Big Picture / Theory:

Nurturing $\xrightarrow{\text{promotes}}$ Evolution of Learning $\xrightarrow{\text{leads to}}$ More Intelligent Robots

Overall Goals:

- Evolve Nurturing
- Evolve Learning
- Learn
- Represent Info

Example Research Questions:

- What conditions promote the evolution of nurturing?
- What conditions promote the evolution of learning?
- What types of nurturing can be learned?
- What learning types facilitate learning to nurture?
- What neural structures support the evolution of nurturing and learning?

Example Specific Testable Hypotheses:

- Nurturing is more likely to evolve between parents and offspring than between unrelated individuals.
- Nurturing is more likely to evolve when the parent is more physically capable than the child.
- Social learning promotes the evolution of learning in uncertain environments.
- Safe exploration promotes the evolution of learning in uncertain environments.
- Neuromodulation promotes the evolution of behavioral shifts based on developmental state.

Example Experiments:

- Light switching w/ one or two populations.
- Light switching w/ fast or slow child.
- Patch tracking under social learning w/ RL possible.
- Patch tracking under safe exploration w/ RL possible.