October 16, 2020 MSE 2101 topics

- 475 million years ago: the colonization of land
- 245 million years ago: hello, dinosaurs!
- Impacts and extinctions
 - 65 million years ago: the K-T boundary layer
 - the frequency of extinctions of this magnitude?
 - the frequency of 10-15km body impacts?
- Truths or myths about humans?
 - we are primates, right?
 - we evolved from modern apes, right?
 - we share 98% of DNA with chimps, right?
 - different races have different DNA, right?
 - we only have to find the missing link, right?
- Limber arms, dexterous hands, locked-in eyes, parental care
- Hominids through time:
 - 6-7 million years ago: Toumai
 - 4.4 million years ago: Ardi
 - 3.2 million years ago: Lucy
 - 200,000 years ago: Homo sapiens
 - 30,000 years ago: the extinction of Homo neanderthalensis
 - 12,000 years ago: the extinction of *Homo floresiensis*
- Artificial life
 - The top-down (Venter) and the bottom-up (Szostak) approach
 - The ethics of creating life