

PLENARY LECTURE & SYMPOSIUM

MONDAY 29 JULY

PLENARY LECTURE (ISoP Honorary Member LECTURE) (by ISoP)

Introduction - **John Dolan**, CNRS-Sorbonne University, Villefranche-sur-Mer, France.

Tom Fenchel University of Copenhagen, Copenhagen, Denmark
ISoP Honorary Member

Size, Shape and Function among Protozoa

SYMPOSIUM on ciliate biology and taxonomy in memory of Denis Lynn (by FEPS/ISoP)

Chairs

Pierangelo Luporini, University of Camerino, Camerino, Italy

Roberto Docampo, University of Georgia, Athens, Georgia

Alan Warren - Natural History Museum, London, UK. *The biology and systematics of peritrich ciliates: old concepts and new findings*

Rebecca Zufall - University of Houston, Houston, USA. *Amitosis and the Evolution of Asexuality in Tetrahymena Ciliates*

Sabine Agatha - University of Salzburg, Salzburg, Austria. *The biology and systematics of oligotrichean ciliates: new findings and old concepts*

Laura Utz - School of Sciences, PUCRS, Porto Alegre, Brazil. *Ciliate diversity and ecological interactions in Neotropical environments*

SYMPOSIUM Protist diversity and function in the dark ocean - challenging the paradigms of deep-sea ecology (by FEPS)

Chairs

John Dolan, CNRS-Sorbonne University, Villefranche-sur-Mer, France,

Hartmut Arndt, University of Cologne, Cologne, Germany

John Dolan - CNRS-Sorbonne University, Villefranche-sur-mer, France. - *Protistan Microzooplankton in the Mesopelagic Mediterranean Sea*

Andrew J. Gooday - National Oceanography Centre, Southampton - *Biodiversity and biogeography of deep-sea benthic foraminifera and their possible roles in bathyal and abyssal ecosystems*

Hartmut Arndt, University of Cologne, Cologne, Germany - *Flagellates, ciliates and amoebae may occupy all niches of deep-sea microbial life*

Alexandra Schoenle, University of Cologne, Cologne, Germany - *Global distribution and unique protist communities in the deep sea*

SYMPOSIUM From genomics to flagellar and ciliary structures and cytoskeleton dynamics (by FEPS)

Chairs

Cristina Miceli, University of Camerino, Camerino, Italy

Helena Soares, University of Lisbon and Gulbenkian Foundation, Lisbon, Portugal

Jack Sunter - Oxford Brookes University, Oxford, UK- *Genome wide tagging in trypanosomes uncovers flagellum asymmetries*

Dorota Wloga - Nencki Institute of Experimental Biology, Warsaw, Poland - *Deciphering the molecular mechanisms that coordinate ciliary outer doublet complexes – search for “missing links”*

Helena Soares - University of Lisbon and Polytechnic Institute of Lisbon, Lisbon, Portugal - *From centrosomal microtubule anchoring and organization to basal body positioning: TBCCD1 an elusive protein*

TUESDAY 30 JULY

PLENARY LECTURE (PAST-PRESIDENT LECTURE, by ISoP)

Introduction - **Avelina Espinosa**, Roger Williams University, Bristol, USA

David Bass

Natural History Museum London, London & Cefas, Weymouth, Dorset, UK

Micro-eukaryotes in animal and plant microbiomes: ecologies of disease?

SYMPOSIUM ISOP ADVANCES Ten years of metabarcoding: what have we learned and how do we move forward? (by ISoP/ B&R Moore Foundation)

Chairs

Luciana Santoferrara University of Connecticut, Storrs, USA.

