Hot at the Center

The ScienceScope item "Fusion milestone could become budget victim" (4 Aug., p. 623) describes some of the exciting new possibilities we are exploring in fusion energy research, but requires some clarification. It refers to the possibility of "ignition" in the Princeton Tokamak Fusion Test Reactor (TFTR), but we wish to emphasize that complete "ignition" (in which the external heating sources are turned off and the high temperature is maintained by the fusion reactions alone) is unlikely in the TFTR. However, our projection of recent results indicates a possibility that the fusion reactions could be so strong in the *central portion* of the plasma that they would dominate the plasma heating there, significantly increasing the central temperatures and further increasing the fusion power. This strong self-heating has some similarities to ignition, but at best it should be called "central ignition" (*1*) to distinguish it from full ignition. To avoid confusion, we would prefer to call this "strong central α-particle heating." If this can be achieved in the TFTR, it could ultimately lead to a less expensive fusion reactor design. The key to this possibility is the recently discovered enhanced reversed shear regime, described in an earlier Research News article by James Glanz, "Researchers build a secure plasma prison" (28 July, p. 478) and in a forthcoming paper (*2*).

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Kaposi's Sarcoma Findings

Jon Cohen reports (Research News, 20 June, p. 1847) that Yuan Chang described a Kaposi's sarcoma–associated herpesvirus (KSHV)–infected KS cell line. Actually, we and our collaborators have identified a lymphoblastoid cell line from an AIDS-associated non-Hodgkin's lymphoma (*1*), but not a KS cell line. We also have not found long-established KS cell lines to be KSHV infected, which is in agreement with the findings of Robert Gallo and others (*2*). In vitro KS cell lines appear to initially contain KSHV DNA sequences that are rapidly lost during in vitro passage (*3*), which mirrors our experiences in virus transmission to non-KS cell lines.

KS cell line studies have been central to hypotheses of Gallo and others about the origin of KS. However, it remains to be seen whether in vitro KS cell lines are an appropriate model for the in vivo tumor pathogenesis.

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Tsunami Prediction

The article "Seismology: Faraway tsunami hints at a really big Northwest quake" by Richard Kerr (Research News, 17 Feb., p. 962) describes newly discovered coincidences that hint of a giant tsunami in the Cascadia Subduction Zone (CSZ) caused by an