

THE BARONESS GREENFIELD, CBE



PA: Abby Collins
E-mail: sagpa@susangreenfield.com
Tel: +44 (0) 7710 443 110
Website: www.neuro-bio.com
www.susangreenfield.com

Summary

Susan Greenfield was both an undergraduate and graduate at Oxford University, taking a DPhil in the Department of Pharmacology in 1977. She subsequently held research fellowships in the Department of Physiology Oxford, the College de France Paris, and NYU Medical Center New York. In 1985 she was appointed University Lecturer in Synaptic Pharmacology, and Fellow and Tutor in Medicine, Lincoln College, Oxford, before promotion to a University Professorship in 1996. From 1998 to 2010 she served as Director of the Royal Institution of Great Britain, a post held jointly with her chair in Oxford. She is now CEO of a biotech company, Neuro-Bio Ltd (neuro-bio.com) which she founded in 2013 to develop a disruptive approach to Alzheimer's disease, based on her research exploring novel brain mechanisms linked to neurodegeneration.

Greenfield has been awarded 32 Honorary Degrees from British and foreign universities and in 2000 was elected to an Honorary Fellowship of the Royal College of Physicians. Further international recognition of her work has included the 'Golden Plate Award' (2003) from the Academy of Achievement, Washington, the L'Ordre National de la Légion d'Honneur (2003), from the French Government, and the 2010 Australian Medical Research Society Medal. She was awarded a CBE in the Millennium New Year's Honours List, and was granted a non-political Life Peerage in 2001. In 2004 and 2005, she was 'Thinker in Residence' in Adelaide, reporting to the Premier of South Australia on applications of science for wealth creation. She served as Chancellor of Heriot Watt University 2005-2012, and in 2007 was elected into the Fellowship of the Royal Society of Edinburgh. From 2014 - 2016 she held an annual Visiting Professor at the Medical School, University of Melbourne.

Greenfield also has an interest in wider aspects of the human mind: in 1995 she published her own theory of consciousness *Journey to the Centres of the Mind* (1995), which was developed substantially in *The Private Life of the Brain* (2000). Meanwhile, her book *The Human Brain: A Guided Tour* (1997) ranked in the British best-seller lists as a popular introduction to the brain for non-specialists. It was followed by *Tomorrow's People: How 21st Century technology is changing the way we think and feel* (2003), which explored human nature and its potential vulnerability in an age of technology. These ideas were expanded in her later book, *ID: The Quest for Identity in the 21st Century* (2009). In addition, she has written a novel '2121: A Tale from the Next Century', published in 2013, which describes a dystopia century ahead in the future. The theme of unprecedented changes to contemporary human cognition, arguably comparable in its significance to Climate Change, was briefly explored in a monograph *You and Me* (2011), and was developed further in an in-depth exploration of the impact of technology on the brain in '*Mind Change: How 21st Century Technology is leaving its mark on the brain*' (2014). Returning to an exploration of the physical basis of consciousness '*A Day in the Life of the Brain: Consciousness from Dawn 'til Dusk*' was published by Penguin in October 2016.

As a result of her original background in classics, Greenfield held the Presidency of the Classical Association for 2003 – 2004 and in 2010 was elected to a Fellowship of the Science Museum. From 2000 she was a Forum Fellow at the World Economic Conference at Davos for ten years. In 2002 she authored the *Greenfield Report SET Fair: A Report on the Retention and Recruitment of Women in Science, Engineering, and Technology*. Greenfield has been profiled in a wide range of papers and magazines, voted one of the 100 most influential women in Britain by the Daily Mail in 2003, and 'Woman of the Year' by the Observer in 2000. In 2014 she was included in Debretts 'Top 500' of the most influential people in Britain today.

By decision of the World Academy of Artificial Consciousness (WAAC), Greenfield has been awarded the title of Academician of the WAAC in January 2026. Through Greenfield's influential research on brain mechanisms underlying cognition and neurodegeneration, her leadership in advancing scientific institutions, and sustained engagement with questions at the intersection of mind, brain, and society, Greenfield has helped shape how the scientific community, and the wider public thinks about the nature of conscious experience and its modulation across the lifespan. Greenfield's work has also provided enduring inspiration for interdisciplinary inquiry into consciousness, from synaptic and systems-level perspectives to the broader cognitive and cultural contexts in which conscious states are formed and transformed.

Personal Details

Nationality

British

Education

1962 - 1969 Godolphin and Latymer School for Girls, London
1970 - 1973 St Hilda's College, Oxford University

Degrees

1973 BA (Hons) Oxford University. Experimental Psychology
1974 MA, Oxford University
1977 DPhil, Oxford University. "The origin of acetylcholinesterase in cerebrospinal fluid"

