Rainbow hair spots locked-in people

THE colourful Mohawk to the right isn’t just for show: it could help identify people who are locked in their bodies with no way to communicate.

People who are in a vegetative or minimally conscious state after a brain injury can sometimes have some awareness of their surroundings. It can be difficult for doctors and family to work out how much, though, as they can’t respond physically or verbally.

To help, Tristan Bekinschtein at the University of Cambridge and his colleagues measured the brain activity of 32 people with disorders of consciousness using an electroencephalograph (EEG) machine. The team analysed the networks of signals between brain regions and compared them with healthy brains to work out which support consciousness, and how they are affected in people with brain injuries.

They discovered that some of the people who appeared to be in an unresponsive state had similar networks of brain activity as healthy volunteers. The same people showed signs of awareness in more laborious tests, such as those in which they have to respond to the command “imagine playing tennis” while having an MRI scan of their brain (PLoS Computational Biology, doi.org/wgn).

The team believe that the technique could lead to a relatively cheap and easy technology that can be used at the bedside to identify people who might have some level of awareness. Helen Thomson