

Examensarbete

Degree project

Dept of Evolutionary Biology

Evolutionary Biology Centre

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Evolutionary Genetics of Aging in relation to Sex

Why do males and females of most animal species, including humans, have different lifespan and rate of aging? Nobody knows, but several hypotheses have been put forward. One of the most interesting suggests that differences between the sexes result from the different reproductive roles males and females have. Sexual differences during reproduction have selected for many different characteristics of males and females, including morphology, physiology and behavior. As lifespan and rate of aging is the result of many different processes involved in reproduction, sex-specific selection is an attractive idea explaining why males and females differ for these traits.

In our research group we work with a range of questions in relation to aging and sex. First of all we are interested in testing if differences between the sexes in lifespan and rate of aging are caused by sex-specific selection. We are also interested in how the genetic variation of aging is distributed over the genome, to see if there are any parts that contribute more than others. A long-term goal is also to identify genes regulating sex-specific aging. To address these questions we work with the model organism *Drosophila melanogaster*, which offers a unique set of genetic tools that help us address these questions in a precise manner.



Do not hesitate to contact us if you are interested in doing a project in relation to above questions!

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