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# E2. Nanofabrication of Multifunctional Hybrid Materials for Bioapplications

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### PERSISTENT LUMINESCENCE AND UPCONVERSION HYBRID MATERIAL FOR BIOAPPLICATIONS

#### **SE2-O001 *Invited Talk***

[York Estewin Serge Correales](#), Rogéria Rocha Gonçalves, Antonio Claudio Tedesco, Henrique Luis Piva, Sajjad Ullah, Sidney J. L. Ribeiro, Marc Verest

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**ELECTROCHEMICAL SYNTHESIS OF HIERARCHICAL CUPO<sub>3</sub>-CREATININE HYBRID NANOFLOWERS WITH PEROXIDASE-LIKE ACTIVITY**

**SE2-O003 *Oral***

[Yara Gómez](#), [Angélica Domínguez-Aragón](#), [Eider Aparicio](#), [Rocío Berenice Domínguez Cruz](#)

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**MICROFLUIDIC SEROLOGICAL TEST FOR THE DETECTION OF IGG ANTIBODIES USING MAGNETIC NANOPARTICLES**

**SE2-O004 *Invited Talk***

[Gabriel Arturo Caballero-Robledo](#), [Jose Antonio Hernandez Ortiz](#), [Mariana Andrade Medina](#), [Mauricio Carrillo-Tripp](#)

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**LASER DERIVED ELECTROANALYTICAL PLATFORMS FOR FUNCTIONAL BIOSENSORS**

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#### **PBAE POLYMERS FOR THE CONTROLLED DELIVERY OF NUCLEIC ACIDS FOR TARGETED THERAPIES APPLICATIONS**

**SE2-O007 *Invited Talk***

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#### **APTAMER-CONJUGATED GOLD NANOPARTICLES TARGETING HUMAN EPIDERMAL GROWTH FACTOR RECEPTOR 2 (HER2) FOR CANCER THERANOSTIC**

**SE2-O008 *Oral***

[Celia Nohemi Sanchez Dominguez](#), Hugo Leonid Gallardo Blanco, Paola Yamileth Carrion Garcia, Samuel Longoria Garcia, Oscar Vidal Gutierrez, Margarita Sanchez Dominguez

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#### **GOLD NANOPARTICLES CONJUGATED WITH MESQUITE GUM AND BRANCHED POLYETHYLENIMINE FOR CANCER THERAPIES**

**SE2-O009 *Oral***

[Jessica Victoria Martinez Saraoz](#), Margarita Sanchez Dominguez, Hugo Leonid Gallardo Blanco, Celia Nohemí Sánchez Domínguez



### COMPARATIVE STUDY OF CURCUMIN ENTRAPMENT IN CHITOSAN HYDROGELS WITH POLOXAMER MICELLES

#### SE2-O010 *Oral*

[Alejandra Estefania Herrera Alonso](#), Daniela Fernanda Rodríguez Chávez, Alberto Toxqui Terán, Hugo Leonid Gallardo Blanco, Margarita Sanchez Dominguez

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### SYNTHESIS OF FE<sub>3</sub>O<sub>4</sub> MAGNETIC NANOPARTICLES ON MODIFIED MULTI-WALLED CARBON NANOTUBES FOR LACCASE IMMOBILIZATION AND ITS POTENTIAL APPLICATION IN THE DEGRADATION OF EMERGING POLLUTANTS IN WASTEWATER

#### SE2-O011 *Oral*

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### IN-VITRO BIOCOMPATIBILITY INVESTIGATION OF AMORPHOUS CARBON AND FE<sub>3</sub>O<sub>4</sub> COMPOUNDS

#### SE2-O012 *Oral*

[Manuel Eduardo Serrano Nava](#), Eduardo Lira-Diaz, Pedro Antonio Márquez Aguilar, Juan J. Acevedo-Fernandez

