#### **2016 SYMPOSIUM ABSTRACT TITLES**

### **BEHAVIOR**

Poster #	Title, Author(s), Affiliation(s)
B 1	COMPARISON OF TURN ALTERNATION FREQUENCIES IN NYMPH AND ADULT TURKESTAN COCKROACHES((BLATT IATERALIS);  Andrew K. Aboagye and Dr. Scott Kight; Department of Biology; Montclair State University, Montclair, NJ
B 2	THE EFFECT OF TRICLOSAN ON CAENORHABDITIS ELEGANS REPRODUCTION LOCOMOTION; William Hoffman, Amanda Favetta, and Dr. Edith Myers; Department of Biological and Allied Health Sciences, Fairleigh Dickinson University, Madison, NJ
В 3	THE BIOLOGY OF DESIRE: DOPAMINE MEDIATED SEEKING BEHAVIOR IN CHERRY SHRIMP (NEOCARIDINA DAVIDI);  Molly Mancuso and Dr. Josh Stout, School of Natural Sciences, Fairleigh Dickinson University, Teaneck, NJ
B 4	TRAUMATIC BRAIN INJURY: IN VIVO NEUROPROTECTIVE ROLE OF M- TYPE K+ CHANNELS3; <u>Lauren Poletti, Catherine Coleman</u> , and Dr. Sonya M. Bierbower, Department of Biology, William Paterson University, Wayne, NJ
B 5	COMPARISON OF CAPTIVE CAT AND DOMESTIC CAT (FELIS CATUS) BEHAVIOR USING A TAXONOMIC APPROACH; Griffin Talik and Dr. Brian Olechnowski; Department of Biological and Allied Health Sciences, Fairleigh Dickinson University, Madison, NJ
В 6	DO GIANT WATERBUGS RESPOND TO PREDATOR CUES? <u>Samantha Tedesco</u> , Johnny Hoant, and Dr. Scott Kight; Department of Biology, Montclair State University, Montclair, NJ

### CELL & MOLECULAR BIOLOGY I

CM 1	LONG-TERM EFFECTS OF HIGH LIGHT INTENSITIES ON THE FLORIDA
	RED-TIDE DINOFLAGELLATE, KARENIA BREVIS;
	<u>Unnati Chauhan</u> and Dr. Emily Monroe; Department of Biology,
	William Paterson University, Wayne, NJ
CM 2	BRAIN CB2 CANNABINOID RECEPTOR EXPRESS DURING NEURODEVELOPMENT
	AND IN TRANSGENIC MOR, DAT, DAT-CI AND SERT KNOCKOUT (KO) MICE;
	Monika Chung, Eugene Dennis, Susan Sgro, Dr. Claire Leonard, Norman Schanz
	and Dr. Emmanuel Onaivi;
	Department of Biology, William Paterson University, Wayne, NJ
CM 3	MOLECULAR CELL SIGNALING RESEARCH; Quiana Jones and Dr. Drew
	Cressman; Department of Biology, Sarah Lawrence College, Bronxville, NY

CM 4	THE EFFECTS OF AGING AND PROGERIA ON MICRONUCLEI FORMATION AND SUBSEQUENT DNA DAMAGE; <u>Kathleen Nevola</u> , <u>Kristen Allocco</u> , and Dr. Joseph Glavy; Department of Biomedical Engineering, Chemistry and Biological Sciences, Stevens Institute of Technology, Hoboken, NJ
CM 5	MICRONA EXPRESSION FOLLOWING LIPOPOLYSACCHARIDE-INDUCED INFLAMMATION OF RAT TESTIS; <u>Mitchell I. Parker</u> and Dr. Michael A. Palladino; Department of Biology, Monmouth University, Long Branch, NJ
CM 6	OXIDATIVE STRESS SUSCEPTIBLE GUANINE NUCLEOTIDE EXCHANGE FACTOR 1 (OSG-1) MEDIATED THERMOTOLERANCE IN THE HEAT SHOCK RESPONSE OF C. ELEGANS; Rahul P. Patel, Nicholas Scurato, And Dr. Federico Sesti; Department of Neuroscience and Cell Biology, Rutgers University, Piscataway, NJ
CM 7	GUT MIOCROBIOTA STABILIZATION CAN HELP REDUCE HEALTH RISKS; Mayte Rodriguez, Sharon Motatey, and Dr. Alice Benzecry; School of Natural Sciences, Fairleigh Dickinson University, Teaneck, NJ

