**2nd BIODESERT International Workshop**

**Plant-Microbe Symbiosis**

Organized by

Laboratory of Microorganisms & Active Biomolecules
Faculty of Sciences of Tunis
University of Tunis El Manar

&

University of Milan, Italy
University of Ioannina, Greece

**Program**

- Conferences and practical laboratory work

**Conference workshop topics**

- Nitrogen fixation.
- Plant pathogens.
- Plant Growth Promoting Rhizobacteria.

**Practical laboratory work sessions**

- Techniques for assessing diversity and community structure of epiphytic, endophytic and rhizospheric microbial community (DGGE, T-RFLP...)
- Screening of plant growth promoting rhizobacteria (PGPR) activities (IAA and siderophore production, phosphate solubilisation, nitrogenase activity)
- Screening of bacterial tolerance to abiotic stress (drought stress, high temperature and salinity)
- Fluorescence *in situ* hybridization (FISH) experiments on plant microscopic sections

**Free Registration**

The number of participants is limited to 30

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Program of the 2nd BIODESERT International Workshop

PLANT-MICROBE SYMBIOSIS

March 17 – 19th 2012

Hotel Laico, Hammamet
&
Higher Institute for Biotechnology of Sidi Thabet, University of Manouba

Friday March 16th. Arrival day

Transport will be assured for the speakers from airport to the hotel

Saturday March 17th. Workshop day 1: Conferences at Laico hotel - Hammamet

08h15-08h45: Registration

08h45-09h00: Ameur Cherif and Abdellatif Boudabous: Welcoming the participants and presentation of the Workshop objectives

Daniele Daffonchio: Presentation of the Biodesert Project and dissemination activities

Session 1: Plant Growth Promoting Rhizobacteria

09h00-09h30: Conference 1: Martina Köberl, Institute of Environmental Biotechnology, Graz University of Technology, Austria

“Sun and bacteria – a biocontrol strategy for sustainable agriculture in desert ecosystems”

09h40-10h10: Conference 2: Stéphane Compant, INP-ENSAT, University of Toulouse, France

“Use of Saccharothrix algeriensis NRRL B-24137 from desert soil for new secondary metabolite characterization, to control B. cinerea on grapevine as well as to determine new mechanisms of ISR”

10h20-10h50: Coffee break
10h50-11h05: Conference 3: **Ramona Marasco**, DISTAM, University of Milan, Italy
   “Arid and saline ecosystems are reservoir of still poorly explored plant growth promoting microbiomes”

11h10-11h25: Conference 4: **Hanene Cherif**, LMBA, University of Tunis El Manar, Tunisia
   “Diversity, biocontrol potential and plant growth promoting activity of bacterial endophytes associated to palm (*Phoenix dactylifera*) tree roots”

11h30-12h00: Conference 5: **Eleonora Rolli**, DISTAM, University of Milan, Italy
   “Endophytes from desert plants alleviate water stress in pepper”

12h10-12h40: Conference 6: **Massimiliano Cardinale**, Institute of Environmental Biotechnology, Graz University of Technology, Austria
   “Microbial bioresources for rehabilitation of natural and anthropogenic deserts”

12h50-14h00: Lunch

**Session 2: Nitrogen fixation**

14h00-14h30: Conference 7: **Philippe Normand**, University of Lyon 1, France
   “Global and targeted approaches to study the actinorhizal symbiosis”

14h40-15h10: Conference 8: **Moez Jebara**, Centre of Biotechnology Technopole Borj Cédria, Tunisia
   “Multifonctional use of leguminous-microorganisms symbiosis”

15h20-15h50: Conference 9: **Abdellatif Boudabous**, LMBA, University of Tunis El Manar
   “Ecology and phylogeny of *Actinobacteria* associated to Actinorhizal plant”

15h50-16h20: Coffee break

**Session 3: Plant Pathogens**

16h20-16h50: Conference 10: **Lobna Kamoun Gargouri**, INRAT, University of Carthage, Tunisia
   "Contamination of cereal by molds and their mycotoxins: current situation in Tunisia and perspectives."

