### BEHAVIOR

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<td>DO GIANT WATERBUGS RESPOND TO PREDATOR CUES? <strong>Samantha Tedesco</strong>, Johnny Hoant, and Dr. Scott Kight; Department of Biology, Montclair State University, Montclair, NJ</td>
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<td>Aarti Patel, Dr. Moni Chauhan¹ and Dr. Bhanu P.S. Chauhan²;</td>
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| E 10 | EFFECTS OF ROAD RUNOFF CHEMICALS ON CRAYFISH FORAGING BEHAVIOR; **Amy Defnet** and Dr. James Salierno; Department of Biological and Allied Health Sciences, Fairleigh Dickinson University, Madison, NJ |
| E 11 | AN INTERNATIONAL COMPARISON OF TREE-RING DENSITY; **Jessica Geary**, Rose Oelkers and Dr. Nicole Davi; Department of Environmental Science, William Paterson University, Wayne, NJ |
| E 12 | THE EFFECTS OF INVERTEBRATE COLONIZATION ON WATER FLOW AROUND PIER PILINGS: IMPLICATIONS ON HOMELAND SECURITY; **Kaylee Saltos**, Naysha Angelucci, Christian Bojorquez, Na’Vonna Turner, and Dr. Allison Fitzgerald; Department of Biology, New Jersey City University, Jersey City, NJ |
| E 13 | A PHYLOGENETIC ANALYSIS OF A BUTYRATE BIOSYNTHETIC PATHWAY IN MAMMALIAN GUT BACTERIA; **Andrew Waldburger**, Dr. Carey Waldburger, and Dr. Emily Monroe; Department of Biology, William Paterson University, Wayne., NJ |
| E 14 | WATER AND SEDIMENT QUALITY OF URBAN RIVERS IN NEW JERSEY; Felix Zamora and Dr. Hun Bok Jung; Department of Geoscience and Geography, New Jersey City University, Jersey City, NJ |