# ECOLOGY, EVOLUTION & ENVIRONMENTAL SCIENCE I

E 1	<b>DEGLACIAL CLIMATE VARIABILITY IN NORTHERN NEW JERSEY INFERRED FROM A LAKE SEDIMENT CORE; </b> <u>Seth Getch</u> <sup>1</sup> , Kyle Hansen <sup>1</sup> , Dr. Michael Griffiths <sup>1</sup> , Dr. Stephanie Brachfield <sup>2</sup> , Michael DaSilva <sup>1</sup> , Tim Greendyk, Dr. Michael Sebetich <sup>1</sup> and Dr. Richard Pardi <sup>1</sup> ; <sup>1</sup> Department of Environmental Science, William Paterson University, Wayne, NJ; <sup>2</sup> Department of Earth & Environmental Science, Montclair State University, Montclair, NJ
E 2	STRENGTHENING THE CLIMATE SIGNAL IN TREE-RING RECORDS USING BLUE INTENSITY METHODS: GULF OF ALASKA; Kyle Hansen, Greg Wiles, Rose Oelkers and Dr. Nicole Davi; Department of Environmental Science, William Paterson University, Wayne, NJ
E 3	COMBINING AUTOCLAVING BEFORE EXTRACTION AND VERY HIGH SENSITIVITY PCR TO DETECT THE CAUSATIVE AGENT IN WHITE-NOSE SYNDROME IN ENVIRONMENTAL SAMPLES WITHOUT RISK OF SPREAD; Kadeem O'Gilvie, Derrick Dorph, and Dr. Kendall Martin, Department of Biology, William Paterson University, Wayne, NJ

ERRATICS; Odoardo Pacella <sup>2</sup> , Alex Bartholomew <sup>2</sup> , Harry Maisch IV <sup>3-</sup> 4, John Chamberlain <sup>3-4</sup> , and Dr. Martin Becker <sup>1</sup> ; (1) Department of Environmental Science, William Paterson University, Wayne, NJ (2) Geology Department, SUNY, New Paltz, NY, (3) Doctoral Program in Earth & Environmental Sciences, City University of New York Graduate Center, New York, NY (4) Department of Earth & Environmental Sciences, Brooklyn College, Brooklyn, NY	E 4	4, John Chamberlain <sup>3-4</sup> , and Dr. Martin Becker <sup>1</sup> ; (1) Department of Environmental Science, William Paterson University, Wayne, NJ (2) Geology Department, SUNY, New Paltz, NY, (3) Doctoral Program in Earth & Environmental Sciences, City University of New York Graduate Center, New York, NY (4) Department of Earth & Environmental Sciences,
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E 5	REGIONAL VARIATION IN NUTRIENT COMPOSITION OF GRASS HAYS; <u>Monica Pesek</u> <sup>1</sup> , Valerie Massi <sup>2</sup> , Kenith Conover <sup>3</sup> , Paul Sirois <sup>2</sup> , dr. Istvan Pelczer <sup>3</sup> , and Dr. Sarah Ralston <sup>1</sup> ; (1) Department of Animal Sciences, Rutgers University, New Brunswick, NJ; (2) Dairy One Forage Lab, Ithaca, NY; (3) Department of Chemistry, Princeton University, Princeton, NJ
E 6	FORAGING AND COMPETITIVE INTERACTIONS OF PASSERINE BIRDS AT FORESTED HABITAT EDGES; <u>Alex Smith</u> , and Dr. Brian Olechnowski, Department of Biological and Allied Health Services, Fairleigh Dickinson University, Madison, NJ
E 7	GHE PRODUCTION OF BYSSAL THREADS BY GEUKENSIA DEMISSA UNDER FOOD LIMITATIONS; Na'Vonna Turner, Navasha Angelucci, Christian Bojofrquez, Kaylee Saltos, and Dr. Allison Fitzgerald; Department of Biology, New Jersey City University, Jersey City, NJ
E 8	DNA BARCODE PHYLOGENY & DIVERSIFICATION OF CADDISFLIES IN WESTERN NORTH AMERICA; <u>Dana Weaver</u> , and Dr. Joseph Spagna; Department of Biology, William Paterson University, Wayne, NJ

