The following Projects are based in the Brooks lab and may include co-supervision with Dr Michael Kasumovic, Dr Michael Garratt, or other colleagues at UNSW or overseas. We are looking for honours and PhD students interested in evolution and/or behaviour. Possible projects include, but are not limited to the following.

- **Mate choice and life-histories**
  - Physiological and longevity costs of mating and mate choice.
  - How do attractive males affect the fitness of their mates?
  - The factors influencing female competition for mates.

- **Reproductive investment and aging in mice**
  - The costs of “the Bruce effect”.
  - Fitness consequences of delayed / hastened sexual maturity.
  - How does reproductive investment affect longevity in mice?
  - Oxidative stress and male quality in wild house mice.

- **Evolutionary biology of ageing / performance**
  - Sex, diet and ageing in field crickets.
  - The links between diet, condition-dependence and reproductive ageing.
  - Parent-of-origin effects on longevity and ageing.
  - Fat accumulation and the fitness consequences of obesity.
  - Bioenergetics of ageing (+ mitochondrial genetics – with Bill Ballard (BABS)).

- **Ecological and evolutionary genetics**
  - The evolutionary importance of intragenomic sexual conflict.
  - The conflict between males and females over diet optimisation.

- **Human attractiveness and evolutionary psychology**
  - Age-dependent changes in mating behaviour.
  - Studying human sexual preferences using computer animation.
  - Why do men and women lie about their sex lives?
  - The role of food prices in the obesity crisis.
  - Differences among countries and societies in obesity, reproduction, violence, marriage etc.
  - How does economics affect what we find attractive?
  - Why are there so many different types of body shape?
  - What are the consequences of biased sex ratios?
  - Fluctuating fashions for beards.

- **Measuring selection on complex suites of traits**
  - Selection on hormone profiles, anatomy and behaviour in rodents.
  - Seasonal changes in selection on spiders in the wild.
  - Selection in any other suitable organism.