Science Points of Light in Latin America

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Science in Latin America

Francisco J. Ayala Future of Science in Latin America

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See also Editorial, page 771.

Research: Jocelyn Kaiser Graphics: Diana DeFrancesco In putting together this special issue on science in Latin America, Science faced a challenge: how to give an overview of research in almost 20 countries, with a combined population of more than 450 million people and a panoply of different cultures. Because no single issue could be comprehensive, we focused on the four

811 countries that have the largest scientific communities: Mexico, Brazil, Argentina,

- and Chile. We then surveyed dozens of scientists in Latin America and the
 United States to home in on some of the
- 813 most interesting research projects and scientific communities in these countries.
 814 The result is a series of snapshots of
- 814 The result is a series of snapshots of science at the bench level, rather than an overview of funding mechanisms and bureaucracies. We do provide a glimpse of each country's science establishment in
- 815 data boxes that include charts and graphs tracing funding levels and a description of the major funding mechanisms. A
- 816 page of data on publication trends documents the region's steadily increasing contri-



Germ of a field. The protozoan that causes amebiasis, seen here in colon, is a research focus in Mexico.

Heavenly instrument. A submillimeter radio telescope at the European Southern Observatory in Chile.

bution to the world's scientific output. Even so, many important science projects and institutions—both within these four countries and outside them—are not reflected in this issue. Future issues of *Science* will fill some of these gaps as we increase our coverage of science in Latin America.

But the snapshots provided by the news stories on the following pages, together with two policy forums from scientists with firsthand experience of Latin America, do provide perspective on the conditions that benefit or hold back science throughout the region. They reveal a study in contrasts: ambitious research done on meager, uncertain funding; vast scientific resources with just handfuls of scientists to tap

them; small groups doing world-class work while large scientific bureaucracies produce little. And although scientists throughout Latin America lament the brain drain that sweeps some of their most promising students away to laboratories and universities in the developed countries, the lead story in this issue describes a

countervailing trend: researchers from North America and Europe heading south, drawn by unique resources and scientific talents.

As we explored the communities caught in these contradictions, one common theme emerged: faith that Latin America's democratic revolutions and new economic strength—a sharp contrast to the political repression of the 1970s or the economic crisis of the '80s—will eventually turn it into a scientific power as well.

–Tim Appenzeller

Fresh catch for science. The tambaquí is an emblem of the ill-understood biology of the Amazon flood plain.

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