## PHYSIOLOGY & TOXICOLOGY

PT 1	ACCELERATION OF FERMENTATION IN BREWERS YEAST THROUGH MUTAGENESIS WITH FORWARD SELECTION; <u>Safraz Bacchus</u> , Laura Harwell, and Dr. Ted Brummel, Biology Department, Long Island University, Valley
	Stream, NY
PT 2	THIEVES' AND PULLING OILS HAVE POWERFUL ANTIMICROBIAL EFFECTS ON TRICHOPHYTON RUBRUM, CANDIDA ALBICANS AND STAPHYLOCOCCUS AUREUS; Jessica Binkiewicz, Pamela Marte Perez, and Dr. Agnes Berki; Department of Natural and Physical Sciences, Caldwell University, Caldwell, NJ

PT 3	VINEGAR AND CITRIC ACID ARE POTENT ANTIBACTERIAL AGENTS; <u>Christina</u> <u>Blonski, Eva Suchar</u> , Janice Jacob, and Dr. Agnes Berki, Department of Natural and Physical Sciences, Caldwell University, Caldwell, NJ
PT 4	ISOLATION AND CHARACTERIZATION OF NADPH-CYTOCHROME P450 REDUCGTASE IN Aedes Albopictus, THE ASIAN TIGER MOSQUITO; Stephen Maksymiv, Matthew Leedom, and Dr. Lena Brattsten; Department of Entomology, Rutgers University, New Brunswick, NJ
PT 5	EFFECTS OF COPAMINE AND HALOPERIDOL ON ACTION POTENTIALS; <u>Lizzy Marin</u> , Haitham Orfali, Chloe Tanis, Tiana Lozano, and Dr. Marion McClary; School of Natural Sciences, Fairleigh Dickinson University, Teaneck, NJ
PT 6	INHIBITION OF BACTERIAL BIOFILM FORMATION USING CELL-FREE EXTRACTS OF A WIDE RANGE OF GRAM POSITIVE AND GRAM NEGATIVE BACTERIA; Shrushti Patel, Vaidehi Kathiria, Noemi Cruz and Dr. Meriem Bendaoud; Department of Biology, New Jersey City University, Jersey City, NJ
P T 7	TRANSGENERATIONAL EFFECTS OF BISPHENOL A AND BISPHENOL S ON ASPECTS OF REPRODUCTIVE SYSTEM FUNCTIONING IN CAENORHABDITIS ELEGANS; Suyapa Penalva-Lopez, Sophia Touri, and Dr. L. Twersky, Dr. J. Callahan and Dr. Maria Agapito; Department of Biology, Saint Peter's University, Jersey City, NJ
PT 8	CROSS TALK BETWEEN CELLULAR ORGANELLES DURING TAIL REGRESSIOIN IN TADPOLES XENOPUS LEAVIS; Sirai Ramirez, Adonis Rivie, and Dr. Jaishri Menon; Department of Biology, William Paterson University, Wayne, NJ
PT 9	CHANGES IN RESTING AND DIGESTIVE METABOLISM ASSOCIATED WITH AESTIVATION IN THE CHACOAN HORNED FROM (CERATOPHYRYS CRANWELLI); Daniel Ruvolo, and Dr. Joseph Agugliaro; Department of Biological & Allied Health Services, Fairleigh Dickinson University, Madison, NJ
PT 10	THE COLOCALIZATION OF CAMKIIα WITH GRIP AND INHIBITORY SYNAPSES USING NMDA AND GLUTAMATE AS A STIMULUS TO MIMIC BRAIN ACTIVITY; Edgar Tello, Kehinde Cole, and Dr. Reed Carroll; Biology Department New Jersey City University, Jersey City, NJ
PT 11	QUANTITATION OF ISLET OF LANGERHANS CELLS TRANSPLANTED IN STZ-INDUCED DIABETIC MICE THAT REVERSEDHYPERGLYCEMIA: A PROTEIN QUANTIFICATION ANALYSIS USING THE WESTERN BLOT; Erica Wu, and Dr. J.W. Lee; Department of Biology, William Paterson University, Wayne, NJ

