years before the patient's death (with an unknown $CD4^+$ cell count). The sensitivity of the *nef*-LTR region PCR method was determined to be 1 to 10 copies of HIV-1 DNA per 10^5 $CD4^+$ T cells (with the use of a dilution series of 8E5 cells) (*2*). That we could not amplify HIV DNA from this PBMC DNA sample, therefore, suggests that the patient's viral load was very low; the data on successful amplification of a single-copy gene were provided to show that the DNA sample had not been degraded. We agree that while the possibility that patient C83 died of progressive HIV infection cannot be completely excluded, we believe it is highly unlikely.

We agree that Ruprecht's data on infection of infant macaques with multiply deleted SIV raises concerns about the use of similar strains of HIV as vaccines in human infants. However, these data apply to SIV with a different constellation of genomic defects than the HIV strain described in our report; the effect of the latter mutations on pathogenicity of SIV for infant macaques is unknown. Further studies of the transmission of different doses of *nef*-defective SIV from mother to offspring are required. In addition, infants are not the most logical target population for an HIV vaccine.

We share the concern of Ruprecht and her colleagues about the safety and efficacy of live attenuated HIV-1 vaccines, and we thank them for raising some important issues in this regard. However, we stand behind our original contention that "This attenuated strain of HIV-1 . . . could perhaps be the basis for a live attenuated vaccine." All live attenuated vaccines currently licensed are pathogenic in at least some immunocompromised individuals; that has not precluded their widespread use, nor has it vitiated their efficacy.

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Structural Change Mechanisms in Regulatory Proteins

The Research News article "Flexing muscle with just one amino acid" (R. F. Service, 5 Jan., p. 31) describes recent work by Sykes and colleagues and correctly emphasizes the fundamental importance of discovering that a single amino acid plays a key role in controlling structural changes in calcium (Ca)-binding regulatory proteins like troponin-C. Earlier observations indicate that single amino acid residues can control large shape changes in troponin-C and calmodulin. These two Ca-binding proteins have similar molecular architectures but different functional properties. Yet a combination of mutational and simulation studies have shown that replacement of one amino acid, the arginine in position 11 (Arg 11) of skeletal troponin-C by alanine, conferred calmodulin-like functional and dynamic behavior on the mutant (*1*). The analysis from molecular dynamics simula-

tions revealed how the mutant, but not the wild-type, protein exhibited a dynamic behavior more characteristic of calmodulin than of troponin-C in its ability to bring about structural changes that have been shown to be important for calmodulin complexes with protein targets in the cell (*2*). The ability of this troponin-C mutant to bind calcium was shown not to be significantly affected by the mutation (*1*). The conjoint simulations suggested that Arg 11 in wild-type troponin-C forms water-mediated hydrogen bonds that may help maintain a more rigid structure than that found for calmodulin (*3*, *4*). In the mutant, these hydrogen bonds are not present. The dynamic properties of calmodulin had been characterized from a computational molecular dynamics study of its structural flexibility (*3*, *5*), which implicated a single residue, Arg 74 (*5*), in the major configuration changes that subsequently were shown to be important for the binding of this protein to its targets (*6*).

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Whistleblowers Not Polled

A Random Samples item (5 Jan., p. 35) and Lawrence J. Rhoades of the Office of Research Integrity (ORI) (Letters, 8 Mar., p. 1345) describe the results of a poll of whistleblowers done for ORI to learn how they thought whistleblowing had affected their careers. Neither Holden nor Rhoades notes that the survey excluded most of the whistleblowers who brought complaints to ORI and its predecessor offices.

ORI's contractor polled only whistleblowers whose cases led to reports. In 1994, ORI received 185 queries (ORI's term), of which 24 were referred to other agencies (*1*). Of the remaining 161, 38 resulted in inquiries or investigations and reports. The rest, 123, were rejected with neither formal investigation nor formal reports, branding the complainants, rightly or wrongly, as having made charges that were obviously false or frivolous and rendering them defenseless against retaliation. These whistleblowers were not polled.

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Letters to the Editor

Letters may be submitted by e-mail (at science_letters@aaas.org), fax (202-289-7562), or regular mail (*Science*, 1333 H Street, NW, Washington, DC 20005, USA). Letters are not routinely acknowledged. Full addresses, signatures, and daytime phone numbers should be included. Letters should be brief (300 words or less) and may be edited for reasons of clarity or space. Letter writers are not consulted before publication.