September 2014 Newsletter

FEATURE: Heroes of Neuroplasticity

Editor’s Note:

Over the last 40 + years, brain researchers have recognized that neuroplasticity is the brain's amazing capacity to change and adapt.

Aphasia Toolbox has collected information on such leaders as Paul Bach-y-Rita, Norman Doige and and others; Read our information on the heroes of neuroplasticity.

Please note; we’ve included only a few names; read some of the books in our bibliography for more information.

In addition, to selected articles, books and videos, we are including information on the Brain Science Podcast. The Brain Science Podcast features the latest books about neuroscience as well as interviews with leading scientists from around the world. It has been one of the top-ranking podcasts in Medicine on iTunes.

The Brain Science Podcast offers the most 25 recent episodes free to stream or download.

Premium subscribers have unlimited access to all episodes and transcripts - See more here.

Content:

Paul Bach-y-Rita  Page 2
Norman Doige  Page 3
Rick Hanson  Page 4
Michael Merzenich  Page 5
John Ratey  Page 6
Professor Paul Bach-y-Rita, whose research revolutionized the fields of neurobiology and rehabilitation, died Nov. 20, 2007. Bach-y-Rita began medical school at Universidad Nacional Autónoma de México at age 17 and earned his MD in 1959. Initially, he traveled the globe conducting various research projects, but his career path changed when his father suffered a stroke. Bach-y-Rita set up a rehabilitation center for his father and nursed him to a full recovery. The experience reinforced Bach-y-Rita's theory that brain functions are flexible, not hard-wired.

Most notable was his work in the field of sensory substitution. The research has helped blind people navigate hallways and people with balance disorders walk easily. Eventually, it might help stroke patients recover in full.

Reference:

Articles:
Neurons Firing

Plasticity and The Senses: Paul Bach-y-Rita

A Tongue for an Eye: Device Challenges Conventional Vision

Books:
Recovery of Function, University Park Press, 1980

Brain Mechanisms in Sensory Substitution, Academic Press, 1972

The Control of Eye Movements, by Paul Bach-y-Rita (Editor), Academic Press, (first published 1971)

Video:
Paul Bach-y-Rita and Neuroplasticity
http://www.youtube.com/watch?v=7s1VAVcM8s8
Norman Doige

Norman Doidge, M.D., is a psychiatrist, psychoanalyst, researcher, author, essayist, and poet. He is on faculty at the University of Toronto's Department of Psychiatry, and on the research faculty at Columbia University's Center for Psychoanalytic Training and Research.


Reference:
http://www.apbspeakers.com/speaker/norman-doidge

Book:


Brain Science Podcast:

Norman Doidge, MD: Author of The Brain That Changes Itself: Stories of Personal Triumph from the Frontiers of Brain Science; Episode 26

Video:

Dr. Norman Doidge,"The Brain That Changes Itself"
http://www.youtube.com/watch?v=t3TQopnNXBU

BrainHQ Podcast: What is Brain Plasticity? with Dr. Merzeninch and Dr. Doidge
Interview with Norman Doidge and Posit Science Chief Scientific Officer Dr. Merzenich
http://www.brainhq.com/brain-resources/podcasts-videos-webinars
Rick Hanson

Rick Hanson, Ph.D., is a neuropsychologist, Senior Fellow of the Greater Good Science Center at UC Berkeley, and New York Times best-selling author.

Founder of the Wellspring Institute for Neuroscience and Contemplative Wisdom and Senior Fellow of the Greater Good Science Center at UC Berkeley, he's been an invited speaker at Oxford, Stanford, and Harvard, and taught in meditation centers worldwide.

An authority on self-directed neuroplasticity, Dr. Hanson's work has been featured on the BBC, NPR, CBC, FoxBusiness, Consumer Reports Health, U.S. News and World Report, and O Magazine, and his articles have appeared in Tricycle Magazine, Insight Journal, and Inquiring Mind. He has several audio programs with Sounds True, he edits the Wise Brain Bulletin, and his weekly e-newsletter - Just One Thing - has over 100,000 subscribers, and also appears on Huffington Post, Psychology Today, and other major websites.

Reference:
http://www.wisebrain.org/about-us

Books:


Video:

Dr. Rick Hanson speaking at the Neuroplasticity and Education conference - October 25, 2013 http://youtu.be/IflQtD_4BEU
Michael Merzenich
Michael M. Merzenich, Ph.D., a director of Scientific Learning Corporation, is also the Francis A. Sooy Chair of Otolaryngology in the Keck Center for Integrative Neurosciences at the University of California, San Francisco Medical Center.

He is an elected member of the National Academy of Sciences, for his work on brain plasticity. He is a graduate of the University of Portland and obtained his doctoral degree from Johns Hopkins.

Merzenich has been awarded more than 50 patents and has contributed his software development skills to several therapeutic training programs. Among his awards are the international IPSEN and Zülch Prizes.

Merzenich is also the chief scientific officer of Posit Science, which strives to improve the brain health of people of all ages by using effective, non-invasive tools that engage the brain's natural plasticity.

Reference:
http://www.scilearn.com/company/about-us/our-scientists/merzenich

Article:
Game your brain: the new benefits of Neuroplasticity, Wired.UK, by Joao MEDEIROS, 16 May 2014, http://www.wired.co.uk/magazine/archive/2014/05/features/game-your-brain

Book:

Brain Science Podcast:
Michael Merzenich, PhD: Pioneered the study of brain plasticity; Episode 54. Episode 105

Video:
Michael Merzerich discussing the elastic brain
http://www.ted.com/talks/michael_merzenich_on_the_elastic_brain
John Ratey

John J Ratey, MD, is an Associate Clinical Professor of Psychiatry at Harvard Medical School, Research Synthesizer, Speaker, and Author, as well a Clinical Psychiatrist maintaining a private practice in Cambridge, Massachusetts. He has lectured and published 60 peer reviewed articles on the topics of Aggression, Autism, ADHD, and other issues in neuropsychiatry.


Reference:
http://sparkinglife.org/page/john-ratey-md

Articles:

Why Walking Matters, Here and Now, Monday, May 19, 2014
http://hereandnow.wbur.org/2014/05/19/why-walking-matters

http://www.forbes.com/sites/jennifercohen/2012/05/08/6-ways-exercise-makes-you-smarter/

Book:


Brain Science Podcast:

John J Ratey, MD: Author of Spark: The Revolutionary New Science of Exercise and the Brain; Episode 33 and Episode 111. In Episode 45 Dr. Ratey returned to talk about ADD.