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# We welcome all participants to the European Worm Meeting (EWM) 2016.

The EWM 2016 is an initiative of the "Group of Elegans New Investigators in Europe" (GENiE) which is sponsored by EMBO and COST (European Cooperation in Science and Technology supported by the EU).

The EWM 2016 organizers Baris Tursun (MDC) and Janine Kirstein (FMP) would like to thank:

The Selection Committee Peter Askjaer (Andalusian Centre for Developmental Biology, ES) Ehud Cohen (Hebrew University Jerusalem, IL) Maria Doitsidou (University of Edinburgh, UK) Nate Goehring (Francis Crick Institute, UK) Alexander Gottschalk (Frankfurt University, DE) Sophie Jarriault (IGBMC Strasbourg, FR) Peter Meister (University of Bern, CH) Patricija van Oosten-Hawle (University of Leeds, UK) Benjamin Podbilewicz (Technion, Israel Institute of Technology, IL) Richard Poole (University College London, UK) Christian Riedel (Karolinska Institutet ICMC, SE) Andreia Castro (Life & Health Sciences Research Institute ICVS, PT) The conference office and the local administrationassistants at the MDCMichaela LangerLien-Georgina Dettmann

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The conference logo was designed by *Martina Hajduskova* and the Catering is provided by *Kaffeehaus Madlen im Café Max.* 

## Wednesday, June 1st 2016

- 12:00- Registration
- 13:30-13:45 WELCOME J. Kirstein, B. Tursun Welcome to the European Worm Meeting 2016

## Session I. Gene Expression and Development (Chair: Peter Meister; Bern, CH)

- 13:45-14:45 KEYNOTE: SUSAN GASSER (FMI Basel, CH) Using worms to probe basic features of higher eukaryotic chromosomes
- 14:45-15:00 Peter Askjaer (Andalusian Center for Developmental Biology, ES) Tissue-specific analysis of nuclear organization through development of a novel FLP/ Frt-based toolkit for spatiotemporal control of gene expression
- 15:00-15:15 Michael Konstantinos Fasseas (Imperial College London, UK) Probing the mechanisms of C. elegans natural infection by oomycetes

15:15-15:30	Valerie Robert (BMC CNRS Lyon, FR) The SET-2/SET1 histone H3K4 methyl- transferase maintains genome stability in the Caenorhabditis elegans germline inde- pendently of the DNA damage response.
15:30-15:45	Sophie P. R. Gilbert (University of Oxford, UK) How the worm completes its skin
15:45-16:00	Peter Gross (MPI-CBG, BIOTEC TU-Dresden, DE) PAR polarity in C. elegans zygotes is established by a mechanochemical feedback-patterning motif
16:00-16:45	Coffee Break
16:45-17:00	Oded Rechavi (Tel Aviv University, IL) The Mechanism that Determines the Trans- generational Duration of RNAi in C. elegans
17:00-17:15	Rob Jelier (KU Leuven NL, CRG & UPF Barcelona ES) Robustness to mechanical deformation during C. elegans embryonic development

17:15-17:30	Simone Kienle (FOM Institute AMOLF, Amsterdam, NL) Quantitative Analysis of Stochastic Gene Expression Dynamics during the AC/VU Cell Fate Decision
17:30-17:45	Ryuji Minasaki (Martin-Luther-University Halle-Wittenberg, MPI-CBG, DE) The combined activity of CPB-1CPEB and GLD-3Bic-C opposes FBFPum to prevent the sperm-to-oocyte switch in C. elegans males
17:45-18:00	Alicia Lardennois (Université Pierre et Marie Curie, IBPS, CNRS, FR) A spectrin/PAK/actin-capping network stabi- lizes cell shapes in a morphogenetic ratchet process during C. elegans elongation
18:00-18:15	Alexandra Bezler (University of Lausanne, CH) Sex- and tissue-specific regulation of RNA interference
18:15-18:50	<b>Special Talk: Ralf Schnabel,</b> (TU-Braunschweig, DE) Cell-focussing, translation of the linear information of DNA into order and form

18:50-18:58	Posterblitz
	S. Prömel, A. Ofenbauer,
	C. Alberti, R. Smith

- 19:00-20:00 Dinner break & Drinks
- 20:00-22:00 Poster session I (and Drinks continued)

