

# 14th ANNUAL CBU STUDENT RESEARCH POSTER PRESENTATIONS

Tuesday, 20 April 2010

SABBATINI LOUNGE OF THOMAS CENTER-CHRISTIAN BROTHERS UNIVERSITY

## Courses and Participating Faculty

BIOL/MHIRT	Mentored/Independent Research	BIOL 462/465	Dr. Malinda Fitzgerald
CHEM	Senior Seminar	CHEM 431	Dr. Dennis Merat
CIV	Civil Engineering	CE 432	Dr. K. Madhavan
ECE	Electrical and Computer Engineering	ECE 410	Dr. John Ventura
MATH	Senior Seminar	MATH 482	Dr. Leigh Becker
ME	Mechanical Engineering	ME 408	Dr. Ray Brown
NSCI	Natural Science Senior Thesis	NSCI 410/411	Ms. Lynda Miller
PSYC	Psychology Research Methods	PSYC 355	Dr. Maureen O'Brien

## STUDENTS WILL BE PRESENT AT THEIR POSTERS

- Even numbered boards 12:30 – 1:00 pm
- Odd numbered boards 1:00 – 1:30 pm

General Reception for faculty, students and mentors 12:30 - 2:00 pm

**\*\* Dominic Dunn Award Announcement by Dr. Johnny Holmes at 12:45 pm \*\***

*Alpha Chi* Announcement by Dr. Malinda Fitzgerald

1	CIV	<i>White River Navigation Study and Channel Improvement</i>	<b>Edmond Howe</b>
2	PSYC	<i>The Tendency to Play Violent Video Games and Aggression</i>	<b>Sarah Caldwell, Ashley Graham, and Serita Morton</b>
3	NSCI	<i>Breaking it Down: Chemical Composition of Wine</i>	<b>Jessica D Wooster</b>
4	ME	<i>Vertebral Body Replacement</i>	<b>Kidong Yu</b>
5	BIOL	<i>Identifying and Evaluation Social, Dominant, and Aggressive Behaviors Among Three Bottlenose Dolphins in Key Largo Florida</i>	<b>Kristi A. Prevost</b> and Holli Byerly
6	CHEM	<i>Calcium Binding Properties of CaBP 130</i>	<b>Thang Pham*</b> and Dennis Merat
7	BIOL	<i>In vitro macrophage response to titanium particles.</i>	<b>Brooke Allen</b> and Richard Smith
8	MATH	<i>Existence and Uniqueness of Solutions of Linear Volterra Integral Equations</i>	<b>Andrew Fayne</b>
9	NSCI	<i>Closed Reduction of Forearm Fractures: Pediatric Physicians vs. Orthopedic Physicians</i>	<b>Adrienne Nalan-Townsend</b>
10	BIOL	<i>Dermacentor variabilis: The effects of tick saliva on JNK and p38 signaling pathways in fibroblasts.</i>	<b>Raelyn S. Pirtle</b> , Carolyn D. Kramer, Nina Poole-Mitchell, Lewis B. Coons, and Judith Cole
11	EE	<i>Wireless Charging Station for Low Powered Electronic Devices</i>	<b>Binh Nguyen*</b> and <b>Russel Saliendra*</b>
12	NSCI	<i>Staphylococcus aureus Contamination of Keyboards in CBU Student Computer Lab</i>	<b>Alyse Brewer</b>
13	CIV	<i>Multi-Story Parking Facility, Olive Branch</i>	<b>David Wetherald</b>
14	MATH	<i>A Study of Properties and Applications of the Cooke-Yorke Equation</i>	<b>Dennis Guy</b>
15	BIOL	<i>Dose dependent regulation of transgene expression in vivo.</i>	<b>Jessica Hines</b> , Siddharth Desai, Kishore Kodali, and Tonia Rex.
16	PSYC	<i>The Relationship between Altruistic Acts, Self-esteem, and Body-esteem</i>	<b>Coretta Rockett, Renee Norris, and David Peck</b>
17	MHIRT	<i>Advantages And Disadvantages To Two Non-Invasive Research Methods for the Study of Wild jaguar Populations</i>	<b>Caroline Mitchell*</b> , Rachel Dutkosky, Leandro Silveira, and Rahel Solomann
18	ME	<i>Near Space Experiment Platform</i>	<b>Scott McGrath</b>
19	BIOL	<i>Evaluation of novel compounds as antineoplastic agents against solid tumors.</i>	<b>Sania Sayani</b> , Ammaar Abidi, and Andrea Elberger.
20	EE	<i>Interactive Missions Map</i>	<b>Jimmy M. Whitaker</b>
21	CHEM	<i>Determination of the Conditions for the Production of 6-methyl-2-ethyl-3-hydroxypyridine that Give an Assay in the Range of 99 to 100.5%</i>	<b>Chirag Shah</b>
22	ME	<i>Design of a Solar Heated Swimming Pool</i>	<b>Kenneth Kiimbel</b>
23	MHIRT	<i>Role of The alpha-1-adrenergic Receptors on the Reconsolidation of Olfactory FEAR Conditioning</i>	<b>Ting Wong</b> , Fabricio HM Do-Monte, and Antonio P. Carobrez.
24	NSCI	<i>The Effects of Antimicrobial Agents on Bacteria</i>	<b>Katie Hume</b>
25	CIV	<i>Design of Interchange and Interstate Section for Eastern Olive Branch</i>	<b>Katherine McGinnis</b>
26	BIOL	<i>Effects of Dopamine Inhibition on Fluid Licking Behavior of UBE3A Deficient Mice</i>	<b>Cameron Kasmai</b> , and Detlef Heck