### BIOCHEMISTRY

BC 1	REACTION OF SUCCINIC ACID WITH SUPEROXIDE DISMUTASE; Richard Boakey-
	<u>Marfo</u> , and Dr. Alfredo Castro; Department of Chemistry, Felician University,
	Lodi, NJ
BC 2	STUDIES IN THE FORMATION OF THE SIRNA-DOX COMPLEX; Heidi Elashal,
	Mateusz Kowalczyk, Victoria Blakey-Padilla and Dr. David Sabatino;
	Department of Chemistry and Biochemistry, Seton Hall University, South
	Orange, NJ
BC 3	HIGH PRESSURE USED TO ENHANCE SERUM AMINE OXIDASE FROM E.L COLI;
	Eugene Kang, Mikel Romero, and Dr. Mihaela Leonida; School of Natural
	Science, Fairleigh Dickinson University, Teaneck, NJ
BC 4	OVER-EXPRESSION AND PURIFICATION OF <i>E. COLI</i> RECOMBINATION PROTEIN
	RECR AND ITS INTERLOCKING MUTANTS USING VARIOUS PROTEIN
	CHROMATOGRAPHIC METHODS; Soo Jin Koo, Christine Jaipersaud, Jannifer
	Trabucco, and Dr. Seung-Sup Kim; Biochemistry Program, Ramapo College of New
DC F	Jersey, Mahwah, NJ
BC 5	THE EFFECTS OF MUTATING THE R283 SITE OF CIITA; <u>Hagerah Malik</u> and Dr. Drew Cressman, Biology Department, Sarah Lawrence College, Bronxville, NY
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BC 6	BIOCHEMICAL SYMBIOSIS IN THE ORAL CAVITY: THE ROLE OF P. BUCCAE
	PECTINOLYTIC ENZYMES IN SUSTAINING T. PARVUM ROWTH IN VITRO;
	Parandis Nejati, Marie Kwok, Ethan Santore, Veena Raja, Fadia Bazina, and
	Dr. Stephen Walker; Department of Oral Biology and Pathology, Stony Brook
	University, Stony Brook, NY
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BC 7	TANNIC ACID AS MODULATOR FOR THE RELEASE KINETICS OF NISIN FROM
	CHITOSAN NANOPARTICLES; Isabelle Nemeth, Bernieve Dabady, Dr. Mihaela
	Leonida and Dr. Alice Benzecry; School of Natural Science, Fairleigh
	Dickinson University, Teaneck, NJ
BC 8	HEURISTIC OF PREDICTING PROTEIN FLEXIBILITY ALONG SPECIFIC MODES;
	Sarah Ojinnaka, and Dr. David Snyder; Department of Chemistry, William
	Paterson University, Wayne, NJ

BC 9	MODULATION OF PEA-15 BINDING SPECIFICITY BY PHOSPHORYLATION AND
	POSSIBLE ROLES OF CHARGE-TIRAD RESIDUES IN MEADIATING
	CONFORMATIONAL CHANGES; Chanel Wright, Victor Leon, and Dr. Yufeng
	Wei; Department of Chemistry, New Jersey City University, Jersey City, NJ

