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**McLean researchers bridge the gap
between neurology and psychiatry**

Belmont, MA—The 20th century’s explosion of neuroscientific knowledge promises to close the “great divide” between neurology and psychiatry and calls for fundamental changes in the training and practice of both disciplines, according to a revolutionary paper written by researchers at McLean Hospital and Harvard Medical School.

Scheduled for publication in the January 2000 issue of *Neurology*, the paper traces the divergent—and ambivalent—relationship between neurology and psychiatry. Traditionally, neurology has focused on nervous system disorders of the “brain,” while psychiatry has concentrated on functional disorders of the “mind.” However, according to the paper’s lead author Bruce Price, MD, chief of the Department of Neurology at McLean Hospital, recent advances in neuroscience have produced “a common foundation and language for both disciplines,” which will lead to improved treatments for patients.

Modern imaging technology, such as CT, magnetic resonance imaging (MRI), and PET scans, has revealed that functional diseases like schizophrenia also have visible structural abnormalities in the brain. Increased understanding of the mind and brain’s inseparability and the brain’s plasticity have shown scientists that “nature vs. nurture” is no longer a useful distinction. Other advances, including redefining major mental illnesses as biologically based diseases and the era of

molecular biology, have further broken down the barriers between neurology and psychiatry.

“This paper offers material insight into why this divide evolved and shows that we now have common ground. The two disciplines complement each other. We offer a multidisciplinary approach to studying the brain in health and disease,” Price said.

As such, the authors call for a redesign of the education of neurologists and psychiatrists to emphasize important aspects of both disciplines, specifically, basic neuroscience, neuroanatomy, neuropathology, and neuropsychology. Neurologists in training should receive rich clinical exposure to patients suffering from major mental and neuropsychiatric diseases, while psychiatrists in training should receive more exposure to patients with neurologic conditions, particularly those diseases with psychiatric symptoms.

“We need to train the younger generation of doctors in a different way,” Price said. “By working together on complex neuropsychiatric diseases, we will discover new options for treatment.”

According to the authors, improved collaborations between neurology and psychiatry will help researchers answer significant questions about how biological and environmental factors influence the brain. For example, how do biological processes give rise to mental events? How do environmental factors influence the brain’s biological structure? How can these two forces be harnessed to promote mental health and brain injury recover? Ultimately, answers to this last question will bring patients relief from many neurologic and psychiatric diseases.

Along with changes in education, the authors recommend that the practice of psychiatry maintain its focus on the diagnosis and study of mental illness and the connections between brain and behavior, while neurology should increase its

research on behavioral disorders of neuropsychiatric diseases, such as Alzheimer's and Parkinson's diseases. Neurology also should reorient its research toward the dynamic interaction of biological and environmental influences on human behavior.

According to Price, neurology has been slow to understand and participate in this reciprocal relationship with psychiatry. "The fact that the journal *Neurology* is publishing this paper is highly significant," he said.

McLean Hospital maintains the largest research program of any private psychiatric hospital in the nation. It is a teaching facility of Harvard Medical School, an affiliate of Massachusetts General Hospital and a member of Partners HealthCare System, Inc.

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