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SÉMINAIRE

Reproduction and life history evolution in mammals

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Mammals show a broad array of different life history strategies. Theory suggests that this diversity has evolved because organisms are constrained in their ability to invest in two or more life history traits, and so must trade-off investment in different components. The proximate underlying causes for these trade-offs are largely unknown. I will first present results from experiments that test whether oxidative stress, a pathological process involved in ageing, is a physiological cost of reproduction in house mice (Mus musculus domesticus). I explore whether oxidative stress increases during energetically demanding reproductive periods, such as lactation in females, or accumulates after a long period of reproductive investment. I will then discuss a recent comparative study across mammals. Here I explore how the placenta, an organ that exhibits great morphological diversity, has evolved in relation to different life history strategies.