17h00-17h30: Conference 11: **Sebastion Roussos**, IMEP, IMBE, University Aix-Marseille, France
   “Biodiversity of fungal post harvest contamination of olive, cereal and tomato and new alternative solutions for an soustenable agriculture”

17h40-18h20: Conference 12: **Murray Grant**, University of Exeter, UK
“Using network inference to understand the transition from health to sickness following 
Pseudomonas infection of Arabidopsis”

18h30-19h00: Conference 13: Robert Jackson, School of Biological Sciences, University of Reading, 
UK 
“Pseudomonas syringae pv. aesculi: understanding the pathogenicity, ecology and 
evolution of the bleeding canker pathogen of Horse Chestnut”

19h10-19h30: General Discussion – Closing of the conference session

20h30: Dinner

Sunday March 18th, Workshop day 2: Practical in the laboratories of the ISBST

08h30 Departure from Laico hotel Hammamet to ISBST Sidi Thabet Manouba

Morning session

Practical 1: 09h30-11h00:
Group 1: Assessment of plant bacterial community diversity using Terminal Restriction Fragment 
Length Polymorphism (T-RFLP) (Imed Sbissi and Mohamed Neifar, University of Tunis El Manar).

Group 2: Assessment of plant bacterial community diversity using Denaturing Gradient Gel 
Electrophoresis (DGGE) (Besma Ettoumi and Hanene Cherif, University of Tunis El Manar).

11h00-11h30: Coffee Break

Practical 2: 11h30-13h00:
Group 1: Assessment of plant bacterial community diversity using Denaturing Gradient Gel 
Electrophoresis (DGGE) (Besma Ettoumi and Hanene Cherif, University of Tunis El Manar).

Group 2: Assessment of plant bacterial community diversity using Terminal Restriction Fragment 
Length Polymorphism (T-RFLP) (Imed Sbissi and Mohamed Neifar, University of Tunis El Manar).

13h00-14h00: Lunch

Afternoon session

Practical 3: 14h00-15h30:
Group 1: Screening of bacterial PGP activities (IAA, Siderophore, Phosphate solubilisation, Nitrogenase 
activity) (Raoudha Ferjani and Amel Guesmi, University of Tunis El Manar).

Group 2: Volatile Organic Compounds (VOCs) production by bacteria (Hanene Cherif and Besma 
Ettoumi, University of Tunis El Manar).

15h30-16h00: Coffee Break
Practical 4: 16h00-17h30:
Group 1: Volatile Organic Compounds (VOCs) production by bacteria (Hanene Cherif and Besma Ettoumi, University of Tunis El Manar).

Group 2: Screening of bacterial PGP activities (IAA, Siderophore, Phosphate solubilisation, Nitrogenase activity) (Raoudha Ferjani and Amel Guesmi, University of Tunis El Manar).

17h30: Departure from ISBST Sidi Thabet Manouba to the Laico hotel Hammamet

20h30: Dinner

Monday March 19th, Workshop day 3 Practical in the laboratory of the ISBST

08h30: Departure from Laico hotel Hammamet to ISBST Sidi Thabet Manouba

Morning session

Practical 5: 09h30-11h00:
Group 1: Screening of bacterial PGP activities and tolerance to abiotic stresses (ACC deaminase, EPS, temperature, PEG and salinity) (Raoudha Ferjani and Amel Guesmi, University of Tunis El Manar).

Group 2: Colonization of Arabidopsis thaliana roots by gfp-tagged bacteria (Hanene Cherif and Besma Ettoumi, University of Tunis El Manar).

11h00-11h30: Coffee Break

Practical 6: 11h30-13h00:
Group 1: Colonization of Arabidopsis thaliana roots by gfp-tagged bacteria (Hanene Cherif and Besma Ettoumi, University of Tunis El Manar).

Group 2: Screening of bacterial PGP activities and tolerance to abiotic stresses (ACC deaminase, EPS, temperature, PEG and salinity) (Raoudha Ferjani and Amel Guesmi, University of Tunis El Manar).

13h00-13h30. Discussion and closing of the 2nd workshop on Plant-Microbe Symbiosis

13h00-14h30: Lunch

14h30: Departure from ISBST Sidi Thabet Manouba to Laico hotel Hammamet
Location and venue of the workshop

A- Airport of Tunis Carthage
B- Hotel Laico, Hammamet (Conference sessions)
C- Higher Institute for Biotechnology of Sidi Thabet (Practical sessions)

You can magnify or precise the exact location by clicking on this Google Earth link:

http://maps.google.tn/maps?qaddr=Route+inconnue&daddr=Hotel+Laico+Hammamet,+Hammamet+to:Route+inconnue&hl=fr&ll=36.645283,10.327148&spn=0.604913,0.883026&geocode=FQZDMgIdONabAA%3BFRI%3Ck%3BFeFdmwldgNyZAA&mra=ltm&t=h&z=10