CANNABINOID SYSTEM: CANNABINOID RECEPTOR (CBR) GENES, GENE STRUCTURES, REGULATION AND VARIATION: Larissa Nkouami Pamen¹, Dr. Claire Leonard¹, Dr. Omaira Barba¹, Dr. George Uh^{2;} and Dr. Emmanuel Onaivi¹; ¹Biology Department, William Paterson University of New Jersey & ²Molecular Neurobiology Branch, NIDA-NIH

CD38 LEVELS IN THE HYPOTHALAMUS AND CORTEX OF BTBR AND C57 BL/6J MICE: *Heidi Rogers* and Dr. Eileen Gardner; Biology Department, William Paterson University of New Jersey

PIWI-LIKE 1 PROTEIN IS REQUIRED FOR PROPER MIGRATION OF EARLY BORN NEOCORTICAL NEURONS: *Marina Dutra-Clarke* and Dr. Mladen-Roko Rasin; Department of Neuroscience & Cell Biology, UMDNJ

CHARACTERIZATION OF A MUTATION IN A REGULATOR OF NEUROTRANSMISSION-NEURNAL CALCIUM SENSOR-1 IS IMPLICATED IN AUTISM: *Michael Gonzalez*, *Ama Berko*, David Fleischman, Dongjin Oh, Serdar Sadir and Dr. Jamie Weiss; Department of Biology, William Paterson University of New Jersey

INSULIN DISREGULATION AND NEURODEGENERATION: A POSSIBLE ROLE FOR CDK5: Daniel Emerson Khost, Renita Cotton and Dr. Ann Aguanno; Department of Natural Sciences, Marymount Manhattan College

INVESTIGATING THE ROLE OF VASP IN HOST CELL RESPONSE TO *CRYPTOSPORIDUM PARVUM* INFECTION: *Nazary Nebeluk** and Dr. David Zuzga**; *Department of Chemistry and Physical Sciences, and **Department of Biology and Life Sciences, Pace University

SWAMP PINK GENETICS: EVALUATION OF POPULATION STRUCTURE USING AFLP: Lynnicia Massenburg and Dr. Ari Novy; Department of Plant Biology and Pathology, Rutgers University

SCHOHARIE FORMATION (LOWER DEVONIAN) GLACIAL ERRATICS FROM THE PREAKNESS FORMATOIN (LOWER JURASSIC) OF HIGH MOUNTAIN, PASSAIC COUNTY, NEW JERSEY: Andrew O'Brien³, Amber Koney1, Alex Bartholomew, John Cutuli2 and Dr. Martin Becker1; ³Department of Environmental Science and 1Department of Biology, William Paterson University of New Jersey and 2Geology Department, SUNY

EXPLORING THE BIODIVERSITY MYSTERY OF SOUTH AMERICA: Elizabeth DeSmet and Dr. Eric Karlin; Department of Environmental Science; Ramapo College of New Jersey

HYBRIDIZATION AND SPECIES DIVERSITY IN SPHAGNUM SUBGENUS SPHAGNUM: Elizabeth DeSmet and Dr. Eric Karlin;

Department of Environmental Science; Ramapo College of New Jersey

NEW JERSEY AMMOPHILA BREVILIGULATA STRAINS SHOW SIMILAR PHYSIOLOGY TRAITS TO THE 'CAPE' VARIETY: Nelson Araujo, Nicholas Margo and Dr. Michael Peek; Department of Biology, William Paterson University of New Jersey

THE EFFECT OF WASTE WATER EFFLUENT ON ALGAL PERIPHYTON BIOMASS AND SPECIES DIVERSITY: Jessica Dingman and Dr. James Salierno, Department of Biology, Fairleigh Dickinson University

PATCHOGUE RIVERSYSTEM EUTROPHICATION AND REMEDIATION: Amanda Gardner, Jon Hoff, Janelle Sarbak-Boesch, and Dr. Mohammad Rana;

Biology Department. St. Joseph's College

SELENASTRUM CAPRICORNUTUM GROWTH IN RIVER WATER CONTAINING WASTE WATER EFFLUENT: Martha Mahady and Dr. James Salierno; Department of Biological and Allied Health Sciences, Fairleigh Dickinson University

GENOTYPIC DIVERSITY IN NATIVE NEW JERSEY POPULATIONS OF AMMOPHILA BREVILIGULATA (AMERICAN BEACHGRASS): Joanna Wresilo, Dr. Michael Peek and Dr. David Slaymaker; Department of Biology, William Paterson University of New Jersey

CHARACTERIZATION OF MAGNETICALLY ALIGNED ORGANIC SEMICONDUCTORS: Bhavika Patel and Dr. Gary Gerardi, Department of Chemistry, William Paterson University of New Jersey