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### TECHNIQUES FOR ANALYZING PROTOCELL-TYPE HYBRID SILICA NANOPARTICLES USING SPECTROSCOPY AND IMMUNOASSAYS

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#### IN VITRO CELL RESPONSE AND BIOACTIVITY IN NBT-KBT PIEZOCERAMICS: I) UNPOLED CASE

##### SE2-O016 *Oral*

[Angelica Benítez-Castro](#), Marcela Arango-Ospina, Alexandra Castro-Hidalgo, Beatriz Cruz Muñoz, Aldo Bocaccini, Juan Muñoz Saldaña, Kyle Grant Webber

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#### COMPARATIVE ANALYSIS OF BIOLOGICAL AND CHEMICAL PROPERTIES OF NANO-HYDROXYAPATITE AND MAGNESIUM-DOPED NANO-HYDROXYAPATITE: INSIGHTS FOR BIOMEDICAL APPLICATIONS

##### SE2-O017 *Oral*

[Ximena Mejia-Delgadillo](#), José Rafael Alanís-Gómez, Fabiola Hernández-Rosas, Mariana Funes Romero, Rodrigo Velázquez Castillo

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#### INFLUENCE OF SILICON PRECURSOR TYPE DURING THE HYDROTHERMAL SYNTHESIS OF THE SUBSTITUTE SILICON HYDROXYAPATITE

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[Zully Matamoros Veloza](#), Juan Carlos Rendon Ángeles, Kazumichi Yanagisawa, Epsilon Eridany Mejía Martínez, Mario Rodríguez-Reyes, Dagoberto Vázquez Obregón

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[Miguel A Hernandez](#), Patricia González, María Fernanda López, Astrid Lorena Giraldo Betancur, Karla Karina Gómez Lizárraga, Carlos Poblano Salas, Daniela Rodríguez Delgado

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**COMBINING PARTICLE LEACHING WITH 3D PRINTING AND NANOBIOCERAMICS TO BUILD COMPLEX, NATURALLY-INSPIRED, AND HIERARCHICAL POROUS SCAFFOLDS FOR BONE TISSUE ENGINEERING****SE2-O020 Invited Talk**

[Mauricio Sarabia](#), Carmen Mabel Gonzalez Henriquez, Claudio Terraza Inostroza, Juan Rodríguez Hernández

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**PVDF/NKBT-NURSE COMPOSITES FOR BIOMEDICAL APPLICATIONS****SE2-O021 Oral**

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**BIOCOMPATIBILITY EVALUATION OF A NEW PRINTABLE MATERIAL FOR BONE EMULATION AND TISSUE ENGINEERING APPLICATIONS****SE2-O022 Oral**



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**NANOCONFINED ROS GENERATORS FOR LIGHT-CONTROLLED ENHANCEMENT OF THE CROSSLINKING OF COLLAGENOUS MATERIALS**

**SE2-O023 *Invited Talk***

Constanza Álvarez-López, Daniela Cavazos-Elizondo, Belinda Heyne, Irene Kochevar, [Alan Aguirre-Soto](#)

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**ANTIBACTERIAL, BIOACTIVE AND MECHANICAL PERFORMANCE OF CENTRIFUGALLY SPUN POLY(D,L-LACTIDE)/POLY(3-HYDROXYBUTYRATE) SUBMICROMETRIC FIBERS CONTAINING ZINC OXIDE AND HYDROXYAPATITE NANOSTRUCTURES**

**SE2-O024 *Oral***

[Victoria Maria Padilla Gainza](#), Heriberto Rodriguez, Cristobal Rodriguez, Narcedalia Barbosa, Robert Gilkerson, Karen Lozano, Graciela Morales

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**DUALLY-CONTROLLED DRUG DELIVERY SYSTEM BASED ON FORCESPUN NANOFIBERS LOADED WITH SURFACE-MODIFIED LIPOSOMES**