Positions

2020 - 2024 Advisor, Skyrora Ltd.
2014 - 2016 Visiting Professor, Melbourne Medical School
2013 - Present Founder and CEO of Neuro-Bio Ltd
2011 - 2013 Senior Research Fellow, University Dept of Pharmacology Oxford
2006 Patron, Alzheimer's Research Trust
2005 - 2012 Chancellor, Heriot Watt University
2004 - 2013 Elected to Board of Governors, Weizmann Institute of Science
2004 - 2005 President, the Classical Association
2002 President, Headway: Brain Injury Association
2000 - 2004 Member of Council of Weizman Foundation
1998 - 2016 Senior Research Fellowship, Lincoln College
1998 - 2010 Director of the Royal Institution of Great Britain
1996 - 2013 Professor of Pharmacology, Oxford University
1995 - 1998 Gresham Professor of Physic, Gresham College, London
1988 - 1995 Deputy Director, Squibb Projects
1985 - 1998 Tutorial Fellowship in Medicine, Lincoln College, Oxford
1985 - 1996 University Lectureship in Synaptic Pharmacology, Oxford
1981 - 1984 Junior Research Fellowship, Green College, Oxford
1979 - 1980 MRC-INSERM Exchange Fellowship, College de France, Paris
1978 - 1979 Royal Society Study Visit Award, College de France, Paris
1977 - 1981 MRC Training Fellowship, Physiology Dept, Oxford
1977 - 1978 J.H. Burn Trust Scholarship, Pharmacology Dept, Oxford
1974 - 1975 Dame Catherine Fulford Senior Scholarship, St Hugh's College, Oxford
1973 - 1976 MRC Research Scholarship, Pharmacology Dept, Oxford

Awards

2026 Life Fellowship, Gresham College
2021 First Honorary Patron, Joint Neurosciences Council (JNC)
2017 President's Visiting Fellowship, University of Newcastle, Australia
2012 Governor, The Florey Institute for Neuroscience and Mental Health
2010 Honorary Fellowship, The Science Museum
2010 Australian Society for Medical Research Medal
2010 Fellow, The Science Museum
2007 Fellow of the Royal Society of Edinburgh
2007 Senior Fellow, The Higher Education Academy
2006 Honorary Australian of the Year

2005	Honorary Fellowship, The Royal Society of South Australia
2003	Golden Plate Award, American Academy of Achievement, USA
2003	L'Ordre National de la Légion d'Honneur, France
2001	Life Peerage (Non-Political)
2000	Honorary Fellowship, Cardiff University
2000	Woman of the Year, The Observer
2000	Commander of the British Empire (CBE)
2000	Honorary Fellowship, Royal College of Physicians
1999	Honorary Fellowship, St Hilda's College, Oxford
1996	Distinguished Visiting Scholar, Queens' University, Belfast
1995	Visiting Fellow, Neurosciences Institute, La Jolla, USA

Honorary Degrees

1996	DSc (Hon) Brookes University
1997	DSc (Hon) St Andrew's University
1998	DSc (Hon) Exeter University
1998	DSc (Hon) Sheffield Hallam University
1999	DSc (Hon) University of North London
1999	DSc (Hon) Royal Holloway University
2000	DSc (Hon) Heriot-Watt University
2000	DSc (Hon) University of Staffordshire
2000	DSc (Hon) Brunel University
2000	DSc (Hon) University of Buckingham
2001	DSc (Hon) University of Leicester
2001	DSc (Hon) Richmond American International University
2001	DSc (Hon) Open University
2001	DSc (Hon) University of Leeds
2001	DSc (Hon) University of Birmingham
2001	DSc (Hon) University of Liverpool
2002	DSc (Hon) University of Wales
2002	DSc (Hon) University of Southampton
2002	DSc (Hon) University of Glasgow
2002	DSc (Hon) University of Kent
2002	DSc (Hon) University of Nottingham
2004	DSc (Hon) University of East London
2004	DSc (Hon) Flinders University, Adelaide
2005	DSc (Hon) Thames Valley University
2005	DSc (Hon) University of Dundee
2005	DSc (Hon) Hebrew University of Jerusalem
2005	DSc (Hon) University of Haifa, Israel
2006	DSc (Hon) Queen's University, Belfast
2007	DSc (Hon) The Robert Gordon University, Aberdeen
2009	DSc (Hon) University of Delaware, USA
2014	DSc (Hon) Middlesex University
2015	DSc (Hon) Northumbria University

Publications

Research Papers

Carter, G., Pérez-González, M., Luckas, N.E., Atterbury, M., Watkinson, B., Coen, C.W., Oke, J., Bunka, D., Tolley, A., Green, M., Flynn, H., Shaw, A., Jones, C., Smith, C., Bannerman, A., Garcia-Ratés, S., Luckett, E., Collij, L.E., and Greenfield, S.A., on behalf of the AMYPAD Consortium. A novel salivary biomarker outperforms A β /TAU in predicting likelihood of Alzheimer's progression. *Nature Medicine* (Under Review)

Watkinson, B., Bast, T., Williams, S., Bourgade, K., Garcia-Rates, S., Hasan, S., and Greenfield, S.A. Intracerebral administration of a novel, bioactive peptide induces a biochemical profile in rat brain reminiscent of Alzheimer's disease. *Neurochemical Research* (Under Review)

Stewart, L., Granat, L., (Co-first), Khan, A.M., Carter, G., Harries, L. (subject to confirmation) and Greenfield, S.A. 'An Alternative Approach to Cancer Therapy Prompted by a Previously Undiscovered Process'. *Cancer Letters* (In preparation)

Khan, A.M., Hollings, O., García-Ayllón, M-S., Garcia-Ratés, S., Greenfield, S. A Novel Regulatory System in Brain Development and Death Driven by a Bioactive Peptide Linked to a Specific Isoform of Acetylcholinesterase. *Biomolecules* 2026, 16, 1336.

