

Barrow scientist leads insula research

July 7 2010

A scientist at Barrow Neurological Institute is leading the global discussion and research on a hidden lobe of the brain called the insula. A.D. "Bud" Craig, PhD, who began studying the often-ignored lobe more than two decades ago, has organized and edited a special edition of the journal *Brain Structure and Function* dedicated to the emerging medical and scientific interest in the insula.

This special edition contains 21 articles describing the latest research and insights from scientists and clinicians from around the world who recognize the insula as the key to their own field of interest and perhaps human consciousness.

The insula is a prune-sized area located deep within the [brain](#). It was long ignored because scientists could not probe the area with surface electrodes. With the invention of sophisticated brain imaging techniques such as [functional magnetic resonance imaging](#) (fMRI) activation of the region has been observed in a surprisingly wide range of studies.

"Rapidly accumulating evidence indicates that this area of the brain is uniquely involved in virtually every human emotion and behavior," says Dr. Craig. "Similarly, clinical evidence indicates that it is crucially involved in a variety of syndromes, including addiction, anxiety, depression, anosognosia, schizophrenia and frontotemporal dementia."

Dr. Craig says that the overall goal of the special issue on the insula in *Brain Structure and Function* is to provide a solid starting point for new investigators by identifying the issues and opportunities for advances in

the knowledge of this unique portion of the human brain.

An "intense" discussion about the role of the insula is urgently needed, says Dr. Craig, because many researchers have not had knowledge of its role and so little had been written about it.

"The insula is finally emerging from its hiding place inside the human brain," says Dr. Craig. "Its central importance to all human feelings and behaviors makes it an extraordinarily important target for potential treatments of many mental dysfunctions, using drugs or sophisticated biofeedback methods."

Provided by St. Joseph's Hospital and Medical Center

Citation: Barrow scientist leads insula research (2010, July 7) retrieved 24 April 2024 from <https://medicalxpress.com/news/2010-07-barrow-scientist-insula.html>

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