

# General Program

## Sunday, May 17, 2015

**6:00-8:30 PM**            **Registration and Mixer**  
*Bryant Hall, (The Circle) University of Mississippi*  
*Food provided by Party Waitin' to Happen--Cash Bar*

## Monday, May 18, 2015

*Breakfast for registrants: you are on your own—The Inn at OleMiss provides complimentary breakfast.*

*All podium sessions held at The Thad Cochran Research Center  
(TCRC) Natural Products Center-Centennial Auditorium – Room 1000  
All poster sessions and lunches held at TCRC atrium (outside room 1000)*

*Coffee, soft drinks, water, and snacks will be provided in TCRC-1000 atrium each morning  
and throughout the day for both Monday and Tuesday sessions.*

**7:45 AM**            **Welcoming Remarks**

*John M. Rimoldi, Professor of Medicinal Chemistry and President of  
MALTO, Inc., School of Pharmacy, University of Mississippi*

*David D. Allen, Dean and Professor of Pharmacology & Executive  
Director of the Research Institute of Pharmaceutical Sciences, School of  
Pharmacy, The University of Mississippi*

**8:00-9:20 AM**            **Podium Session 1**

**9:20–11:00 AM**            **Graduate Student Poster Session 1 & Break**

<b>11:00-12:15 PM</b>	<b>A. Nelson Voldeng Memorial Lecture</b>  <i>Alan P. Kozikowski</i> <i>Professor, Drug Discovery Program, College of Pharmacy, University of Illinois at Chicago.</i> <i>“Chemistry, the Brain, and Cancer – Ups and Downs on the Road to HDAC6i Drugs”</i>
<b>12:15-1:30 PM</b>	<b>Lunch (TCRC atrium)</b> <i>Provided by Party Waitin’ to Happen</i>
<b>1:40-3:00 PM</b>	<b>Podium Session 2</b>
<b>3:00-4:40 PM</b>	<b>Postdoctoral Poster Session 2 and Break</b>
<b>4:40-5:00 PM</b>	<b>Dr. James McChesney, Arbor Therapeutics, LLC</b>
<b>6:00-8:30 PM</b>	<b>Dinner</b> <i>Boure, upper room, 110 Courthouse Square</i> <i>Cash Bar</i>

## **Tuesday, May 19, 2015**

<b>8:00 – 9:20 AM</b>	<b>Podium Session 3</b>
<b>9:20-9:40 AM</b>	<b>Break</b>
<b>9:40-11:00 AM</b>	<b>Podium Session 4</b>
<b>11:00 –12:00 PM</b>	<b>MALTO Business Meeting</b> <b>TCRC 1044</b>
<b>12:00-1:00 PM</b>	<b>Lunch provided by Newk’s (TCRC atrium)</b>  <b>Award Presentations</b> <i>2015 Robert A. Magarian Podium Presentation Award</i> <i>2015 Thomas L. Lemke Poster Presentation Award</i> <i>2015 Ronald F. Borne Postdoctoral Poster Presentation Award</i>
<b>1:00 PM</b>	<b>Adjourn</b>

# Meeting Schedule

## Monday, May 18

7:45 AM Welcoming Remarks (TCRC 1000)

8:00-9:20 AM Podium Session 1

8:00 O1 **COMPUTATION-NMR COMBINED APPROACHES TO ADDRESS CONFIGURATIONAL ISSUES OF SYNTHETIC/NATURAL PRODUCTS**

Joonseok Oh, Amanda L. Waters, Mark T. Hamann

*Department of BioMolecular Sciences, Division of Pharmacognosy and Research Institute of Pharmaceutical Sciences, School of Pharmacy, The University of Mississippi, University, MS 38677, USA*

8:20 O2 **FINDING LEAD COMPOUNDS FOR THE NEXT GENERATION OF ANTI-INFLAMMATORY DRUGS USING AN INNOVATIVE ENZYME-CHAIN REACTION**

Hironari Akasaka, Nanhong Tang, Vanessa Cervantes and Ke-He Ruan

*Department of Pharmacological and Pharmaceutical Sciences, College of Pharmacy, University of Houston, Houston, TX 77204-5037*

8:40 O3 **DESIGN, SYNTHESIS, BIOLOGICAL EVALUATION, AND METABOLIC STABILITY ENHANCEMENT OF THE DUAL SIGMA RECEPTOR ANTAGONIST DAT INHIBITOR AGENTS AS POTENTIAL TREATMENT FOR STIMULANT ABUSE**

Walid Alsharif<sup>1</sup>, Theresa Kopajtic<sup>2</sup>, Murugesh Kandasamy<sup>1</sup>, Bonnie A. Avery<sup>1</sup>, Takato Hiranita<sup>2</sup>, Jonathan L. Katz<sup>2</sup> and Christopher R. McCurdy<sup>1</sup>