Komorowska, J., Ranglani, S., McCann, H., Shepherd, C.E., Bratslavsky, M., Pérez-González, M., Seymour, T., Hasan, S., Oke, J., Garcia-Ratés, S., Greenfield, S.A. Increases in a pivotal bioactive peptide in specific brain regions reflect the progression of pathology in Alzheimer's disease. *Alzheimer's Research & Therapy* (September 2026)

Kelly, B., Hasan, S., Garcia-Rates, S., Greenfield, S.A. Site-selective blocking of a bioactive peptide driving neurodegeneration in the rat brain by its cyclised analogue. *Cellular and Molecular Neurobiology*. 2026 Aug 3; 63(1):802

Hasan, S., Kelly, B., Garcia Ratés, S., Greenfield, S.A. Site-selective blocking of a bioactive peptide driving neurodegeneration in the rat brain by its cyclised analogue. *Molecular Neurobiology*. Accepted for Publication; 08 July 2026

Vigil Cardenal, C.; Mahfooz, K.; Hasan, S.; Garcia-Rates, S.; Greenfield, S.A. Therapeutic antagonism of a key toxin driving Alzheimer's Disease: Comparison of a peptide and small molecule. *Biomedicine and pharmacotherapy*, Volume 197, April 2026, 119125

Bonny, G.; Mahfooz, K.; Garcia-Rates, S.; Hasan, S.; Greenfield, S.A. Evaluating the Efficacy of Monoclonal Antibodies Against a Bioactive Peptide Involved in Alzheimer's Disease: A Methodological Approach". *Methods Protoc*. 2026, 9(3), 74

Ghenciulescu, A., Pandit, J.J., Devonshire, I.M, Greenfield, S.A. The Differential Impact of Three Different Anesthetics on Large-Scale Neuronal Activity Measured Using Voltage-Sensitive Dye Imaging in Rat Brain Slices. *July 2025*

Auguste, V., Garcia-Rates, S., Coen, C.W, Greenfield, S.A, Molnar, Z. Widespread Changes in the Immunoreactivity of Bioactive Peptide T14 After Manipulating the Activity of Cortical Projection Neurons. *June 2025*

Hasan, S., Khan, A.M, Garcia-Rates, S., Murphy, R.A, Greenfield, S A. A novel 14myer peptide, T14, is associated with age-dependent behaviour in female mice. *ResearchGate*, Dec 2024, *Neurobiology of Aging* 147

Garcia Porta, C., Mahfooz, K., Garcia-Rates, S., Greenfield, S.A. A Novel 14mer Peptide Inhibits Autophagic Flux via Selective Activation of the mTORC1 Signaling Pathway: Implications for Alzheimer's Disease. *Int. J. Mol. Sci.* 2024, 25, 12837.

Evans, N., Mahfooz, K., Garcia-Rates, S., Greenfield, S. Oxidative Stress Triggers a Pivotal Peptide Linked to Alzheimer's Disease. 16th November 2024. *Int. J. Mol. Sci.* 2024, 25 (22), 12413

Ranglani, S, Hasan S, Komorowska J, Mayag Medina N, Mahfooz K, Ashton A, Garcia-Rates S, Greenfield S. A Novel Peptide Driving Neurodegeneration Appears Exclusively, linked to the $\alpha 7$ Nicotonic Acetylcholine Receptor, 2024 February

Collins, H and Greenfield S A, 2024 "Rodent Models of Alzheimer's Disease: Past Misconceptions and Future Prospects" 25, 6222.

Garcia-Rates S, Garcia-Ayllon M-S, Falgas N. et al. Evidence for a novel neuronal mechanism driving Alzheimer's disease, upstream of amyloid. *Alzheimer's Dement.* 2024; 1-8

Ranglani, S., et al., A Novel Bioactive Peptide, T14, Selectively Activates mTORC1 Signalling: Therapeutic Implications for Neurodegenerative and Other Rapamycin-Sensitive Applications. *Internal Journal of Molecular Sciences*, 2023. 24(12): p.9961.

Ranglani S, Hasan S, Mahfooz K, Gordan J, Garcia-Rates S, Greenfield S. Antagonism of a key peptide "T14" driving neurodegeneration: Evaluation of a next generation therapeutic. *Biomed Pharmacother.* 2023 Nov; 167:115498

Hasan, S., Ahmed, M., Garcia-Rates, S., Greenfield, S.A. (2022) "Antagonizing a novel toxin "T14" in Alzheimer's disease: Comparison of receptor blocker versus antibody effects in vitro". *Biomedicine & Pharmacother.* 2023 Feb; 158:114120

Greenfield, S.A., Ferrati, G., Coen, C. W., Vadisiute A., Molnar, Z., Garcia-Rates, S., Frautschy, S., Cole, G.L. (2022) "Characterization of a Bioactive Peptide T14 in the Human Rodent Substantia Nigra: Implications for Neurodegenerative Disease". *International Journal of Molecular Sciences*.

Garcia-Rates, S., Greenfield, S.A.. (2022) "When a trophic process turns toxic: Alzheimer's disease as an aberrant recapitulation of a developmental mechanism". *International Journal of Biochemistry and Cell Biology.* 149 105260.

Greenfield, S.A., Cole, G.M., Coen, C.W., Frautschy, S., Singh, R.P., Mekittikul, M., Garcia-Rates, S., Morrill, P., Hollings, O., Passmore, M., Hasan, S., Carty, N., Bison, S., Piccoli, L., Carletti, R., Tacconi, S., Chalidous, A., Pedercini, M., Kroeher, T., Astner, H., Gerrard, P.A. (2022). "A novel process Driving Alzheimer's disease validated in a mouse model: Therapeutic potential". *Translational Research & Clinical Interventions*.