George McManus, University of Connecticut, Storrs, USA

Luciana Santoferrara - University of Connecticut, Storrs, USA. *Strengths and limitations of metabarcoding for assessing aquatic protist communities*

Fabien Burki - Uppsala University, Uppsala, Sweden. *Long metabarcoding of the eukaryotic rDNA operon to phylogenetically and taxonomically resolve environmental diversity*

Ramiro Logares - Institute of Marine Sciences, Barcelona, Spain. *Hypothesis testing and inference of ecological patterns from large marine metabarcoding datasets*

Sabine Filker - University of Kaiserslautern, Kaiserslautern, Germany. *Metabarcoding as a basis to study the diversity and ecophysiology of halophilic microeukaryotes*

SYMPOSIUM All Roads Lead to Rome: Comparing Molecular and Cellular Paths to Eukaryotic Multicellularity

(by ISoP)

*Chairs***Michelle Leger** CSIC -University Pompeu Fabra, Barcelona, Spain**Sebastián Najie**, CSIC -University Pompeu Fabra, Barcelona, Spain**Pauline Schaap** - University of Dundee, Dundee, UK. *Evolution of multicellularity in the Amoebozoan lineage***Alexander Tice** - Mississippi State University, Starkville, USA. *Comparing paths to multicellularity in amoeboid protists***Thibaut Brunet** - University of California, Berkeley, USA. *Insights into the origin of animal contractile cells from choanoflagellates***László Nagy** - Hungarian Academy of Sciences, Budapest, Hungary. *Not all follow the same road: fungi took a unique evolutionary path to multicellularity***SYMPOSIUM ISOP ADVANCES Applications of Genetic Tools for Advancing Research on Marine Protists** (by ISoP/B&R Moore Foundation)*Chairs***Virginia Edgcomb**, Woods Hole Oceanographic Institute, Woods Hole, USA,**Julius Lukes**, Czech Academy of Sciences, České Budějovice, Czech Republic**Binnypreet Kaur** - Czech Academy of Sciences, České Budějovice, Czech Republic. *Diplonema papillatum, a representative of the highly diverse and abundant marine microeukaryotes, can be genetically manipulated***Ross Waller** - Cambridge University, Cambridge, UK. *Transforming Dinosaurs: steps forward and steps back***Fatma Gomma** - Harvard University, Cambridge, USA and Woods Hole Oceanographic Institution, Woods Hole, USA. *Tools for stable integrative transfection of Bodo saltans: A micro-eukaryote with polycistronic peptide coding genes***Jackie Collier** - Stony Brook University, NY, USA. *Successful genetic manipulation of the thraustochytrid Aurantiochytrium limacinum and challenges extending to other labyrinthulomycetes***Cristina Miceli** - University of Camerino, Camerino, Italy. *Transfection and reverse genetics in marine ciliates with highly amplified nanochromosomes***Wednesday 31 July****PLENARY LECTURE** (by FEPS)*Introduction* - **Maria Cristina Angelici**, National Institute of Health, Rome, Italy**Sergey Skarlato**

Russian Academy of Sciences, St. Petersburg, Russia

*Adaptation Strategies of the Invasive Bloom-Forming Dinoflagellates in Brackish Waters***SYMPOSIUM Free-living amoeba and neglected pathogen protozoa: health emergency signals?** (by FEPS)*Chairs***Joel Dacks**, University of Alberta, Alberta, Canada.**Maria Cristina Angelici**, National Institute of Health, Rome, Italy**Joel Dacks** - University of Alberta, Alberta, Canada. *A comparative 'omics approach to pathogenicity in the Brain-eating amoeba, Naegleria fowleri***Julia Walochnik** - University of Vienna, Vienna, Austria. *Pathogenicity in Acanthamoeba***Patrick Scheid** - Bundeswehr Central Hospital in Koblenz, Koblenz, Germany. *"Free living amoebae as pathogens and as vectors of endocytobionts"***Adriana Calderaro** - University of Parma, Parma, Italy. *Intestinal protozoa searching for a disease or for a doctor?***SYMPOSIUM Host-Parasite Interactions in Vector-borne Protozoan Infections** (by FEPS)*Chairs***Marina Gramiccia** National Institute of Health, Rome, Italy**Luigi Gradoni** National Institute of Health, Rome, Italy**Gad Baneth** - Hebrew University, Rehovot, Israel. *Babesia species of Domestic Dogs – Where do they Fit in the Piroplasmid World?***Paul Bates** - Lancaster University, Lancaster, UK. *Revising Leishmania's life cycle in the phlebotomine vector.***Anna Olivieri** - National Institute of Health, Rome, Italy. *Plasmodium development in the mosquito midgut. A molecular and cellular view.***SYMPOSIUM Waterborne infections of protozoan origin: how much do we really know?** (by FEPS)*Chairs***Panagiotis Karanis**, University of Cologne, Cologne, Germany**Maria Cristina Angelici**, National Institute of Health, Rome, Italy**Panagiotis Karanis** - University of Cologne, Cologne, Germany. *Waterborne Protozoan Infections: Health Problem Dimension Worldwide***Melissa Palos Ladeiro** - University of Reims Champagne-Ardenne, Reims, France. *Mollusc Bivalves as Indicators of contamination of water bodies by protozoan parasites***Judit Plutzer** - National Public Health Institute, Budapest, Hungary. *New directions in parasite detection: micro-and macrofluidic platforms*

