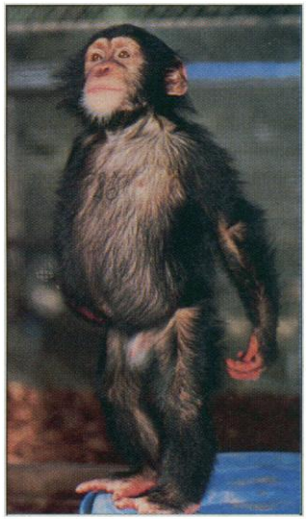
Letter writers express concern that "difficulties" will complicate efforts to establish "a Great Ape Genome Project." A U.S. senator from Montana clarifies his record as a "strong supporter" of "scientific research and technology development in general." A group of letters discuss optimism and pessimism about world oil reserves. One writer predicts that "innovations could make oil uncompetitive even at low prices before it becomes unavailable even at high prices." And the history of Cope's Rule—"that there is a general tendency toward size increase in evolution"—is explored.

Chimp Research

Ann Gibbons's recent article "Which of our genes make us human?" (News Focus, 4 Sept., p. 1432) provides interesting insight into the genetics of human-chimpanzee differences. Gibbons writes that "small sequence differences [may] subtly change the expression of genes that regulate the timing of development," an idea elegantly articulated in 1975 by Mary-Claire King and Allan Wilson (*1*). In view of the potential that a developmental perspective holds for increasing our understanding of human evolution, biology, and disease, it is unfortunate that two difficulties will complicate attempts to pursue questions raised in this article. First, our knowledge of growth and development in chimpanzees is, at best, rudimentary. Studies of age-related changes in chimpanzee morphology are based on small data sets collected nearly half a century ago (*2*). Second, a 5-year moratorium on chimpanzee breeding has been recommended by the National Research Council (*3*). This is a sound and carefully considered decision, but a reduced population of juvenile chimpanzees may severely restrict opportunities for enhancing our understanding of developmental differences between humans and chimpanzees. Finally, it is crucial to emphasize that studies limited to adult morphologies and behaviors cannot provide a basis for the types of genetic inferences anticipated by Gibbons's sources. This potential can only be realized by integrated developmental protocols.



Pan troglodytes

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2. J. A. Gavan, *Hum. Biol.* **25**, 93 (1953).
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The increasingly apparent necessity to include analysis of multiple primate genomes, especially individuals of our closest relatives, the chimpanzees (*Pan troglodytes*), the bonobos or pygmy chimpanzees (*Pan paniscus*), and the gorillas (*Gorilla gorilla*) in comparisons with the human genome identifies a crucial need. Within the context of the Human Genome Project, the systematic effort to collect genetic samples from the diversity of human ethnic groups is expected to play an important role in developments in medicine and contribute to an increased understanding of anthropology and human evolution.

However, only extremely modest efforts are under way to conserve the genomic diversity among our closest evolutionary relatives. Furthermore, all great apes are endangered. The call for a Great Ape Genome Project must necessarily consider the establishment and use of such genetic resources in full compliance with the intent of the Convention on International Trade in Endangered Species (CITES), the U.S. Endangered Species Act, and the sovereignty issues raised by the Convention on Biological Diversity. We have recently amassed what may be the largest collection of DNA samples from great apes for use in comparative genomic studies through establishment of diploid fibroblast cell cultures and/or collections of high molecular DNA from 150 gorillas, 75 bonobos, and 25 chimpanzees. We recognize that our efforts still fall short of an ideal genomic resource collection from great apes for use in studies of human biology, medicine, and evolution, as well as for contributions to efforts to better understand and thereby conserve declining populations of great apes. Furthermore, without diligent efforts to protect dwindling wild populations of great apes from such threats as the bushmeat trade, the genetic diversity of great apes will be diminished and access increasingly improbable.

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Big Sky Science

I was disappointed in the article "Big bucks for big sky country" by Andrew Lawler (News Focus, 4 Sept., p. 1437). I am quite proud of Montana and the fine research our institutions are doing. We are succeeding by many measures, and we are undertaking research activities of importance to our state, our region, and, I believe, our nation. I will continue to work to see that our research opportunities in Montana expand. All participants in that endeavor should be congratulated, not criticized.

I am also disappointed that the article does not acknowledge that I have been a strong supporter not only of certain special projects but also of scientific research and technology development in general. I have served as the chairman of the Subcommittee on Science, Technology and Space of the Senate Commerce Committee, worked for National Science Foundation and NASA authorization bills that expand funding for science and research, cosponsored legislation to double fund civilian research, supported development of the Next Generation Internet, and worked on several technology development initiatives.

Additionally, I would be more than happy to claim the Long-Term Environmental Research language, but it was not mine. I have a deep respect and appreciation for the contributions of science and technology—for all Americans—and will continue to do my best in support of such initiatives.

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Is Oil Running Out?

Richard A. Kerr (News Focus, 21 Aug., p. 1128) draws attention to the newest round of gloomy prognostications by some geologists about the future of oil and, by extension, the future of prosperity. Kerr summarizes the views of both the pessimists and optimists. There are, nonetheless, some important omissions from the article that, when taken into account, make the case for an optimistic perspec-