Ferrati G., Bion G., Harris A. J. and Greenfield S.A. Protective and reversal actions of a novel peptidomimetic against a pivotal toxin implicated in Alzheimer's disease, *Biomedicine & Pharmacotherapy*, Volume 109, 2019, Pages 1052-1061.

Ferrati, G., Brai, E., Skye, S., Marino, C., Greenfield, SA. (2018) A Multidisciplinary Approach Reveals an Age- Dependent Expression of a Novel Bioactive Peptide, Already Involved in Neurodegeneration, in the Postnatal Rat Forebrain. doi: 10.3390/brainsci8070132

Brai, E., Simon, F., Cogoni, A., Greenfield, SA. (2018) Modulatory effects of a novel cyclized peptide in reducing the expression of markers linked to Alzheimer's disease. *Front. Neurosci.* 13

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Pepper, C, Tu, H, Morrill, P, Garcia-Rates, S, Fegan, C and Greenfield, S. (2017) Tumour cell migration is inhibited by a novel therapeutic strategy antagonising the alpha-7 receptor. *Oncotarget.*

Badin, AS, Fermani, F and Greenfield, SA. (2017) The features and functions of neuronal assemblies: possible dependency on mechanisms beyond synaptic transmission. *Frontiers in Neural Circuits.*

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Badin, S., Eraifej, J, Greenfield, S. A. (2013) High-resolution spatio-temporal bioactivity of a novel peptide revealed by optical imaging in rat orbitofrontal cortex in vitro: possible implications for neurodegenerative diseases. *Neuropharmacology.* 2013 Oct;73:10-8

Garcia-Ratés, S., Lewis, M., Worral R., & Greenfield S. A.(2013) Additive Toxicity of β -Amyloid by a Novel Bioactive Peptide In Vitro: Possible Implications for Alzheimer's Disease. *PLoS ONE* 8(2): e54864

Grandy, T. H., Devonshire, I. M., Greenfield, S. A. (2012) An evaluation of in vivo voltage-sensitive dyes: pharmacological side effects and signal-to-noise ratios. *J Neurophysiol.* 108, 2931-45

Halliday, A. C. & Greenfield, S. A. (2012) From Protein to Peptides: a Spectrum of Non-Hydrolytic Functions of Acetylcholinesterase. *Protein & Peptide Letters* 19, 165-172

Hill, M. R. & Greenfield, S. A. (2011) The membrane chamber: a new type of in vitro recording chamber. *J Neurosci Methods* 195, 15-23

Threlfell, S., Greenfield, S. A. & Cragg, S. J. (2010) 5-HT(1B) receptor regulation of serotonin (5-HT) release by endogenous 5-HT in the substantia nigra. *Neuroscience* 165, 212-220

Halliday, A. C., Kim, O., Bond, C. E. & Greenfield, S. A. (2010) Evaluation of a technique to identify acetylcholinesterase C-terminal peptides in human serum samples. *Chem-Biol Interact* 187, 110-114

Halliday, A. C., Devonshire, I. M., Greenfield, S. A. & Dommett, E. J. (2010) Teaching medical students basic neurotransmitter pharmacology using primary research resources. *Adv Physiol Educ* 34, 205-212

Dommett, E. J., Devonshire, I. M., Plateau, C. R., Westwell, M. S. & Greenfield, S. A. (2010) From Scientific Theory to Classroom Practice. *The Neuroscientist: a review journal bringing neurobiology, neurology and psychiatry*

Devonshire, I. M., Grandy, T. H., Dommett, E. J. & Greenfield, S. A. (2010) Effects of urethane anaesthesia on sensory processing in the rat barrel cortex revealed by combined optical imaging and electrophysiology. *The European journal of neuroscience* 32, 786-797

Devonshire, I. M., Dommett, E. J., Grandy, T. H., Halliday, A. C. & Greenfield, S. A. (2010) Environmental enrichment differentially modifies specific components of sensory-evoked activity in rat barrel cortex as revealed by simultaneous electrophysiological recordings and optical imaging in vivo. *Neuroscience* 170, 662-669

Zimmermann, M., Westwell, M. S. & Greenfield, S. A. (2009) Impact of detergents on the activity of acetylcholinesterase and on the effectiveness of its inhibitors. *Biol Chem* 390, 19-26

Dommett, E. J., Overton, P. G. & Greenfield, S. A. (2009) Drug Therapies for Attentional Disorders Alter the Signal- to-Noise Ratio in the Superior Colliculus. *Neuroscience* 164, 1369-1376

Devonshire, I. M., Preston, M. J., Dommett, E. J., Murphy, K. L. & Greenfield, S. A. (2009) Design and evaluation of a low-cost respiratory monitoring device for use with anaesthetized animals. *Lab Anim-Uk* 43, 382-389

Bond, C. E., Zimmermann, M. & Greenfield, S. A. (2009) Upregulation of alpha 7 Nicotinic Receptors by Acetylcholinesterase C-Terminal Peptides. *Plos One* 4

Zimmermann, M; Grosjen, S; Westwell, M. S; Greenfield, S. A. (2008) Selective enhancement of the activity of C-terminally truncated, but not intact, acetylcholinesterase. *J Neurochem* 104,221-232

Wlodarczyk, A., McMillan, P. F. & Greenfield, S. A. (2008) Voltage sensitive dye imaging of transient neuronal assemblies in brain slices under hyperbaric conditions. *Undersea Hyperbar M* 35, 35-40

