

Mendelian Pigs

© 2020, SimBio. All Rights Reserved.

Contents

Section 1: Breed Your Bacon

Experiment with crosses, using Punnett squares to explore the rules of inheritance.

- A Tragic Fate for Blondes?
- Pure-breeding Herds
- The Rules of Inheritance
- Mendel's Model
- First Back Cross
- Second Back Cross
- Exercise Summary

Section 2: Pigmented Pigs

Learn how melanocytes produce coat color, and examine the molecular basis for dominance among different versions of MC1R.

- Pigs with Patterns: How?
- Overview of Melanin Production
- The S Allele
- Melanocyte Simulator
- Exploring Crosses
- Exercise Summary

Section 3: Going Hog Wild

Apply what you've learned to make and test both family-level and population-level predictions about patterns in coat color.

- Whole Populations of Pigs
- Genes in Populations
- Punnett Squares for Populations
- Hungry Wolves
- Will Blondness Really Disappear?
- Exercise Summary

Section 4: Graded Questions

Graded Questions