



### 43rd Annual (2024) BSC Conference

BIOMARKERS AND SMART AGENTS: Design and application in histopathology, diagnostics

The Biological Stain Commission and the University of Oklahoma of Health Sciences cordially invite scientists, researchers, graduate, and undergraduate students to participate on the 43<sup>rd</sup> Annual Biological Stain Conference titled “BIOMARKERS AND SMART AGENTS: Design and application in histopathology, diagnostics

**Scope:**

Development and use of dyes, stains, and smart agents to identify and track disease. Topics will cover both the synthesis and use of dyes, stains, and smart agents in pathology, cancer, inflammation, infectious disease, and other applications.

### **Symposium Objectives:**

1. To explore the role of small molecules in drug discovery and development for biomedical applications.
2. To address challenges and opportunities in the design, synthesis, and characterization of small molecules for biomedical applications.
3. To foster collaboration among researchers, academicians, and industry professionals in the field.
4. To provide a platform for young researchers and students to showcase their research and ideas.

### **Symposium Themes:**

1. Organic synthesis strategies for small molecules discovery.
2. Structure-activity relationship (SAR) studies in medicinal chemistry.
3. Computational approaches in drug design and discovery.
4. Biochemical and pharmacological characterization of small molecules.
5. Natural product-based drug discovery.
6. Drug delivery systems and formulation strategies.
7. Emerging trends and technologies in pharmaceutical chemistry

### **Benefits of this Symposium to the students:**

The student, who will present their posters, will be able to develop and improve their soft skills: presentation and critical thinking as well as present his work to researchers from various specializations of histology, biological markers, biological techniques, and molecular methods. He/she will be able to fine-tune their presentation to showcase to the audience from different backgrounds and answer questions they pose.

### **Poster Presentation Guidelines:**

Posters presenters are responsible for setting up and removing the poster.

Posters should be laid out in the following segments:

- Title: Identical to the title of the abstract
- Authors' names and affiliations
- Introduction
- Aims
- Methods
- Results
- Conclusions
- References, contact details, & acknowledgment.

### **Speakers:**

We are honored to announce the following speakers:

1. Dr. Maged Henary, Georgia State University, Atlanta, GA
2. Mohamed Mokhtar Desouki, Roswell Park Comprehensive Cancer Center, Buffalo, NY
3. Dr. Carol Bain, University of Indiana, Indianapolis, Indiana
4. Dr. Bruce Cochrane and Chad Fagan, Miami University and Biological Stain Commission
5. Dr. Lacey McNally, University of Oklahoma, Oklahoma City, OK
6. Dr. Zhang Han, University of Central Oklahoma, OK
7. Dr. Yihan Shao, University of Oklahoma, Norman, OK
8. Dr. Sheila Criswell, University of Tennessee, Memphis, TN
9. Graduate speaker
10. Postdoctoral/fellow/resident speaker

### **Important Dates:**

- Registration Deadline: [10/15/2024]
- Symposium Date: [11/8/2024]

**Locations:**

Biomedical Research Center  
975 NE 10th St.  
Oklahoma City OK 73104

Stephenson Cancer Center  
755 Research Parkway  
Oklahoma City, OK 73104

**Registration Fees:**

In-person general registration: \$50.00 (includes free 1-year membership to the Biological Stain Commission with free Biotechnic & Histochemistry journal access)

Zoom Session only: \$30.00

Undergraduate and graduate students: Free

Poster Fee: \$10.00

Prizes: \$1500 will be awarded and will be distributed among the following categories:

- Best Graduate Abstract (winner will be asked to give 20-minute oral presentation)
- Best Undergraduate Abstract (winner will be asked to give 20-minute oral presentation)
- Best high school/undergraduate poster (first, second, and third place)
- Best graduate poster (first, second, and third place)
- Best post-graduate poster (first, second, and third place)

**Hotel Information**

A block of rooms has been reserved at the Embassy Suites by Hilton Oklahoma City Downtown Medical Center. The hotel is a 10 minute walk from the conference venues. To reserve at the BSC Rate, either click [here](#) or call the hotel at +1 405-239-3900 and indicate that you are with the Biological Stain Commission.

**Contact Information:**

Please send inquiries to Lacey McNally [Lacey\\_McNally@OUHSC.edu](mailto:Lacey_McNally@OUHSC.edu) or Chad Fagan [Chad\\_Fagan@URMC.Rochester.edu](mailto:Chad_Fagan@URMC.Rochester.edu)

## **Meeting Schedule**

### **Thursday November 7**

Conference Room  
755 Research Park

3:00 PM      Journal Meeting  
5:00 PM      Staining Laboratory Meeting (catering provided)  
7:00 PM      Trustees Planning Meeting

### **Friday November 8**

Biomedical Research Center  
975 NE 10th St.

8:00-4:00    Symposium  
4:00-5:00    Annual Membership Meeting  
5:30          Dinner

### **Saturday November 9**

Conference Room  
755 Research Park

8:00-12:00   Board of Trustees Meeting

## Symposium Agenda

<b>Time</b>	<b>Theme of Presentation</b>	<b>Speakers</b>	<b>Affiliation</b>
8:00 - 9:00 a.m.	<b>REGISTRATION and BREAKFAST</b>		
9:00 – 9:30 a.m.	The Biological Stain Commission: An Introduction	Bruce Cochrane and Chad Fagan	Miami University Biological Stain Commission
9:30–10:00 a.m.	The Synthesis and Potential Biomedical Application of Cyanine and Cyanine Like Dyes: Donor Acceptor Nanoparticles and Fluorophores	Maged Henary	Georgia State University
10:00 - 10:25 a.m.	Pancreatic Cancer Imaging and Treatment	Lacey McNally	University of Oklahoma
10:25 –10:35 a.m.	<b>Break</b>		
10:35 – 11:00 a.m.	Live-animal Imaging to Track Invasive Progression and Extracellular Vesicle Signaling of Ductal Carcinoma in situ Using a Nanoluciferase-tagged CD63 Orthotopic Xenograft Model	Cole Hladik	University of Oklahoma
11:00 – 11:30 a.m.	Immunohistochemistry Basics: From Immunology to Stained Slide	Carol Bain	Indiana University School of Medicine
11:30 –1:00 p.m.	<b>LUNCH BREAK and Poster Presentations</b>		
1:00 – 1:30 p.m.	Utilization of Immunohistochemistry in Breast Pathology	Mohamed Mokhtar Desouki	Roswell Park Comprehensive Cancer Center
1:30 – 2:00 p.m.	Structure-Function Relationship of Small-Molecule Bioimaging Probes from Quantum Chemistry Modeling	Yihan Shao	University of Oklahoma
2:00 – 2:25 p.m.	Segment-based Analysis of 18F-fluorothymidine Positron Emission Tomography Unveils Significant Prognosis Predictor for Hematopoietic Stem Cell Transplantation Therapy	Zhang Han	University of Central Oklahoma

2:25 – 2:35 p.m.	<b>Break</b>		
2:35 – 3:00 p.m.	Development of a novel pH low insertion peptide for imaging of pancreatic cancer using multispectral optoacoustic imaging	Ryan Bynum	University of Oklahoma
3:00 – 3:30 p.m.	Troubleshooting Immunohistochemistry	Sheila Criswell	University of Tennessee Health Science Center, Memphis, TN
3:30 – 4:00 p.m.	Concluding Remarks and Poster Awards		
4:00 – 5:00 p.m.	<b>BSC General Membership Meeting</b>		
5:30 – 7:30 p.m.	<b>Dinner</b>		

**Map of Venues**