Threlfell, S., Exley, R., Cragg, S. J. & Greenfield, S. A. (2008) Constitutive histamine H-2 receptor activity regulates serotonin release in the substantia nigra. *J Neurochem* 107, 745-755

Greenfield, S. A., Zimmermann, M. & Bond, C. E. (2008) Non-hydrolytic functions of acetylcholinesterase - The significance of C-terminal peptides. *Febs J* 275, 604-611

Dommett, E. J., Henderson, E. L., Westwell, M. S. & Greenfield, S. A. (2008) Methylphenidate amplifies long-term plasticity in the hippocampus via noradrenergic mechanisms. *Learn Memory* 15, 580-586

Koch, C. & Greenfield, S. (2007) How does consciousness happen? *Scientific American* 297, 76-83

Dommett, E. J., Westwell, M. S. & Greenfield, S. A. (2007) A multifaceted approach to neuroscience outreach: Meeting the challenges. *Neuroscientist* 13, 447-453

Collins, T. F. T., Mann, E. O., Hill, M. R. H., Dommett, E. J. & Greenfield, S. A. (2007) Dynamics of neuronal assemblies are modulated by anaesthetics but not analgesics. *Eur J Anaesth* 24, 609-614

- Chakraborty, S., Sandberg, A. & Greenfield, S. A. (2007) Differential dynamics of transient neuronal assemblies in visual compared to auditory cortex. *Exp Brain Res* 182, 491-498
- Bond, C. E. & Greenfield, S. A. (2007) Multiple cascade effects of oxidative stress on astroglia. *Glia* 55, 1348-1361
- Bond, C. E. & Greenfield, S. A. (2007) L-type voltage-gated calcium channels regulate astroglial responses to oxidative Stress. *Neuron Glia Biol* 2, S71-S71
- Wlodarczyk, A., McMillan, P. F. & Greenfield, S. A. (2006) High pressure effects in anesthesia and narcosis. *Chem Soc Rev* 35, 890-898
- Onganer, P. U., Djamgoz, M. B. A., Whyte, K. & Greenfield, S. A. (2006) An acetylcholinesterase-derived peptide inhibits endocytic membrane activity in a human metastatic breast cancer cell line. *Bba-Gen Subjects* 1760, 415-420
- Bond, C. E. et al. (2006) Astroglia up-regulate transcription and secretion of 'readthrough' acetylcholinesterase following oxidative stress. *Eur J Neurosci* 24, 381-386
- Mann, E. O., Tominaga, T., Ichikawa, M. & Greenfield, S. A. (2005) Cholinergic modulation of the spatiotemporal pattern of hippocampal activity in vitro. *Neuropharmacology* 48, 118-133
- Mann, E. O., Suckling, J. M., Hajos, N., Greenfield, S. A. & Paulsen, O. (2005) Perisomatic feedback inhibition underlies cholinergically induced fast network oscillations in the rat hippocampus in vitro. *Neuron* 45, 105-117
- Greenfield, S. A. & Collins, T. F. T. (2005) A neuroscientific approach to consciousness. *Prog Brain Res* 150, 11-23
- Greenfield, S. A. (2005) Biotechnology, the brain and the future. *Trends Biotechnol* 23, 34-41
- Greenfield, S. A. (2005) peptide derived from acetylcholinesterase is a pivotal signaling molecule in neurodegeneration. *Chem-Biol Interact* 157, 211-218
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- Zbarsky, V., Thomas, J. & Greenfield, S. (2004) Bioactivity of a peptide derived from acetylcholinesterase: involvement of an ivermectin-sensitive site on the alpha 7 nicotinic receptor. *Neurobiology of Disease* 16, 283-289
- Threlfell, S. et al. (2004) Histamine h3 receptors inhibit serotonin release in substantia nigra pars reticulata. *J Neurosci* 24, 8704-8710
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- Greenfield, S. A. (2003) Brain function. *Arch Dis Child* 88, 954-955
- Day, T. & Greenfield, S. A. (2003) A peptide derived from acetylcholinesterase induces neuronal cell death: characterisation of possible mechanisms. *Exp Brain Res* 153, 334-342
- Bon, C. L. M. & Greenfield, S. A. (2003) Bioactivity of a peptide derived from acetylcholinesterase: electrophysiological characterization in guinea-pig hippocampus. *Eur J Neurosci* 17, 1991-1995
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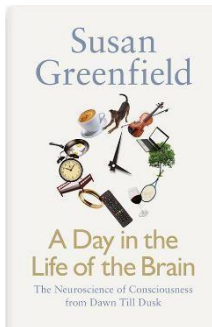
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Books

1) A DAY IN THE LIFE OF THE BRAIN (2016)

Publisher: Penguin



Each of us has a unique, subjective inner world, one that we can never share directly with anyone else. But how do our physical brains actually give rise to this rich and varied experience of consciousness? In this groundbreaking book, internationally acclaimed neuroscientist Susan Greenfield brings together a series of astonishing new, empirically based insights into consciousness as she traces a single day in the life of your brain. From waking to walking the dog, working to dreaming, Greenfield explores how our daily experiences are translated into a tangle of cells, molecules and chemical blips, and thereby probing the enduring mystery of how our brains create our individual selves.