FUNGAL BIOMASS STUDIES: DETERMINING ERGOSTEROL CONCENTRATION IN SOIL SAMPLES FROM NATIVE AND INVASIVE TREE SPECIES BY USE OF HPLC WITH UV SPECTROSCOPY: Alexa Bogstahl and Dr. Janet Kaydos Berthel; Chemistry Department, College of St. Elizabeth

INTERACTIONS OF PHOSPHATE WITH DIFFERENT METALS MONITORED BY VIBRATIONAL SPECTROSCOPY: Amanda Falade, Arianna Porrata-Doria, and Dr. Elmer-Rico Mojica, Department of Chemistry and Physical Sciences, Pace University

GENERATION OF HETROGENEOUS CATALYSTS USING

COPOLYMERIZATION/GELIFICATION OF SILOXANES WITH TRANSITION METAL SALTS: Joseph Flores, Swetha Matam and Dr. Bhanu P.S. Chauhan, Department of Chemistry, William Paterson University of New Jersey

HYDROTALCITY AND PYROAURITE – SYHNTHESIS AND RHEOOLGY: Roman Gavenko, Joseph Petrosi and Dr. Mihaela Jitianu, Department of Chemistry, William Paterson University of New Jersey

ONE POT SYNTHESIS OF SILICA-SILVER CONJUGATES AND THEIR CONVERSION TO SILICA COATED SILVER NANO-OBJECTS: Kate (Kyujin) Lee, Tejal Surti, Swetha Matam and Dr. Bhanu P.S. Chauhan; Department of Chemistry, William Paterson University of New Jersey

RHEOLOGICAL ASPECTS OF ORGANIC MODIFIED SILICA GELS: Michael Stamper1, Doreen Aboagye2, Dr. Mihaela Jitianu1 and Dr. Andrei Jitianu2, 1Department of Chemistry, William Paterson University of New Jersey and 2Department of Chemistry, Lehman College

SACCHAROMYCES CEREVISIAE SEPTIN STABILITY AT NON-PERMISSIVE TEMPERATURE AND ITS EFFECT ON NUCLEAR FISSION: Khrystyna Romanyshyn, Alexander Tess and Dr. Patricia Melloy, Department of Biological and Allied Health Sciences, Fairleigh Dickinson University

STUDYING THE EFFECTS OF CDC23 MUTANTS ON THE LOCALIZATOIN OF ANAPHASE-PROMOTING COMPLEX ACTIVATOR CDC20 IN SACCHARYOMYCES CEREVISIAE: Emma Quigley, Matthew Garbin and Dr. Patricia Melloy, Department of Biological and Allied Health Sciences, Fairleigh Dickinson University

E1F2AK4 REGULATES TIMES m RNA TRANSLATION EVENTS IN DEEP NEOCORTICAL LAYERS: Kristina Sakers and Dr. Mladen-Roko Rasin;

Department of Neuroscience and Cell Biology, Rutgers University, UMDNJ

POSTNATAL FMRP EXPRESSION AND DEVELOPMENT OF NEOCORTICAL PROJECTION NEURONS ARE INTERRUPTED AT MID-GESTATION BY TRANSIENT INTRAURINE ISCHEMIA: Sagara Wijeratne1, 2, Sania Sandhu1, 2, and Dr. Matthew Kraushar, and Dr. Mladen-Roko Rasin; Department of Neuroscience and Cell Biology, 1Rutgers University and 2UMDNJ

CAPSAICIN INDUCED OPTIC NERVE DAMAGE IN ZEBRAFISH: A MODEL OF TRANS-NEURONAL DEGENERATION: Maximillian Lucci, Michael Broe, Christopher Corbo, Michael Gutkin and Dr. Zoltan Fulop; Biological Sciencesz, Wagner College

E1F4E PHOSPHORYLATION AND PROTEIN EXPRESSION PROMOTED BY CURCUMIN AFTER SPINAL CORD INJURY: Katarina Yaros1*, Aditi Dubey*, Kevin Thompson, Victoria DiBona and Dr. Mladen-Roko Rasin; Department of Neuroscience and Cell Biology, 1Rutgers University and UMDNJ (*equal Contribution)

OXIDATIVE STRESS AND ANTIOXIDANT DEFENSES DURING TAIL REGRESSION IN TADPOLES, XENOPUS LAEVIS: William Manzo, Paige Appleton, Dr. Jaishri Menon and Dr. Eileen Gardner; Department of Biology, William Paterson University of New Jersey

TAIL REGENERATION IN XENOPUS LEVIS: A MODEL FOR UNDERSTANDING ACTION OF MATRIX METALLOPROTEINASE (MMPs) AND TISSUE INHIBITORS OF MMPs (TIMPs): Obinna Onyekwere and Dr. Jaishri Menon; Department of Biology, William Paterson University of New Jersey

LEVERAGING HOMOLOGY AND SEQUENCE INFORMATION IN THE PREDICTION OF PROTEIN FLEXIBILITY: Ashley Miranda, Jennifer Grullon, Mamoun Hamdeh, Bhavika Patel and Dr.