**Special Thanks to all the Mentors and Funding Agencies.**

Thanks to *Alpha Chi Honor Society* for sponsorship.

**AX Members** identified with asterisk on program and gold seal on poster.

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27	ME	<i>CBU Mini Baja</i>	<b>Christopher Brown, Joseph Kaminski, and Anthony Leathers</b>
28	EE	<i>Rain Catch/Irrigation System</i>	<b>Ryan J. Nicolini</b>
29	CHEM	<i>Computational Dynamics to Map Putative Alcohol Binding Sites in the Potassium Channel Protein of the BK Type</i>	<b>Binoy Shah</b> , Alejandro Dopico, and Anna Bukiya
30	EE	<i>GPS Tracking Device For Air Conditioner Coils</i>	<b>Fredrick D. Durham</b>
31	BIOL	<i>Cystic Fibrosis: Defining a Novel and Rare Regulation Mutant S549N-CFTR</i>	<b>Fatima Anmol Khan</b> , Anthony Rudine, Aixia Ren, Sunitha Yarlagaadda, Dennis C. Stokes, and Anjaparavanda P. Naren
32	EE	<i>Christian Brothers University's Iphone Application</i>	<b>Grey M. Dziuba</b>
33	BIOL	<i>Contribution of cytochrome P450 (CYP) 3A4/3A5 genetic polymorphisms to the inter-patient variability in vandetanib pharmacokinetics in pediatric diffuse brainstem gliomas.</i>	<b>Rachel Escue</b> , Clinton Stewart, Mike Tagen, Laura Miller, and Stacy Throm.
34	EE	<i>Multi Channel Battery Charger</i>	<b>Osborn F. de Lima*</b>
35	MHIRT	<i>Comparing the Amplification of White Spot Syndrome Virus Genes With Different Primers</i>	<b>Caitlin Ashley*</b> , Juliana R Moser and Maria Risoleta Freire Marques
36	EE	<i>Offline Windows Registry Editor and Autoruns Disabler</i>	<b>Michael A. Yarbrough</b>
37	PSYC	<i>The Relationship between Body-image and Media Exposure</i>	<b>Iesha Porter, Dawn Hunter*</b> , and <b>Toraneka Hampton</b>
38	BIOL	<i>Effect of high-cholesterol diet on cholesterol levels in arterial smooth muscle.</i>	<b>Supriya Ponnappula</b> , Maria Asuncion-Chin, Anna N. Bukiya, and Alejandro M. Dopico.
39	PSYCH	<i>Specific Canine Breeds and Their Effects on Behavior and Intelligence</i>	<b>Thomas Turner</b>
40	CIV	<i>Design of a Small Private Airfield</i>	<b>Milton Crews</b>
41	EE	<i>Automated Home Security Using RFID Technology</i>	<b>Keith Lynn Wyrick, and Jacky Wong</b>
42	BIOL	<i>Atlantooccipital Dissociation: A Uniformly Fatal Injury?</i>	<b>Wallace C. Lock</b> , Louis J. Magnotti, and Martin A. Croce