2) MIND CHANGE: HOW DIGITAL TECHNOLOGIES ARE LEAVING THEIR MARK ON OUR BRAINS (2014)

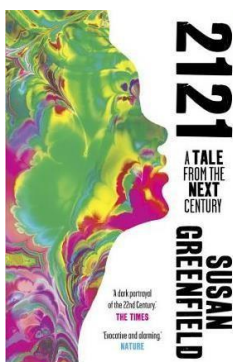
Publisher: Random House



The impact of digital technology on the human brain. The human brain has evolved to adapt to the environment: given the environment is changing in unprecedented as a result of emersion in screen culture, our mental processes might also be changing in an unprecedented way.

3) 2121: A TALE FROM THE NEXT CENTURY (16 JAN 2014)

Publisher: Head of Zeus

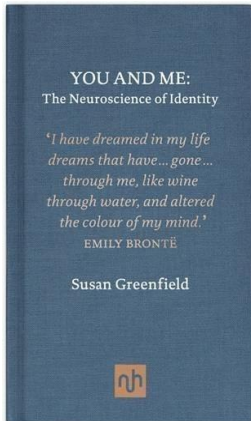


It is many years since the human race gave up its individuality.

Our world is now a place of technicolour, mechanical beauty. Iridescent domes sit upon the ruins of the previous civilization, and small figures wander constantly between them - dancing, singing, running, but never touching. Each of us is immersed in our own virtual reality. We are like children, living in a perpetual summer: ageless, beautiful, and utterly reliant on the lost knowledge of another age. For decades, nothing disturbed our peaceful equilibrium. Until Fred arrived. Until he took one of us from among from us and made her different. Until he showed us what our world was made of...

4) **YOU AND ME: THE NEUROSCIENCE OF IDENTITY (3 NOV 2011)**

Publisher: Notting Hill Editions

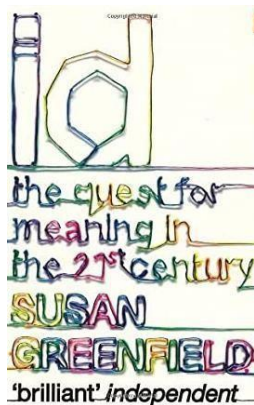


Identity is a term much used yet hard to define. Perhaps for this reason, the concept has long been a favourite with philosophers, and for the very same reason has been avoided by brain scientists - until now. In this neurobiological exploration of identity, Greenfield briefly reviews the social perspective from fingerprints, to faces, to signatures of the many ways we try to identity ourselves, - in vain. The psychiatric perspective however does offer some valuable clues that then leads to an excursion into the physical brain: the neuroscience perspective. But identity cannot just be an objective phenomenon: hence any pertinent brain phenomena have to be seen also, as they are in the following chapter, from an individual perspective. Armed with the insights gained from these diverse approaches, Greenfield attempts to conceive of actual scenarios in the physical brain that would correspond to familiar examples of identity.

However, given the physical brain adapts exquisitely to the environment, and the 21st Century environment is changing in unprecedented ways, are we facing correspondingly unprecedented changes to our identity?

5) **ID: THE QUEST FOR IDENTITY IN THE 21ST CENTURY (2 APR 2009)**

Publisher: Sceptre



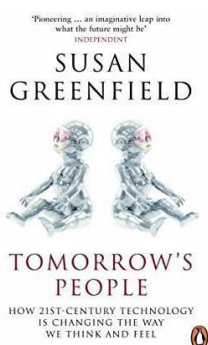
If you've ever wondered what effect video games have on your children's minds or worried about how much private information the government and big companies know about you, ID is essential reading.

Professor Susan Greenfield argues persuasively that our individuality is under the microscope as never before; now more than ever we urgently need to look at what we want for ourselves as individuals and for our future society.

ID is an exploration of what it means to be human in a world of rapid change, a passionately argued wake-up call and an inspiring challenge to embrace creativity and forge our own identities.

6) **TOMORROW'S PEOPLE: HOW 21ST-CENTURY TECHNOLOGY IS CHANGING THE WAY WE THINK AND FEEL (30 SEP 2004)**

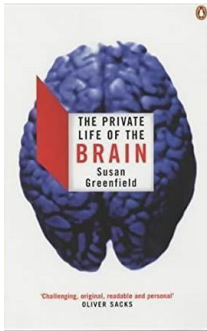
Publisher: Penguin



The book is an exploration of how this century is going to change not just the way we think, but also what we actually think with - our own individual minds. How will new technologies transform the way we see the world? At the beginning of the twenty-first century, we may be standing on the brink of a mind make-over far more cataclysmic than anything that has happened before. As we appreciate the dynamism and sensitivity of our brain circuitry, so the prospect of directly tampering with the essence of our individuality becomes a possibility.

7) THE PRIVATE LIFE OF THE BRAIN (28 FEB 2002)

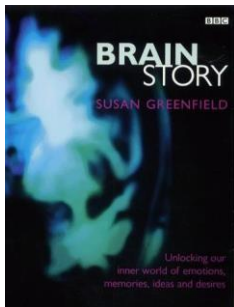
Publisher: Penguin



What is happening in the brain when we drink too much alcohol, get high on ecstasy or experience road rage? Emotion, says internationally acclaimed neuroscientist Susan Greenfield, is the building block of consciousness. As our minds develop we create a personalized inner world based on our experiences. But during periods of intense emotion, such as anger, fear or euphoria, we can literally lose our mind, returning to the mental state we experienced as infants. Challenging many preconceived notions, Susan Greenfield's groundbreaking book seeks to answer one of science's most enduring mysteries: how our unique sense of self is created.

