

GATERSLEBEN LECTURE



Speaker: **Jennifer A. Marshall Graves**
(Distinguished Professor, La Trobe School of life
Science, La Trobe University, Melbourne,
Australia)

Title: **Weird animal genomes, sex and the
future of men**

Time: **Friday, September 29, 2017, 2 pm**

Abstract:

In humans and other mammals, females have two X chromosomes, but males have a single X, and a Y that bears a gene (*SRY*) that induces testis differentiation in the embryo and switches on hormones that masculinize the baby. The human X has more than 1500 genes, but the tiny Y is a genetic wasteland – full of genetic junk and bearing few genes, most of them active only in testis. To discover how human sex chromosomes got to be so weird, we compare the chromosomes, genes and DNA in distantly related mammals and even birds and reptiles (with completely different sex determining systems). Kangaroo sex chromosomes reveal the original mammal sex chromosomes, while the bizarre platypus sex chromosomes (more related to those of birds) tell us that human sex chromosomes and the *SRY* gene are relatively young. The human X and Y evolved from an ordinary chromosome pair as the Y degraded progressively. The Y is predicted to disappear in just 5 million years. If humans don't become extinct, new sex determining genes and chromosomes could evolve, leading to the evolution of new hominid species.

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Place: **Lecture Hall, IPK Gatersleben**

Dr. Nils Stein
(organizer)

Prof. Dr. Andreas Houben
(host)

If you are interested in personal discussions with the speaker please contact Nicole Wahle (phone: 039482/5219, email: wahle@ipk-gatersleben.de) beforehand.