

MEETING AGENDA

Bats: New Models for Aging Research

The Banbury Center, Cold Spring Harbor Laboratory, New York, USA March 11-14, 2018

This meeting was funded by Cold Spring Harbor Laboratory Corporate Sponsor **Program**

Organizers:

Emma Teeling, University College Dublin, Ireland Steven Austad, University of Alabama at Birmingham, USA

By far, the most successful mammals in healthy aging are the bats: Some species live nearly 10 times longer than an average mammal of the same size (humans live less than 5 times longer). Wild bats must maintain muscle strength and agility as well as exquisite echolocation to capture prey and avoid predators. Their muscles must recover quickly after long periods of immobility, given extensive bouts of hibernation, something that human muscles, particularly in the elderly, do not. They also resist cancer, heart dysfunction, and infectious diseases. This Banbury Center workshop convened a cross-disciplinary group of experts to explore the underlying molecular basis of extended health and longevity in bats, and to suggest strategies for integrating the discoveries from this model species into broader aging studies.

SUNDAY, MARCH 11

Afternoon Participant arrivals 6:00 pm Reception, dinner

MONDAY, MARCH 12

7:15 am Breakfast

8:30 am Welcome and Introductory Remarks

> Rebecca Leshan, Director, The Banbury Center, Cold Spring Harbor Laboratory Steven Austad, University of Alabama at Birmingham



9:05 am **SESSION I: Bat Biology: An Aging Context**

Nancy Simmons, American Museum of Natural History, New York, USA Gerald Wilkinson, University of Maryland, College Park, USA Dina Dechmann, Max Planck Institute for Ornithology, Radolfzell, Germany Sébastien Puechmaille, University of Greifswald, Germany Sonja Vernes, Max Planck Institute for Psycholinguistics, NiJmegen, Netherlands

12:05pm General Discussion

12:30 pm Luncheon at Robertson House

2:00 pm SESSION II: Comparative Approaches to Aging

Vera Gorbunova, University of Rochester, Rochester, USA Vadim Gladyshev, Harvard Medical School, Boston, USA Richard Miller, University of Michigan, Ann Arbor, USA Woodring Wright, UT Southwestern Medical Center, Dallas, USA Emma Teeling, University College Dublin, Ireland Rozalyn Anderson, University of Wisconsin, Madison, USA

5:30 pm General Discussion

6:15 pm Reception at Robertson House, dinner

TUESDAY, MARCH 13

7:15 am Breakfast

8:45 am SESSION III: Mechanisms to Measure Aging and its Intervention

David Gems, University College London, UK

Peter Fedichev, Gero LLC & Moscow Institute of Physics and Technology, Moscow, Russian Federation

Felipe Sierra, National Institute of Aging, NIH, Bethesda, USA

Steve Horvath, University of California, Los Angeles, USA

Daniel Promislow, University of Washington, Seattle, USA



11:45 am General Discussion

12:30 pm Luncheon at Robertson House

2:00 pm SESSION IV: Flight, Immunity, Hibernation and Longevity

Liliana Dávalos, Stony Brook University, Stony Brook, USA Vishwa Deep Dixit, Yale University, New Haven, USA Katherine Belov, The University of Sidney, Australia Ken Storey, Carleton University, Ottawa, Canada Emma Teeling, University College Dublin, Ireland

5:00 pm **General Discussion**

6:00 pm Reception, dinner

WEDNESDAY, MARCH 14

7:15 am Breakfast at Robertson House

8:30 am SESSION V: Breakout Groups

Steven Austad, University of Alabama at Birmingham

10:45 am SESSION VI: Meeting Wrap-Up and Next Steps

Steven Austad, University of Alabama at Birmingham Emma Teeling, University College Dublin, Ireland

12:00 pm Luncheon

2:00 pm Afternoon departures



MEETING PARTICIPANTS

Rozalyn Anderson, University of Wisconsin

Steven Austad, University of Alabama at Birmingham

Katherine Belov, The University of Sydney

Liliana Dávalos, Stony Brook University

Dina Dechmann, Max Planck Institute for Ornithology

Vishwa Deep Dixit, Yale University

Peter Fedichev, Gero LLC/Moscow Institute of Physics and Technology

David Gems, University College London

Vadim Gladyshev, Harvard Medical School

Vera Gorbunova, University of Rochester

Steve Horvath, University of California, Los Angeles

Dick McCombie, Cold Spring Harbor Laboratory

Richard Miller, University of Michigan

Daniel Promislow, University of Washington

Sébastien Puechmaille, University of Greifswald

Felipe Sierra, National Institute on Aging, NIH

Nancy Simmons, American Museum of Natural History

Ken Storey, Carleton University

Emma Teeling, University College Dublin

Sonja Vernes, Max Planck Institute for Psycholinguistics

Gerald Wilkinson, University of Maryland

Christopher Wright, Journalist

Woody Wright, UT Southwestern Medical Center