## NANOCHEMISTRY

NC 1	THE ROLE OF POLYBUTADIENE IN THE SYNTHESIS OF NOVEL HYBRID METAL CATALYSTS; <u>Daniela Artiga</u> , <u>Erika Castelar</u> , Aarti Patel, Dr. Sonia Matthews, and Dr. Bhanu P.S. Chauhan; Department of Chemistry, William Paterson University, Wayne, NJ
NC 2	DYE MOLECULE-ANCHORED PLATINUM NANOCATALYSTS; <u>Peter Catsoulis¹</u> , Ian Weiss¹, Bowen Yang², Dr. Elena Galoppini¹, Dr. Alexander Agrios²; Chemistry Department, ¹Rutgers University, Newark, NJ; ²University of Connecticut, Storrs, CT
NC 3	INVESTIGATION OF NOVEL METAL RHODANINE NANOSTRUCTURES; <u>Tao Hong¹</u> , Aarti Patel², Dr. Moni Chauhan¹ and Dr. Bhanu P.S. Chauhan²; ¹Department of Chemistry, Queensborough Community College - CUNY, Bayside, NY; ²Department of Chemistry, William Paterson University, Wayne, NJ
NC 4	TOXICITYN OF ZncCl <sub>2</sub> NANOPARTICLES ON BACTERIA; <u>Milfred Jimenez</u> , Sara Rodriguez, Jackie Masteo, and Dr. Juyoung Ha; Department of Chemistry, Kean University, Union, NJ
NC 5	DIFFERENTIATION OF MESENCHYMAL STEM CELLS INTO FUNCTIONAL CARDIOMYOCYTES BY NANOPARTICLE-BASED TRANSCRIPTION FACTORS; <u>Busub Lee (Marcus)</u> , and Dr. Ki Bum Lee; Department of Chemistry and Chemistry Bioology; Rutgers University, New Brunswick, NJ
NC 6	ORGANIC HOST-GUES COMPLEXES FOR FUNCTIONALIZATION OF NANOSTRUCTURED SURFACES; <u>Penafrancia Malcampo</u> , Xiuyuan Ma, Hao Tang, and Dr. Elena Galoppini, Rutgers Univesity, Newark, NJ
NC 7	LIGHT INDUCED TOXICITY OF SILVER NANOPARTICLES PRODUCED BY LASER ABLATION; <u>Matthew Ratti</u> , and Dr. Eric Klein; Department of Biology & Physics, Rutgers University, Camden, NJ
NC 8	SINGLE-WALLED CARBON NANOTUBE-RUTHENIUM NANOPARTICLES COMPOSITES FOR AZO DYE DERADATION; <i>Nelson Tobar</i> , Nicholas <i>Carrero</i> , and Dr. Tirandai Hemraj-Benny; Department of Chemistry, Queensborough Community College - CUNY, Bayside, NY

### ORGANIC CHEMISTRY

OC 1	METAL FREE TER-PYRIDINE CATALYZED ALLYLATION OF ALDEHYDES AND KETONES; <u>Janine Almalel, Chelsea Sweet</u> , and Dr. Parminder Kaur, Department of Chemistry, William Paterson University, Wayne, NJ
OC 2	TRANSITION METAL-CATALYZED FUNCTIONALIZATION OF ALKYNES; <u>Sarah</u> <u>Ciccarelli</u> , and Dr. Yalan Xing; Department of Chemistry, William Paterson University, Wayne, NJ
OC 3	THE ACID-CATALYZED HETEROGENEOUS REACTION OF LIMONENE ON MINERAL DUST SURFACES; Zoe Coates Fuentes, Madeline Lederer, and Dr. Ryan Hinrichs; Chemistry Department, Drew University, Madison, NJ
OC 4	SILICA SCAFFOLDED NANOGOLD: A NEW CATALYSTS FOR HENRY REACTION; <u>Vicklyn Datilus, Andrew Patrizio,</u> Aarti Patel, Kelly Moran, Qiaxian Johnson, Dr. Parminder Kaur and Dr. Bhanu P.S. Chauhan; Department of Chemistry, William Paterson University, Wayne, NJ
OC 5	A NOVEL SYNTHETIC METHOD FOR THE PREPARATION OF [2H]-INDAZOLES;  Melissa Orlando, Jean Etersque, and Dr. Edward Salaski; Department of Chemistry and Pharmaceutical Science, Fairleigh Dickinson University, Madison, NJ
OC 6	OLEFIN METATHESIS IN THE UNDERGRADUATE ORGANIC LABORATORY; <u>Amran Hussain</u> , Thanuka Udumulla Arachchilage, Daniel Richiuso, and Dr. Sarah Carberry; Department of Chemistry, Ramapo College of New Jersey, Mahwah, NJ
OC 7	ENANTIOSELECTIVE SYNTHESIS OF ACTINOPOLYMORPHOL B AND ITS ANALOGS; Claudia Kim, Jolanta Jedryczka, and Dr. Yalan Xing; Department of Chemistry, William Paterson University, Wayne, NJ
OC 8	METHOLOGY TESTING ON COMPLEX SUBSTRATE, ETHISTERONE; John Lee, Carlos Chung, and Dr. Yalan Xing; Department of Chemistry, William Paterson University, Wayne, NJ
OC 9	SYNTHESIS OF A FLOUORENYL QUINOLONE MOLECULAR SWITCH; Kamran Namjouyan,and Dr. Kenneth Yamaguchi, Chemistry Department, New Jersey City University, Jersey City, NJ