8) BRAIN STORY: WHY DO WE THINK AND FEEL AS WE DO? (20 JUL 2000)

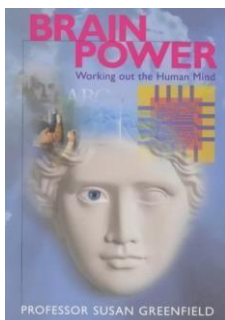
Publisher: BBC Books



In this tour through the brain's workings, Susan Greenfield brings the reader right up to date on the latest theories and controversies of neuroscience. From studies of the bizarre and disturbing effects of brain injuries, she tackles the questions that have baffled philosophers since antiquity.

9) BRAINPOWER: WORKING OUT THE HUMAN MIND BY SUSAN GREENFIELD (30 MAR 2000)

Publisher: Element



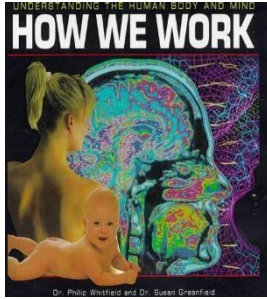
Advances in medical science have accustomed us to the idea that many of our body organs can be replaced by donation. However, it seems inconceivable to transplant the brain. What is it about our brains that make us different as animals and individual as people?

Advances in medical science have accustomed us to the idea that many of our body organs can be replaced with organs donated by some else. However, the one organ that it seems inconceivable to transplant from one person to another is the brain. Why is this? what is it about our brains that makes us different as animals, and individual as people?;The author looks at these and many other

questions - at the ways in which our minds identify who we are, what we can do, and how we feel. Under the guidance of Professor Susan Greenfield, the book follows the development of the brain through the stages of a human life, from the beginning in the womb, during infancy and childhood, to the emotional explosion of adolescence, and finally the wisdom of maturity.

10) HOW WE WORK BY SUSAN GREENFIELD AND PHILLIP WHITFIELD (31 OCT 1997)

Publisher: Marshall Editions

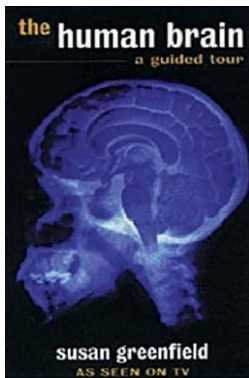


Explaining the body and mind using numerous full-colour graphics to clarify the subjects, the book includes the latest ideas and discoveries about the human body and brain; employs numerous comparisons with everyday life and the animal world to help explain how the mind works; shows with case histories what happens when aspects of the body and mind malfunction; gives many everyday examples to match theory with reality; and uses a cross-referencing system to make connections between related areas. The book attempts to make sense of the intricate workings of the body and mind by focusing not on what the body and mind are, but what they actually do. Illustrations and text, which

employ comparisons and analogies from everyday life, help explain the many functions of the human body and mind. The first section, "How Your Body Works", describes the body's systems down to the smallest detail, and investigates how they interconnect and function. Every aspect of the mind is explored in "How Your Mind Works", with an explanation of the theory and structure, as well as communication processes and human consciousness in jargon-free language. Susan Greenfield is the author of "Journeys to the Centre of the Mind" and "Concepts in Cellular Neuroscience".

11) THE HUMAN BRAIN: A GUIDED TOUR (SCIENCE MASTERS) (6 JUL 1997)

Publisher: Phoenix

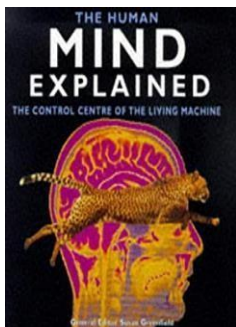


Locked away remote from the rest of the body in its own custom-built casing of skull bone, with no intrinsic moving parts, the human brain remains a tantalising mystery. But now, more than ever before, we have the expertise to tackle this mystery - the last 20 years have seen astounding progress in brain research. Susan Greenfield begins by exploring the roles of different regions of the brain. She then switches to the opposite direction and examines how certain functions, such as movement and vision, are accommodated in the brain. She describes how a brain is made from a single fertilized egg; the fate of the brain is traced through life as we see how it constantly changes as a result of experience to provide the essence of a unique individual.

'Dr Susan Greenfield ... is rightly admired as a popular communicator and The Human Brain: A Guided Tour will appeal as a Baedeker to the brain, even to the non-scientist' The Times

12) THE HUMAN MIND EXPLAINED: THE CONTROL CENTRE OF THE LIVING MACHINE (10 OCT 1996)

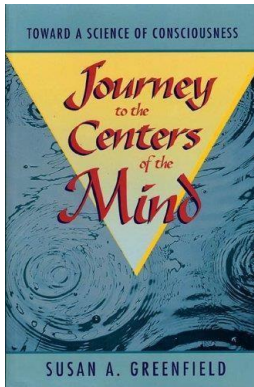
Publisher: Cassell Illustrated



Seeks to explain the mysterious processes of the human brain, delving into everything from synapses to states of mind. This book introduces comparisons with animal brains, and provides human case histories to illustrate specific mental oddities, banishing many myths in the process.

