



SCIENTIFIC PROGRAM

IDB2024

26TH – 29TH DECEMBER 2024

Vincci Saphir Palace, Yasmine Hammamet - Tunisia

Thursday 26/12/2024			
09h00-14h30	Registration & Lunch		
15h-15h30	Opening Ceremony		
15h30-17h	Plenary Conference 1 Chairmen : Pr. Samir Béjar & Pr. Slim Tounsi		
	Cf1: Pr. Chedly Abdely and coll.	Promoting green research in Tunisia: the key pillars of the project "support higher education and scientific research in the environmental sector".	
17h-17h40	Plenary conference 2 Chairmen: Pr. Mohamed Chamkha & Pr. Khaled Trabelsi		
	Cf2: Pr. Mokhtar Hamdi	Biosystems compartmentalization consequences on bioprocess design	
17h40-18h20	Plenary conference 3 Chairmen: Dr. Imen Khouni & El Houmaizi Mohamed Aziz		
	Cf3: Dr. Shujaul Mulk Khan	Future of Biological Sciences in the scenario of Climate Change	
18h20-18h30	Break		
18h30-19h30	Poster Sessions Display and Discussions		
	Bioactive Molecules	BMP1-BMP71	
	Plant Biotechnology	PBP1-PBP50	
20h	Dinner		
Friday 27/12/2024			
9h00-9h40	Plenary Conference 3 Chairmen: Pr. Faïçal Brini & Pr. Houcine Naili		
	Cf4: Pr. Zahia Kabouche	Bioactive secondary metabolites of Algerian medicinal plants. Chemotaxonomic approach	
9h45-11h05	3 Parallel Sessions		
	Room 1: Bioactive Molecules 5 Oral communications (BMO1-5) Chairmen: Pr. Dhouha Ghribi & Dr. Mohamed Najib Saidi		
9h45-10h05	TCI-BMO1	Hajer Bougatef	Development of a novel method for the extraction of phycocyanin pigment from <i>Spirulina platensis</i> and assessment of its antioxidant, antimicrobial, and anticancer activities
10h05-10h20	BMO2	Ines Ellouze	Antifungal Potential of <i>Geranium rotundifolium</i> Essential Oil Against Major Crop Pathogens
10h20-10h35	BMO3	Yosri Grojja	Untargeted Phytochemical Profiling, Antioxidant, and Antimicrobial Activities of a Tunisian <i>Capsicum annuum</i> Cultivar
10h35-10h50	BMO4	Hoceme Degaichia	Phytochemical analysis and antibacterial activity of phenolic extracts from two Mediterranean Cupressus species
10h50-11h05	BMO5	Manel Cheffi	Antifungal activity of biosurfactants produced by <i>Bacillus velezensis</i> OEE1 against <i>Lasiodiplodia theobromae</i> in different conditions of temperature and pH

Friday Morning: 27/12/2024 (continued)			
9h45-11h05	Room 2: Plant Biotechnology 5 oral communications (PBO1-PBO5)		
Chairmen: Pr. Haythem Mhadhbi & Pr. Lazhar Zourgui			
9h45-10h05	<i>TCI-PBO1</i>	Arafet Manaa	Quinoa for salt affected soils: challenges and perspectives for integrating quinoa into sustainable agricultural system in Tunisia
10h05-10h20	PBO2	Ines Slama	Biochar and Superabsorber Polymer Amendments Mitigates <i>Chenopodium quinoa</i> response to salinity
10h20-10h35	PBO3	Ahmed Othmani	Tetraploid date palm
10h35-10h50	PBO4	Ons Talbi Zribi	Monopotassium phosphate seed priming improves phosphorus deficiency tolerance in <i>Chenopodium quinoa</i>
10h50-11h05	PBO5	Hatem Ben Jouira	Enhancing Salt Tolerance in Quinoa: The Role of Zinc Oxide Nanoparticles
9h45-11h05	Room 3 Health Biotechnology 5 oral Communications (HBO1-HBO5)		
Chairmen: Pr. Kais Jammoussi & Pr. Erij Messadi			
9h45-10h05	<i>TCI-HBO1</i>	Mariam Ben Saïd	Development of a custom high-throughput sequencing panel for the diagnosis of Developmental and Epileptic Encephalopathies in the Tunisian population
10h05-10h20	HBO2	Insaf Belhaj Ali	CRISPR-Cas systems for infectious diseases diagnosis: SARS-CoV2 detection as a case study
10h20-10h35	HBO3	Emna Fehri	Interplay between TLR9 and HPV in cervical carcinogenesis
10h35-10h50	HBO4	Marwa Maalej	Molecular and in silico investigation of a novel ECHS1 gene mutation in a consanguine family with short-chain enoyl-CoA hydratase deficiency and Mt-DNA depletion: effect on trimer assembly and catalytic activity
10h50-11h05	HBO5	Rihab Derbel	Investigation of the correlation between MicroRNA Expression in Seminal Plasma and Asthenozoospermia in Male Infertility
11h05-11h25	Break		