43	CHEM	<i>Method Development and Validation for the Measurement of Vandetanib (ZD6474) in Human Plasma by Liquid Chromatograph Tandem Mass Spectrometry</i>	<b>Jennifer Johnson</b> , Feng Bai, and Clinton Stewart
44	NSCI	<i>Comparing the Effectiveness of Antiseptic Solution, Sodium Fluoride Solution, and Saline Solution In Killing Oral Bacteria</i>	<b>Khoa Nguyen</b>
45	BIOL	<i>Determination of Genetic Loci in BXD Mouse Model Glaucoma</i>	<b>Maegan Lytle</b> , Allen Vantrease, and Monica Jablonski
46	EE	<i>Use of Green Energy in Autonomous Vehicles</i>	<b>Harshit R. Shroff, Anthony Bownes and James Brown</b>
47	PSYC	<i>The Relationship between Academic Overachievement and Emotional Distress</i>	<b>Minna Zhao, Johnny Lawrence, and Ronald Minifee</b>
48	NSCI	<i>A comparison of mouse tissue morphology based on fixation methods for Transmission Electron Microscopy</i>	<b>Caitlin Clay</b> , Sharon Frase, Fara Sudlow, Jacqueline Williams, and Linda Mann
49	ME	<i>Medical Device Packaging</i>	<b>Wesley Channell</b>
50	NSCI	<i>Effects of Parasitic Infestation among Lepomis macrochirus</i>	<b>Minh-Thao Pham</b>
51	PSYC	<i>The Relationship between Shyness and Use of Computer-mediated Communication</i>	<b>Kasey Bramlitt, Amanda Garland*</b> , and <b>Meghan O'Brien</b>
52	NSCI	<i>Assembly of Copper and Palladium Supramolecules using Two Different Bifunctional Ligands</i>	<b>Elizabeth Calabretta*</b> , <b>Andrew W. Maverick</b> and <b>Chandi Pariya</b>
53	CIV	<i>Design of Gymnasium for High School</i>	<b>Gregory Carrico</b>
54	EE	<i>Blind Spot and Rear End Detection System for Vehicles</i>	<b>Patrick Louie</b>
55	BIOL	<i>Polycystic Kidney Disease-1 Protein Expression in Murine Cochleae using an EGFP reporter</i>	<b>Terence Netzel</b> , Katherine Steigleman, and Jian Zuo
56	NSCI	<i>The effectiveness of various hand washing methods in preventing the spread of microorganisms</i>	<b>Melissa McDonald</b>
57	PSYC	<i>Association of Stress, Coping, Relationship, and Threat</i>	<b>Kimberly Graves, Mony Hy, and David Lanigan</b>
58	ME	<i>Moon Buggy Project – The Earth Rover</i>	<b>James Bowen, Leila Craig, and Alexander Newman</b>
59	BIOL	<i>Dermacentor variabilis: The alternation of the wound healing mechanism</i>	<b>Xiong B. Lin</b> , Caroline Kramer, and Lewis Coons.
60	MATH	<i>Periodic Solutions of Volterra Integral Equations</i>	<b>Dustin Perry</b>

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