



Dear Colleague,

We wish to extend a cordial invitation to you to participate in the **5th International Berlin Bat Meeting: Are bats special?** to be held in Berlin, Germany, from 10-12 March 2017.

AIM

With this conference, we would like to foster an exchange of ideas related to the question 'Are bats special?' We are especially keen on crossing disciplinary boundaries and hope that the discussion among ecologists, geneticists, morphologists, physiologists, immunologists, virologists and conservationists will advance the field substantially. We suggest several exciting topics as sessions or workshops. In addition, we have invited plenary speakers to review novel applications and exciting developments in their respective research areas.

PLENARY TALKS (TENTATIVE TITLES)

- **Are bats birds with respect to flight?** (ANDERS HEDENSTRÖM, SWEDEN)
- **What is unique about bat vocalizations?** (CYNTHIA MOSS, U.S.A.)
- **Why are bats long-lived animals?** (JERRY WILKINSON, U.S.A.)
- **How important is heterothermy for bats?** (CRAIG WILLIS, CANADA)
- **Is the immunology of bats particularly potent?** (MICHELLE BAKER, AUSTRALIA)
- **What does NGS tell us about the diversity of bats?** (EMMA TEELING, IRELAND)
- **Are bats special as conservation targets?** (PAUL RACEY, UNITED KINGDOM)

TENTATIVE LIST OF SESSIONS (CONFIRMED ORGANIZERS)

- **BAT FLIGHT** (SHARON SWARTZ, U.S.A., ANDERS HEDENSTRÖM, SWEDEN)
- **BAT ECHOLOCATION** (LUTZ WIEGREBE, GERMANY, MIRJAM KNÖRNSCHILD, GERMANY)
- **BAT LONGEVITY** (DAVID COSTANTINI, BELGIUM)
- **BAT HETEROOTHERMY** (MELANIE DAMMHAHN, GERMANY)
- **BAT IMMUNOLOGY** (GÁBOR Á. CZIRJÁK, GERMANY, MARCEL MÜLLER, GERMANY)
- **BAT EVOLUTION AND RADIATION** (EMMA TEELING, IRELAND, STEPHEN ROSSITER, UNITED KINGDOM)
- **BATS AS SPECIAL CONSERVATION TARGETS** (TIGGA KINGSTON, U.S.A., DINA DECHMANN, GERMANY)

You may submit abstracts for posters or oral presentations. Please note that time slots for oral presentations are limited and therefore oral presentations will be assigned on a competitive basis. Details regarding format and style will be communicated in our next call.

DEADLINES AND COSTS

The deadline for registration and abstract submission is **15 November 2016**. Registration fees are **100 €** for regular participants and **70 €** for student participants (early bird registration before 15 September 2016: 80 € for regular participants and 60 € for student participants).

The deadline for submission of workshop and session titles is **01 August 2016**. Please check our next call for more details.

Please let us know whether you would be interested in organizing or convening a workshop or session.

We are expecting a stimulating program with many interesting scientific presentations supplemented by an entertaining evening programme. Please feel free to distribute this call to anyone you think might be interested in participating. We apologize in case you received this letter more than once. If you have any questions, please contact us at 5thIBBM2017@izw-berlin.de or check the web pages www.izw-berlin.de (-> 'conference', -> 'International Berlin Bat Meeting'; to be launched in June 2016) or www.batlab.de.

We are looking forward to seeing you in Berlin in March 2017!

Christian C. Voigt, Gábor Á. Czirájék and the batlab team

Leibniz Institute for Zoo and Wildlife Research, Berlin (www.batlab.de)

5TH INTERNATIONAL BERLIN BAT MEETING

BERLIN, 10-12 MARCH 2017

TENTATIVE PROGRAM

We invite speakers to present data, projects or comprehensive reviews about the topic “**Are bats special?**” We propose the following sessions:

BAT FLIGHT

Bats are the only mammals capable of powered flight. Wing morphology, aerodynamics and flight performance seem to differ from birds, yet flight metabolic rates are similar. In this session, we will review our current understanding of bat flight, and whether the ability to do flapping flight presented a pre-adaptation for other seemingly unique traits of bats, such as high thermal tolerance, longevity or high immunocompetence.

BAT VOCALIZATIONS

Bats provide textbook examples for echolocation. The sophisticated sonar enables bats to listen to their environment in complete darkness and to explore a multitude of ecological niches. What is unique about bat echolocation? And how does it differ from that of other sonar-using animals? Social calls are diverse in mammals and vocal learning has been attributed only to a few species, yet Chiroptera are outstanding for both social vocalizations and singing. Why do bats have such an extraordinary vocal repertoire and what is its purpose?

BAT LONGEVITY

Bat longevity is remarkable, yet our understanding of why bats are more long-lived than other taxa is poor. Is it related to some unique repair mechanism for damaged DNA, low levels of oxidative stress, high immunocompetence or heterothermy? During this session, we will discuss factors that may be responsible for the longevity of Chiroptera.

BAT HETEROTHERMY

Bats seem to be particularly tolerant towards low and high body temperatures. Almost all bats are capable of torpor, i.e. the ability to reduce core body temperatures during adverse conditions. However, bats also seem to reach high core body temperatures when flying. Is heterothermy related to longevity and how does the immune system change at high and low body temperatures?

BAT IMMUNITY

Recent studies have revealed that bats host a large diversity of viruses, yet there are only a few documented cases of die-offs in bat colonies caused by pathogens. White-nose syndrome is the tragic exception to this rule. Why do we observe this pattern? Why are bats less susceptible towards viral antigens, yet seemingly highly susceptible towards fungal infections?

BAT EVOLUTION AND RADIATION, REVEALED BY NGS

The bat genome seems to be typical for a mammal, yet recent advances in the field of next-generation sequencing may teach us more about what extraordinary traits are correlated. Also, genomic approaches may inform us about the evolutionary scenario under which Chiroptera radiated, making it the second largest order within the Mammalia.

BATS AS SPECIAL CONSERVATION TARGETS

Can a thorough understanding of the exceptional biology of bats help us in refining our conservation efforts for this taxon? Do bats require other conservation approaches as other mammals in particular or vertebrates in general? Are bats particularly susceptible or resilient to anthropogenic changes?