



Scientific Program

SECOND MEDITERRANEAN CONGRESS ON BIOTECHNOLOGY MCB 2

MARCH 16th- 20th, 2019

HÔTEL SAPHIR PALACE HAMMAMET, TUNISIA



MAIN TOPICS

- Biocatalysts and enzyme engineering
- Industrial applications
- Genomics and metabolites
- Biosensors, biochips and nanotechnology
- Bio-monitoring and bioremediation of pollutants
- Wastewater treatment and reuse
- Microbial ecology

White and Yellow Biotechnologies

- Medical application
- Human health
- Infectious, monogenic and complex diseases
- Functional genomics and stem cells
- Innovative therapies
- Computational modeling and simulation in life
- Pharmaceutical industry

Red Biotechnology

- Plant-microorganism interaction
- Biotechnology improvement of plant and food processes
- Genetically modified crops
- Biopesticides
- Agro-food
- Energy

Green and Blue Biotechnologies



Saturday March 16 th , 2019		
9h00-15h30	Registration and Lunch	
15h30- 16h30	Opening Ceremony	
16h30-17h10	Plenary Lecture1(PL1)	
	Chairmen:	
	PL1: Prof.Abdelmajid BEN AMARA	Competitive Financing Devices, PRIMA a Successful Experience
17h10-17h40	Special Tea & Coffee Breaks	
17h40-18h20	Plenary Lecture 2 (PL2)	
	Chairmen:	
	PL2: Dr. Fayza DABOUSSI	Genome editing in diatoms
18h20-19h00	Poster display	
	Green and Blue Biotechnology (GBBP 1-26)	
	White and Yellow Biotechnology (WYBP 1-13)	
	Red Biotechnology (BRP 1-17)	
20h00	Dinner	

Sunday March 17 th , 2019			
8h30-10h30			
2 Parallel Sessions			
Oral Communications			
Room 1: Green and Blue Biotechnology (GBBO 1-4)			
Chairmen:			
8h30-8h45	GBBO1	Mohammed Najib SAIDI	Network analysis of regulatory genes network in wheat under multiples abiotic stresses
8h45-9h00	GBBO2	Sana TOUNSI	Functional characterization of a novel peroxisomal catalase from <i>Triticummonococcum</i> TmCAT1, conferring resistance to various abiotic stresses
9h00-9h15	GBBO3	Imene RAJHI	Identification of <i>Viciafabagenotypes</i> with contrasting salinity tolerance
9h15-9h30	GBBO4	Karama HAMDI	Abscisic acid Stress and Ripening (TtASR1) an intrinsically disordered protein as a functional marker for Salt tolerance in Durum wheat
Room 2: Red Biotechnology (RBO 1-4)			

Chairmen:			
8h30-8h45	RBO1	Basma HADJKACEM	Identification of a molecule inducing platelet aggregation in a calcium dependent manner and exploration of its effect on signaling pathway
8h45-9h00	RBO2	Raida ZRIBI ZGHAL	The combinatory effect of Cyt1Aa flexibility and specificity against dipteran larvae for the improvement of its synergistic potential with Cry toxins
9h00-9h15	RBO3	Kaoutar ELFAZAZI	Chemical and microbiological stability of Moroccan pomegranate juice depending on storage conditions
9h15-9h30	RBO4	Hazar KRAÏEM	Expression of the recombinant <i>NbF12-10</i> and its chimeric antibody format in <i>Escherichia coli</i> : Investigation of fed-batch bioprocess on minimal media
9h35-10h15: Plenary Lecture 3 (PL3) Chairmen:			
9h35-10h15		PL3:Dr. Hechmi LOUZIR	Immunity and protection against <i>Leishmania</i> major infection: challenges and achievements
10h15-10h35	Tea & Coffee Breaks		
10h40-12h00: Plenary Lectures 4 and 5 (PL4 and PL5) Chairmen:			
10h40-11h20		PL4:Dr. Francisco VALERO	Influence of promoter, copy number, operational mode and specific growth rate in the recombinant CRL1 production in <i>Pichiapastoris</i> cell factory
11h20-12h00		PL5:Prof. OuhdouchYEDIR	Phosphate solubilizing bacteria (PSB): Mechanisms, promotion of plant growth, and future prospects
12h00-13h15 2 Parallel Sessions Oral Communications			
Room 1: Green and Blue Biotechnology (GBBO 5-8)			
Chairmen:			
12h00-12h15	GBBO5	Rania DJEMAL	Overexpression of TdSHN1 transcription factor from durum wheat improved abiotic stress tolerance of transgenic tobacco plants
12h15-12h30	GBBO6	Ikram ZAIDI	The barley dehydrin 4 and stress tolerance: from gene to function
12h30-12h45	GBBO7	Samia DALDOUL	Time-Course RNA-Seq analysis reveals transcriptional changes in roots of Tunisian wild grapevine (<i>Vitis sylvestris</i>) in response to NaCl stress
12h45-13h00	GBBO8	Nahida JELALI	Salicylic acid and H ₂ O ₂ seed priming mediated induction of Fe deficiency tolerance in two <i>Sulla carnosa</i> cultivars
Room 2: Red Biotechnology (RBO 5-9)			
Chairmen:			
	RBO5	Sayda DHAOUADI	Single domain Antibody-based Strategy Targeting Tumor Microenvironment Biomarkers: Application for Solid Tumor

