ly if not always accompanied by beginning heteroploidy (*2*, *4*), which enables cells to overcome senescence and to grow and divide permanently (*7*). So far, oncogene researchers admit concern over the normalcy of NIH 3T3 cells but continue to use them as an assay system. I wish more attention would be directed to the key initial event that occurred previously in this and other established cell lines.

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"Streams of Stones"

William J. Broad, in his article "Survival of the fittest in the Falklands" (News and Comment, 25 June, p. 1389) comments on the "streams of stones" which have long intrigued scientific visitors to the Falkland Islands. Charles Darwin reported (*1*, p. 254) correctly that the stone streams are composed of angular quartzite fragments, not "lava flows . . . broken up in large chunks" as suggested by Broad, although Darwin's figurative description of them might be considered ambiguous: "We may imagine that streams of white lava had flowed" (*1*, p. 255). These deposits are no longer the geologic oddities that they were in the early 19th century, although their origin continues to be discussed (*2*). Similar features have been widely reported from areas of late-Pleistocene periglacial activity on almost all of the continents (*2*).

Darwin's explanation of the stone streams of the Falkland Islands [as well as similar deposits he observed on Mount Wellington, Tasmania, in February 1836 (*1*, pp. 314 and 536)] seems to have been based on his later observations in the Pacific. Conditions in Concepción, Chile, soon after the earthquake of 20 February 1835 greatly impressed him. Subsequently, he ascribed the movement of quartzite fragments into the stone streams to earthquakes (*1*, p. 256), an explanation that would not be generally accepted today (*2*).

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Japanese Successes

It is of interest to compare comments made by George A. Keyworth, II (13 Aug., p. 606) and Colin Norman (News and Comment, 6 Aug., p. 518) in comparing U.S. and Japanese industry and technology. Keyworth states, "We look at Japanese manufacturing and wonder how we might achieve the same kinds of process efficiencies and worker productivity gains. But the Japanese themselves are increasingly concerned about their own future because they lack the very strengths that we have in abundance—creativity and flexibility." Keyworth supports his observations by referring to a *New York Times* article by Steve Lohr (*1*). Keyworth cites the article as saying that "the Japanese system of management which is seniority-based, is often ill-suited to fast-moving, emerging markets."

Norman reports on a study by the National Academy of Engineering published on 26 July. Norman writes that "the study concludes, if the U.S. industry is ever going to recover its competitive position, it must change the way it does business. In particular, it must start bringing workers into decision-making and create an environment where innovation is encouraged. . . . Japanese companies, it [the report] says, have been able to change and innovate more rapidly and have managed to maintain a system of excellent quality control. In comparison, the American industry tends to be more rigid, labor management relations are more hierarchical and adversarial, and there has been less scope for innovation."

Keyworth and the National Academy of Engineering are emphasizing somewhat different aspects in comparing Japanese and U.S. industries, but the messages conveyed are almost diametrically opposed. There is no question that the Japanese have made major inroads into our economy. However, the reasons for their successes still appear to be unresolved. I am concerned that we still do not understand how to tackle this serious problem. Perhaps, as summarized by Norman, "the answer to the U.S. industry's ills can be found in Detroit rather than in Washington." But if Washington does not understand the source of our ills, it can only hamper our efforts to find the cure.

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New Federalism for Academic Research

In a previous letter (5 Feb., p. 614), I indicated that, since moves were afoot to sever the accountability strings of the Office of Management and Budget's (OMB's) Circular A-87 from block grants to states, a similar accommodation to colleges and universities for research grants, contracts, and cooperative agreements governed by the cost principles of Circular A-21 might be appropriate. On 6 July, the Secretary of the Department of Health and Human Services issued final rules (*1*) implementing seven block grant programs established by the Omnibus Budget Reconciliation Act of 1981 (Public Law 97–35). Not only were the block grants "exempted from the usual departmental grant administration requirements" (*1*, p. 29476) based on OMB circulars A-102 and A-87 but, also, a clear laissez-faire policy is indicated by statements in the final rules such as, ". . . [W]e will not burden the States' administration of the programs with . . . procedural rules, paperwork and recordkeeping requirements, or other regulatory provisions" (*1*).

It is difficult to reconcile such a "hands off" policy for block grants with a strict accountability policy for academic research. I suggest that this double standard be remedied by returning oversight for sponsored programs to the academic institutions, just as the states' laws and procedures are deferred to under block grants.

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