

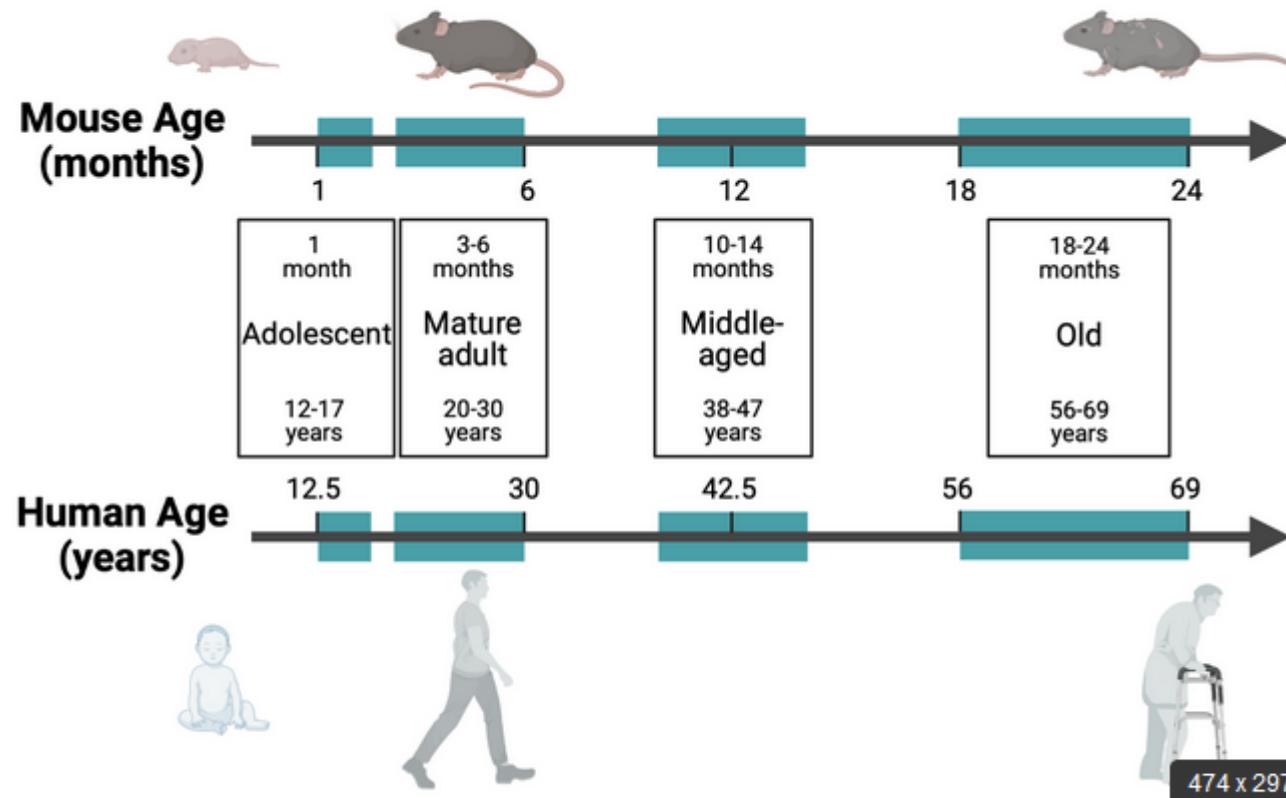
Tips and tricks

Level of pain vs. Procedure (some examples)

Procedure Classifications for Mice and Rats

| Class | 1 | 2 | 3 | 4 |
|------------|--|--|---|--|
| Pain Level | Mild Pain | Moderate Pain | Moderate/Severe Pain | Severe Pain |
| Examples | Subcutaneous implant with trocar Ocular procedures Tracheal injections Skin biopsy/wound Vessel cut down or cannulation Intramuscular injection Subcutaneous osmotic pump Dental extraction | Craniotomy with or without implant Simple laparotomy Embryo transfer Ovariectomy Castration Intra-peritoneal osmotic pump | Laparotomy with major organ manipulation or removal Organ transplant Spinal surgery | Peritonitis/pancreatitis Thoracotomy Hind limb ischemia Spinal or nerve injury Cecal ligation and puncture Orthopedics/Fractures Bone cancer |