### Thursday, June 2nd 2016

#### WORKSHOP: Mike Boxem (Utrecht University, NL) & Mihail Sarov (MPI-CBG, Dresden, DE)

09:00-09:50 Genome engineering in C. elegans using CRISPR/Cas9

## Emerging Application: Stephan Preibisch (Berlin Institute for Medical Systems Biology, DE)

- 09:55-10:15 Light Sheet Microscopy using C. elegans
- 10:15-10:45 Coffee Break

## Session II. Aging, Stress & Physiology (Chair: Ehud Cohen, IL)

10:45-11:25 Nektarios Tavernarakis (University of Crete, Heraklion, GR) Mitochondria, neurodegeneration and ageing

11:25-11:40 Christian Riedel (Karolinska Institutet, Stockholm, SE) DAF-16 and HLH-30 cooperate as combinatorial transcription factors to regulate stress responses and aging in C. elegans

- 11:40-11:55 Thorsten Hoppe (CECAD, University of Cologne, DE) The quality control ubiquitin ligase CHIP couples proteostasis and ageing through insulin receptor degradation
- 11:55-12:10 Michael Witting (TU Munich, DE)

WormBase goes Metabolomics – Curation of metabolites present in the nematode Caenorhabditis elegans

12:10-12:25 Andreas Ludewig (Boyce Thomson Institute, Ithaca, NY, USA) Larval crowding accelerates C. elegans development and reduces lifespan

12:25-14:30	Lunch break & continued Poster session I
14:30-14:45	Markus Schosserer (University of Natural Resources + Life Sciences Vienna, AT) Characterization of ribosomal RNA methyla- tions modulating life- and healthspan of Caenorhabditis elegans
14:45-15:00	Cornelia Habacher (FMI Basel, CH) Ribonuclease-mediated control of body fat
15:00-15:15	Lorna Moll (IMRIC, Jerusalem, IL) SUMOylation has Key Roles in Coordina- ting Lifespan and Proteostasis in C. elegans
15:15-15:30	Carmen Nussbaum-Krammer (DKFZ-ZMBH, Heidelberg, DE) Discovering cellular pathways that regulate prion-like propagation of aggregation-prone proteins using C. elegans
15:30-15:45	Karolina Chocian (University of Oxford, UK) Dose-dependent functions for chromatin modifiers in regulating lifespan

#### 15:45-16:00 Thomas Wilhelm (IMB Mainz, DE) Antagonistic Pleiotropy in the autophagic machinery modulates lifespan conversely over age in C. elegans

16:00-16:30 Coffee Break

16:30-16:45 Stefan Taubert (University of British Columbia, CA) Nuclear Receptor NHR-49 is a novel regulator of oxidative stress responses

- 16:45-17:00 Kristin Arnsburg (FMP Berlin, DE) The J-Protein Family of C. elegans – Expression analyses during Aging and Stress
- 17:00-17:15 Sarah Offenburger (University of Dundee, UK) A neuroligin-like gene and a transthyretinlike gene prevent dopaminergic neurodegeneration and protect from environmental

stress

17:15-17:30 Wenjing Qi (University of Freiburg, DE) DAF-16 interacts with TGF-ß/BMP signaling to promote germline tumor formation in C.elegans

#### 17:30-17:45 Nicholas Burton (MIT, USA) Maternal stress regulate

Maternal stress regulates a soma-to- germline insulin-like signalling pathway to control progeny development

17:45-18:00 Antoni Pla (Universidad Pablo de Olkavide, Sevilla, ES) Serum- and Glucocorticoid-induced Kinase 1 (SGK-1) regulates mitochondrial quality control mechanisms and autophagy to modulate lifespan

## Session III. Neurobiology - Part 1 (Chair: Richard Poole, UCL, UK)

- 18:00-18:40 Jean-Louis Besserau (University Claude Bernard, Lyon, FR) Specification of synaptic identity: thinking out of the box at the C. elegans neuromuscular junction.
- 18:40-18:48 Posterblitz S. Skore, N.A. Hashem, J. Schwarz, A. Oranth
- 19:00-20:00 Dinner break & Drinks

### 20:00-22:00 **Poster session II** (and Drinks continued)

## Friday, June 3rd 2016

## Session III. Neurobiology - Part 2 (Chair: Alexander Gottschalk, DE)

09:00-09:15 Annika Nichols (Research Institute of Molecular Pathology, Vienna, AT) Sleep and wake in C. elegans are global brain states under tight control of arousal circuits.