13) **JOURNEY TO THE CENTERS OF THE MIND: TOWARD A SCIENCE OF CONSCIOUSNESS
(4 MAY 1995)**

Publisher: W.H. Freeman & Co Ltd

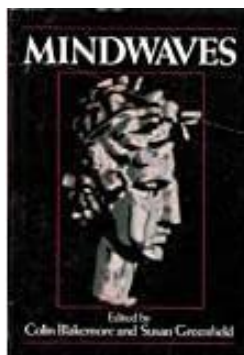


How do our personalities and mental processes, our "states of consciousness", derive from a gray mass of tissue with the consistency of a soft-boiled egg? How can mere molecules constitute an idea or emotion? Some of the most important questions we can ask are about our own consciousness. Our personalities, our individuality, indeed our whole reason for living, lie in the brain and in the elusive phenomenon of consciousness it generates. Thinkers in many disciplines have long struggled with such questions, often in ways that have seemed incompatible, if not downright contradictory. Philosophers have meditated on the subjective experience of consciousness, with little attention to the physical realm, while scientists have sought to establish a causal relation between brain function and mind, often ignoring the qualitative aspects of experience. In *Journey to the*

Centers of the Mind, neuroscientist Susan Greenfield offers an intriguing, unifying theory of consciousness that encompasses both phenomenological mental events and physical aspects of brain function. Using information gathered from clues in animal behavior, human brain damage, computer science, neurobiology, and philosophy, Greenfield offers a "concentric theory" of consciousness, and shows how certain events in the brain correspond to our qualitative experience of the world. Demonstrating the ways in which we can interpret the experience of consciousness in terms of interactions among neurons, she explores how much we can learn by continuing to find the links between our physical and mental inner worlds.

14) **MINDWAVES: THOUGHTS ON INTELLIGENCE, IDENTITY AND CONSCIOUSNESS BY
COLIN BLAKEMORE AND SUSAN GREENFIELD (24 SEP 1987)**

Publisher: Wiley-Blackwell



Is the mind an entity that exists apart from the brain? Is the relationship of brain and mind like that of computer hardware and software? Do animals have minds with which they think? These are some of the questions addressed in "Mindwaves" by specialists in brain research.

Public Activities

Speeches in House of Lords of direct relevance to science outreach and research

19 May 2026	Kings Speech - Education, culture, technology and energy security.
06 March 2025	International Women's Day and the steps being taken to promote women's participation and leadership in science and technology in the UK and internationally
31 October 2024	The Contribution of Science and Technology to the UK economy
19 July 2024	Kings Speech - Creating opportunities: education, early years and healthcare.
18 January 2024	Plans to create parity of health and social care to address dementia
01 February 2023	International Holocaust Memorial Day
22 May 2022	Queens Speech - The topics of the debate were: Education, Welfare, Health & Public Services
17 January 2019	Baroness Kidron that this House takes note of the relationship between the use of digital technology and the health and well-being of children and young people.
19 July 2018	Lord Norton of Louth that this House takes note of the value to the United Kingdom of higher education as an export.
16 April 2018	Baroness Garden of Frognal to ask Her Majesty's Government what progress is being made in developing a sustainable lifelong learning culture in England.
07 September 2017	Moved by Baroness Lane-Fox of Soho: That this House takes note of the case for improved digital understanding at all levels of United Kingdom society.
12 September 2016	Lord Storey to ask Her Majesty's Government how they intend to ensure that all teachers at academies and free schools are fully qualified.
28 January 2016	The role of adult education and lifelong learning, Moved by Baroness Sharp: that this House takes note of the role of adult education and lifelong learning and the need to develop the skills needed to strengthen the United Kingdom economy.
05 March 2015	Women's economic empowerment both nationally and internationally, Moved by Baroness Jolly: That this House takes note of women's economic empowerment and the progress in achieving it that has been made in the United Kingdom and internationally.
09 April 2014	Higher Education, Moved by Lord Ahmad of Wimbledon: That this

House takes note of higher education in the United Kingdom.

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| 13 March 2014 | Regenerative Medicine: S&T Committee Report, Moved by Lord Patel: To move that this House takes note of the Report of the Science and Technology Committee on regenerative medicine (1st Report, HL Paper 23). |
| 13 March 2014 | Education: Social Mobility, Moved by Lord Nash: To move that this House takes note of the role of primary and secondary education in improving social mobility. |
| 17 October 2013 | Drugs, Moved by Baroness Meacher: That this House takes note of the report of the House of Commons Home Affairs Select Committee Drugs: Breaking the Cycle (HC 184, 9th Report Session 2012-13) and the report of the All-Party Parliamentary Group for Drug Policy Reform, published in January. |
| 05 December 2012 | Question for Short Debate: Digital Technology. To ask Her Majesty's Government what assessment they have made of the impact of digital technologies on the mind. |
| 31 March 2011 | Debate on Economy: Growth. Moved by Lord Hollick to call attention to the case for policies to support economic growth and to promote investment, innovation, technology, infrastructure, skills and job creation; and to move for papers. |
| 25 Feb 2010 | Debate on Higher and Further Education: Funding. Moved By Lord Baker of Dorking to call attention to the consequences of the cuts to higher and further education funding that have been announced; and to move for Papers. |
| 12 Feb 2009 | Debate on Children: Social Networking Sites. Moved By Lord Harris of Haringey to call attention to the growth in the use of social networking internet sites by children and the adequacy of safeguards to protect their privacy and interests; and to move for papers. |
| 03 May 2007 | Debate on Health: Stem Cell Therapy. Moved By Lord Alton of Liverpool |
| 03 May 2007 | Debate on Schools: Science Teaching. Moved by Lord Broers rose to call attention to science teaching; and to move for Papers. |
| 11 May 2006 | Debate on Science and Technology: response by Lord Sainsbury of Turville. |
| 09 Dec 2003 | Debate on Science and Politics: response by Lord Sainsbury of Turville. |