*<sup>1</sup>University of Mississippi School of Pharmacy; <sup>2</sup>NIDA Intramural Research Program.*

9:00 O4 **IDENTIFICATION AND EVALUATION OF POTENT INHIBITOR OF HUMAN MONOAMINE OXIDASE B FROM *CALEA URTICIFOLIA***

Vedanjali Gogineni<sup>1</sup>, Narayan D Chaurasiya<sup>2</sup>, Francisco Leon<sup>1</sup>, Marvin J Nuñez<sup>3</sup>, Larry A Walker<sup>1,2</sup>, Babu L Tekwani<sup>1,2</sup> and Stephen J. Cutler<sup>1</sup>

*<sup>1</sup>Department of BioMolecular Sciences and <sup>2</sup>National Center for Natural Products Research, (RIPS) School of Pharmacy, The University of Mississippi, University, MS 38677, USA and <sup>3</sup>Laboratorio de Investigacion en Productos Naturales, Facultad de Quimica y Farmacia, Av. Heroes y Martires del 30 de Julio, San Salvador, El Salvador.*

9:20–11:00 AM Graduate Student Poster Session 1 & Break

- 11:00-12:15 PM**      **A. Nelson Voldeng Memorial Lecture**
- Alan P. Kozikowski***  
*Professor, Drug Discovery Program, College of Pharmacy, University of Illinois at Chicago.*  
*“Chemistry, the Brain, and Cancer – Ups and Downs on the Road to HDAC6i Drugs”*
- 12:15-1:30 PM**      **Lunch (TCRC atrium)** *Provided by Party Waitin’ to Happen*
- 1:40-3:00 PM**      **Podium Session 2**
- 05 1:40**      **SMALL-MOLECULE ANALOGS OF A POTENT SMAC-MIMETIC THAT TARGETS SURVIVIN AND INDUCES APOPTOSIS *IN VITRO***  
Kinsie Arnst, Qinghui Wang, Wei Li\*  
*Department of Pharmaceutical Sciences, University of Tennessee Health Science Center, Memphis, Tennessee 38163*
- 06 2:00**      **IDENTIFICATION AND CHARACTERIZATION OF ALLOSTERIC SITE(S) FOR CB2 NEGATIVE ALLOSTERIC MODULATORS (NAMS)**  
Pankaj Pandey, Kuldeep K. Roy, and Robert J. Doerksen\*  
*Division of Medicinal Chemistry, Department of BioMolecular Sciences, School of Pharmacy, The University of Mississippi, University, MS 38677, USA*
- 07 2:20**      **SELECTIVE STABILIZATION OF THE KRAS G-QUADRUPLEX: A NOVEL THERAPEUTIC TARGET**  
Rhianna K. Morgan<sup>1</sup>, Khondaker Miraz Rahman<sup>2</sup>, and Tracy A. Brooks<sup>1,\*</sup>  
<sup>1</sup>*Department of BioMolecular Sciences, Division of Pharmacology, School of Pharmacy, University of Mississippi, University, MS 38677;* <sup>2</sup>*Institute of Pharmaceutical Sciences, King’s College, London, England, United Kingdom*
- 08 2:40**      **SYNTHETIC STUDIES OF 7-OXYGENATED APORPHINE ALKALOIDS AND STRUCTURAL REVISION OF (–)-ARTABONATINE A**  
Angela F. Ku<sup>1</sup> and Gregory D. Cuny<sup>2,\*</sup>  
<sup>1</sup>*Department of Chemistry,* <sup>2</sup>*Department of Pharmacological and Pharmaceutical Sciences, University of Houston, 77204*
- 3:00-4:40 PM**      **Postdoctoral Poster Session and Break**
- 4:40-5:00 PM**      **James McChesney, Arbor Therapeutics, LLC**
- 6:00-8:30 PM**      **Dinner** *Boure, upper room, 110 Courthouse Square - Cash Bar*

## Tuesday May 19, 2015

8:00 – 9:20 AM Podium Session 3

**O9 8:00 OLEANOLIC ACID ACRYLATE ELICITS ANTIDEPRESSANT-LIKE EFFECT MEDIATED BY 5-HT<sub>1A</sub> RECEPTOR**

Fajemiroye O. James<sup>1,2</sup>, Prabhakar R. Polepally<sup>2</sup>, Jordan K. Zjawiony<sup>2</sup>, Costa E. Alves<sup>1</sup>

<sup>1</sup>Department of Pharmacology, Federal University of Goias, Brazil, <sup>2</sup>Department of BioMolecular Sciences, Division of Pharmacognosy, School of Pharmacy, University of Mississippi, 38677, USA