09:15-09:30 Judith Besseling (MPI for Biophysical Chemistry, Göttingen, DE)

Sleep-active neuron specification and sleep induction require FLP-11 neuropeptides to systemically induce sleep

09:30-09:45 Tanja Drexel (Research Institute of Molecular Pathology, Vienna, AT) Neuron-type specific miRNA represses two housekeeping genes to modulate an avoidance behavior

09:45-10:00 Elisabeth Fischer (Goethe University, Frankfurt, DE) The pharynx as a system to model arrhythmia cardiac diseases using optogenetics

10:00-10:15	Ivan Gallotta (Institute of Bioscience and Bio- Resour- ces, CNR, Naples, IT) Identification of neuroprotective molecules using a C. elegans model of Spinal Muscu- lar Atrophy
10:15-10:30	Wesley Hung (Mount Sinai Hospital, Toronto, ON, CA) Neuroendocrine Regulation of Forward Locomotion in Caenorhabditis elegans
10:30-11:00	Coffee Break
11:00-11:15	Esther Serrano-Saiz (Columbia University, New York, USA) Sexually dimorphic scaling of synaptic neurotransmitter transport
11:15-11:30	Päivi Koskinen (University of Turku, FI) Pim-related kinases regulate olfactory, but not gustatory sensations in C. elegans
11:30-11:45	Peter Leškovský (Vicomtech-IK4, San Sebastián, ES) The Si elegans project • Studying C. ele- gans behaviour in a virtual environment

11:45-12:00 Nathalie Vladis (University of Edinburgh, UK) Neurons, Oxygen and Mighty Worms: A Novel Paradigm for the Exploration of Intrinsic Plasticity in C. elegans.

- 12:00-12:15 Shigekazu Oda (MRC Laboratory of Molecular Biology, Cambridge, UK) Modulation of neural information by neuroglobin alters the preference of Caenorhabditis elegans for oxygen concentrations
- 12:15-14:30 Lunch break & continued Poster session II

## Session IV: Cell Biology, Evolution and Nematology (Chair: Andreia Castro)

- 14:30-15:10 Ralf J. Sommer (MPI for Developmental Biology, Tübingen, DE) The mechanisms of developmental plasticity: from switch genes and epigenetics to the interplay of organisms and their environment.
- 15:10-15:25 Peter Sarkies (MRC, Imperial College London, UK) piRNAs sense environmental perturbations to initiate transgenerational epigenetic responses to stress

15:25-15:40	Erwin Peterman (Vrije Universiteit Amsterdam, NL) A single-molecule view on intraflagellar transport in the chemosensory cilia of living C. elegans
15:40-15:55	Anna Meledin (Technion-Israel Institute of Technology, Haifa, IL) Cell non-autonomous mechanism of neuronal regeneration in C. elegans
15:55-16:10	Henrik Bringmann (MPI for Biophysical Chemistry, DE) Engineering non-mendelian genetics
16:10-16:40	Coffee Break
16:40-16:55	Vincent Portigijs (Utrecht University, NL) Regulation of spindle positioning through phosphorylation of LIN-5 in asymmetric cell division
16:55-17:10	Manon Grosmaire (ENSL, University of Lyon, FR) Cellular innovations at the origin of pseudo- gamy in nematodes

17:10-17:25	Josana Rodriguez
	(Newcastle University, UK)
	Dynamic cycling of PKC-3 activity between distinct complexes polarizes the C. elegans zygote

- 17:25-17:40 Benita Wolf (ISREC/EPFL, Lausanne, CH) Differential regulation of centrosome amplification in C. elegans stem cells
- 17:40Closing Remarks and Discussion<br/>on format of the next meeting:
  - Rotation of Location for EWM 2018
  - Organizing Committee for EWM 2018

#### approx. 18:15 Departure to Venue in the City for Farewell Dinner & Party

starting 20:00 Farewell Dinner & Party with Food, Drinks and Live Music at the Palais in the Kulturbrauerei (Prenzlauer Berg),

#### http://palais-kulturbrauerei.de/kontakt/ https://goo.gl/maps/EA8BjsrenTN

## The Farewell Dinner & Party will take place in the Palais at the Kulturbrauerei in Berlin-Prenzlauer Berg.

Date: 3rd June 2016

Time: 8:00 p.m. - 1:00 a.m.

### Address:

Palais in der Kulturbrauerei Schönhauser Allee 36 10435 Berlin



The Party will be accompanied by a live swing band "Semolina".