

SCIENTIFIC PROGRAM

SESSION LECTURE

No.20

Wildlife Gut Microbiomes and Evolution
Room: 402A

Co-Chairs: Fuwen Wei



Andrew K. Benson



Day 2 October 27th (Saturday) 13:30 – 17:00

Time	Speaker	Title
13:30-14:00	Andrew K. Benson <i>University of Nebraska, USA</i>	The Common Marmoset (<i>Callithrix jacchus</i>): an emerging model for studying the relationship of diet and behavioral factors on the gut microbiome
14:00-14:30	Zhigang Zhang <i>Kunming Institute of Zoology, Chinese Academy of Sciences, China</i>	Evolutionary landscape of gut microbiomes in wild pollinators
14:30-15:00	Mark Morrison <i>University of Queensland Diamantina Institute, Australia</i>	Differences Downunder: Marsupials, Methane and Metagenomics
15:00-15:30	Tea Break	
15:30-16:00	Songtao Guo <i>Northwest University, China</i>	How does a leaf eating monkey adapt to a snow cold winter? --- an integrative study on nutrition, gut microbe and morphology
16:00-16:30	Michael Shapira <i>University of California, Berkeley, USA</i>	The Role of Genetic Factors in Shaping the Gut Microbiota
16:30-17:00	Fuwen Wei <i>Institute of Zoology, Chinese Academy of Sciences, China</i>	Conservation metagenomics: a genome-wide assessment of gut microbiome for wildlife conservation



Fuwen Wei

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CAS Academician and Professor of Institute of Zoology, Chinese Academy of Sciences (CAS). Using state of the art methods based on macro-ecology and micro (molecular, genomic, metagenomics)-ecology, he is interested in assessing the past, present and future status of endangered species in China, especially the giant and red pandas, inferring their evolutionary and demographic processes and proposing targeted strategies for their future survival.



Andrew K. Benson

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American biological/biomedical researcher and Director of the Nebraska Food for Health Center at the University of Nebraska, USA. He directs a research center focused on developing the science of dietary modulation of the human gut microbiome. The aims of his research program are to map the molecules from whole grains of crop plants that affect the human gut microbiome and define the mechanisms through which these molecules influence species composition and function of the microbiome.



Zhigang Zhang

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Professor Zhang's research programme focuses on unravelling the (co-)evolution of animals and their gut microbiomes under both artificial selection and natural selection using multi-omics approaches such as (meta)genomics, (meta)transcriptomics, metabolomics and (meta)proteomics as well as systems biology. He is particularly interested in the importance of gut microbiome in the regulation of neurodegenerative disorder using non-human primate models.



Mark Morrison

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Principal Group Leader and Chair of Microbial Biology and Metagenomics, University of Queensland Diamantina Institute. The aims of his research are to integrate advances in microbial genomics and related technologies with innovations in microbe culture and characterisation, to produce new understanding of gut function and digestion in animals and humans, as well as opportunities to better diagnose and treat digestive diseases.



Songtao Guo

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Prof. Guo focuses on animal nutritional ecology and conservation biology. He first reported the genetic kinship and mating system of wild Golden-snub-nosed monkeys, combining data from long term behavioral observations with genetic analyses, providing new insights on the social system of primate multilevel societies. He uses multiple methods in behavior, thermo measuring, gut microbiology and nutritional analysis to reveal the evolutionary adaptations of the digestive system of primates inhabiting high latitude forests.



Michael Shapira

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Associate Professor at the University of California, Berkeley, Department of Integrative Biology. Research in the Shapira lab focuses on host-microbe interactions and on aging. By establishing *C. elegans* as a new model for microbiome research, work in the Shapira lab addresses the role of genetic factors in shaping microbiota structure and function, as well as the significance of the gut microbiota for host function and evolution.