

## 2011 SYMPOSIUM

### Biochemistry/Biophysics

Pathogenesis-related Mutations in the T-Loops of Human Mitochondrial tRNAs Affect 3' End Processing and tRNA Structure

**Dmitri Serjanov, Kyla-Gaye Pinnock, Louis Levinger**

Probing Aromatic Peptide Aggregation Using Spectroscopy

**Valentina S Felsen, Justina Chinwong, Ruel Desamero, Adam Profit**

### Biology

Generation of mutated forms of Leishmania major phosphatidylethanolamine methyltransferase LmPEM1

**Subbhalakshmi Dhalladoo, Tongtong Zhu**

Effect of Ganoderma Lucidum on the Migration of Human Breast Cancer Cells

**Di Wu, Regina Sullivan**

SUMO proteins may regulate head reshaping, capacitation, and stress response in human sperm

**Jordana Schneider**

Comparison of Copper Surface Mediated Toxicity in Gram Positive and Gram Negative Bacteria

**Phyo Thu, Janet Long, Nidhi Gadura**

Understanding the mechanisms of Copper induced, Lipid peroxidation mediated cell death in Saccharomyces cerevisiae

**Jasodra Ramlall, Nidhi Gadura**

Impact of plasma membrane Unsaturated Fatty Acids levels on Copper Surface mediated cell death in E.coli

**Bo Zhi Robert Hong, Nidhi Gadura**

Effect of Co-Enzyme on Cancer Cell Proliferation and Survival

**Shawna Benjamin, Maria L Cotrina, Regina Sullivan**

Pro-oxidant and pro-apoptotic activities of olive fruit extract toward oral carcinoma cells.

**Jennifer Lazaros, Erica Michelle Hasten, Alyssa Schuck, Harvey Babich**

Effect of VEGF on Glucose Transporter 1 during Status Epilepticus

**Bobby Thomas**

Effect of Carnitine on Brain Cell Survival

**Jose Zhagnay, Maria L Cotrina**

Effect of L-Carnitine on Breast Cancer Cell Migration

**Adam McConnell, Maria L Cotrina, Regina Sullivan**

Analysis of Bortezomib-Induced Nuclear Translocation of I $\kappa$ B $\alpha$  In Metastatic Prostate Cancer Cells

**Subrata Manna, Adeel Zubair, Ivana Vancurova**

The Effect of HIF2 alpha on Cell Growth and Cell Survival

**Cathy Meng Hao, Yatrik Shah**

### Chemistry

Density Function Theory Study on the Reaction of Deprotonated Tyrosine [Tyr-H]<sup>-</sup> with Singlet Molecular Oxygen

**Kallol Mitra**

Heavy Metals in Golf Balls by X-Ray Fluorescence (XRF) Spectrophotometry

**Andre Hugh Smithson**

Reactivity of Tris (trimethylsilyl) Phosphite in the Synthesis of the N-Mustard Bisphosphonic Acid of Bicine and Phenylalanine

**Luis Vargas, Marjorie Morales, Kevin Chavez**

Determination of Copper Content of the US Penny by X-Ray Fluorescence, Visible Spectroscopy and Gravimetric Method

**Sharda Jagdeo**

Concentration Dependence of Refractive Index Measured by a Laser Pointer: Refractive Index vs. Concentration

**Rebecca Cho**

Determination and Applications of the Van 't Hoff factor Using Microscale Freezing Point Determination Measurements

**Fathima Nazmudeen, Paris Svoronos, Mario Balducci, Pedro Irigoyen**

An unusual porous and spherical micro-scale morphology for poly(o-toluidine)

**Daniel LaFaurie, David M. Sarno**

Nanofibers co-polymerized from aniline and sulfonated aniline for electrostatic interaction with gold nanoparticles

**Engred Vanegas, David M. Sarno**

The Probing Zinc-Tetracycline Using Vibrational Spectroscopy

**Jinnette Tolentino**

*A Thermoresponsive Multicolor Colloidal Photonic Crystal Based on Polymeric Core-Shell Microspheres*

**Saad Syed, Man Kin Chow**

Synthesis and behavior of 6-Bromoindigo

**XiaoMei Ye, Sasan Karimi, Pedro Irigoyen**

### Engineering

Rainfall patterns in specific regions of Africa

**Delroy Wills**

Feasibility of using Electronic Health Record Temperature Dependence of Refractive Index Determined by a

**Esther Yang**

Fluorinated Solvent Processing for Organic Optoelectronic Applications

**Ilana Shimunov, Marshall Cox, Ioannis Kymissis**

Design of Low-Cost Thermophilic Microbial Fuel Cell for Sustainable Wastewater Treatment

**Nathan Winkler**

Designing, Breadboarding, Testing, Troubleshooting, and Constructing a Life Guard Alarm Unit

**John Buoncora, Dane Burkett**

Designing, Constructing, Programming, and Debugging an Autonomous Robot

**Gregory Kissoon, John Buoncora**

Female Energy Supply Lines: A Study of Firewood in Northern Ghana

**Madeline Russell Foster**

Water Usage and Availability in Bongo's Communities: Research Leading to the Development of an Indigenous Fluoride

**Jessica Marie Friscia**

Osteoblast Precursor Cells Need the Pyrophosphate Transporter ANKH in Order to Sense and Respond to Mechanical

**Alen Trubelja, Kristen Lee, Christopher Jacobs**

Testing the ForTraCC model for short term forecasting of cloud movement and life cycle

**Xiaoqian Pan**

Variability of cloudiness and water vapor content over the Caribbean using ISCCP data

**Alma Cabral Reynoso**

Automated Software Testing & Deployment; The Graphyte Web Toolkit

**Carl Chinatomby**