening)
- Poster and Networking Sessions/Receptions (Thursday – Saturday)
- Hospitality Room for networking with junior and senior scientists (Wednesday – Saturday evenings)
- Access to Exhibit Area where you can learn more about the latest products and services that can assist you in your research
- Entrance to the SFRBM Membership General Business meeting
- Formally provided poster space to display your research

TRAVEL INFORMATION

The San Antonio International Airport (SAT) is approximately 9 miles (11 minutes) from the Grand Hyatt. Taxi service is available; average cost is \$27 one-way from the San Antonio International Airport. Shuttle service is available; the GO Airport Shuttle is approximately \$18 one way (\$34 round trip) from the airport to the Grand Hyatt.

MEETING MATERIALS – GOING GREEN

Participants will be provided with the Program and Abstract Book on a USB drive, which indexes all plenary lectures, oral presentation and poster symposia abstracts by topic. The book is produced as a supplement to the Society's journal, *Free Radical Biology and Medicine (FRBM)*, making the abstracts contained within scientifically citeable. In addition, the course materials for the Sunrise Free Radical School will also be distributed at the Annual Meeting. Attendees will also receive a list of all meeting participants and speakers. Upon request, attendees may receive an official certificate of attendance.

NEW FOR 2013: As mentioned above, attendees will receive an SFRBM USB drive that will contain the SFRBM program and abstract book. If you wish to receive a "printed" version of the program and abstract book, the cost will be \$15 and you must pre-order the printed program and abstract book on the registration form. Extra printed copies will not be available at the meeting.

★ 2013 SUPPORT

SFRBM wishes to recognize and thank the following supporters of SFRBM 2013:



THE BAKER COMPANY

Seahorse Bioscience™



FREE RADICAL AND RADIATION BIOLOGY



AT THE FOREFRONT OF REDOX BIOLOGY
FREE RADICAL AND CANCER RESEARCH



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Thermo
SCIENTIFIC

OFFICIAL LANGUAGE

English is the official language of SFRBM 2013. No simultaneous translation will be provided.

CME CREDIT

NO Category 1 CME Credits will be offered for SFRBM 2013.

QUESTIONS?

Questions about SFRBM 2013 can be directed to SFRBM via phone at (317) 205-9482, fax at (317) 205-9481 or e-mail at info@sfrbm.org. Registration forms can be mailed to: SFRBM, 8365 Keystone Crossing, Suite 107, Indianapolis, IN 46240.

★ SFRBM 2013 REGISTRATION FORM

Name: _____ Degree: _____

Affiliation: _____

Address: _____ City: _____ State: _____ Zip: _____

Country: _____ Phone: _____ Fax: _____

Email: _____

Require SFRBM to assign you a roommate: ☐ Yes ☐ No If yes, registrant is: ☐ Male ☐ Female Arrival Date: _____ Departure Date: _____

If yes, may SFRBM share your email address with others interested in a roommate? ☐ Yes ☐ No

☐ New Member ☐ First Time Attendee ★ Saturday Banquet Choice: (please check one) ☐ Chicken ☐ Fish ☐ Vegetarian ☐ Not Attending

★ REGISTRATION FEES:

Pre-registered (by Oct. 15)

Late & Onsite

- | | | |
|---|--------------------------------|--------------------------------|
| ☐ Full SFRBM Member | ☐ \$535 | ☐ \$585 |
| ☐ Student/Post-doc* SFRBM Member | ☐ \$275 | ☐ \$325 |
| <i>*Post-doc Members are those with five (5) years or less from the date they received their doctorate.</i> | | |
| ☐ Emeritus SFRBM Member | ☐ \$250 | ☐ \$300 |
| ☐ ISFRR Member** | ☐ \$535 | ☐ \$585 |

***The SFRBM member fee is extended to all ISFRR members, provided proof of current membership in an ISFRR-affiliate society is provided upon registration*

- | | | |
|--|--------------------------------|--------------------------------|
| ☐ Non-Member Regular | ☐ \$685 | ☐ \$735 |
| ☐ Non-Member Postdoc & Student | ☐ \$350 | ☐ \$400 |
| ☐ Guest Registration (Receptions, Banquet & Hospitality only) | ☐ \$150 | ☐ \$200 |

Guest Name: _____

- ☐ Printed SFRBM 2013 Program & Abstract Book ☐ \$15

All attendees will receive a USB drive with an electronic version of the 2013 Program & Abstracts. Select now if you would like to order a printed copy. Only the quantity ordered will be printed. You will NOT be able to purchase at the meeting.