12h00-12h15			Diagnosis
12h15-12h30	RBO6	Asma ABUDABOUS	KRAS mutation profiling in colorectal cancer patients
12h30-12h45	RBO7	Imene HANDOUS	Seroprevalence of human herpes virus infections 1-6 and 8 in leukemic patients before chemotherapy
12h45-13h00	RBO8	Nawel TRABELSI	Usefulness of EMA-binding flow cytometric and Erythrocyte Membrane Protein Electrophoresis methods for the diagnosis of Hereditary Spherocytosis
13h00-14h30	Lunch		
14h30-15h30: Poster discussion: All posters of the three Topics : -Green and Blue Biotechnology (GBBP 1-26) -White and Yellow Biotechnology (WYBP 1-13) -Red Biotechnology (BRP 1-17)			
15h30-16h50: Plenary Lectures 6 and 7 (PL6 and PL7)			
15h30-16h10	PL6:Dr.SophienK AMMOUN	Retooling the plant immune system towards improved disease resistance	
16h10-16h50	PL7: Prof. Moktar HAMDI	Innovative multitrophic bioreactors for the ecological organic wastes treatment without O₂ supply and without CO₂ release	
16h50-17h15	Tea & Coffee Breaks		
17h 20-18h00: Plenary Lecture 8 (PL8) Chairmen:			
17h20-18h00	PL8: Prof. Khalid OUFDOU	Field application of combined inoculation by rhizobacteria and mycorrhizae on growth and yield of wheat and faba bean	

Monday March 18th, 2019			
8h30-9h30			
2 Parallel Sessions			
Oral Communications			
Room 1: Green and Blue Biotechnology (GBBO 9-12)			
Chairmen:			
8h30-8h45	GBBO9	Nadia BOUKARI	Salicylic acid seed priming modulate hormonal changes in two ecotypes of Alfalfa under salinity, iron deficiency and their combined effect
8h45-9h00	GBBO10	Mariem BRADAÏ	The RSS1-PP1 pathway and its role in plant tolerance to abiotic stresses
9h00-9h15	GBBO11	Najet GAMMOUDI	Capsaicinoids in vitro production in placenta-derived callus of pepper (<i>Capsicum annuum</i> L.) under abiotic elicitation

9h15-9h30	GBBO12	Sabrina JEDER	Effect of intercropping vine with alfalfa on the photosynthetic apparatus and the antioxidant enzyme system
Room 2: White and Yellow Biotechnology (WYBO 1-4)			
Chairmen:			
8h30-8h45	WYBO1	Brigitta SAUL	The use of ATP to monitor microbial load in water samples
8h45-9h00	WYBO2	Imen KHOUNI	Performance enhancement of enzymatic treatment of highly polluted edible oily wastewater produced from refinery processes via membrane filtration technology
9h00-9h15	WYBO3	Fouad MENACEUR	Protective role of quercetin against the hepatotoxicity of two widely-used pesticides
9h15-9h30	WYBO4	Besma SGHAIER-HAMMAMI	Novel low cost approach for crude Olive Oil Wastewater detoxification
9h30-9h45	Tea & Coffee Breaks		
9h50-11h: Plenary Lectures 9-11 (PL9, PL10, and PL11)			
Chairmen:			
9h50-10h30	PL9: Dr. MengoniALESSIO		Toward an integrated and predictive view of symbiotic nitrogen fixation
10h30-11h10	PL10: Monia EL BOUR		Probiotics as beneficial microbes in marine aquaculture
11h10-11h50	PL11: Marco MORACCI		Discovery of hydrothermal vents for second carbohydrate active enzymes from hyperthermophiles populating generation biorefineries
12h10-13h15	Lunch		
13h30	Departure for the Carthage and SidiBouSaïdvillage Trip (Optional)		