**GENETICS**

| G 1 | MOLECULAR ANALYSIS OF FLOWERING LOCUS T (FT) AND FT-LIKE SEQUENCES CLUSTERED ON CHROMOSOME 6 OF THE CITRUS SINENESIS GENOME; Mamadou Bah, Kevon Colon, and Dr. Terry Kamps, Department of Biology, New Jersey City University, Jersey City, NJ |
| G 2 | RESCUING LATE SPERM DEVELOPMENT USING THE GAL4/UAS SYSTEM; Rachel Daniel, Iryna Koziy, Vincent Lombardo, Elissa Innabi, and Dr. James Fabrizio, Biology Department, College of Mount Saint Vincent, Bronx, NY |
| G 3 | MiRNA21a-MEDIATED Anti-EGFR SiRNA GENE TRANSFER; Medha Dommaraju and Dr. Martin Hicks; Department of Biology, Monmouth University, West Long Branch, NJ |
| G 4 | GENETIC DELIVERY OF A miRNA CLUSTER WITH POLYCISTRONIC siRNAs REDUCES mRNA EXPRESSION OF EPIDERMAL GROWTH FACTOR RECEPTOR IN HUMAN GLIOBLASTOMA CELLS; Zainab Faiz*, Imari Patel¹, and Dr. Martin Hicks*; ¹Department of Biology, Drexel University; *Department of Biology, Monmouth University, West Long Branch, NJ |
| G 5 | DESIGN OF A PRE-TRANS-SPlicing MOLECULE TO GENERATE SOLUBLE EXTRACELLULAR PEPTIDE DECOY TO BLOCK ACTIVATION OF THE EGFR PATHWAY IN HUMAN GLIOBLASTOMA CELLS; Sarah Falotico¹, Nicole Sivetz¹, Peter Nekrasov², and Dr. Martin Hicks; ¹Department of Biology, Monmouth University, West Long Branch, NJ; ²Biotechnology High School, Freehold Township, NJ |
| G 6 | RNA EDITING OF ATP8: A POTENTIAL CAUSE OF S TYPE CYTOPLASMIC MALE STERILITY IN ZEA MAYS; Brigid Masker and Dr. Terry Kamps; Department of Biology, New Jersey City University, Jersey City, NJ |
| G 7 | RNA MULTIFUNCTIONAL ANTISENSE GENE TRANSFER STRATEGY TO ALTER HGFR EXPRESSION IN GBM; Priyal Patel and Dr. Martin Hicks; Department of Biology, Monmouth University, West Long Branch, NJ |
| G 8 | NuRD CHROMATIN REMODELERS BLOCK CHECKPOINT ACTIVATION IN C. Elegans; Solomon Sloat, Julia Rigothi, and Dr. Paula Checchi, Department of Biology, Marist College, Poughkeepsie, NY |
| CP 1 | COMPUTATIONAL MODELING OF HYDROXAMIC ACID CONTAINING COMPOUNDS TO IMPROVE METAL CHELATION; **Karan Arora**, Dr. Earl Benjamin, and Dr. Ellis Benjamin; Department of Chemistry, Stockton University, Galloway, NJ |
| CP 2 | USING DIFFERENT COMPUTATIONAL AND EXPERIMENTAL SPECTROSCOPIES TO DEMONSTRATE PHOSPHATE AND METAL INTERACTION AT DIFFERENT PH’S; **Roksana Azad**, Muhaned Mohamed, Pamela Lebron, and Dr. Ruel Z.B. Desamero; Department of Chemistry, CUNY-York College, Jamica, NY |
| CP 3 | SCATTERING MEDIATED HOT-ELECTRON TRANSFER: A NEW PARADIGM FOR LIGHT-DRIVEN ENERGY TRANSFER; **Jessica Czarnecki**, **Noor Eldabagh**, **Juan Pulgarin**, Jason Coddington, and Dr. Jay Foley, Department of Chemistry, William Paterson University, Wayne, NJ |
| CP 4 | PURIFICATION AND ANALYSIS OF ANTIMICROBIAL COMPOUNDS FROM THE TRUMPET VINE; **Brittany Handzo**, **Jeffrey Courter**, Dr. Alice Benzecry, and Dr. Ish Kumar; School of Natural Sciences, Fairleigh Dickinson University, Teaneck, NJ |
| CP 5 | MODELING SELECTIVITY OF BINDING OF POLYCYCLIC AROMATIC LIGANDS TO DNA; **Erin Hoag**, **Katlynn Muratore**, Marie Furda, Crystal Diaz, and Dr. Cmytro Kosenkov; Department of Chemistry and Physics, Monmouth University, West Long Branch, NJ |
| CP 6 | DETERMINING PROTEINS STRUCTURE USING NMR: MORE INCLUSIVE CORES IDENTIFIED BY FINDCORE2 AND CYRANGE IN MR CALCULATIONS; **Amaal Kalds** and Dr. David Snyder; Department of Chemistry, William Paterson University, Wayne, NJ |
| CP 7 | TIME-DOMAIN NMR ANALYSIS OF COMPOSITION OF GRASS AND HAY; **Minhaz Mahbub¹**, **Daniel Ferlisi²**, K. Conover¹, M. Mohr³, P.K. Sirois,⁴ V.A. Massi⁴, Dr. Pelzer¹ and Dr. Ralston²; ¹Department of Chemistry, Princeton University, Princeton, NJ; ²Department of Animal Science, Rutgers University, New Brunswick, NJ; ³Department of Plant Biology and Pathology, Rutgers University, New Brunswick, NJ; ⁴Department of Plant Biology and Pathology, Rutgers University, New Brunswick, NJ; Dairy One Forage Lab, Ithaca, NY |
| CP 8 | COST-EFFICIENT PURIFICATION OF TYROSINASE; Venkatashiva Patnala, Christina Kohn, and Dr. David Snyder, Department of Chemistry, William Paterson University, Wayne, NJ |
| IC 1 | INTERNALIZATION OF FLUORESCENT NANOPARTICLES BY THE MURINE LEUKEMIA CELLS: IN VITRO EXAMINATION OF NANOPARTICLE COMPARTMENTALIZATION; Daniela Artiga¹, ², Aarti Patel², Dr. Bhanu P.S. Chauhan², Dr. J.W. Lee¹; ¹Department of Biology; ²Department of Chemistry; William Paterson University, Wayne, NJ |
| IC 2 | DESTRUCTION OF CHLOROFLUOROCARBONS IN NON-THERMAL PLASMA; Stefani Koceska, and Dr. Lev Krasnoperov; Department of Chemistry and Environmental Science, New Jersey Institute of Technology, Newark, NJ |
| IC 3 | CHEMICAL COMPARISON BETWEEN MODERN AND FOSSIL CARCHARHINIFORMES; Sanserei Pilapil+, Fatima Popcakova+, Qiaxian Johnson+, Dr. Michael Griffiths», Dr. Martin Becker», and Dr. Bhanu P.S. Chauhan+; »Department of Environmental Science; +Department of Chemistry; William Paterson University, Wayne, NJ |
| IC 4 | CHEMICAL COMPARISON BETWEEN MODERN AND FOSSIL LAMNIFORMES; Fatima Popcakova+, Sanserei Pilapil+, Qiaxian Johnson+, Dr. Michael Griffiths», Dr. Martin Becker», and Dr. Bhanu P.S. Chauhan+; »Department of Environmental Science; +Department of Chemistry; William Paterson University, Wayne, NJ |
| IC 5 | C-P BOND FORMATION REACTION THROUGH DIRECT COUPLING OF BORONIC ACIDS WITH PHOSPHONATE DIESTERS IN THE PRESENCE OF PINCER COBALT (PCP) COMPLEXES; Rania Teriak, Kimberly Valdivia, and Dr. Parminder Kaur; Department of Chemistry, William Paterson University, Wayne, NJ |
| IC 6 | EXPLORING THE NEW HORIZONS OF MES-BIAN VANADIUM CHEMISTRY; Noriyo Onishi¹, Gabrielle Risica¹, Namkhang Tsdamchoe¹, Julie Nicklas², Dr. Colin Abernethy¹, and Dr. John Gorden²; ¹Department of Chemistry, Sarah Lawrence college, New York, NY; ²Department of Chemistry, Auburn University, Auburn, AL |
M 1  Mg-Fe LAYERED DOUBLE HYDROXIDES STRUCTURE AND MORPHOLOGY; David Akpatsu¹, Jonathan Gabriel¹, Aarti Patel¹, Dr. Andrei Jitianu², and Dr. Mihaela Jitianu¹; ¹Department of Chemistry, William Paterson University, Wayne, NJ; ²Department of Chemistry, CUNY-Lehman College, West Bronx, NY