**O10 8:20 CD2 PROTEIN DERIVED MINI-PROTEINS (CYCLOTIDES) FOR MODULATION OF CD2-CD58 PROTEIN-PROTEIN INTERACTION: IMPLICATIONS IN AN AUTOIMMUNE DISEASE**

Rushikesh Sable<sup>1</sup>, Thomas Durek<sup>2</sup>, David Craik<sup>2</sup> and Seetharama Jois<sup>1</sup>

<sup>1</sup>Department of Basic Pharmaceutical Sciences, College of Pharmacy, University of Louisiana at Monroe LA 71201. <sup>2</sup>Institute for Molecular Bioscience, The University of Queensland, St. Lucia, Australia

**O11 8:40 THE PRODUCTION OF NOVEL DRUG COMPOUNDS THROUGH THE SYMBIOSIS BETWEEN ENDANGERED PLANTS AND ENDOPHYTES**

Jordanne Fletcher, Mark T. Hamann\*

Department of Biomolecular Sciences, Division of Pharmacognosy University of Mississippi, 38677

**O12 9:00 SYNTHESIS AND BIOLOGICAL ACTIVITIES OF 20(S),24(S AND R)-DIHYDROXYVITAMIN D3 ISOMERS**

Zongtao Lin<sup>1</sup>, Srinivasa Reddy Marepally<sup>1</sup>, Dejian Ma<sup>1</sup>, Linda K. Myers<sup>1</sup>, Arnie E. Postlethwaite<sup>2,3</sup>, Robert C. Tuckey<sup>4</sup>, Duane D. Miller<sup>1</sup>, Wei Li<sup>1\*</sup>

<sup>1</sup>Department of Pharmaceutical Sciences, University of Tennessee Health Science Center, Memphis, TN 38163, United States. <sup>2</sup>Department of Medicine, University of Tennessee Health Science Center, Memphis, TN 38163, United States. <sup>3</sup>Department of Veterans Affairs Medical Center, Memphis TN 38104, United States. <sup>4</sup>School of Chemistry and Biochemistry, University of Western Australia, Crawley, Perth, WA 6009, Australia.

9:20-9:40 AM Break

**9:40-11:00 AM Podium Session 4**

**O13 9:40 IDENTIFICATION OF NOVEL INHIBITORS OF BOTULINUM NEUROTOXIN A**

Chinni Yalamanchili<sup>1,2</sup>, Vamshi K. Manda<sup>1</sup>, Amar G. Chittiboyina<sup>1</sup>, William A. Harrell Jr<sup>3</sup>, Robert P. Webb<sup>3</sup>, and Ikhlas A. Khan<sup>1,2,4\*</sup>

<sup>1</sup>*National Center for Natural Products Research, Research Institute of Pharmaceutical Sciences, The University of Mississippi, University, MS 38677, USA.*

<sup>2</sup>*Division of Pharmacognosy, Department of BioMolecular Sciences, The University of Mississippi, University, MS 38677, USA.* <sup>3</sup>*US Army Medical Research Institute of Infectious Diseases, Fort Detrick, MD 21702-5011, USA.* <sup>4</sup>*Department of Pharmacognosy, College of Pharmacy, King Saud University, Riyadh, Saudi Arabia.*

**O14 10:00 DISCOVERY OF NOVEL SURVIVIN INHIBITORS WITH POTENT ANTIPROLIFERATIVE PROPERTIES**

Min Xiao, Jin Wang, Yan Lu, Duane. D. Miller, and Wei Li

*Department of Pharmaceutical Sciences, University of Tennessee Health Science Center, Memphis, Tennessee, 38163*

**O15 10:20 STRUCTURE-BASED DESIGN OF POTENT AND SELECTIVE DLG-OUT RIPK1 INHIBITORS**

Chalada Suebsuwong<sup>1</sup>, Malek Najjar<sup>2</sup>, Soumya S. Ray<sup>3</sup>, Roshan J. Thapa<sup>4</sup>, Jenny L. Maki<sup>5</sup>, Shoko Nogusa<sup>4</sup>, Saumil Shah<sup>5</sup>, Danish Saleh<sup>5</sup>, Peter J. Gough<sup>6</sup>, John Bertin<sup>6</sup>, Junying Yuan<sup>7</sup>, Siddharth Balachandran<sup>4</sup>, Gregory D. Cuny<sup>8</sup>, Alexei Degterev<sup>2,5</sup>