Tuesday March 19th, 2019			
8h30-10h00			
2 Parallel Sessions			
Oral Communications			
Room 1: Green and Blue Biotechnology (GBBO 13-18)			
Chairmen:			
8h30-8h45	GBBO13	Dhouha BELHADJ SGHAIER	Biochemical response in the halophyte <i>Arthrocnemum indicum</i> : Potential contribution for phytoremediation of arsenic and saline soil

8h45-9h00	GBBO14	Wesam AL KHATEEB	Genetic diversity of bottle gourd (<i>Lagenariasiceraria</i> (Molina) Standl.) landraces of Jordan assessed by Agro-morphological traits and Inter simple sequence repeat markers
9h00-9h15	GBBO15	Oumèma NOURI-ELLOUZ	Somatic hybridization: a promising strategy for the improvement of potato production in Tunisia
9h15-9h30	GBBO16	NourCHIAB	Impact of the overexpression of the StDREB1 transcription factor on growth parameters, yields, and chemical composition of tubers generated from greenhouse and field grown potato plants
9h30-9h45	GBBO17	Sana KOUBAA	The Intrinsically Disordered LEA_4 Protein TdLEA3 from Wheat: Structural Properties and Enzyme Stabilization
9h45-10h00	GBBO18	KaoutharFEKI	Characterization and expression of a novel pathogenesis-related PR-10 protein of <i>Phaseolus vulgaris</i>
Room 2: White and Yellow Biotechnology (WYBO 5-10)			
Chairmen:			
8h30-8h45	WYBO5	Bassem JAOUADI	Physical and enzymatic properties of new fungal peroxidases for lignin and humic acid biodegradation and biodeterioration
8h45-9h00	WYBO6	Nadia ZARAÏ JAOUADI	Purification and biochemical characterization of a new fungal lignin peroxidase for lignin biodegradation and detergentformulations
9h00-9h15	WYBO7	Aïda HMIDA-SAYARI	Structure/function/properties relationships and application of a GH11 xylanase
9h15-9h30	WYBO8	Fatma ELGHARBI	A high-molecular-weight xylanase from <i>B. pumilus</i> US570 strain: purification and biochemical characterization
9h30-9h45	WYBO9	Noomen HMIDET	Simultaneous production of alkaline amylase and biosurfactant by <i>Bacillus methylotrophicus</i> DCS1: structural and biochemical characterization
9h45-10h00	WYBO10	Karima SALEM	Overexpression of a <i>Bacillus subtilis</i> amylase in <i>E. coli</i> and application in bread making
10h00-10h25	Tea & Coffee Breaks		
10h 30-11h50: Plenary Lectures 12 and 13 (PL12 and PL13)			
Chairmen:			
10h30-11h10		PL12: Dr. Francisco J. PLOU	Novel trends in the enzymatic transformation of carbohydrates into value-added products for the food and nutraceutical industries
11h10-11h50		PL13: Dr. María J. HERNÁIZ	Green Solvents in Carbohydrate Chemistry