M 2  STUDY OF FORMATION OF HYDROXYAPATITE; Martin Kowaleff, Naphtali O'Connor and Dr. Andrei Jitianu; Department of Chemistry, CUNY-Lehman College, West Bronx, NY

M 3  MATERIALS-BY-DESIGN APPROACH TO THERMAL AND SOLAR ENERGY CONVERSION; Ashley McDonnell, Alex Moyer, Matthew Bogacz, and Dr. Jay Foley; Department of Chemistry, William Paterson University, Wayne, NJ

M 4  STUDY OF TiO2 AND ZnO SEMICONDUCTORS AND EFFECTS ON BINDING; Shiv Misra and Dr. Elena Galoppini, Chemistry Department, Rutgers University, Newark, NJ

M 5  A COMPARATIVE ANALYSIS OF NEW GENERATION METAL-IMPREGNATED NANOMATERIALS; Kelly Moran, Aarti Patel, Qiaxian Johnson, and Dr. Bhanu P.S. Chauhan; Department of Chemistry, William Paterson University, Wayne, NJ

M 6  THE SYNTHESIS OF DENDRITIC CONSTRUCTS VIA HYDROSILYLATION; Glory Nkak, Saadia Chaudry, Aarti Patel, and Dr. Bhanu P.S. Chauhan; Department of Chemistry, William Paterson University, Wayne, NJ

M 7  COMPARATIVE STUDY OF MELTING GELS BEHAVIOR; Gabriela Rodriguez¹, Tim McClurg², Dr. Mihaela Jitianu², Dr. Andrei Jitianu¹, and Dr. Lisa Klein³; ¹Department of Chemistry, Lehman College, CUNY, Davis Hall, West, Bronx, NY

M 8  Co(II)- Ni(II)- And Mg(II)- LAYERED HYDROXIDES COMPARATIVE STUDY; Feras Saifan¹, David Akpatsu¹, Dr. Andrei Jitianu² and Dr. Mihaela Jitianu¹; ¹Department of Chemistry, William Paterson University, Wayne, NJ; ²Department of Chemistry CNNY-Lehman College, West Bronx, NY