Florida Inorganic and Materials Symposium 2023 (FIMS 2023)

presented by the

University of Florida
Department of Chemistry
and
Center for Catalysis

September 29th and 30th, 2023

2023 Drago Lecturer

Michael G. Palfreyman, PhD, DSc

President, Palfreyman BioPharma Advisors, LLC.

Dr. Palfreyman holds a D.Sc. (1996) in rational design of CNS drugs; a Ph.D. (1970) degree in Neuroscience and Neuropharmacology, as well as a B. Pharm (Magna cum Laude, 1967 in Pharmacy), and MRPharmS (Pharmacy Practice, 1971), all from the University of Nottingham, UK.

Michael is a seasoned leader in the biotechnology and pharmaceutical industries with over four decades' experience in leadership positions. He specializes in leading and guiding life sciences companies regarding their R&D strategy, financing, BD&L activities and product development and is President, Palfreyman BioPharm Advisors, LLC. Currently he is advising Cybin, Inc. on psychedelics drug discovery and development for treating mental illness; NeurAegis for treatment of concussion, and Alnivo Therapeutics for skin conditions. On the academic side he is an advisor to NIH/NINDS Heal Program developing novel pain treatments to address the opiate crisis, and as an advisor to Northeastern University Center for Drug Discovery on cannabinoids for diabetic complications and Alcohol use Disorder. In 2019 he co-founded Adelia Therapeutics that merged with Cybin, Inc. in 2020 and subsequently acted as Chief R&D Officer. Prior to this, Michael served until it was acquired in 2019 as Co-Founder and Chief Scientific Officer at Amorsa Therapeutics, Inc. developing treatments for depression. Past roles have been Chairman of the SAB of the Clinical Phase Oncology Company, Aminex Therapeutics, Inc.; Senior R&D Diligence at Torrey Pines Investment & an advisor to ChemRar/ChemDiv a major supplier of chemistry resources; Scientific Advisor to SRI-International, Bioscience Division, and a Member of the Patent Review Board, Forsyth Dental Institute; Scientific Advisor for MAKScientific, LLC, NeuroNascent, Inc., and Jasco Pharmaceuticals, Inc.

He is an Emeritus Fellow of the American College of Neuropsychopharmacology and his passion lies in the CNS field where he has contributed to, and overseen several research programs in Psychiatric and Neurological Diseases. He has also lead R&D pre-clinical and early clinical programs in Oncology, Infectious Diseases, Cardiovascular, Metabolic and Respiratory Disorders, Ophthalmology and GI. A number of these programs have reached the market including Allegra, Sabril, Nicorette, Nicoderm, Ornidyl and Anzemet.

He has previously held several key roles from Chairman of the Board, President & CSO, SVP R&D, to Head of Biotechnology licensing, in successful Biotech and Pharmaceutical companies, such as Amakem, NV; Ophthakem, NV; Vitruvean, LLC; EnVivo (Forum) Pharmaceuticals, Inc.; NOVACE Corporation, Psychiatric Genomics, Inc., Scriptgen (Anadys) Pharmaceuticals, Inc., as well as Marion Merrell Dow Research Institute (now Sanofi) where he was VP Research, and Beecham Pharmaceuticals (now Glaxo Smith Kline) where he started his industrial career.

He is a co-inventor on 53 issued patents and co-author of more than 150 publications.

September 29th (Friday)

2:00 pm	Check-in and coffee	SFH 2nd Floor
3:00 pm	Welcome speech - Dr. George Christou	
	Session 1 — Parag Das	SFH 221
3:10 pm	Namodhi Wijerathne (UF): Oxygen-defects-rich $PbMoO_4$ for electrocatalytic N_2 reduction	
3:30 pm	Utkarsh Misra (USF): Resistive switching in tantalum pentoxide based active electrode RRAMs	
3:50 pm	Parker Boeck (UF): Cyclic polymers from alkynes: scope and degradation	
4:10 pm	Tao Yuwen (UF): Spin transition actuators for 2D materials: synthesis and characterization of heterostructures of molybdenum disulfide with Hofmann-like spin crossover solids	
4:30 pm	Coffee break	
	Session 2 — Jiahui Liu	SFH 221
5:00 pm	Erik Ferenczy (UF): Precursor design for aerosol-assisted chemical vapor deposition of molybdenum disulfide	
5:20 pm	Miguel Gakiya-Teruya (FSU): Molecular spin qubits based on high-symmetry lanthanide complexes	
5:40 pm	Cole Stearns (UF): Hybrid-deck [2.2]paracyclophane supramolecular polymers	

September 30th (Saturday)

8:00 am	Breakfast (SFH 2nd Floor) and poster preparation (CLB 4th Floor)	
	Session 3 — Josh Gibson	SFH 221
8:40 am	Zhi-Chun Shi (FIU): Polynuclear pyrazolates and their higher dimensional (1-D, 2-D, 3-D) materials.	
9:00 am	Alex Diodati (UF): Covalently-linked supramolecular dimers of $\{Mn_2(\mu\text{-}O)\}^{2+}$ complexes	
9:20 am	Alejandra Coronel-Zegarra (FAU): Chemistry and mesoscale structure of stony coral tissue loss disease lesions	
9:40 am	Coffee Break	

	Session 5 — Cody Daneluik	SFH 221
10:00 am	Xiaoliang Zhang (UF): Dark exciton formation formalism in 2D materials	
10:20 am	Olga Ibragimova (FIU): The synthesis of novel lanthanum hydroxyborate at extreme condition	
10:40 am	Reece Johnson (UF): Bifunctional niobium catalyst for conversion of liquid/gaseous olefins: metathesis and hydrogenation	
11:00 am	Coffee break and FIMS Picture	
11:30 am	**Drago Session — Dr. George Christou**	

2023 Drago Lecture
Dr. Michael Palfreyman
From Pharmacy, to Pharmaceuticals, to Biopharmaceuticals

12:30 pm	**Lunch — provided**	
2:00 pm	**Poster Session**	CLB 4th Floor
4:00 pm	Coffee break and take down posters	
	Session 6— Saryvoudh Mech	SFH 221
4:20 pm	Saqib Shahzad (UCF): The controlled solid fuel-oxidant SHS (self-propagating high-temperature synthesis) mechanisms and propagation rate under high electric (AC) fields for harvestable heat.	
4:40 pm	Carlos Acosta (FIU): Mononuclear four-coordinate bis-fluoride bis-NHC complexes of chromium(II), iron(II), and cobalt(II)	
5:00 pm	Zain Becerra (UF): Monitoring Mn oxidation states of oxalate decarboxylase via electron paramagnetic resonance spectroscopy	
5:20 pm	Ankai Wang (UCF): Revealing origin of enhancement mechanism of multiple emitters near metal nanoparticles	
5:40 pm	Presentation of poster prizes Closing remarks by Dr. George Christou	

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