

**Editors' Note:** In reference to “Parkinson disease: The enteric nervous system spills its guts,” Dr. Shprecher cautions that the use of enteric biopsy in early diagnosis of Parkinson disease (PD) is still controversial, citing a recent study by Beach et al. that found  $\alpha$ -synuclein staining in subjects with PD inconsistent. The authors, Dr. Derkinderen et al., answer that the divergence might be due to differences in biopsy technique and that the authors' *in vivo* microdissection analysis may be more sensitive to Lewy body pathology than the traditional methodology used in autopsy surveys. Dr. Ke, in response to “Neurology and neurologic practice in China,” makes the case for why current sociological and financial trends are creating the opportunity for rare disease research in China.

*Megan Alcauskas, MD, and Robert C. Griggs, MD*

#### **PARKINSON DISEASE: THE ENTERIC NERVOUS SYSTEM SPILLS ITS GUTS**

**David R. Shprecher, Salt Lake City:** I agree that enteric biopsy holds promise as a tool for early—perhaps even premotor—confirmation of  $\alpha$ -synuclein pathology during life.<sup>1</sup> Recent data from 9 subjects with PD at Rush University<sup>2</sup> were confirmatory. However, Beach et al.<sup>3</sup> reported that  $\alpha$ -synuclein staining from full-thickness colon specimens was inconsistent in subjects with PD, and absent in those with incidental Lewy body disease. If this disparity can be explained by differences in technique or study population, this would justify study of enteric biopsy—to confirm or predict Lewy body disorders—on a larger scale.

**Author Response: Pascal Derkinderen, Nantes, France:** We thank Dr. Shprecher for his comments about our article.<sup>1</sup> We also believe that the discrepancies between our results<sup>4,5</sup> and those recently published by Beach et al.<sup>3</sup> are explained by differences in technique. We have set up a new method to analyze colonic biopsies in order to obtain whole mount of the submucosa.<sup>2</sup> It is likely that this microdissection technique allows retrieval of Lewy pathology with a greater sensitivity than

classic paraffin-embedded sections, as performed in comprehensive autopsy surveys.<sup>3</sup>

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#### **NEUROLOGY AND NEUROLOGIC PRACTICE IN CHINA**

**Qing Ke, Hangzhou, China:** The important article on neurologic practice in China by Dr. Shi and Dr. Jia noted many major developments.<sup>1</sup> I share their interest in the future of Chinese neurology and would add another perspective. There is an enormous opportunity for rare disease research in China. It will be possible to identify a large number of patients even with rare diseases such as periodic paralysis.<sup>2</sup> However, as we recently presented, the economic inequalities between urban and rural areas have led to a greater expenditure on urban centers compared with rural centers. Many farmers look for work and move to urban cities: so-called “migrant workers.” This trend increases the percentage of patients seen without ties to local care, seeking the expertise of major hospitals in China.<sup>2</sup> The main orientation of health care reform in the 1980s and 1990s in China was to give autonomy to hospitals without contribution of public finance.<sup>3</sup> The investment described by Dr. Shi and Dr. Jia may improve the situation. In addition, the government encourages and supports research; the total expenditure of research and development was

\$706.26 billion in 2010, 21.7% growth over the last year, up to 1.76% of gross domestic product from less than 1% in 10 years ago.<sup>4</sup> It will be possible for Chinese neurologists to have an important role in international studies of rare diseases.

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*Author disclosures are available upon request (journal@neurology.org).*

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## Neurology and Neurologic Practice in China

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