Maria Cristina Angelici - National Institute for Health, Rome, Italy. *Waterborne Protozoan Infections in the Climatic Changes Era.*

Thursday 01 August

PLENARY LECTURE (by FEPS)

Introduction - **Giulio Petroni**, University of Pisa, Pisa, Italy

Sergey Fokin
University of Pisa, Pisa, Italy

Prof. H.-D. Goertz and his contribution to our knowledge of protozoan symbiosis.

SYMPOSIUM Symbiosis in ciliates: H.-D. Görtz and his legacy (by FEPS)

Chairs

Giulio Petroni, University of Pisa, Pisa, Italy
Martina Schrällhammer, University of Freiburg, Freiburg, Germany

Bettina Sonntag - University of Innsbruck, Innsbruck, Austria. *Life in cooperation: a win-win situation for single cells and scientists 20'*

Lisa Siegmund - University of Jena, Jena, Germany. *H.-D. Gortz: a Study to Be Continued, or an Emerging Human Pathogen Occurring in Ciliates 12'*

Elena Sabaneyeva - Saint Petersburg State University, St. Petersburg, Russia - *H.-D. Gortz: a Study to Be Continued, or an Emerging Human Pathogen Occurring in Ciliates 12'*

Michele Castelli - University of Milan, Milan, Italy. *Comparative genomics of endosymbionts of ciliates offers new perspectives on Rickettsiales evolution 20'*

Maria Rautian - Saint Petersburg State University, St. Petersburg, Russia. *First complete genome of Holospora-like bacterium Gortzia yakutica 12'*

Lydia Bright - State University of New York, NY, USA *Identification of factors involved in the early Paramecium host response to Holospora infection through expression and evolutionary analysis 12'*

Alexey Potekhin - Saint Petersburg State University, Saint Petersburg, Russia. *Occasional passengers or functional consortia? Terra incognita of free-living ciliates microbiomes 20'*

Claudia Vannini - University of Pisa, Pisa, Italy. *Unravelling the Ecology of Microbial Symbioses by Culture-Independent Single-Cell Microbiomics. 12'*

SYMPOSIUM Mixotrophic Planktonic Protists: Living with the "Perfect Beast" (by ISoP)

Chairs

Aditee Mitra Swansea University of Copenhagen, Copenhagen, Denmark
Per Juel Hansen University of Copenhagen, Copenhagen, Denmark

Diane Stoecker - University-Md-Horn Point Lab, Cambridge, USA. *Mixotrophs - food webs and harmful algal blooms*

George McManus - University of Connecticut, Storrs, USA. *Mixotrophs and challenges for experimental studies*

Fabrice Not - CNRS-Sorbonne University, Roscoff, France. *Mixotrophs and challenges for molecular biology*

Aditee Mitra - Swansea University, Swansea, UK *Challenges for modelling the perfect beast*

SYMPOSIUM Bioactive molecules from protists: perspectives in Biotechnology (by FEPS)

Chairs

Adriana Vallesi and **Sandra Pucciarelli**
University of Camerino, Camerino, Italy

Marco Mangiagalli - University of Milan, Milan, Italy. *Life under stress: ice binding proteins and superoxide dismutases from an Antarctic ciliate.*

Angelo Fontana - (ICB) CNR, Naples, Italy. *Function and biotechnological research of metabolites from marine protists*