<sup>1</sup>*Department of Chemistry, University of Houston, 77204* <sup>2</sup>*Department of Integrative Physiology and Pathobiology, Tufts University School of Medicine, 02111* <sup>3</sup>*Department of Neurology, Brigham & Women's Hospital and Harvard Medical School, 02139* <sup>4</sup>*Immune Cell Development and Host Defense Program, Fox Chase Cancer Center, 19111* <sup>5</sup>*Department of Developmental, Molecular & Chemical Biology, Tufts University School of Medicine, 02111* <sup>6</sup>*Pattern Recognition Receptor Discovery Performance Unit, Immuno-Inflammation Therapeutic Area, GlaxoSmithKline, 19426* <sup>7</sup>*Department of Cell Biology, Harvard Medical School, 02115* <sup>8</sup>*Department of Pharmacological and Pharmaceutical Sciences, University of Houston, 77204*

**O16 10:40 PROGRESS TOWARD THE TOTAL SYNTHESIS OF A DISCORHABDIN RELATED NATURAL PRODUCT FOR THE CONTROL OF PANCREATIC CANCER**

Xiaojuan Wang and Mark T. Hamann

*Department of Biomolecular Sciences, University of Mississippi, University, MS 38677, USA.*

**11:00 –12:00 PM**

**MALTO Business Meeting**  
*TCRC 1044*

**12:00-1:00 PM**

**Lunch provided by Newk's (TCRC atrium)**

**Award Presentations**

*2015 Robert A. Magarian Podium Presentation Award 2015*

*Thomas L. Lemke Poster Presentation Award*

*2015 Ronald F. Borne Postdoctoral Poster Presentation Award*

**1:00 PM**

**Adjourn**

## 2015 MALTO Attendees

### **Grambling State University (3)**

Joseph, Rochelle  
Ouma, Gabriel  
Perry, Tony

### **Union University (2)**

Castleman, Andrew  
Philip, Ashok

### **U. of Arkansas (17)**

Albayati, Zaineb  
Bommagani, Shoban  
Crooks, Peter  
Fifer, Kim  
Gujarathi, Satheesh  
Hussein, Hussein  
Janganati, Venumadhav  
Joolakanti, Shyamsunder  
Lamtore, Gauri  
Liu, Xingui  
Penthala, Narsimha  
Shi, Peizhong  
Wan, Aniq  
Wang, Tao  
Yadlapalli, Jai  
Zhang, Xuan  
Zheng, Guangrong

### **U. of Houston (15)**

Akasaka, Hironari  
Cuny, Gregory  
Das, Joydip  
Das, Sophiya  
Ku, Angela  
Lemke, Pat  
Lemke, Thomas  
Nikhar, Sameer  
Pany, Satyabrata  
Raghunathan, Suchi  
Ruan, Ke-He

Suebsuwong, Chalada  
Udugamasooriya, Gomika  
Wang, Yong  
Williams, Louis

### **University of Louisiana at Monroe (4)**

Jois, Seetharama  
Naik, Himgauri  
Pallerla, Sandeep  
Sable, Rushikesh

### **U. of Mississippi (45)**

Albadry, Mohamed  
Alsharif, Walid  
Batra, Harshul  
Borne, Ron  
Bow, Eric  
Colby, David  
Cunningham, Michael  
Cutler, Steve  
Doerksen, Robert  
Fajemiroye, James  
Fantoukh, Omer  
Fletcher, Bailey  
Gadepalli, Rama  
Gadepalli, Veena  
Galal, Kareem  
Gogineni, Vedanjali  
Haider, Saqlain  
Hamann, Mark  
Hao, Taisen  
Hazlitt, Robert  
Jain, Jagrati  
Jain, Surendra  
Jihan, Mohamed  
Keasling, Adam  
Khan, Ikhlas  
Leon, Francisco  
Leucke, Kelsey  
McCurdy, Christopher

Morgan, Rhianna  
Nael, Manal  
Oh, Joonseok  
Pandey, Pankaj  
Parveen, Abidah  
Rath, Jnanendra  
Rimoldi, John  
Roy, Kuldeep  
Singha, Santu  
Slater, Shuneize  
Sowaileh, Munia  
Tarawneh, Amer  
Vasquez, Yelkaira  
Wang, Xiaojuan  
Wilson, Lisa  
Yalamanchili, Chinni  
Zjawiony, Jordan

### **U. of Oklahoma (5)**

Bio, Moses  
Magarian, Robert  
Rajaputra, Pallavi  
Thapa, Pritam  
You, Youngjae

### **U. of Tennessee (8)**

Arnst, Kinsie  
Banerjee, Souvik  
Donkor, Isaac  
Li, Wei  
Lin, Zongtao  
Miller, Duane  
Wu, Xiaoxin  
Xiao, Min

### **Arbor Therapeutics, LLC**

McChesney, James

### **University of Illinois at Chicago**

Kozikowski, Alan