Meeting Schedule

Monday, May 23, 2016

All activities will be in Health and Biomedical Sciences Building I. Breakfast, Lunch and Break refreshments will be in Room 186 (First Floor). Podium Sessions will be in the Second Floor Auditorium and Poster Sessions will be in the corridor outside of the Auditorium. Coffee, tea, water, and snacks will be provided in the morning and throughout the day.

7:00-8:00 a.m. Breakfast

8:00 a.m. Welcoming Remarks

8:15-9:35 a.m. Podium Session I: Ms. Chalada Suebsuwong, Presiding

8:15 a.m. O1

DISCOVERY AND RATIONAL DESIGN OF NOVEL LICHEN ACID-BASED mTOR INHIBITORS FOR THE CONTROL OF BREAST MALIGNANCIES

Hassan Y. Ebrahim, Mohamed R. Akl, Heba A. Elsayed, Ronald Hill and Khalid El Sayed

Department of Basic Pharmaceutical Sciences, School of Pharmacy, University of Louisiana at Monroe, 1800 Bienville Drive, LA 71201.

8:35 a.m. O2

OLIVE SECOIRIDOID SEMISYNTHETIC ANALOGS AS NOVEL C-MET INHIBITORS

Mohamed Mohyeldin1, Belnaser Busnena1, Mohamed Akl1, Ana Maria Dragoi2, James Cardelli2, and Khalid El Sayed1*

1Department of Basic Pharmaceutical Sciences, School of Pharmacy, University of Louisiana at Monroe, 71201 2Department of Microbiology and Feist-Weiller Cancer Center, Louisiana State University Health Sciences Center, Shreveport, Louisiana, 71103

8:55 a.m. O3

USE OF BROAD MOLECULAR SCREENING ASSAY TO DETERMINE SELECTIVITY OF PROLYLCARBOXYPEPTIDASE INHIBITORS

Michael Cunninghama, Darren Brownb, Rama Gadepalli1, Daniel Bachovchinbd, John Rimoldia*

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9:15 a.m.  O4


Zongtao Lin1, Srinivasa R. Marepally1, Dejian Ma1, Tae-Kang Kim2, Linda K. Myers3, Arnold E. Postlethwaite3,4, Robert C. Tuckey5, Andrzej T. Slominski2,6, Duane D. Miller1, Wei Li1,*

1Department of Pharmaceutical Sciences, University of Tennessee Health Science Center, Memphis, TN 38163, United States, 2Department of Dermatology, University of Alabama at Birmingham, AL 35294, United States, 3Department of Medicine, University of Tennessee Health Science Center, Memphis, TN 38163, United States, 4Department of Veterans Affairs Medical Center, Memphis TN 38104, United States. 5School of Chemistry and Biochemistry, University of Western Australia, Crawley, WA 6009, Australia, 6VA Medical Center at Birmingham, Birmingham, AL 35294, United States.

9:40–11:00 a.m. Poster Session 1 and Break (See page 27)

11:00-11:15 Morning Break

11:15 a.m.-12:30 p.m. A. Nelson Voldeng Memorial Lecture

Richard A.F. Dixon, Ph.D., Director, Drug Discovery Program, Texas Heart Institute, Houston, Texas

“Learnings from the Development of Highly Selective Endothelin A Receptor Antagonists and Recent Insights into Integrin Modulators”

12:30-1:35 p.m. Lunch

1:40-3:20 p.m. Podium Session 2:  Mr. Hironari Akasaka, Presiding

1:40 p.m.  O5

THE INDOLE ALKALOID MELEAGRIN AS A NOVEL WILD AND MUTANT C-MET INHIBITORY LEAD FOR THE CONTROL OF INVASIVE BREAST CANCER

Mohamed Said1, Mohamed Mohyeldin1, Hassan Ebrahim1, Wael Houssen3, Eman Haggag2, Randa Fathi2, Khalid El Sayed1

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DESIGN AND SYNTHESIS OF STABLE, PLANT-BASED GRAFTED BIOACTIVE CYCLIC PEPTIDES FOR IMMUNOMODULATION IN AUTOIMMUNE DISEASES

Rushikesh Sable\textsuperscript{a}, Thomas Durek\textsuperscript{b}, David Craik\textsuperscript{b}, Ted Gauthier\textsuperscript{c}, Veena Taneja\textsuperscript{d}, Sandeep Pallerla\textsuperscript{a}, Seetharama Jois\textsuperscript{*}.

