

BIO61 – Human Heredity  
7/16/13

Student Learning Objectives

By the end of this class you should understand the following:

- The advantages and risks of the major biotechnologies covered today
- The use of enzyme replacement therapy
- The nature of transgenic plants and animals
- The processes and applications involved in stem cell research
- The applications of DNA profiling

Support videos:

- Biotechnology
  - <http://www.youtube.com/watch?v=jF2iXpoG5j8>
  - <http://www.youtube.com/watch?v=zLXpft9GYx4>
  - <http://www.youtube.com/watch?v=ZxWXCT9wVoI>

Vocabulary:

- Biotechnology
- Biopharming
- Enzyme replacement therapy
- Transgenic
- Stem cell
  - Embryonic stem cell
  - Pluripotent cell
  - Adult stem cell
  - Multipotent cell
  - Induced pluripotent stem cell (iPS)
- Genetically modified organism (GMO)
- DNA Fingerprint
  - DNA profile
  - Minisatellite
  - Short tandem repeats
- Bioethics