★ PRE-MEETING WORKSHOP:

Redox Biology of Thiols in Signaling Pathways

- | | |
|---|---|
| ☐ \$175 member | ☐ \$225 member |
| ☐ \$200 non-member | ☐ \$250 non-member |

★ OPENING DOORS EVENT:

Team Science: Integrating Multiple Perspectives

- | | |
|---|---|
| ☐ \$25 Student/Postdoc | ☐ \$30 Student/Postdoc |
| ☐ \$35 Senior Investigator | ☐ \$40 Senior Investigator |

★ PROFESSIONAL DEVELOPMENT SESSIONS:

You may choose to attend one session per day. These sessions are **complimentary** and part of your conference registration.

Thursday, November 21, 12:30 pm – 2:00 pm

Friday, November 22, 12:30 pm – 2:00 pm

- | | |
|--|---|
| ☐ Leaving the Ivory Towers: Careers Outside of Academia | ☐ You're the Boss, Now What? |
| ☐ Working with Challenging People | ☐ Managing Up |

★ METHOD OF PAYMENT: ☐ Check** ☐ Visa ☐ Mastercard

Card Number: _____ Exp. Date: _____

Cardholder Name (please print): _____

Signature: _____

Unless appropriate check/charge information accompanies this form you will NOT be considered pre-registered.

***Payable to the Society for Free Radical Biology and Medicine (SFRBM). All checks must be made in U.S. Dollars, drawn on U.S. Banks. U.S. postal money orders and U.S. travelers checks are also accepted.*

★ CANCELLATIONS & REFUNDS:

Fees include all receptions, breaks and banquet. Requests for refunds will be honored if received in writing by November 5, 2013. Please note that all refunds will be issued AFTER the meeting and will be subject to a \$50 processing fee.

PHONE REGISTRATIONS ARE NOT ACCEPTED.

Please select one of the following three options:



www.sfrbm.org



fax: (317) 205-9481 (Visa/MC)



SFRBM - 8365 Keystone Crossing
Suite 107
Indianapolis, IN 46240
(Check/Visa/MC)

It is very important that you enjoy SFRBM 2013. If due to a disability, you have any special needs or requirements, please call (317) 205-9482 and we will do our best to accommodate your needs. For additional registrants, please make photocopies of this form. Full registration fees must accompany this form.



Society for Free Radical Biology and Medicine
8365 Keystone Crossing, Suite 107
Indianapolis, IN 46240

RETURN SERVICE REQUESTED

First Class Presort
U.S. Postage
PAID
Permit #14
Carmel, Indiana

★ PROFESSIONAL DEVELOPMENT SESSIONS ★

Thursday and Friday - 12:30 pm - 2:00 pm

Bring your lunch, join colleagues and plan to attend a introductory session below.
The sessions for 2013 have been tailored for both the junior and mid-level investigators.

THURSDAY, NOVEMBER 21

LEAVING THE IVORY TOWERS: CAREERS OUTSIDE OF ACADEMIA

An increasing number of graduate students are considering careers outside of academia. This decision may be based on the academic job market or disinterest in academic research or teaching. A non-academic career path is not an easy choice and for many it is an emotional decision that can generate feelings of fear, confusion, or failure. The goal of this workshop is to discuss alternative careers, necessary skills and experience, and available resources.

WORKING WITH CHALLENGING PEOPLE

This workshop will focus on developing the skills for working with "difficult" or "challenging" colleagues. A variety of personality types and disruptive behaviors encountered in academic, research, and clinical settings are considered, and a 6-step model is presented for guiding responses to problems presented.

FRIDAY, NOVEMBER 22

YOU'RE THE BOSS, NOW WHAT?

Young scientists quickly realize that research skills are only a small part of building a successful research program as they face challenges associated with administrative tasks, hiring staff, setting up a laboratory, defining a research program/mission, teaching/clinical work, establishing collaborations, time management, not to mention getting funded and publishing. The goal of this workshop is to provide practical information, resources, and advice on what to expect as new investigators embark on an independent research career.

MANAGING UP

This workshop focuses on skills for influencing those to whom we report directly, or who are higher up the administrative ladder in our workplace. Major influence styles described in the management science literature are considered. Attention will be given to identifying which influence styles work best with a variety of leadership styles and in a variety of situations.