\textsuperscript{a}Department of Basic Pharmaceutical Sciences, School of Pharmacy, University of Louisiana at Monroe, Monroe, Louisiana, 71201. \textsuperscript{b}Department of Pharmacognosy, Faculty of Pharmacy, Helwan University, Helwan, Cairo, Egypt, 11795. \textsuperscript{c}Institute of Medical Sciences, University of Aberdeen, Aberdeen AB25 2ZD, Scotland, UK.

PROGRESS TOWARDS DIFLUOROMETHYL TERTIARY ALCOHOLS AS AGONISTS OF THE GABA\textsubscript{B} RECEPTOR

Munia F. Sowaileh\textsuperscript{a}, Amy E. Salyer\textsuperscript{b}, Gregory H. Hockerman\textsuperscript{b}, and David A. Colby\textsuperscript{a}.

\textsuperscript{a}Department of BioMolecular Sciences, University of Mississippi, University, Mississippi, USA \textsuperscript{b}Department of Medicinal Chemistry and Molecular Pharmacology, Purdue University, West Lafayette, Indiana, USA.

STRUCTURAL OPTIMIZATION OF ABI-231 TARGETING THE COLCHICINE SITE IN TUBULIN FOR ADVANCED MELANOMA

Wang Qinghui, Arnst E. Kinsie, Duane D. Miller, Wei Li\textsuperscript{*}.

Department of Pharmaceutical Sciences, University of Tennessee Health Science Center, 881 Madison Ave. Memphis, TN, 38163

EXPRESSION OF HYBRID ENZYME COX-10aa-PGI\textsubscript{2} SYNTHASE IN TRANSGENIC MICE PROVIDES A MODEL FOR DRUG DEVELOPMENT AND GENE THERAPY

Emma E. Murdoch\textsuperscript{1}, Hironari Akasaka\textsuperscript{1}, Kehe Ruan\textsuperscript{1}
3:30–5:00 p.m. Poster Session 2 and Break (See page 30)

6:00–8:00 p.m. MALTO Meeting Banquet
University of Houston Student Center South, Ballroom West 210 – Cash Bar

7:00–9:00 p.m. Social Recreation and Relaxation
University of Houston Student Center South, Games Room (underground level)

Tuesday, May 24, 2016

Breakfast, Lunch and all Poster and Podium sessions will be held in Health and Biomedical Sciences Building I. Podium Sessions will be in the Second Floor Auditorium and Poster Sessions will be in the corridor outside of the Auditorium.

7:00 a.m. Breakfast

8:00 – 9:20 a.m. Podium Session 3: Mr. Sameer Nikhar, Presiding

8:00 a.m. O10

SYNTHESIS AND BIOLOGICAL EVALUATION OF SIMPLIFIED ARTEMISININ ANALOGS
Mohamed Jihan\textsuperscript{a*}; Francisco Leon\textsuperscript{a}; Frank R Fronczek\textsuperscript{b}; Babu Tekwani\textsuperscript{a,c}; Shabana Khan\textsuperscript{a,c}; John Rimoldi\textsuperscript{a} and Mitchell Avery\textsuperscript{a}

\textsuperscript{a} Department of BioMolecular Science, Division of Medicinal Chemistry, School of Pharmacy, The University of Mississippi, University, MS 38677, \textsuperscript{b} Department of Chemistry, College of Science, Louisiana State University, Baton Rouge, LA 70803, \textsuperscript{c} National Center for Natural Products Research

8:20 a.m. O11

SECONDARY METABOLITES ISOLATED FROM CALEA URTICIFOLIA

Vedanjali Gogineni\textsuperscript{1}, Francisco León\textsuperscript{1}, Marvin J. Núñez\textsuperscript{2}, Stephen J. Cutler\textsuperscript{1}
Department of BioMolecular Sciences, School of Pharmacy, The University of Mississippi, University, MS 38677, United States  

