

Cell Division

Case Study – Meiosis

Today, I want to introduce you to Professor Chiszar, a herpetologist in the Department of Psychology and Neuroscience at the University of Colorado. Professor Chiszar studies snakes, and is particularly interested in timber rattlesnakes. Timber rattlesnakes are a type of pit viper, which are characterized by sensory organs (pits) near their mouth that can detect infrared radiation. Another interesting thing about them is that they don't lay eggs, but instead incubate their eggs internally so the little baby snakes are born "alive and wriggling," as Smeagol (i.e. Gollum from Lord of the Rings) might say. Another interesting point that's important to keep in mind is that these baby snakes are produced by a rather common process: male snakes produce sperm; female snakes produce eggs. Following mating, the two cells merge inside the female and the fertilized egg develops into a baby snake that typically has either testes or ovaries.

One day Professor Chiszar got the surprise of his life! He walked into his laboratory and looked into Marsha Joan's cage. Marsha Joan was a female timber rattler that he had collected fourteen years ago when she was just a tiny baby. Since then, Marsha Joan had lived her entire life alone in a cage in Prof. Chiszar's lab, at least as far as Professor Chiszar knew. But today, Marsha Joan wasn't alone! There was a tiny baby snake with her. How did the baby get there? And one more interesting fact to consider: the baby snake is a boy!

[Why meiosis matters](#)