

imagining the brain 2013

MRC

Laboratory of
Molecular Biology

KPMG

Imagining the Brain is a project that invites artists and scientists to take a deep look at the science of the brain and to communicate really complex scientific, ethical, philosophical and social issues using art.

Do I have to study both art and science to enter? No, you have to have a keen interest in both, though.

How it works: you produce a piece of artwork in any format on one of the two topics detailed below.

If it is possible to do a piece of work that fits in with the one of the topics and also with your art coursework, that is fine.

We exhibit all entries in a public exhibition.

The artwork is judged by a panel of professional artists and scientists and prizes are awarded for 1st (£120), 2nd (£90) & 3rd (£60) place. One or more artists are chosen from among the winners to be an artist in residence in the lab over the summer.

The residency lasts for 3-4 weeks and involves you talking to the scientists in the neurobiology division at the Medical Research Council in Cambridge and finding out what projects we are currently working on. You will then produce artwork on the subjects that really inspire you. Your artwork will be used to communicate science to varied audiences all over the world.

You will always be credited for your artwork.

I'm really interested!

Great – go to:

www.endocytosis.org/ImaginingTheBrain

for more information and entry forms.

But I'd like more information?

No problem – contact:

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Changing Brains: Neurotechnology

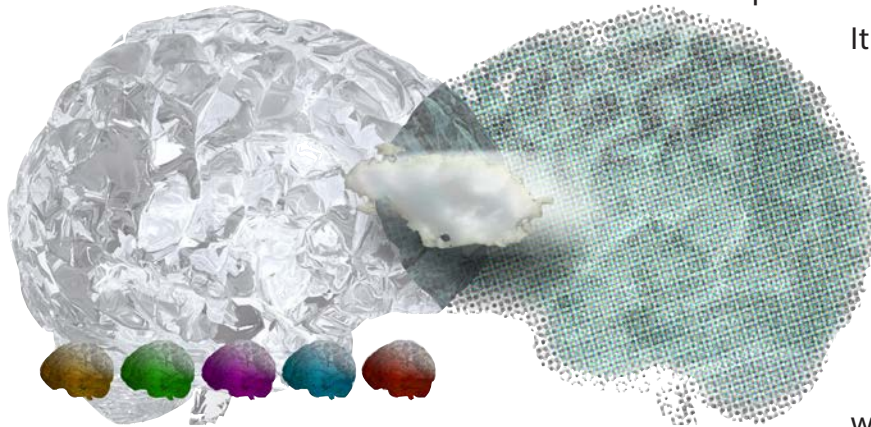
A healthy, fully functional human being experiences catastrophe. A part of the nervous system stops working, due to disease or trauma. It might be a form of blindness or deafness; the person is robbed of that sense.

It might be a spinal injury, resulting in paralysis of one or more limbs. It might be the loss of part of the body – a limb, perhaps an eye. The damage might be even more devastating, resulting in “locked-in” syndrome, in which the sufferer is conscious and can function cognitively, but has no way of communicating with the outside world.

And life is forever changed.

What if it were possible to use medical electronics to bridge the gaps? How would it be if electrical signals from remaining nerves and muscles controlled an artificial limb, or a speech synthesizer? What if damage to the sense organs could be bypassed, allowing hearing or sight using machines to pick up sound or light and signal to the nervous system? Suppose you could control a computer cursor with thought alone?

We will explore the world of neurotechnology; the interface between the human nervous system and electronic devices. When catastrophe changes our lives, can we change our brains to compensate?



Changing Brains: The Teenage Brain

“Our youth now love luxury. They have bad manners, contempt for authority; they show disrespect for their elders and love chatter in place of exercise; they no longer rise when elders enter the room; they contradict their parents, chatter before company; gobble up their food and tyrannize their teachers.”

Socrates ~400BCE

Sound familiar? This rather uncharitable view of teenagers has been voiced throughout the ages. How much of it is true?

It is clear that many things change during adolescence. Sleeping and eating patterns, social interactions, reasoning and risk evaluation are all behaviours that change dramatically. As we enter the final phase before adult maturity, our brains become more specialized, we hone our learning skills, we dare to do things differently. We also suffer: many mental illnesses develop during adolescence: eating disorders, depression, self-harm and schizophrenia.

What is happening inside the teenage brain? We will explore the extraordinary changes that are occurring well into the early 20s and try to develop an understanding of the remarkable changing brain of the teenager.