8:40 a.m.  O12

BIOLOGICAL EVALUATION OF A TUBULIN POLYMERIZATION INHIBITORS TARGETING THE COLCHICINE BINDING SITE

Kinsie Arnst, Dong-Jin Wang, Duane D. Miller, Wei Li*

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

9:00 a.m.  013

FROM UNDERSTANDING THE MOLECULAR REGULATION OF INFLAMMATORY PGE\textsubscript{2} BIOSYNTHESIS TO IDENTIFYING LEAD COMPOUNDS FOR NEXT GENERATION OF NON-STEROIDAL ANTI-INFLAMMATORY DRUGS

Hironari Akasaka and Ke-He Ruan*

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

9:20-9:40 a.m. Break

9:40-10:40 a.m. Podium Session 4: Ms. Emma E. Murdochi, Presiding

9:40 a.m.  O14

SALVINORIN CHEMISTRY: PITFALLS AND PHARMACOLOGICAL POTENTIAL

Adam Keaslinga* and Ikhlas A. Khana,b

\textsuperscript{a}Department of Biomolecular Sciences, Division of Pharmacognosy, University of Mississippi, University, MS 38677, USA. \textsuperscript{b}National Center for Natural Products Research, University of Mississippi, University, MS 38677, USA.

10:00 a.m.  O15

AN APPROACH TO POTENT AND SELECTIVE DFG-OUT RIPK2 INHIBITORS

Chalada Suebsuwong\textsuperscript{1}, Alexei Degterev\textsuperscript{2}, and Gregory D. Cuny\textsuperscript{3*}

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SYNTHESIS OF Ω-DI-(MONOFLUOROMETHYL)-Δ-TOCOTRIENOL, A Δ-TOCOTRIENOL ANALOGUES DESIGNED TO HAVE IMPROVED METABOLIC STABILITY

Xingui Liu, Satheesh Gujarathi, Xuan Zhang, Guangrong Zheng*

Department of Pharmaceutical Sciences, College of Pharmacy, University of Arkansas for Medical Sciences, Little Rock, AR 72205, United States

10:40 a.m.–11:40 a.m. MALTO Business Meeting

Second Floor Auditorium, Health and Biomedical Sciences Building I

11:40 a.m.-12:00 p.m. Award Presentations

2016 Robert A. Magarian Podium Presentation Award
2016 Thomas L. Lemke Poster Presentation Award
2016 Ronald F. Borne Postdoctoral Poster Presentation Award

12:00-1:00 p.m. Lunch

1:00 p.m. Adjourn
Poster Presentation Abstracts

Session 1 (Odd numbers)

9:40–11:00 a.m.

GS = Graduate Student, UG = Undergraduate Student, PD = Postdoctoral Fellow

P1-GS: DESIGN OF NOVEL MOLECULAR TARGET-BASED COMBINATION OF OLIVE OIL PHENOLICS FOR THE CONTROL OF BREAST CANCERS

Mostafa M. Ibrahim, Ryan C. Byrd, Khalid A. El Sayed

P3-GS: A COMPARATIVE STUDY ON THE ANTIOXIDANT ACTIVITY OF TOCOTRIENOLS AND THEIR NOVEL ANALOGUES IN INTACT CELLS

Zhengya Gao, Satheesh Gujarathi, Xingui Liu, Lijian Shao, Marjan Boerma, Martin Hauer-Jensen, Daohong Zhou and Guangrong Zheng

P5-GS: ASTAXANTHIN AND DOCOSAHEXANOIC ACID REVERSE THE TOXICITY OF THE MAXI-K (BK) CHANNEL ANTAGONIST MYCOTOXIN PENITREM A

Amira Goda, Khayria Naguib, Magdy Mohamed, Hassan Amra, Somaia Nada, Abdel Rhman Abdel-Ghaffar, Chris Gissendanner, Khalid El Sayed

