**CLARITY OPENS WINDOW TO BRAIN CIRCUITRY, new era for neuroscience – [**<https://www.youtube.com/watch?v=Z2yQJ1cexO4>**]**

Creatinga new brain imaging techniques is one of today’s greatest engineering challenges. Electrical Impulses from one part to the other is transmitted by neurons. The connections between the neurons in the brain are involved in everything we do, and no one’sconnection pattern is the same.

CLARITY has developed a new imaging technology that essentially makes the brain transparent. They took the brain tissue of different dead animals and dissolved the opaque, milky layer and opens window to brain circuitry, a new era of neuroscience. They inserted a transparent hydrogel in place of the tissue and made easy to look up the arrangement of neurons. This keeps brain intact and provides the brain’s neural structure. There are three different colours like green, red and blue which are the labels for different kinds of cells. They can generate detailed 3D structure that specify neuronal networks and helps to fix the problem. For example in the people suffering from depression the up and down connection of neurons can also be identified by this technology. It also helps in studying the electrical pathways of heart and fibres in the spinal cord which are damaged and cause pain. With this medical advancement and support of National Science Foundation (NSF) they hailed a new way of whole brain imaging.