Friday Morning: 27/12/2024 (continued)			
11h30-12h50	3 Parallel Sessions		
	Room 1: Bioactive Molecules 5 Oral communications (BMO6-BMO10)		
Chairmen : Pr. Zahia Kabouche & Dr. Anis Ben Hssouna			
11h30-11h50	TC2-BMO6	Ilyes Dammak	Optimization of Ultrasound-Assisted Olive Oil-in-Water Nanoemulsions for Enhanced Encapsulation and Stability of Vitamin E
11h50-12h05	BMO7	Karim Kadri	Physiological characterization of pollen from some Tunisian male date palm cultivars (<i>Phoenix dactylifera</i> L.) and study of their metaxenic effect on agronomic parameters on the variety Deglet Nour at the Kimri stage
12h05-12h20	BMO8	Badii Gaaliche	Antioxidant activity, phenolic and sugar contents of fresh figs from the north-eastern Tunisia
12h20-12h35	BMO9	Amal Ben Hassena	The Antibacterial activity of Hydroxy-tyrosol extract from Olive Leaves against ESBL bacteria and Molecular Docking Simulations of Its Mechanisms
12h35-12h50	BMO10	Mariam Yengui	Evaluation of the antibacterial activity of NiZnFe2O3 quaternary alloy nanoparticles against imipenem-resistant bacteria
Room 2: Plant Biotechnology 5 Oral communications PB6-PB10			
Chairmen: Dr. Ines Yacoubi & Dr. Halima Hatmi			
11h30-11h50	TC2-PBO6	Bacem Mnasri	Discovery and characterization of new species of <i>Rhizobium</i> and <i>Bradyrhizobium</i> isolated from the root nodules of <i>Acacia saligna</i>
11h50-12h05	PBO7	Samir Ben Romdhane	Plant growth-promoting microbes: Multifaceted roles in sustainable and eco-friendly agriculture – A Review
12h05-12h20	PBO8	Wided El Ifa	Phytase-producing rhizobacteria enhance barley growth and phosphate nutrition
12h20-12h35	PBO9	Nourel Houda Abdelkefi	Bioprospecting for Plant-Growth-Promoting and Stress-Alleviating Rhizobacteria: Genomic Insights and Practical Application
12h35-12h50	PBO10	Rania Jbir	Comprehensive Genome-Wide Analysis of the Catalase Enzyme Toolbox in Potato (<i>Solanum tuberosum</i> L.)
Room 3: Health Biotechnology 5 Oral communications (HBO6-HBO10)			
Chairmen: Dr. Mariem Ben Said & Pr. Radhouane Gdoura			
11h30-11h50	TC2-HBO6	Houyem Ouragini	From suspected to solved: WES-driven diagnosis in pyruvate kinase deficiency
11h50-12h05	HBO7	Rahima Belhaj Rhouma	Association between Human Papillomavirus 16 variants and cervical cancer risk
12h05-12h20	HBO8	Liza Ouarabi	From Metagenomics to Microarray: Advancing Diagnostic Tools for Vaginal Pathologies
12h20-12h35	HB09	Soumaya Sabri	Molecular and bacteriological diagnosis of avian mycoplasma species from tracheal-swabs in laying hen farms from the sfax region of Tunisia
12h35-12h50	HB10	Latifa Hamdaoui	Exploration of in vivo reactivity of bioactive glass associated with chitosan after implantation applications in wistar rats

