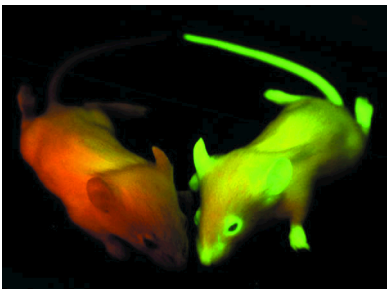




Pre-Lab Questions:

1. Green fluorescent protein is normally found in a jellyfish called *Aequoria victoria*, and it makes the jellyfish glow. What do you think jellyfish use this glowing trait for?
2. This is a picture of a mouse that was genetically engineered with the GFP gene, beside a mouse that was NOT genetically engineered.



Which mouse was genetically engineered, and how do you know?

Why do you think scientists performed this experiment?

Photo taken from:

<https://www.leica-microsystems.com/science-lab/fluorescent-proteins-from-the-beginnings-to-the-nobel-prize/#fancybox-5256-6>

Post-Lab Questions:

1. Give one example of how GFP can be used as a “reporter” in research.
2. What is the name of the small circular piece of DNA used to transfer new genes into bacterial cells?
3. What wavelength of light is required to make GFP fluoresce in living cells?
4. Name one of the scientists who shared the 2008 Nobel Prize in Chemistry for “for the discovery and development of the green fluorescent protein, GFP,” and describe his contribution.