P7-GS: ACCESS TO RARE 6A-ALKYLATED APORPHINES: SYNTHESIS OF (±)-N-METHYLGUATTESCIDINE

Angela F. Ku and Gregory D. Cuny

P9-GS: EXTRA-VIRGIN OLIVE OIL BASED OLEOCANTHAL: A PROMISING LEAD FOR THE CONTROL OF C-MET-DEPENDENT BREAST MALIGNANCIES

Abu Bakar Siddique, Hassan Ebrahim, Mohamed M. Mohyeldin, Khalid El Sayed

P11-GS: DESIGN OF A NOVEL PEPTIDOMIMETIC-LIPID CONJUGATE THAT INHIBITS EGFR HETERODIMERIZATION

Himgauri Naik, Seetharama Jois
P13-GS: NOVEL HETERO-DIMERIC APPROACH TO SELECTIVELY TARGET EPHA3 RECEPTOR TYROSINE KINASE
Samanthreddy Kedika and Gomika Udugamasooriya

P15-UG: EFFECT OF RESVERTROL AND ITS DERIVATIVES ON MUNC13-1 ACTIVITY
Nga Nguyen, Satyabrata Pany and Joydip Das

P17-UG: MUNC13-1 MEMBRANE TRANSLOCATION UPON BRYOSTATIN-1 TREATMENT
Francisco Blanco, Satyabrata Pany, Anamitra Ghosh, Younki You and Joydip Das

P19-UG: DESIGN, SYNTHESIS, IN SILICO STUDY, AND BIOLOGICAL SCREENING OF FLAVIN ANALOGUES AS NOVEL SELECTIVE AND POTENT ANTITUMOR AGENTS

P21-PD: PYRANO[2,3-D]PYRIMIDIN-7-ONE AS A NOVEL PHARMACOPHORE AND SYNTHESES OF ITS DERIVATIVES
Boqiao Fu, Changjiang Qiao, Anantha Lakshmi Duddupudi, Dai Lu

P23-PD: SYNTHESIS AND EVALUATION OF ANTI-TUMOR ACTIVITY OF BENZYL AND PHENETHYLAMINE CARBAMATES OF MELAMPOMAGNOLIDE B
Narsimha R. Penthala, and Craig T. Jordan, Jessica Ponder, Peter A. Crooks

P25-PD: ON-BEAD PEPTOID APPLICATIONS IN MOLECULAR IMAGING TOOL DEVELOPMENT
Jaspal Singh, Dean Sherry, and D. Gomika Udugamasooriya
P27-PD: SYNTHESIS AND BIOLOGICAL EVALUATION OF CONFORMATIONALLY RESTRICTED SMALL MOLECULE SURVIVIN INHIBITORS
Yi Xue, Qinghui Wang, Kinsie Arnst and Wei Li

P29-PD: SYNTHESIS OF HETEROCYCLIC ESTERS OF MELAMPOMAGNOLIDE B AS ANTICANCER AGENTS
Shobanbabu Bommagani, Jessica Ponder, Craig T. Jordan, Michael J. Borrelli, and Peter A. Crooks

P31-PD: HOMO- AND HETERO-MULTIMERIZATIONS OF PEPTOIDS TO TARGET CANCER
Satya Prakash Shukla, Joseph Manarang, Jaspal Singh, Philip E. Thorpe, Rolf A Brekken and D. Gomika Udugamasooriya
Poster Presentation Abstracts

Session 2 (Even numbers)

3:30–5:00 p.m.

GS = Graduate Student, UG = Undergraduate Student, PD = Postdoctoral Fellow

P2-GS: CHEMICAL CONSTITUENTS OF THE STEMS OF TINOSPORA SINENSIS
Abidah Parveen, Zulfiqar Ali, Omer Fantoukh, Ikhlas A. Khan

P4-GS: ROLE OF TRP-588 OF PRESYNAPTIC MUNC13-1 IN LIGAND BINDING AND MEMBRANE TRANSLOCATION
Youngki You, Noemi Kedei, Jessica Kelsey, Satyabrata Pany and Peter M. Blumberg and Joydip Das

P6-GS: INVESTIGATION OF SECONDARY METABOLITES OF THE ROOTS OF MIRABILIS MULTIFLORA (TORR.) GRAY
Vimal K Sharma, Zulfiqar Ali, Radhakrishnan S. V. S., Jordan K Zjawiony and Ikhlas A Khan