Mice vs. Human age



At what age are laboratory mice considered adult? | ResearchGate

Mice vs. Human age

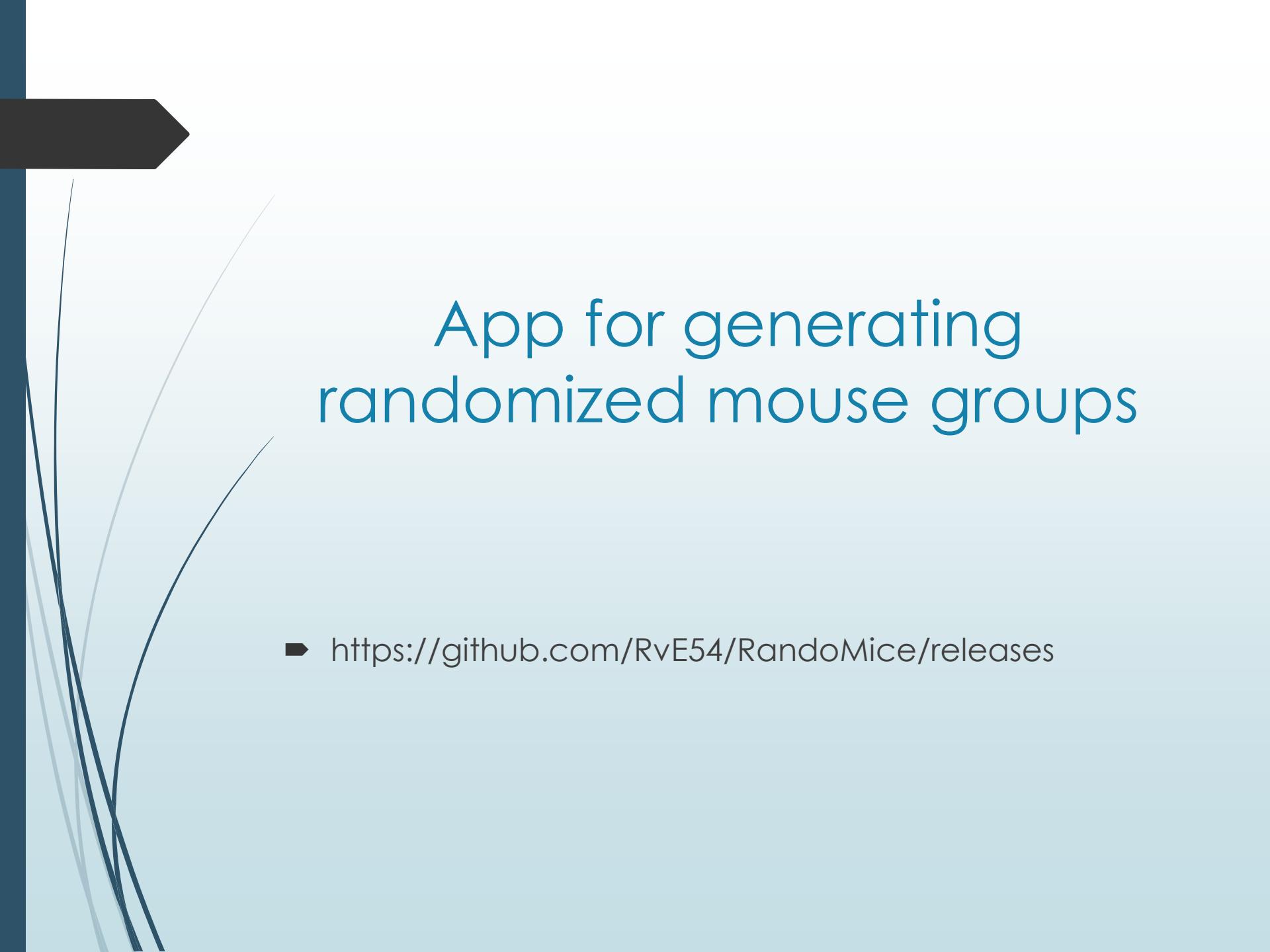
| | Weaning | Puberty | Adulthood |
|-------|---------------|-----------------|-----------------|
| Human | 180d | 11.5y | 20y |
| Mice | 28d | 42d | 10w |
| H/M | $180/28=6.43$ | $4198/42=99.95$ | $7300/70=104.3$ |

1d mouse=6.5d human

1d mouse=100d human

1d mouse=105d human

Ex: a treatment of 10 days at 12w of age in mice = 1050 days in humans \approx 3 years



App for generating randomized mouse groups

- ▶ <https://github.com/RvE54/RandoMice/releases>