anesthesiologist (noun): a doctor who administers anesthesia and treats pain.

- Anesthesiologists carefully monitor patients throughout a medical procedure using a variety of devices that display blood pressure, blood oxygen levels, heart function, and respiration. They adjust medications as needed to make sure each patient remains safe.

- Anesthesiologists can also help treat chronic or acute pain outside the operating room, and may conduct research as well.

machine learning (noun): a type of artificial intelligence in which computer algorithms (sets of rules and procedures) are developed to analyze and make predictions from data that’s fed into the system.

neuroengineering (noun): the field combining engineering techniques and technology with neuroscience (the study of the nervous system).

binding site (noun): a region on a large molecule, such as a protein within a living organism, where another molecule can attach (called binding). Only specific molecules can attach to each binding site (think of puzzle pieces fitting together).

- Knowing the shape of a binding site helps scientists create targeted drug treatments.

neuron (noun): a cell within the nervous system that transmits information to other nerves, muscles, or gland cells.

anesthesia (noun): a loss of sensation; a medical treatment that prevents patients from feeling pain during surgery and other medical procedures.

- Some anesthetics (drugs doctors use to produce anesthesia) cause numbness in a specific area, while others cause unconsciousness as well.

anesthesia researcher (noun): a scientist who studies anesthesia and its effects on the brain and body in order to investigate questions about the nature of pain, consciousness, and unconsciousness, and how to develop even more effective anesthetics.