Federico Buonanno - University of Macerata, Macerata, Italy. *Structural modification of the protozoan toxin climacostol for biotechnological applications.*

WORKSHOP - Protistological Science Dissemination (by SIP/ISoP grant-in-aid of Italian Society)

Chairs

Cristina Miceli, University of Camerino, Camerino, Italy
Claudia Vannini, University of Pisa, Pisa, Italy

Alan Warren - Natural History Museum, London, UK - *Protists are for everyone: a personal overview of knowledge dissemination and promoting public awareness*

Genoveva Esteban - Bournemouth University, Dorset, UK - *Microscope madness - the excitement of public engagement with protists -*

Komal Kamra - University of Delhi, Delhi, India - *Introducing the Fascinating World of Ciliates to Undergraduate Students*

Hunter Hines - Bournemouth University, Dorset, UK - *Cell-fies: using Instagram to share microbiology with a global audience*

Federico Buonanno - University of Macerata, Macerata, Italy - *Protists as model organisms for biology teaching*

Emanuela Samaritani - University of Neuchatel-Neuchatel-Switzerland - *The hidden world of diatoms - inspiring children to learn about the wonders of nature*

Discussion with planned interventions 35'

1. John Dolan - CNRS-Sorbonne University, Villefranche-sur-mer, France - *Lessons from Proto-Outreach: Rehabilitation of Digesting Microbes*

2. Anush Kosakyan - Czech Academy of Sciences, Ceske Budejovice, Czech Republic - *Introducing amazing world of protists through photography and videography*

WORKSHOP - Career development for young researchers: suggestions for grant applications and success cases
(by FEPS)

Chair

Giuliano Scalzi - European Research Council, Brussels, Belgium

Cristina Miceli - University of Camerino, Camerino, Italy

Giuliano Scalzi – European Research Council – *Funding and career for Scientists – Opportunities at the European Research Council* –

Vladimir Hampl - Charles University, Prague, Czech Republic – *Amitochondriates – ERC consolidator grant* –

Irene Ricci - University of Camerino, Camerino, Italy – *My First ERC: How to Manage Joy and Pain*

Dorota Wloga - Nencki Institute of Experimental Biology, Warsaw, Poland - *Grant proposals – when to start and what to think about while writing*

Jonathan Z. Kaye – Gordon and Betty Moore Foundation - *Funding opportunities at the Gordon and Betty Moore Foundation, a part of the constellation of science philanthropies based in the U.S.*

Discussion with interventions –30'

Friday 02 August

PLENARY LECTURE (by ISoP)

Introduction - **David Montagnes** - University of Liverpool, Liverpool, UK

Micah Dunthorn (Hunter Award Winner 2019) (by ISoP)

University of Duisburg-Essen, Essen, Germany

Equating OTUs with Species Diversity

SYMPOSIUM Systematics of amoeboid protists (by FEPS)

Chairs

Anush Kosakyan, Czech Academy of Sciences, Czeske Budejovice, Czech Republic

Enrique Lara, Council for Scientific Research, Madrid, Spain

Enrique Lara - Council for Scientific Research, Madrid, Spain. « *Shallow* » (species-level) diversity in Arcellinida, a ground for ecological research

Anush Kosakyan - Czech Academy of Sciences, Czeske Budejovice, Czech Republic. *Deep evolution of arcellinid testate amoebae: challenges and promises*

Kenneth Dumack -University Cologne, Cologne, Germany. *Shedding light on the taxonomy of elusive rhizarian taxa illuminates rhizarian evolution and ecology*

Joaquina García Martín - Council for Scientific Research, Madrid, Spain. *Disentangling the taxonomy of Physarales (Myxomy-*

cetes): an integrated approach using morphology and molecular data

Alexander Kundryavtsev - Russian Academy of Sciences and University of Saint Petersburg, Saint Petersburg, Russia. *Current views on the evolutionary relationships in the naked lobose amoebae: do morphological traits still matter*

Students Awards

Chair

David Montagnes - University of Liverpool-United Kingdom

Maria Cristina Angelici - National Institute of Health, Rome, Italy

Closing remarks