Editorial: Issue 30 - Easter 2014

UNDERSTANDING HOW OUR BRAIN WORKS is one of the most complex puzzles of our time. Just last year the president...

**TUESDAY, 13 MAY 2014** 

# The Human Machine

UNDERSTANDING HOW OUR BRAIN WORKS is one of the most complex puzzles of our time. Just last year the president of the United States, Barack Obama, unveiled a \$100 million initiative to "unlock the enormous mystery of the human brain". Formed by a hundred billion nerve cells, and united through a hundred trillion interconnections, our brain is what defines us as a species and as individuals. It is in charge of all we feel, think and do. In Issue 30 we have taken human cognition as our main theme.

How many times have you made a choice between restaurants or political candidates? How certain are you that you're making objective decisions? In our focus article we review some cognitive biases in human decision making and account for the effects they can have upon our daily lives. In a second article we refer to another type of bias, the psychology behind racial discrimination, unfolding how it is rooted in us. Although it may feel frightening to know the extent of this bias, it is only through awareness that we can overcome it. Finally, we discuss another aspect of human cognition: the tricks our mind can play on us through optical illusions.

Many other subjects also draw our attention on this Issue. We explain why parasites can have a different effect on people according to their blood type, review the recent outbreak of a virus that has unsettled the Middle East, account for the evidence behind the popular belief that vegetables in our diet have positive effects upon our health and describe how hundreds of animals use body movements to communicate. We also refer to some of the front-line technology that is revolutionising the world we're living in: we explain how quantum computing works, and discuss the possible outreach of stem cells therapies.

We also celebrate the lives of two extraordinary figures that have shaped the modern world: The British biochemist who taught us how to read the code of life, Frederick Sanger, and the South African philanthropist Nelson Mandela. Both men were born in 1918 and died late in 2013.

This Issue is the product of the joint effort of dozens of people. Both authors and editors have very different academic backgrounds. It is thanks to this diversity that we find a great mixture of topics and perspectives across the Issue. If you would like to be one of the people contributing to this magazine we're always looking for people to get involved in BlueSci.. *Ornela De Gasperin Quintero* 

## Issue 30: Easter 2014

Editor: Ornela De Gasperin Quintero

Managing Editor: Sarah Smith

Business Manager: Michael Derringer

Second Editors: Sarah Smith, Simon Watson, Ana Duarte, Ornela De Gasperin Quintero, Ellie Powell, Virginia Rutten, Martha Stokes, Nathan Smith, Christine Weber, Ellie Smith, Joanna-Marie Howes, Alex O'Bryan Tear, Madeline Kavanagh, Irene Marco-Rius, Caitlin Stewart, Courtney Landers, Tam Stojanovic, Kerstin Timm, Oliver Pambos, Chris Wan, Caroline Steel, Laura Burzynski

**Copy Editors:** Oliver Pambos, Sarah Smith, Simon Watson, Ana Duarte, Robin Lamboll, Zaria Gorvett, Alison Mackintosh, Tiffany Mak, Shirin Ashraf, Ornela De Gasperin Quintero

News Editor: Joanna-Marie Howes

News Team: Joanna-Marie Howes, Zac

Baynham-Herd, Colin Evans

Reviews: Sarah Smith, Ornela De Gasperin Quintero, Caitlin Stewart

Focus Team: Shirin Ashraf, Alex O'Bryan Tear, Robin Lamboll, Ornela De Gasperin Quintero

Weird and Wonderful: Nathan Smith, Courtney Landers, Martha Stokes

**Production Team:** Sarah Smith, Simon Watson, Ana Duarte, Michael Nicoll, Carol O'Brien, Martha Stokes, Ornela De Gasperin Quintero

Illustrators: Aleesha Nandhra, Danni Jervis, Jessica Bennett, Susannah Sendall, Alex Hahn

Cover Image: Wellcome Trust Images

#### References

## **Features**

Blood groups and Infection - http://aje.oxfordjournals.org/content/121/6/791.short

Eyes see - http://lecerveau.mcgill.ca/flash/capsules/articles pdf/type eye movements.pdf

Shake it! - Fabre CCG, Hedwig B, Conduit G, Lawrence PA, Goodwin SF, Casal J. Curr. Biol. 2012 Oct; 22(22):2180-2185

On the origin of (a virus) species - http://www.nature.com/ncomms/2014/140128/ncomms4067/full/ncomms4067.html

Health boosting greens - http://www.ncbi.nlm.nih.gov/pubmed/23679237

## Regulars

Decoding Quantum Computing - https://www.youtube.com/watch?v=vI\_-LsQLwkA The Psychology of Discrimination - http://onlinelibrary.wiley.com/doi/10.1111/j.1530-2415.2010.01223.x/full Royal to the Bone - http://www.bbc.co.uk/news/science-environment-11996981 Frederick Sanger - http://en.wikipedia.org/wiki/Frederick\_Sanger Stem Cells - http://www.annualreviews.org/doi/full/10.1146/annurev.med.58.070605.115252

Browse international scientific events, from conferences to seminars

