

Sickle-Cell Alleles

Part 1: Sickle-Cell Disease and Malaria

A clue to why a deadly genetic disease persists in Africa involves mosquitoes and some interesting evolutionary dynamics.

- Sickle-Cell Disease: A Hereditary Blood Disorder
- Simulating Malaria and Sickle-Cell Disease
- Moisture, Mosquitoes, and Malaria
- Fitness
- Summary of Part 1

Part 2: The Interplay of Evolutionary Forces

A combination of interacting factors determines how a gene in a population will evolve.

- Establishment of New Alleles
- Genetic Drift
- Summary of Part 2

Part 3: Making Predictions: Hardy and Weinberg

The Hardy-Weinberg equation lets you generate and test hypotheses about evolution.

- The Hardy-Weinberg Principle
- The Hardy-Weinberg Equation
- Hardy-Weinberg: A Null Model
- Summary of Part 3

Part 4: On Your Own

Open-ended simulations: a virtual evolution playground.

- More to Explore

Part 5: Quiz Questions

Quiz Questions

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