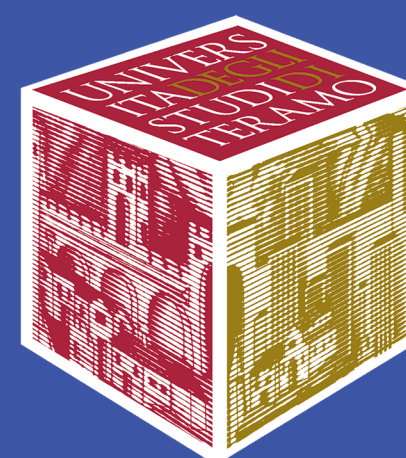




**UNIMORE**  
UNIVERSITÀ DEGLI STUDI DI  
MODENA E REGGIO EMILIA

Dipartimento di Scienze della Vita



UNIVERSITÀ  
DEGLI STUDI  
DI TERAMO

Facoltà di Medicina Veterinaria



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# CONFERENCE & WORKSHOP

**September 12-13, 2019 - Modena (Italy)**

Aula Magna "Centro San Geminiano" - Via San Geminiano, 3

September 12, 2019 - 9.00 am

## CONFERENCE PHYSIOLOGICAL ASPECTS OF REVERSIBLE DRYING IN EUKARYOTES

### 9.00 Welcome & Opening Remarks

**Angelo Oreste Andrisano**

Rector of the University of Modena and Reggio Emilia - Italy

**Daniela Quaglino**

Director of the Department of Life Sciences  
University of Modena and Reggio Emilia - Italy

**Lorena Rebecchi**

Department of Life Sciences - University of Modena and Reggio Emilia - Italy

### 9.15 Introduction to the work

**Pasqualino Loi** Coordinator of the Project Drynet - University of Teramo - Italy

### ■ SESSION I

Chair: **Pasqualino Loi** University of Teramo - Italy

### 9.30 Tolerance of the freeze-dried mouse sperm nucleus to long-term storage at room temperature or ranging from LN<sub>2</sub> to 150 °C

**Teruhiko Wakayama** Yamanashi University - Japan

### 10.00 Seeds and the secrets of survival

**Julia Buitink** Institut National de la Recherche Agronomique - France

### 10.30 The function of *Arabidopsis* LEA\_4 proteins in freezing and desiccation tolerance

**Dirk Hinch** Max Planck Institute of Molecular Plant Physiology - Germany

11.00 - Coffee break

### ■ SESSION II

Chair: **Marta Czernik** University of Teramo - Italy

### 11.30 Anhydrobiosis in the sleeping chironomid: clues to develop dry preservation of animal cells

**Takahiro Kikawada** National Institute of Agrobiological Sciences - Japan

### 12.00 Dry biobanking as a conservation tool

**Joseph Saragusty** University of Teramo - Italy

### 12.30 Tardigrada: an emerging animal model for discovering the secrets of life without water

**Michele Cesari** University of Modena and Reggio Emilia - Italy

13.30 - Lunch

September 13, 2019 - 9.00 am

## WORKSHOP REVERSIBLE DRYING: LESSONS FROM ANHYDROBIONTES

### 9.00 Welcome & Opening Remarks

**Lorena Rebecchi**

University of Modena and Reggio Emilia - Italy

**Pasqualino Loi**

Coordinator of the Project Drynet - University of Teramo - Italy

### ■ SESSION I

Chair: **Lorena Rebecchi** University of Modena and Reggio Emilia - Italy

### 9.30 Involvement of bioprotectants during desiccation and rehydration processes revealed by RNA interference: the case study of tardigrades

**Ilaria Giovannini** University of Modena and Reggio Emilia - Italy

### 10.00 Signaling pathways regulating anhydrobiosis in an anhydrobiotic tardigrade, *Hypsibius exemplaris*

**Koyuki Kondo** Keio University - Japan

### 10.30 Disordered proteins and desiccation tolerance: lessons from tardigrades

**Thomas C. Boothby** University of North Carolina at Chapel Hill - USA

11.00 - Coffee break

### ■ SESSION II

Chair: **Roberto Guidetti** University of Modena and Reggio Emilia - Italy

### 11.30 The molecular mechanisms of protein immobilization in disaccharide glasses: functional and dynamical studies by optical and EPR spectroscopy

**Giovanni Venturoli** University of Bologna - Italy

### 12.00 Redox control and the critical role of oxygen in seed storage at low relative humidity

**Thomas Roach** University of Innsbruck - Austria

### 12.30 Freeze-dried spermatozoa in endangered species

**Luca Palazzese** University of Teramo - Italy

13.30 - Lunch

### NO REGISTRATION NEEDED

Scientific Committee University of Teramo: **Pasqualino Loi** - **Marta Czernik** - **Luca Palazzese** - **Paola Toschi** - **Debora A. Anzalone**

Scientific Committee University of Modena and Reggio Emilia: **Lorena Rebecchi** - **Roberto Guidetti** - **Tiziana Altiero** - **Michele Cesari** - **Ilaria Giovannini**

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