

“Evolutionary Ecology and Genomics” Workshop

进化生态与基因组学研讨会

Location: Conference Room 3, BNU Jingshixuetang Conference Building
地点: 京师学堂第三会议室

Saturday June 24

Host: Quan-Guo Zhang

- 8:30 - 9:10 **Michael Lynch** (Indiana University)
The cost of building a cell and its parts, and the evolutionary implications
- 9:10 - 9:50 **Nancy Moran** (University of Texas at Austin)
Genomic evolution in heritable endosymbionts
- 9:50 - 10:10 *Break*
- 10:10 - 10:50 **John Archibald** (Dalhousie University)
One plus one equals one: historical and modern perspectives on endosymbiotic theory
- 10:50 – 11:30 **Michael Travisano** (University of Minnesota)
Origins of multicellular complexity
- 11:30 – 12:00 **Pu Wang** (University of Minnesota)
Synergistic cooperation during the evolution of multicellularity

Host: Deng-Ke Niu

- 13:30 - 14:10 **Howard Ochman** (University of Texas at Austin)
The evolution of bacterial genes and genomes
- 14:10 – 14:50 **Jeffrey Barrick** (University of Texas at Austin)
Tempo and mode of genome evolution in laboratory populations of *E. coli*
- 14:50 – 15:30 **Nick Colegrave** (University of Edinburgh)
The effects of new mutation in *Chlamydomonas*
- 15:30 - 15:50 *Break*
- 15:50 – 16:30 **Xiong-Lei He** (Sun Yat-sen University)
The genotype-phenotype relationships in the light of evolution
- 16:30 – 17:10 **Jian Lu** (Peking University)
Adaptive evolution of uORFs and functional relevance in *Drosophila*
- 17:10 – 17:40 **Yi-Rong Wang** (Peking University)
Convergent and divergent evolution of microRNA regulation
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Sunday June 25

Host: Jian Lu

- 8:30 - 9:10 **Rees Kassen** (University of Ottawa)
Evolutionary ecology and genetics of antibiotic resistance
- 9:10 - 9:50 **Sam Brown** (Georgia Tech.)
Effective and evolutionarily robust antimicrobial therapeutics
- 9:50 - 10:10 *Break*
- 10:10 - 10:50 **Nancy Moran** (University of Texas at Austin)
Evolution of gut microbiota in social bees
- 10:50 – 11:30 **Angus Buckling** (University of Exeter)
Evolutionary ecology of beneficial microbial communities
- 11:30 – 12:00 **Tadashi Fukami** (Stanford University)
Embracing historical contingency in ecological community
assembly: current status of the field

Host: Kui Lin

- 13:30 - 14:10 **Tadashi Fukami** (Stanford University)
Embracing historical contingency in ecological community
assembly: some general insights from nectar microbes
- 14:10 – 14:40 **Yi-Qi Hao** (Georgia Tech)
CF microbiome - observation, experiments, and modeling.
- 14:40 – 15:20 **Sam Brown** (Georgia Tech)
Collective decision-making in bacteria
- 15:20 - 15:40 *Break*
- 15:40 – 16:20 **Xiong-Lei He** (Sun Yat-sen University)
The biology complicated by genetic analysis
- 16:20 – 17:00 **Yuan-Ye Zhang** (Xiamen University)
Evolutionary significance of DNA methylation variation
- 17:00 – 17:30 **Allan Chang** (University of Houston)
Estimating spontaneous mutation rates in the nuclear dimorphic
ciliate *Tetrahymena thermophila*
- 17:30 – 18:00 **Peng-Cheng Yan** (Beijing Normal University)
Inferring evolutionary history in closely related *Juglans* species
with whole-genome sequencing data

Monday June 26

Host: Xiong-Lei He

- 8:30 - 9:10 **Michael Lynch** (Indiana University)
Population genomics of the microcrustacean *Daphnia*
- 9:10 - 9:50 **John Archibald** (Dalhousie University)
Endosymbiosis and genome mosaicism in microbial eukaryotes
- 9:50 - 10:10 *Break*
- 10:10 - 10:50 **Rees Kassen** (University of Ottawa)
Ecology and genetics of diversification in experimental populations of *Pseudomonas*
- 10:50 - 11:30 **Angus Buckling** (University of Exeter)
Bacteria-virus antagonistic coevolution
- 11:30 – 12:10 Quan-Guo Zhang (Beijing Normal University)
What limit evolutionary rescue?