David A. Snyder; Department of Chemistry, William Paterson University of New Jersey

DISCREPANCY IN THIONIN-BASED ASSAY OF CHLOROPEROXIDASE ACTIVITY: Ashley Pirovano and

Dr. Alessandra Leri: Department of Natural Sciences, Marymount Manhattan College

THE AFFECTS OF IMIDACLOPRID ON HONEY BEE COLONY HEALTH AND PRODUCTIVITY: Ashley Miranda and Dr. David Gilley;

Department of Biology, William Paterson University of New Jersey

CHARACTERIZING C.ELEGANS BEHAVIORAL RESPONSES TO

PATHOGENIC BACTERIA: Mona Gardner, Thomas Graciano, Dr. June Middleton and Dr. Edith Myers; Biologcal and Allied Health Department, Fairleigh Dickinson University

THE FRUIT FLY: A TRACTABLE SYSTEM TO STUDY TOLERANCE TO LOW TEMPERATURES: David Luor1, Kosha Parikh1, Daniel Shain1, 2, and Dr. Nir Yakoby1, 2; 1Biology Department, 2Center for Computational and Integrative Biology, Rutgers University

SOCIAL BEHAVIOR IN BTBR T+tf/J AND C57BL/6J MICE AND THE ROLE OF VASOPRESSIN IN MEDIATING THIS RESPONSE: Tomiko Rendon and Dr. Robert Benno; Department of Biology, William Paterson University of New Jersey

CYCLIC SILAZANES AS REDUCING AGENT AND HOSTS FOR SILVER

NANOPARTICLES: Alyx Weaver, Swetha Matam and Dr. Bhanu P.S. Chauhan;

Department of Chemistry, William Paterson University of New Jersey

BINDING OF PROTEINS WITH DIFFERENT NANOMATERIALS: David Collins,

Claudia Sobolewski, and Dr. Elmer-Rico Mojica; Department of Chemistry and

Physical Sciences, Pace University

A NEW APPROACH TO GOLD NANOPARTICLES: Catherine Abaid, Swetha Matam and Dr. Bhanu P.S. Chauhan; Department of Chemistry, William Paterson University of New Jersey

DELAMINATION – CO STACING: A METHOD FOR OBTAINING ANIONIC

CLAYS NANOCOMPOSITES: Darren Gunness, Amanda Muraca, and Dr. Mihaela

Jitiano; Department of Chemistry, William Paterson University of New Jersey

AMINE AND SILICA STABILIZED SILVER NANOPARTICLES: Aimen Khawaja, Swetha Matam and Dr. Bhanu P.S. Chauhan, Department of Chemistry, William

Paterson University of New Jersey

SCREENING OF VARIOUS NANOMATERIALS FOR THE REMOVAL OF LEAD

IONS IN AQUEOUS SAMPLES: Arianna Porrata-Doria, Amanda Falade and Dr. Elmer-Rico

Mojica; Department of Chemistry and Physical Sciences, Pace University

DEVELOPOMENT OF BETULIN BASED SMALL MOLECULES AS

POTENTIAL ANTI-CANCER AGENTS: *Kathleen Twomey, Michael Corsello* and Dr.

Subash Jonnalagadda; Department of Chemistry and Biochemistry, Rowan University

A QUANTITATIVE ANALYSIS OF BIOACTIVE COMPONENTS IN LICORICE

ROOT EXTRACTS: Christopher Dirusso and Dr. Suparna Bhalla; Division of Natural Science Mount St. Mary College

Science, Mount St. Mary College

EXPERIMENTAL VALIDATION OF PREDICTED LIGAND SPECIFICITY DETERMINING RESIDUES IN THE DEIHYDROFOLATE REDUCTASE

FAMILY: *Michael Little*

and Dr. Nina M. Goodey; Chemistry Department, Montclair State University

SPECTROSCOPIC PROPERTIES OF TETRACYCLINES: Mariya Rozov and Dr.

Elmer-Rico Mojica; Department of Chemistry and Physical Sciences, Pace University

DETERMINING THE LOCALIZATION OF TIMEM120B: *Christina Sedberry* and Dr. Joseph Glavy; Chemistry, Chemical Biology and Biomedical Engineering, Stevens

Institute of Technology

SYNTHESIS OF LIPOPHILIC a-ACETOXYAMIDES VIA MULTICOMPONENT

COUPLING REACTIONS: Christopher Sleet, Bryan Penczuk and Dr. Subash

Jonnalagadda; Department of Chemistry and Biochemistry, Rowan University

HIGH-DEFINITION NMR STRUCTURE OF PED/PEA-15 DEATH EFFECTOR

DOMAIN ALLOWS ASSESSMENT OF KEY SIDE CHAIN INTERACTIONS ON

THE PROTEIN SURFACE: Edward Twomey¹ and Dr. Yufeng Wei^{1, 2}; Department of Chemistry and Biochemistry, ¹Seton Hall University and ²Rockefeller University