Science & Technology

Mummified Leaves Hold Clues to Ancient Climate Mysteries

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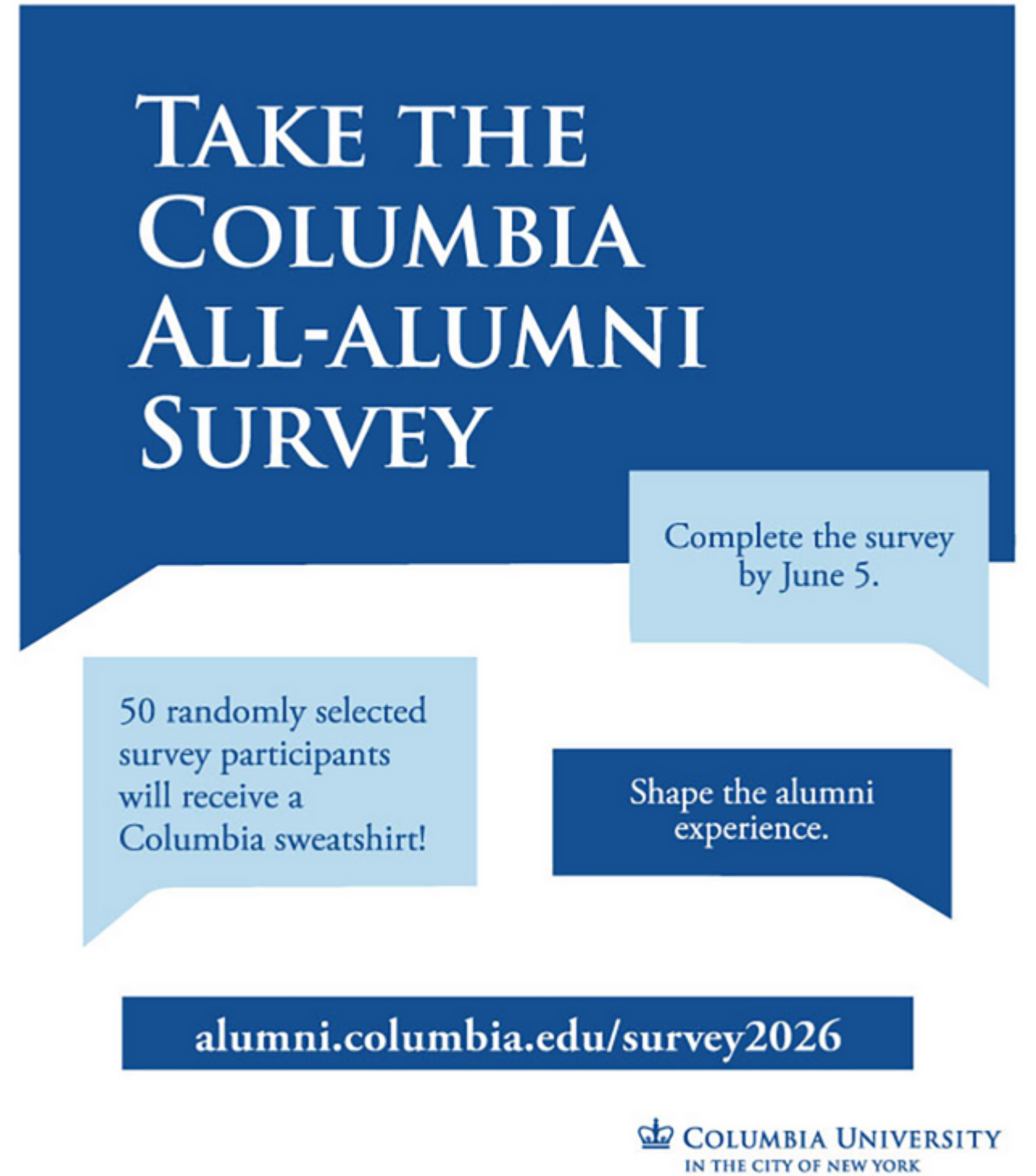
Tammo Reichgelt

This twenty-three-million-year-old leaf, one of hundreds that geologist Tammo Reichgelt has retrieved from a lakebed in New Zealand, is shedding light on our planet's climate history. Reichgelt, a postdoctoral researcher at Columbia's Lamont-Doherty Earth Observatory, has found that the leaves possess relatively few stomata, or pores, for inhaling carbon dioxide — evidence that the earth's atmosphere was unusually carbon-rich at the time the leaves were alive. Reichgelt says that his findings add to a growing body of evidence that CO_2 levels spiked at the beginning of the Miocene epoch, causing global temperatures to increase, ice sheets at the earth's poles to melt, and sea levels to rise.

Guide to school abbreviations



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