Friday afternoon 27/12/2024 (continued)			
13h	Lunch		
14h30-15h30	Poster Session: Discussion		
	Bioactive Molecules	BMP1-BMP71	
	Plant Biotechnology	PBP1-PBP50	
15h35-16h05	Plenary Conference 5 Chairmen: Pr. Radhia Gargouri & Pr. Kais Jammoussi		
15h35-16h05	Cf5: Dr. Erij Messadi	Promoting Tunisian biodiversity: using animal venoms for drug discovery	
	Plenary Conference 6 Chairmen: Dr. Karim Kadri & Dr. Hatem Ben Jouira		
16h05-16h45	Cf6: Dr. Mohamed ELhoumaizi	Modeling and Production of the Date Palm (<i>Phoenix dactylifera</i> L.)	
16h50-18h10	3 Parallel Sessions		
	Room1: Bioactive Molecules 5 Oral communications (BMO11-BMO15) Pr. Dhouha Ghribi & Pr. Issam Smaali		
16h50-17h10	TC3-BMO11	Halima El Hatmi	Whey proteins and their hydrolysates from milks of five animal species
17h10-17h25	BMO12	Latifa Chahed	Fucosylated chondroitin sulfate from the sea cucumber <i>Holothuria tubulosa</i> : isolation, characterization, and evaluation of biological activities.
17h25-17h40	BMO13	Takwa Marzouk	Biocontrol of <i>Rhizoctonia solani</i> strains using lipopeptides of <i>Bacillus amyloliquefaciens</i> subs. <i>Plantarum</i> SMLR1
17h40-17h55	BMO14	Amira Mahfoudhi	Efficient Green Enzymatic Synthesis of Lipophilic Piperic Acid Esters By Immobilized <i>Rhizopus oryzae</i> Lipase: Optimization and Antioxidant Activities
17h55-18h10	BMO15	Farah Hadj Kacem	Molecular identification of a novel macroalgae collected from Tabarka city and the pharmaceutical potential of its polysaccharides
	Room 2: Plant Biotechnology 4 Oral Communications (PBO11-PBO14) Chairmen: Dr. Bacem Mnasri & Dr. Karim Kadri		
16h50-17h10	TC3-PBO11	Ines Yacoubi	New insight into the North-African durum wheat biodiversity: phenotypic variations for adaptive; agronomic traits and quality attributes
17h10-17h30	TC4- PBO12	Dorsaf Hmidi	New insights into the role of outward Shaker channels in xylem sap K ⁺ loading through shoot-to-root K ⁺ circulation in rice plants
17h30-17h45	PBO13	Taoufik Hosni	Assessment of biochemical diversity in some sunflower (<i>Helianthus annuus</i> L.) genotypes for advanced breeding approaches
17h45-18h	PBO14	Mohamed Said Ramdane	Study of the behaviour of common wheat (ae. <i>geniculata</i>) subjected to water stress by the analysis of some morpho-physiological and biochemical parameters
	Room 3: Environmental Biotechnology 5 Oral Communications (EBO1-EBO5)		

Chairmen: Dr. Imen Khouni & Pr. Mohamed Chamkha			
16h50-17h10	TC1-EBO1	Olfa Ben Said	Trace Elements in steel and iron industry wastewater: occurrence, effect and biotreatment
17h10-17h25	EBO2	Bouthaina Ghariani	Levofloxacin biotransformation by white rot fungi and their enzymes
17h25-17h40	EBO3	Linda Jammeli	Enhancement of Biological Treatment of Soybean Oil Refining Wastewater by Screening and Acclimatization of a Specific Microbial Consortium
17h40-17h55	EBO4	Jihen Ben Ali	Laccase production from a new white-rot fungi strain: <i>Clitopilus baronii</i> and its use to treat recalcitrant molecules
17h55-18h10	EBO5	Karima Staita	Characterization of the <i>Corioloopsis gallica</i> DyP for its potential to biotransform various fluoroquinolones
18h15-19h15	Poster Session: Display and Discussion		
	Environmental Biotechnology		EBP1-EBP28
	Health Biotechnology		HBP1-HBP27
	Industrial Biotechnology		IBP1-IBP22
20h	Dinner		

