

SCIENCE

Science in Japan: Creating New Structures

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Saburo Nagakura and Hitoshi Kikumoto



The economic boom of the 1980s transformed Japanese science, fueling the growth of industrial and government research labs but neglecting the underlying bedrock of academic research and education. Those developments were discussed 2 years ago in a special report (*Science*, 23 October 1992, p. 561). In this issue, we take a fresh look at Japan's efforts to shore up its science infrastructure, from the construction of physical facilities and computer networks to new approaches to joint research and a better system of peer review. The accompanying Policy Forum—by Saburo Nagakura, head of the Science Council of Japan, and Hitoshi Kikumoto of the Ministry of Education, Science, and Culture—outlines major funding and policy changes that address the needs of university scientists (see p. 1189).

To illustrate the obstacles and opportunities facing today's scientists, we have chosen to examine the lives of five successful researchers noteworthy not just for the quality of their work but also for their unusual career paths. Their stories remind us that science, although part of a larger social and economic context, is ultimately driven by individual desire and determination.

This special section also contains articles on biotechnology in Japan, in particular, on two applied areas—agriculture and environment—offering enormous opportunities. In addition, the success of Japan's rice genome research project shows that a combination of generous funding, judicious research choices, and talent can rapidly propel Japan to world leadership. With that greater success, of course, comes a greater obligation to share with the international community, the focus of another story in this section.

Obviously, science in Japan is much too rich a topic to be captured in a single issue. That is why, in addition to regular coverage in all parts of the magazine, we expect to return to the subject in future years. Let us know what you think about this year's effort, and any ideas for forthcoming special issues.

—June Kinoshita and Jeffrey Mervis

June Kinoshita, a science writer based in Belmont, Massachusetts, was lead reporter and an editor for this special section. Photo research was done by Anne Alvarez. Please send comments and suggestions to: Jeffrey Mervis, Science, 1333 H Street NW, Washington, DC 20005, or fax us at 202-371-9227. Our e-mail address is jmervis@aaas.org