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#### INNOVATING NANOPARTICLE-BASED DELIVERY SYSTEMS FOR ANTIVIRAL MOLECULES

##### SE2-O027 *Oral*

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#### SYNTHESIS AND CHEMICAL CHARACTERIZATION OF A NOVEL NANOSCALE METAL-ORGANIC FRAMEWORK WITH POTENTIAL FOR TARGETED CHEMO/RADIOTHERAPY

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[Diana Laura Pérez Velasco](#), [Daniela Bobadilla Arzate](#), [Violeta Popoca Jurado](#), [Nancy Lara Almazán](#),  
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#### SYNTHESIS OF GRAPHENE OXIDE BY THE MODIFIED HUMMERS METHOD FOR APPLICATION OF ANTIBACTERIAL ACTIVITY

##### SE2-P001 *Poster*

[Britany Lizeth Aransazu Aguilar Ramos](#), [Flavio Manuel Nava Maldonado](#), [Fátima de Lourdes Ochoa Gonzalez](#), [Jose Carranza Tellez](#)





**EFFECT OF PVA CONCENTRATION AND ULTRASONIC AGITATION TIME ON THE SYNTHESIS AND STABILITY OF PCL/PVA EMULSIONS INTENDED AS RELEASE SYSTEMS FOR BIOACTIVE COMPOUNDS FROM PECAN NUT**

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**SYNTHESIS AND CHARACTERIZATION OF METAL-ORGANIC FRAMEWORKS FOR TARGETED DELIVERY OF THERAPEUTIC RADIONUCLIDES**

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**NANOCRYSTALLINE GADOLINIUM-DOPED HYDROXYAPATITE: SYNTHESIS, CHARACTERIZATION, AND CYTOTOXICITY ASSESSMENT FOR ENHANCED DRUG DELIVERY APPLICATIONS**

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**ANTIMICROBIAL ACTIVITY EVALUATION OF GREEN AGNPS IN PURE STRAINS OF MULTIRRESISTANT PATHOGENIC MICROORGANISMS ISOLATED IN 2020 AND 2021 OBTAINED FROM PATIENTS OF THE "DR. MIGUEL SILVA" HOSPITAL**

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**ELECTRODYNAMICAL DEVICES FOR THE CHARACTERIZATION OF COLLOIDOSOME SPECIES THROUGH DIELECTROPHORESIS.**



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**TRIBOLOGICAL AND MECHANICAL BEHAVIOR OF UHMWPE REINFORCED WITH WHITE AND BLACK TiO<sub>2</sub> NANOPARTICLES**

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**NIOSOMES AS VEHICLES FOR IMPROVING ANTIVIRAL EFFICACY OF QUERCETIN AND CANNABIDIOL**

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**GREEN SYNTHESIS OF SILVER NANOPARTICLES (AGNP) FROM MORINGA. OLIFEIRA FOR USE IN BIOLOGICAL APPLICATIONS**

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**SYNTHESIS AND CHARACTERIZATION OF A NANOFUNCTIONALIZED HYDROXYAPATITE SUPPORT FOR THE PROLONGED RELEASE OF THE PHYTHORMONE OF FORCHLORPHENURON**

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**SYNTHESIS OF TIN OXIDE (SOL-GEL METHOD) FOR ANTIBACTERIAL ACTIVITY**

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**INFLUENCE OF THE SYNTHESIS METHOD OF LAYERED DOUBLE HYDROXIDE PARTICLES ON THE LOADING AND RELEASE OF DOXORUBICIN AND 5-FLUORACYL**

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## INNOVATIVE NANOSTRUCTURING OF OILS WITH EUCALYPTUS KRAFT LIGNIN-POLYCAPROLACTONE COMPOSITES

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**FORMULATION OF MIXED MICELLAR SYSTEMS WITH POLOXAMER 407 AND TPGS FOR THE INCORPORATION OF MULTIPLE FAT-SOLUBLE ACTIVE INGREDIENTS**

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