#### LETTERS

sate, is currently in clinical trials in the United States, and several pharmaceutical companies are actively developing other medications to be placed in clinical trials for addictive disorders. There are still many hurdles to overcome, but there is progress.

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# **Ancient Sharks and Rays**

The item "Shark and ray extinctions" by Ann Simon Moffat (Research News, 31 Oct., p. 801) featured a discussion on a portion of our work on Late Cretaceous (Maastrichtian) vertebrates found in the Fox Hills Formation and Paleocene Cannonball Formation of North Dakota, as reported at the recent Society of Vertebrate Paleontology meeting (1). Moffat discussed the Cretaceous-Tertiary (K-T) boundary extinctions as demonstrated by cartilaginous fish faunas of the Western Interior Seaway, and we would like to clarify some aspects of our research that she mentioned.

We have studied more than 40 sites in the Fox Hills Formation and 70 sites in the Cannonball Formation. There is little disagreement that the 22 species of sharks and rays we found in the Fox Hills were extinct by the Paleocene; rather, the issue may be the rapidity of that extinction. As suggested by the comments attributed to J. David Archibald, the K-T boundary section is not complete because units of terrestrial Hell Creek and Ludlow Formations intervene in North Dakota, where we are working. The K-T boundary occurs within this interval of regression (2), making precise correlation between the marine cartilaginous fish faunas and the terrestrial vertebrate faunas difficult.

These facies, although complex, are well understood paleoenvironmentally. Similar depositional conditions created both the Fox Hills and Cannonball Formations. There is little likelihood the faunal changes we document resulted from environmental changes, as suggested by Archibald, for we have sampled similar suites of nearshore marine facies on each side of the K-T boundary. Habitat-sensitive molluscan faunas confirm similar origins of most Fox Hills and Cannonball facies (3). Furthermore, given the similarity of habitats sampled, there is little likelihood that our data result from habitat displacement rather than biological extinction. Significant species-level change in cartilaginous fish faunas occurred across the K-T boundary in the Williston Basin, and apparently globally, at a rate not yet determined.

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### **Corrections and Clarifications**

■ In the "Association Affairs" essay "Conversation with the community: AAAS at the millennium" (19 Dec., p. 2066), two co-authors, William T. Golden and Richard S. Nicholson, were inadvertently omitted. The authors should have been listed as follows: "Sheila Jasanoff, Rita Colwell, Mildred S. Dresselhaus, William T. Golden, Robert D. Goldman, M. R. C. Greenwood, Alice S. Huang, William Lester, Simon A. Levin, Marcia C. Linn, Jane Lubchenco, Richard S. Nicholson, Michael J. Novacek, Anna C. Roosevelt, Jean E. Taylor, Nancy Wexler."

## Letters to the Editors

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