## CELL & MOLECULAR BIOLOGY II

CM 7	EFFECTS OF PHOSPHATE LIMITATION ON GROWTH RAGTE, BREVETOXIN PRODUCTION, AND GENE EXPRESSION IN KARENA BREVIS, THE FLORIDA RED TIDE DINOFLAGELLATE; <u>Stephanie Costa</u> , and Dr. Emily Monroe; Department of Biology, William Paterson University, Wayne, NJ
CM 8	GLP-1 NEURAL CIRCUIT IN PVN REGULATES FEEDING BEHAVIOR; <u>Michel</u> <u>Mikhail</u> , and Dr. Zhiping Pang; Department of Neuroscience and Cell Biology, Rutgers University, New Brunswick, NJ
CM 9	BACTERIAL GROWTH STUDIES OF BUT MICROBES INCLUDING LACTOBACILLUS RHAMNOSUS GG AND ESCHERICHIA COLI HS USING UV-VIS SPECTROPHOTOMETRY AND QUANTITATIVE PCR (QPCR); <u>Devashri Parikh</u> , <u>Pritha Aggarwal</u> , Katerina Djambazova, and Dr., Seung-Sup Kim; Biochemistry Program, Ramapo College of New Jersey, Mahwah, NJ
CM 10	DESIGN OF A GENE TRANSFER VECTOR TO DELIVER A STABILIZED ANTI-EGFR RNA APTAMER TO THE GLIOBLASTOMA MICROENVIRONMENT; <u>Suchin Parikh</u> , and Dr. Martin Hicks; Department of Biology, Monmouth University, West Long Branch, NJ
CM 11	ANALYSIS OF OKP1 GFP LOCALIZATION IN A TEMPERATURE SENSITIVE YEAST MUTANT; Nicole Umberto, Mouna Wehbeh, and Dr. Patricia Melloy, Department of Biological and Allied Health Sciences, Fairleigh Dickinson University, Madison, NJ
CM 12	CONSTRUCTION OF NUCLEAR LOCALIZATION SIGNAL MUTANTS OF MOUSE HSF1 BETA AND GAMMA; <u>Jessica William, Kel Lee Hassman</u> , and Dr. Nancy Bachman; Biology Department, SUNY Onenonta, Oneonta, NY

CM 13	COMPUTATION SCREENING AND EVALUATION OF MATRIX METALLOPROTEINASE-9 INHIBITORS; Paulina Cotzomi, Monica Jankowicz, and Dr. Ish Kumar; School of Natural Sciences, Fairleigh Dickinson University, Teaneck, NJ
CM 14	THE REGULATION OF MTOR SIGNALING BY CD44 IN BREAST CANCER;  Nourhan Diagham, Corinne Corbi, Pierta Brites, and Dr. Kyle Murphy;  Department of Biochemisgtry and Microbiology, Rutgers University, New Brunswick, NJ
CM 15	VIRTUAL SCREENING OF LIGANGS TARGETING 6TM SPLICE VARIANTS OF Mu-OPIOID RECEPTORS: TO IDENTIFY NOVEL ANALGESIES COMPARABLE TO IBNtxA; Cecilia Floyd, Ashleigh McConnel, Paige Fisher, and Dr. Chun Wu; Translational Biomedical Science, Rowan University, Pitman, NJ