Saturday 28 th December 2024			
Plenary Conference 7 Chairmen: Pr Chedly Abdelly & Pr. Slim Tounsi			
9h-9h40	Cf7: Pr Hatem Ben Ouada		Bioremediation of micropollutants by microalgae
3 Parallel oral sessions			
Room 1: Bioactive Molecules 5 Oral communications (BMO16-EMO20)			
Chairmen: Pr. Tahar Mechichi & Rabah Hajlaoui			
10h25-10h45	TC4- BMO16	Ines Limam	Hematologic Cancer Inhibition by <i>Artemisia campestris</i> Leaf Extract: A Promising Therapeutic Approach
10h45-11h	BMO17	Salma Maalla	Antioxidant properties and effects of <i>Artemisia campestris</i> ethanolic extract on male reproductive parameters in rats
11h-11h15	BMO18	Nouha Ferjani	Cardioprotective effects of <i>Washingtonia filifera</i> extract against isoproterenol-induced cardiotoxicity in rats
11h15-11h30	BM19	Slim Ghrir	Protective effect of grape seed extract against chlorpyrifos-induced hepatotoxicity in Wistar rat
11h30-11h45	BMO20	Emna Hariga	Leveraging ML and DL Models for Successful Drug Repurposing Against Infectious Diseases
Saturday 28 th December 2024 (continued)			

**Room 2: Environmental Biotechnology
5 Oral communications (EBO6-EBO10)**

Chairmen: Pr. Mohamed Chamkha & Pr. Hatem Ben Ouada

10h25-10h45	TC2-EBO6	Haifa Chtourou	Carbonized briquette production from agricultural residues
10h45-11h	EBO7	Sameh Maktouf	Potential for coffee grounds to improve soil and plant growth properties
11h-11h15	EBO8	Mariam Kasmi	From Laboratory Research to Pilot Scale: Efficient Bioconversion of Sugar-Rich Beverage Wastewater into Valuable Biomass
11h15-11h30	EBO9	Sayda Jaziri	Innovative Approaches to Fertilizer Use: The Impact of Biochar on Nitrogen Balance in Durum Wheat Farming
11h30-11h45	EBO10	Fadoua Jabeur	Blue crab chitosan as an ecological biopolymer for removing arsenic from aqueous solution

**Room 3: Plant Biotechnology (IB)
3 Oral communications (PBO15-PBO17)**

Chairmen: Pr. Ahmed Othmani & Pr. Faïçal Brini

10h25-10h45	TC5- PBO15	Ez-Zahra Oubassou	Volatile organic compounds of <i>Streptomyces</i> sp. Stimulate <i>Arabidopsis thaliana</i> growth and regulate root hair development gene expression
10h45-11h	PBO16	Mohamed Taieb Bouteraa	Exploring the antimicrobial and antioxidant properties of TdGASA2 protein: From molecular insights to a promising natural preservative for Tunisian cheese shelf-life enhancement
11h-11h15	PBO17	Hanen Baccari	In vivo evaluation of <i>Cuscuta australis</i> extract protective effect, accompanied by a phytochemical study and molecular docking, against CCL4 –induced hepatotoxicity in rats

