News release

13 February 2017

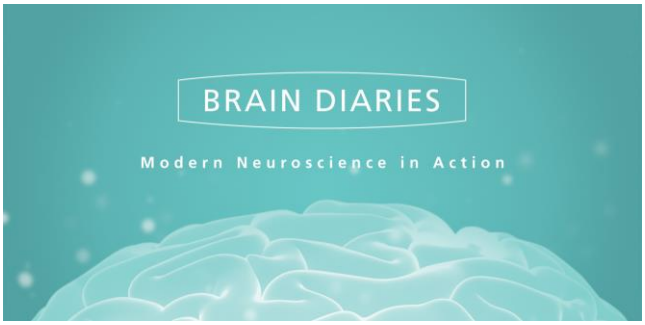
The secret life of your brain is revealed in new exhibition at the Museum of Natural History

Brain Diaries – Modern Neuroscience in Action

10 March – 1 January 2018

braindiaries.org

The brain is a marvel of evolution – and a new exhibition at the Oxford University Museum of Natural History, *Brain Diaries*, unlocks the mysteries of the brain's development at each stage of life, from before birth until old age.



Developed in partnership with Oxford Neuroscience, *Brain Diaries* charts the fascinating changes that take place in the brain with each new chapter of life. It shows how your brain's billions of neurons and trillions of connections make you the person you are.

Featuring specimens from the museum's collections, digital interactives, and video contributions from neuroscientists, *Brain Diaries* will give visitors an insight into some current understandings from the rapidly developing field of neuroscience.

> "Involving over 50 neuroscientists from the University, and in collaboration with Oxford University Museum of Natural History, the *Brain Diaries* exhibition will be a fascinating experience, with something for everyone," said **Professor Christopher Kennard, interim head of the Medical Sciences Division at the University of Oxford**. "As neuroscientists we are thrilled to have this opportunity to share with the public our investigations into the workings of the brain, and our latest steps in turning this understanding into clinical treatments and therapies for neurological and mental health disorders."

Alongside insights from current neuroscience the exhibition also places the human brain in an evolutionary context. A 'brain wall' display will allow visitors to compare the human brain with the brain of a cat, kangaroo, porpoise and other mammals.

There is a tactile element too: a participating neuroscientist has contributed scans of her brain, and the brains of her family, which will be presented as touchable 3D-printed models. These hands-on brains will help visitors get a feel for the size and structure of the human brain at different stages of life.

At the close of the exhibition visitors will be invited to enter a competition to devise their own investigation of the brain using state-of-the-art magnetic resonance imaging (MRI) scanners at the Nuffield Department of Clinical Neurosciences at the John Radcliffe Hospital in Oxford. The successful idea will be carried out by scientists at the hospital in participation with the competition winner.

Opening to coincide with international **Brain Awareness Week**, the exhibition is accompanied by a varied programme of public events, including in-gallery demos, talks, and a brain-inspired family science fair.

> "It is not often we get a chance to display brain specimens from the museum's collections, but the partnership with Oxford Neuroscience presented the perfect opportunity to look at the evolution of the brain alongside the latest neuroscience research," said **Professor Paul Smith, director of the Museum of Natural History**. "As part of the museum's Contemporary Science and Society exhibition series, *Brain Diaries* and its events programme offer a fascinating insight into what's going inside our heads, throughout our lives."

A few more brainy facts from the exhibition:

- Just three weeks after conception, the embryonic brain generates a quarter of a million neurons every minute.
- About 20 per cent of the body's energy is channelled to the brain, yet it remains staggeringly efficient, consuming less energy than a filament light bulb.
- The human brain isn't fully developed until the mid-twenties – much later than experts once thought.
- The internal clock that controls sleepiness runs up to three hours 'late' in teenagers, although scientists aren't quite sure why.
- Even into old age neurons are still building new connections and circuits, maintaining our ability to adapt and learn.

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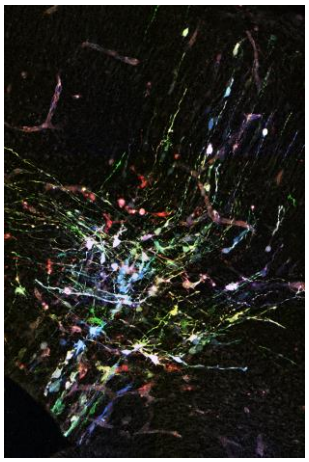
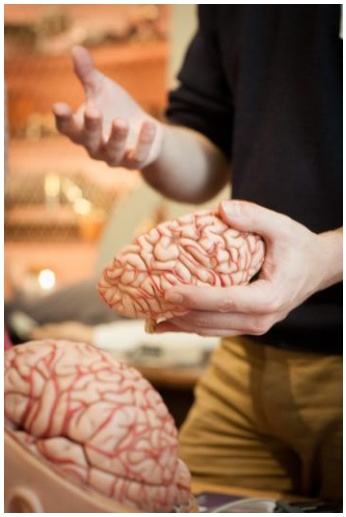
Coronal section through the human midbrain.
Image: Prof. Michael R. Peres, Wellcome Images



Mouse embryonic neocortex.
Image: Fernando García-Moreno



Neuroscientists explain their research at public events
Image: Andrew Walmsley

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Notes to editors

About the Museum of Natural History

Founded in 1860 as the centre for scientific study at the University of Oxford, the Museum of Natural History now holds the University's internationally significant collections of entomological, geological and zoological specimens. Housed in a stunning Pre-Raphaelite-inspired example of neo-Gothic architecture, the Museum's growing collections underpin a broad programme of natural environment research, teaching and public engagement.

In 2015, the Museum was a **Finalist in the Art Fund Prize for Museum of the Year**. In 2016, it won the top accolade, Best of the Best, in the **Museums + Heritage Awards**.

www.oum.ox.ac.uk

www.morethanadodo.com

About Oxford Neuroscience

Oxford Neuroscience is at the forefront of one of the greatest challenges of the 21st century – deciphering how the brain works. Oxford Neuroscience coordinates neuroscience research across four University of Oxford sites, including departments at the John Radcliffe and Warneford Hospitals. Our aim is to translate discoveries from the laboratory through to improving clinical practice.

www.neuroscience.ox.ac.uk