P8-GS: ENGINEERING A SINGLE CHAIN DUAL-ENZYME COMPLEX REGULATING BIOSYNTHESIS OF PROCOAGULANT THROMBOXANE A2: IMPLICATIONS OF AN ENZYMATIC APPROACH TO PREVENT HEMORRHAGE IN THE TREATMENT OF CARDIOVASCULAR DISEASE
Qunying Li, Shui-Ping So, Mina Tabatabai and Ke-He Ruan

P10-GS: EXPRESSION OF HYBRID ENZYME COX-2-10AA-MPGES-1 PGE₂ IN MOUSE HIPPOCAMPAL NEURONS COULD PROVIDE A ROUTE OF THERAPEUTIC DEVELOPMENT FOR NEURODEGENERATIVE DISEASE
Qinglan Ling, Hironari Akasaka, Emma Murdoch, and Ke-He Ruan
P12-GS: THE INTEGRATION OF VIRTUAL SCREENING, HIGH-THROUGHPUT SCREENING AND REAL-TIME LIVE CELL SIGNALING IN IDENTIFYING NOVEL LEAD COMPOUNDS WHICH TARGET PROSTAGLANDIN E2 SUBTYPE-1 RECEPTOR

Xianghai Zheng, Hironari Akasaka, Emma Murdoch, Dandan Yao and Ke-He Ruan

P14-GS: SURVEYING LIGANDS THAT BIND VARIOUS DXG-CONFORMATIONS TO IDENTIFY AN ACTIVIN-LIKE KINASE-2 (ALK2) INHIBITORS

Sameer Nikhar, Chalada Suebsuwong and Gregory D. Cuny

P16-PD: PYRIMIDINYL BIPHENYLUREAS AS NOVEL ALLOSTERIC MODULATORS OF THE CB1 RECEPTOR

Anantha Lakshmi Duddupudi, Boqiao Fu, Changjiang Qiao, Leepakshi Khurana, Debra A. Kendall, Dai Lu

P18-PD: SYNTHESIS AND EVALUATION OF $\delta$-TRANS-TOCOTRIENOLOIC ACID AND ITS HOMOLOGUES FOR THEIR INHIBITION OF HUMAN DNA POLYMERASE $\beta$

Satheesh Gujarathi, Maroof Khan Zafar, Robert L. Eoff, Guangrong Zheng

P20-PD: MEDICINAL CHEMISTRY STUDIES OF TWO DISULFIDE-CONTAINING CYCLIC PEPTIDE NATURAL PRODUCTS

Mohana Rao Vippila, Phuong Kim Ly, Alan Gracia and Gregory D. Cuny

P22-PD: EFFECT OF CURCUMIN ON PKC$\alpha$ IS C1 DOMAIN DEPENDENT

Satyabrata Pany, Joydip Das

P24-PD: DETERMINATION OF THE PHARMACOKINETIC PROFILE OF LEAD DRUGS FOR TREATMENT OF LEUKEMIA

Zaineb A F Albayati, Venumadhav Janganati, and Peter A Crooks
P26-PD: ON-BEAD COMBINATORIAL SYNTHESIS OF SIDE ARM MODIFIED EUROPIUM(III)-DOTA COMPLEX

Vineeta Rustagi, Jaspal Singh, Dean Sherry, and D. Gomika Udugamasooriya

P28-PD: DESIGN AND SYNTHESIS OF AMIDE DERIVATIVES OF MELAMPOMAGNOLAMINE AND THEIR ANTI-CANCER ACTIVITIES

Venumadhav Janganati, Jessica Ponder, Craig T. Jordan, and Peter A. Crooks

P30-PD: UNBIASED SELECTION OF A LUNG CANCER SPECIFIC PEPTIDE-PEPTOID HYBRID AND VALIDATION OF LIPID-PHOSPHATIDYLSTERINE (PS) AS THE TARGET

Tanvi J. Desai, Jaya M. Matharage, Jason E. Toombs, Philip E. Thorpe, Rolf A. Brekken and D. Gomika Udugamasooriya