11h45-12h	Break		
12h-13h00	2 Parallel Sessions		
Room 1: Environmental Biotechnology 5 Oral communications (EBO11- EBO15)			
Chairmen: Pr. Mokhtar Hamdi & Pr. Amel Bouanene			
12h-12h20	EBO11	Nesrine Boilattabi	Isolation and identification of <i>Legionella</i> spp. from hot spring water by culture and molecular methods
12h20-12h35	EBO12	Fatma Karray	Unveiling Biotechnological potential in Extreme Saline Environments through Metagenomic Studies
12h35-12h50	EBO13	Olfa Baccari	A new molecular method based on duplex real-time quantitative PCR for the simultaneous detection of two emerging waterborne pathogens <i>Parachlamydia acanthamoebae</i> and <i>Simkania negevensis</i>
12h50-13h05	EBO14	Ines Chouaibi	Exploiting <i>Bacillus thuringiensis</i> Genomic Evolution Through Mutagenesis and Genomic Insights for Ecological Biopesticide Production
13h05-13h20	EBO15	Jihen Elgazel	Digital Exploration of Microorganisms for Biopolymer Production: Focus on Polyhydroxyalkanoates (PHA) in Saline Extremes
Saturday 28th December 2024 (continued)			
Room 2: Industrial Biotechnology 4 Oral Communications (IBO1-IBO4)			
Chairmen: Pr. Bassem Jaouadi & Pr. Mohamed Ali Borgi			
12h-12h20	TC1-IBO1	Raida Zribi Zghal	Safe and Efficient Local <i>Bacillus thuringiensis</i> Biopesticide Production: Insights from Mutagenesis and Genomic Analysis
12h20-12h35	IBO2	Siwar Khazri	Optimization of Bt-Biopesticides production using Tunisian wheat bran
12h35-12h50	IBO3	Sarra Khlifi	Cost-effective production of <i>Bacillus thuringiensis</i> by solid state fermentation
12h50-13h05	IBO4	Sondes Mechri	Exploiting Next-Generation Sequencing for Extremozymes Discovery: Pioneering Eco-Friendly Industries with Genomic and Metagenomic Insights
13h00	Lunch		

	Poster discussion (continuation & end)		
14h30-15h30	Environmental Biotechnology	EBP1-EBP28	
	Health Biotechnology	HBP1-HBP27	
	Industrial Biotechnology	IBP1-IBP22	
15h30-16h10	Plenary Conference 8 Chairmen: Pr. Samir Béjar & Pr. Bassem Jaouadi		
	Cf8: Pr. Dhouha Ghribi	Microbial Surfactants: Multifunctional Biomolecules for Applications in Pharmaceutical and Cosmetic Industries	
16h10-16h50	Plenary Conference 9 Chairmen: Dr. Imen Khouni & Pr. Haythem Mhadhbi		
	Cf9: Hussein Abdel Shafy	Wastewater issue: treatment via biological environmental friendly techniques for safe reuse	
	Parallel sessions		
16h50-18h	Room1: Environmental Biotechnology (EB)		
	4 Oral Communications (EBO16-EBO19)		
	Chairmen: Dr. Imen Khouni & Pr. Hussein Abdel Shafy		
16h50-17h10	TC3- EBO16	Halima Chebbi	<i>Thermosipho atlanticus</i> DSM 15807, a novel extrémophilic Homoacetogenic Bacteria
17h10-17h25	EBO17	Mohamed Allouche	Meiobenthic nematode <i>Oncholaimus campylocercoides</i> as a model in laboratory studies: selection, culture, and fluorescence microscopy after exposure to phenanthrene and chrysene
17h25-17h40	EBO18	A. Atoui	Effect of using treated wastewater on the bacteriological quality of Alpine goat's milk: A case of a farm in Tunisian arid regions
17h40-17h55	EBO19	Marwa Khmaissa	An Emerging Environmental and Human Health Concern: A Review of Antibiotic Pollution from Animal Husbandry
	Room 2: Industrial Biotechnology (IB)		
	4 Oral Communications (IBO5-IBO8) Chairmen: Pr. Riadh Ben Salah & Dr. Raida Zribi Zghal		
16h50-17h10	TC2-IBO5	Souraya Boulkour Touaoui	Identification of an Acidic Endo-Chitinase with Antifungal Properties from <i>Paenibacillus tyrfis</i>
17h10-17h25	IBO6	Mouna Jlidi	In vitro modulation of gilthead seabream (<i>Sparus aurata</i> L.) leukocytes by <i>Bacillus</i> spp. extracellular molecules
17h25-17h40	IBO7	Hayet Ghnimi	Study of rapeseed oil lipid oxidation by chemical and spectroscopic techniques
17h40-17h55	IBO8	Bouthaina Ben Haj Hmida	Production, immobilization of novel bacterial amylase and its potential as a desizing agent
	Saturday 28/12/2024 (continued)		

20h00	Dinner
21h00	Award ceremony
Sunday 29/12/2024	
9h30	Concluding and Closing Ceremony
11h	Departure