12h00-13h00			
2 Parallel Sessions			
Oral Communications			
Room 1: Green and Blue Biotechnology (GBBO 19-22)			
Chairmen:			
12h00-12h15	GBBO19	Hela SAFI	Molecular cloning and characterization of a novel lipid transfer protein, Tri tu 14, as a major allergen from <i>Triticum durum</i>
12h15-12h30	GBBO20	AnasRAKLAMI	Impact of rhizobacteria consortium on growth and physiology of <i>Medicago sativa</i> under heavy metals stress
12h30-12h45	GBBO21	Houda HADJ BRAIEK	Isolation and identification of chickpea pathogenic-fungi in Tunisia and biocontrol by PGPR bacteria
12h45-13h00	GBBO22	Mariem SAMET	In vitro PGPR properties of different bacterial strains isolated from compost teas and their effects on growth and yield of potato plants in field condition
Room 2: White and Yellow Biotechnology (WYBO11-14)			
Chairmen:			
12h00-12h15	WYBO11	Mouna SAHNOUN	Modifying <i>Aspergillusoryzae</i> S2 Amylase Substrate Specificity and Thermostability through its Tetramerisation
12h15-12h30	WYBO12	Maroua OMRANE BENMRAD	Characterization of a novel detergent-stable protease from <i>Penicilliumchrysogenum</i> X5 and its application for textile fibres processing
12h30-12h45	WYBO13	Emna MOUJEHED	Microbial Lipases as a degreasing agent in leather manufacturing: A comparative study
12h45-13h00	WYBO14	Sawssan NEIFAR	A novel thermostable and efficient glucose isomerase Class II from the thermophilic <i>Caldicoprobaacteralgeriensis</i> : Biochemical characterization, molecular investigation and its application in High Fructose Syrup production
13h00-14h30	Lunch		
14h30-15h30			
2 Parallel Sessions			
Oral communications			
Room 1: Green and Blue Biotechnology (GBBO 23-26)			
Chairmen:			
14h30-14h45	GBBO23	Ramla KHIARI	Potential of Vis-NIR hyperspectral imaging for the prediction of sugars, acidity and moisture content of raisins
14h45-15h00	GBBO24	LoubnaCHAFKI	Effect of pomegranate bark extracts on the preservation of sheep meat

15h00-15h15	GBBO25	Nouha ABDELMALEK	Monitoring of <i>Bacillus thuringiensis</i> (Bt) growth and sporulation: exploration and comparison of on-line and off-line measurements
15h15-15h30	GBBO26	Fatima NEHAL	<i>Lactococcuslactis</i> Strain F-mouExopolysaccharide: High-Level Production, Characterization, and Antimicrobial Activity
Room 2: White and Yellow Biotechnology (WYBO15-17)			
Chairmen:			
14h30-14h45	WYBO15	Rihab AMERI	Functional Metagenomics of the dromedary fecal microbiota to discover new genes involved in the plant cell wall degradation
14h45-15h00	WYBO16	Olfra FRIKHA-GARGOURI	Comparative study of the antibacterial activity of <i>Bacillusamyloliquefaciens</i> strain 32a and <i>Bacillus methylotrophicus</i> strain 39b against <i>Agrobacterium tumefaciens</i> plant pathogens
15h00-15h15	WYBO17	Mouna JLIDI	Evaluation of bacteria of aquatic origin as fish probiotic in vitro
15h30-16h50: Plenary Lectures 14 and 15 (PL14 and PL15)			
15h30-16h10		PL14:Dr. Jean-LucSIMON	Increase penicillin productivity by improving oxygen transfer thanks to the modification of the strain morphology
16h10-16h30		PL15: Dr. Moez HANIN	Horizon 2020 program in Tunisia: challenges and opportunities
16h30-16h50	Tea & Coffee Breaks		
16h55-18h25			
Oral Communications			
Room 1: Green and Blue Biotechnology (GBBO27-32)			
Chairmen:			
16h55-17h10	GBBO27	CarloVITI	Poly lactic acid degradative capabilities of <i>Amycolatopsis</i> isolates
17h10-17h25	GBBO28	Safae TANKIOUINE	Comparison of the adhesion of <i>Staphylococcus aureus</i> on the glass support treated with two types of UHT milk
17h25-17h40	GBBO29	HananeAZZOUZI	Biochemical characterization of Moroccan clementine peels for industrial use
17h40-17h55	GBBO30	Manar IBRAHIMI	Marine predatory actinobacteria: An Emerging potential against multidrug resistant bacteria
17h55-18h10	GBBO31	Imen ZAGHBIB	Thermal stability of natural actomyosin extracted from sardine (<i>Sardinapilchardus</i>) muscle affects reactivity to cross-linking by microbial and sardine transglutaminases
18h10-18h25	GBBO32	Hajer BOUGATEF	Fish by-products as raw material for the extraction of Chondroitin

			sulfate/Dermatan sulfate: Structural characterization, Anti-DPP-IV and anti-prolylendopeptidase activities
20h00		Gala Dinner&Musical Animation +Awards attribution for plenary speakers and best oral and poster communications	

Wednesday March 20th, 2019	
10h00-11h30	
Closing Ceremony	
Departure	