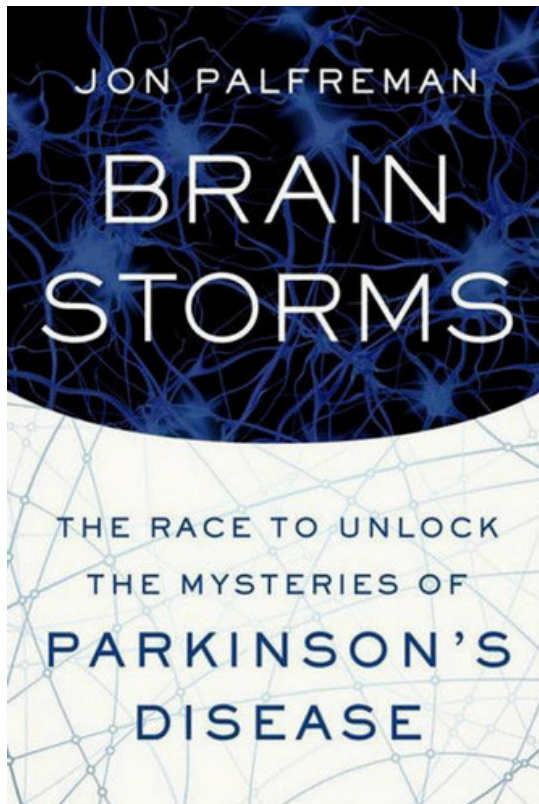


Author offers hope

'Brain Storms' focuses on Parkinson's research

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"Brain Storms: The Race to Unlock the Mysteries of Parkinson's Disease," by Jon Palfreman. New York: Scientific American/Farrar, Straus and Giroux, 2015, 288 pages, \$26.



"I left the hospital in a state of shock," Jon Palfreman admits in the prologue to "Brain Storms: The Race to Unlock the Mysteries of Parkinson's Disease," his recently released account of the ongoing struggle to conquer this condition.

"It took me more than a year to process this news, a year in which I engaged in a series of coping strategies," he continues. "There was the secrecy: The only person I told during the first three months after my diagnosis was my wife. There was denial. I questioned the diagnosis and consulted other neurologists. They confirmed I had Parkinson's disease. There was self-pity. And there was isolation. I didn't reach out to other Parkinson's sufferers. To the contrary, I wanted nothing to do with them. The fragile, bent, trembling figures I observed in neurologists' waiting rooms saddened and angered me. Was this really who I would become?"

"Brain Storms" consists of a prologue and 16 chapters and is both a deeply personal memoir as well as an incredible example of superb scientific journalism. In a rather sardonic twist of fate, Palfreman was diagnosed with

Parkinson's disease as he was doing the research for this book. The volume succeeds on many levels. Palfreman does an exceptional job of describing the history of the illness since it was first described by James Parkinson in 1817, how widespread it has become (it affects about 7 million people globally – 1 million in the United States alone with about 60,000 new cases diagnosed each year), and the status of ongoing efforts to develop more effective treatment options for those afflicted.

"Every three years, people with Parkinson's gather for a Parkinson's world summit of sorts," Palfreman writes in Discovery, the inaugural chapter. "Over four days, patients – desperate for a cure – rub shoulders with biomedical professionals who have devoted their lives to conquering this disease. As the dozens of scientific sessions show, the quest to defeat Parkinson's is a long, complicated war being fought on many fronts."

As intriguing as I found Palfreman's description of the possible therapeutic avenues being explored to help patients manage their symptoms more effectively, it was the stories of how the disease has

affected the lives of those it strikes that fascinated me most. Human beings have a remarkable ability to adapt when faced with adversity. Included in the vignettes is the story of Pam Quinn, a former ballet dancer who learned how to move more freely by essentially tricking her body into responding differently to neural impulses. She now conducts workshops in which she trains other Parkinson's victims how to adapt her techniques to their own situations. Also included is an account of a man who lost the ability to walk but nonetheless figured out how to ride a bicycle without any difficulty at all. The drive to overcome the challenges we all face in life, whether trivial or life-threatening, is nothing short of astonishing.

The author is president of the Palfreman Film Group, which he founded in 1997; a prolific documentarian, his work has been featured on "Frontline" and "Nova." He earned a B.S. in physics from University College London, a M.S. in history and social studies of science from the University of Sussex and a Ph.D. in communication from the University of South Wales. He is a professor emeritus at the University of Oregon, where he taught broadcast journalism. The numerous accolades he has received include a Peabody, an Emmy, the Alfred I. duPont-Columbia University Silver Baton, a Writers Guild of America Award and the AAAS-Westinghouse Science in Journalism Award. His previous books include "The Case of the Frozen Addicts: Working at the Edge of the Mysteries of the Human Brain," with J. William Langston, and "The Dream Machine: Exploring the Computer Age," with Doron Swade.

In addition to its other contributions, "Brain Storms" provides a rare glimpse into how much medical research has changed over the last few decades as concerns over ethical practices and increased governmental oversight have become more of a factor in scientific investigations. As Michael J. Fox has brought to the public's attention in recent years, however, extensive regulation of the process for developing new therapies can impede the availability of treatments that could potentially help those suffering the most. Witness the following excerpt from *Restoration*, the second chapter. Here, Palfreman describes the dramatic results achieved, albeit only temporarily, by researchers working with Parkinson's patients in the 1960s:

"So in 1961, unencumbered by today's institutional review boards and regulatory agencies, Birkmayer and Hornykiewicz tried administering small quantities of L-dopa intravenously into 20 patients with advanced Parkinson's disease. Just as L-dopa had slipped through the blood-brain barrier, been converted to dopamine, and 'awakened' Caelsson's rabbits, the Austrian researchers found that it worked similarly on human patients, at least for a few hours." One is left to wonder how much progress could be made if the parameters for exploring more radical alternatives for those facing imminent death were relaxed just a little.

To be fair, the language can get a little difficult to decipher as the writer delves into some of the more technical aspects of the various approaches employed in an attempt to help those diagnosed with the malady deal more successfully with the symptoms of their disorder – strategies that range from partial lobotomies to deep brain stimulation to neural grafting. With a little determination, however, I believe most readers will be able to follow Palfreman's narrative without much trouble. If you have Parkinson's disease, or you know someone who does, this book will remind you that you are not alone and there is always hope. I recommend it highly.

— *Reviewed by Aaron W. Hughey, Department of Counseling and Student Affairs, Western Kentucky University.*

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