

## **Project Summary**

### **Matt Tanner**

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Matt Tanner is working with John Miller to study a simple example of learning in cellular automata. He is specifically studying how the automata react to signals dropped by others. The behavior of each automaton is governed by a simple machine that tells it what to do when faced with a signal or an empty space. Every generation, the top performing automata reproduce with a small amount of mutation. This will hopefully allow them to evolve to the point that they can develop simple behaviors such as clumping. A biological analogy to this project would be the development of pheromone signaling in ants.