CM 16	<b>EXAMINING THE ROLE OF FASCIN IN GLIOMA;</b> <i>Faraz Jamal</i> , and Dr. Cathryn Kubera; Department of Biology, Monmouth University, Long Branch, NJ
CM 17	COMPUTATIONAL AND BIOLOGICAL STUDY OF THE CDC20-50 MUTANT OF THE MITOTIC CHECKPOINT COMPLEX IN BUDDING YEAST; Mary Soorial, Dr. Gloria Anderle^, and Dr. Patricia Melloy*; ^Department of Chemistry and Pharmaceutical; Science, *Department of Biological and Allied Health Science, Fairleigh Dickinson University, Madison, NJ
CM 18	NURD MACHINERY REGULATES MEIOTIC DOUBLE-STRAINED BREAKS; <u>Carolyn Turcotte</u> , Julia Rigothia, Erika Rosenkranse, and Dr. Paula Checchi, Biology Department, Marist College, Poughkeepsie, NY
CM 19	OPTIMIZATION OF AUTODOCK VINA TO STUDY NATURAL PRODUCTS; <u>Chris</u> <u>Wakim</u> and Dr. Sonia Arora; Plant Biology and Biotechnology, Rutgers University, New Brunswick, NJ

## ECOLOGY, EVOLUTION & ENVIRONMENTAL SCIENCE II

E 8	LIGHTEN UP: GENETICS OF COAT COLOR EVOLUTION IN THE HONDURAN WHITE BAT, ECTOPHYLLA ALBA; Ramatu Abubakar, and Dr. Liliana Davalos; Department of Ecology and Evolution, Stony Brook University, Stony Brook, NY
E 9	A QUEST FOR NOVEL ANTIBIOTIC PRODUCING BACTERIA THROUGH SOIL DIGGING; Noemi Cruz, Shrushti Patel, Vaidehi Kathiria, and Dr. Meriem Bendaoud, Department of Biology, New Jersey City University, Jersey City, NJ
E 10	EFFECTS OF ROAD RUNOFF CHEMICALS ON CRAYFISH FORAGING BEHAVIOR; <u>Amy Defnet</u> 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; <u>Jessica Geary</u> , 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; <u>Rachel</u> <u>Daniel</u> , 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; <u>Medha Dommaraju</u> 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; <u>Sarah Falotico¹</u> , 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; <u>Brigid Masker</u> 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

## COMPUTATIONAL & PHYSICAL CHEMISTRY

C P 1	COMPUTATIONAL MODELING OF HYDROXAMIC ACID CONTAINING COMPOUNDS TO IMPROVE METAL CHELATION; <i>Karan Arora</i> , 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; <u>Roksana Azad</u> , Muhaned Mohamed, Pamela Lebron, and Dr. Ruel Z.B.  Desamero; Department of Chemistry, CUNY-York College, Jamica, NY
C P 3	SCATTERING MEDIATED HOT-ELECTRON TRANSER: A NEW PARADIGM FOR LIGHT-DRIVEN ENERGY TRANSFER; Jessica Czarnecki, Noor Eldabagh, Juan Pulgarin, Jason Coddrington, and Dr. Jay Foley, Department of Chemistry, William Paterson University, Wayne, NJ
C P 4	PURIFICATION AND ANALYSIS OF ANTIMICROBIAL COMPOUNDS FROM THE TRUMPET VINE; <u>Brittany Handzo</u> , <u>Jeffrey Courter</u> , Dr. Alice Benzecry, and Dr. Ish Kumar; School of Natural Sciences, Fairleigh Dickinson University, Teaneck, NJ
C P 5	MODELING SELECTIVITY OF BINDING OF POLYCYCLIC AROMATIC LIGANDS TO DNA; <u>Erin Hoag, Katlynn Muratore</u> , Marie Furda, Crystal Diaz, and Dr. Cmytro Kosenkov; Department of Chemistry and Physics, Monmouth University, West Long Branch, NJ
C P 6	DETERMINING PROTEINS STRUCTURE USING NMR: MORE INCLUSIVE CORES IDENTIFIED BY FINDCORE2 AND CYRANGE IN MR CALCULATIONS; <u>Amaal Kalds</u> and Dr. David Snyder; Department of Chemistry, William Paterson University, Wayne, NJ
C P 7	TIME-DOMAIN NMR ANALYSIS OF COMPOSITION OF GRASS AND HAY; <u>Minhaz</u> <u>Mahbub¹, Daniel Ferlisi²</u> , 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; Dairy One Forage Lab, Ithaca, NY
C P 8	COST-EFFICIENT PURIFICAITON OF TYROSINASE; Venkatashiva Patnala, Christina Kohn, and Dr. David Snyder, Department of Chemistry, William Paterson University, Wayne, NJ

