

What makes us human? These pieces of donated brain tissue may offer answers

Half an hour earlier, this piece of neural tissue was tucked inside a 41-year-old woman's head, on her left side, just above the ear. Surgeons removed the tissue to reach a deeper part of her brain thought to be causing severe seizures.

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[P]ieces of the woman's brain will be whisked into the hands of eager scientists, where the cells will be photographed, zapped with electricity, relieved of their genetic material and even infected with viruses that make them glow green and red. It's all part of a project at the Seattle-based Allen Institute for Brain Science.

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The ultimate aim is to answer one of the biggest questions in neuroscience: What makes us human?

The answer won't be simple. But already, the project has turned up hints about what makes the human brain so powerful. Live-tissue experiments have revealed cellular quirks that may be specific to primates and have turned up new details about a mysterious type of nerve cell, or neuron. Other tantalizing discoveries show that humans and mice have very similar numbers of neuron types. This kind of detailed cellular reckoning is a necessary early step on the path to understanding human thoughts, behaviors and abilities.

Read full, original post: [How pieces of live human brain are helping scientists map nerve cells](#)