UNIMORE
UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA
Dipartimento di Scienze della Vita

UNIVERSITÁ
DEGLI STUDI
DI TERAMO
Facoltà di Medicina Veterinaria

DRYNET

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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_2 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 Hincha 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**
Contact persons: **Lorena Rebecchi** lorena.rebecchi@unimore.it - **Marta Czernik** mczernik@unite.it