



Annual Biochemistry and Chemistry Day

April 8 – 9, 2022

Schedule

Friday, April 8th

Location: CCSB G.0208

4:00 pm – 4:10 pm	Welcome Address	Dr. Keith Pannell Dr. James Li
4:10 pm – 5:10 pm	Keynote Speaker	Dr. Mahesh Narayan <i>“Chemistry from 2020 upto 2020 Too (This seminar will be delivered non-linearly)”</i>
5:10 pm – 6:10 pm		Asiel Mena-Jimenez <i>“Sterically encumbering ligands for the synthesis and stabilization of late transition metal nitrides”</i>

Saturday, April 9th

Location: CCSB G.0208

9:00 am – 10:00 am		Jesus Cantu <i>“Assessing plant growth and fruit quality of candyland red tomatoes exposed to various synthesized metal oxide nanoparticles”</i>
10:00 am – 10:45 am		Coffee Break and Poster Session I
10:45 am – 11:45 am		Dr. Mark Chen, Lehigh University <i>“Open-Shell Molecules: A Radical Design for Organic Optoelectronic Materials”</i>
11:45 am – 12:45 pm		Jyoti Ahlawat <i>“Nanotechnology-based approaches to mitigate environmental pollutants-induced neurological disorders”</i>



Department of Chemistry and Biochemistry

12:45 pm – 1:45 pm	Lunch (CCSB Ground Floor Courtyard or CCSB 1 st Floor near Starbucks)
1:45 pm – 2:45 pm	Anil T. Mangla, PhD, MS, MPH, FRSPH, State Epidemiologist, Epidemiology, Surveillance, and Reporting COVID-19, Center for Policy, Planning and Evaluation, DC <i>“COVID-19 and Beyond”</i>
2:45 pm – 3:45 pm	Carolina Valdes-Bracamontes <i>“Variations in copper form exposure differentially modulate Zea mays physiological responses”</i>
3:45 pm – 4:30 pm	Coffee Break and Poster Session II
4:30 pm – 5:30 pm	Mariana Marcos-Hernandez <i>“Rational design of composite nanomaterials with water treatment applications”</i>
5:30 pm	Poster Awards Announcement



Poster Presentations

1. Ahsan Habib (Lee group). *In-situ* multi-residue derivatization and extraction of Per- and polyfluoroalkyl substances (PFASs) using stir bar sorptive extraction coupled with GC-MS.
2. Lissette Garcia-Enriquez (Sreepasad group). Covalent organic frameworks with on-demand applications.
3. Jonathan Calvillo (Villagran group). Electrochemical detection of PFOA with a glassy carbon electrode modified with AuNPs.
4. Kenneth Flores (Gardea-Torresdey group). Targeting metal impurities for the detection and quantification of carbon black particles in water via spICP-MS.
5. Neidy Ocuane (Villagran group). Synthesis of metallated organic polymers for electrocatalysis.
6. Aruna Nair (Sreenivasan group). Magnetic field enhanced electrocatalytic water oxidation.
7. Sheng Yin (Villagran group). MgAl₂O₄@CNTs for PFOA adsorption.
8. Elizabeth Noriega Landa (Lee group). Fatty acid biomarkers for non-invasive prostate cancer detection.
9. Angelica Chacon (Lee group). Removal of nonylphenol from water using alginate-activated carbon beads.
10. Eileni Rodriguez Gil (Michael group). Specific recognition of β -galactofuranosyl-containing glycans by sera from chronic Chagas disease patients.
11. Payam Kelich (Vukovic group). Discovery of DNA-carbon nanotube sensors for serotonin with machine learning and near-infrared fluorescence spectroscopy.
12. Gabriela Molina Aguirre (Pinter group). Quest for effective smart molecular probes for early diagnosis of Alzheimer's disease via ground- and excited-state DFT simulations.
13. Armando Peña-Duarte (Cabrera group). Oxygen electrocatalysis - Energy conversion and space applications.
14. Christian Sandoval Pauker (Pinter group). Characterization of oxidative and reductive quenching cycles of Cu(I) photoredox catalysts using effective oxidation state analysis and quasi restricted orbitals.
15. Daniel Gómez Bustos (Pinter group). Conformer effect in excited state lifetime and redox potentials of cyclometalated iridium(III) complexes.
16. Zhaobo Li (Bernal group). Structural and biochemical studies on neurodegenerative disease related protein, Heat shock Protein 27.
17. Daniel von Salzen (Bernal group). The importance of Hsp60's C-terminal in initiating protein refolding.
18. Elisa Garcia Carvajal (Michael group). Synthesis of novel branched α -Gal-containing oligosaccharides derived from *Trypanosoma cruzi* tGPI-mucins.
19. Jeffrey Richards and Jose Rosales (Salvador group). Safe and improved small scale synthesis of dibenzyl ketone for the undergraduate teaching curricula.

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Organizers: Dr. Lela Vukovic and Dr. Keith Pannell