C P 9

STRUCTURAL UNCERTAINTY IN PROTEINS: A STATISTICAL APPROACH TO UNDERSTANDING THE UNCERTAINTY IN POSITIONS OF CARBONYL OXYGEN ATOMS AND ALPHA CARBONS IN NMR-DERIVED STRUCTURES; Sam Russo and Dr. David Snyder; Department of Chemistry, William Paterson University, Wayne, NJ

### INORGANIC & BIOANALYTICAL CHEMISTRY

IC 1	INTERNALIZATION OF FLUORESCENT NANOPARTICLES BY THE MURINE LEUKEMIA CELLS: IN VITRO EXAMINATION OF NANOPARTICLE COMPARTMENTALIZATION; <u>Daniela Artiga¹, ²</u> , Aarti Patel², Dr. Bhanu P.S. Chauhan², Dr. J.W. Lee¹; ¹Department of Biology; ²Deparmtment of Chemistry; William Paterson University, Wayne, NJ
IC 2	DESTRUCTION OF CHLOROFLUOROCARBONS IN NON-THERMAL PLASMA; <u>Stefani</u> <u>Kocevska</u> , 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; <i>Rania Teriak</i> , <i>Kimberly Valdivia</i> , and Dr. Parminder Kaur; Department of Chemistry, William Paterson University, Wayne, NJ
IC 6	EXPLORING THE NEW HORIZONS OF MES-BIAN VANADIUM CHEMISTRY; <u>Noriyo Onishi<sup>1</sup></u> , <u>Gabrielle Risica<sup>1</sup></u> , Namkhang Tsdamchoe <sup>1</sup> , Julie Nicklas <sup>2</sup> , Dr.Colin Abernethy <sup>1</sup> , and Dr. John Gorden <sup>2</sup> ; <sup>1</sup> Department of Chemistry, Sarah Lawrence college, New York, NY; <sup>2</sup> Department of Chemistry, Auburn University, Auburn, AL

### MATERIAL CHEMISTRY

M 1	Mg-Fe LAYERED DOUBLE HYDROXIDES STRUCTURE AND MORPHOLOGY; <u>David Akpatsu<sup>1</sup></u> , Jonathan Gabriel <sup>1</sup> , Aarti Patel <sup>1</sup> , Dr. Andrei Jitianu <sup>2</sup> , and Dr. Mihaela Jitianu <sup>1</sup> ; <sup>1</sup> Department of Chemistry, William Paterson University, Wayne, NJ; <sup>2</sup> Department of Chemistry, CUNY-Lehman College, West Bronx, NY
M 2	STUDY OF FORMATION OF HYDROXYAPATITE; <u>Martin Kowaleff</u> , 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; <u>Shiv</u> <u>Misra</u> and Dr. Elena Galoppini, Chemistry Department, Rutgers University, Newark, NJ
M 5	A COMPARATIVE ANALYSIS OF NEW GENERATION METAL-IMPREGNATED NANOMATERIALS; <i>Kelly Moran</i> , 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; <u>Glory Nkak</u> , 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 Rodriguez <sup>1</sup> , Tim McClurg <sup>2</sup> , Dr. Mihaela Jitianu <sup>2</sup> , Dr. Andrei Jitianu <sup>1</sup> , and Dr. Lisa Klein <sup>3</sup> ; <sup>1</sup> Department of Chemistry, Lehman College, CUNY, Davis Hall, West, Bronx, NY
M 8	Co(II)- Ni(II)- And Mg(II)- LAYERED HYDROXIDES COMPARATIVE STUDY; Feras Saifan <sup>1</sup> , David Akpatsu <sup>1</sup> , Dr. Andrei Jitianu <sup>2</sup> and Dr. Mihaela Jitianu <sup>1</sup> ;   ¹Department of Chemistry, William Paterson University, Wayne, NJ;  ²Department of Chemistry CNNY-Lehman College, West Bronx, NY