Host: Quan-Guo Zhang

- 13:30 – 14:10 **Howard Ochman** (University of Texas at Austin)
The universality of biological species
- 14:10 – 14:50 **Michael Travisano** (University of Minnesota)
Adaptation and convergence
- 14:50 – 15:30 **Nick Colegrave** (University of Edinburgh)
Sex, chance and evolution
- 15:30 - 15:50 *Break*
- 15:50 – 16:30 **Jeffrey Barrick** (University of Texas at Austin)
Understanding a rare metabolic innovation in a long-term *E. coli* evolution experiment
- 16:30 – 17:00 **Xiao-Lin Chu** (Beijing Normal University)
Do warmer temperatures increase mutation rate and accelerate natural selection?
- 17:00 – 17:30 **Yancong Zhang** (Beijing Normal University)
Genomic data from experimental populations of *Escherichia coli* provide convincing evidence that selection is stronger under stress
- 17:30 – 18:00 **Sidra Aslam** (Beijing Normal University)
Aerobiosis Decreases the Genomic GC content in Bacteria
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Brief introduction of speakers (报告人简介):

John Archibald, Distinguished Research Professor at Dalhousie University (Canada); BSc (1997, Dalhousie University), PhD (2001, Dalhousie University).

Sidra Aslam, graduate student at Beijing Normal University.

Jeffery Barrick, Assistant Professor at University of Texas at Austin (USA); BSc (2001, California Institute of Technology); PhD (2006, Yale University).

Sam Brown, Associate Professor at Georgia Institute of Technology (USA); BSc (1994, University of Cambridge); PhD (2000, University of Cambridge).

Angus Buckling, Professor at University of Exeter (UK); BSc (1995, University of Bristol), PhD (1998, University of Edinburgh).

Allan Y-C. Chang, postdoc at University of Houston (USA). Bsc (2000, Case Western Reserve University); PhD (2013, University of Minnesota).

Xiao-Lin Chu, graduate student at Beijing Normal University.

Nick Colegrave, Professor at University of Edinburgh (UK); BSc (1990, University of Sussex), PhD (1995, University of Sheffield)

Tadashi Fukami, Associate Professor at Stanford University (USA); BSc (1996, Waseda University); PhD (2003, University of Tennessee).

Yi-Qi Hao, Postdoc at Georgia Institute of Technology, BSc (2011, Beijing Normal University), PhD (2016, Beijing Normal University).

Xiong-Lei He, Professor at Sun Yat-sen University. Bsc (1998, Sun Yat-sen University), PhD (2007, University of Michigan).

Rees Kassen, Professor at University of Ottawa (Canada); Bsc (1995, Queen's University), PhD (2001, McGill University).

Jian Lu, Research Professor at Peking University. PhD (2008, University of Chicago).

Michael Lynch, Distinguished Professor at Indiana University, member of National Academy of Sciences USA. BSc (1973, St. Bonaventure University), PhD (1977, University of Minnesota).

Nancy Moran, Leslie Surginer Endowed Professor at University of Texas at Austin). BSc (1976, University of Texas); PhD (1982, University of Michigan)

Howard Ochman, Professor at University of Texas at Austin. Bsc (1975, Vassar College), PhD (1984, University of Rochester).

Michael Travisano, Professor at University of Minnesota. BSc (1983, Columbia University), PhD (Michigan University).

Pu Wang, PhD student at University of Minnesota.

Yi-Rong Wang, graduate student at Beijing Normal University.

Peng-Cheng Yan, graduate student at Beijing Normal University.

Quan-Guo Zhang, Research professor at Beijing Normal University. BSc (2001, Beijing Normal University); PhD (2005, Beijing Normal University); PhD (2008, University of Oxford)

Yancong Zhang, graduate student at Beijing Normal University.

Yuan-Ye Zhang, Assistant professor at Xiamen University. BSc (2006, Beijing Normal University), PhD (2013, University of Bern).