ties, says Hammond.

If similar effects turn up in other radioactive clocks that tick over hundreds of millions or even billions of years, however, they would loom large to geochronologists trying to work out the order of closely spaced geologic events in the distant past. Such fine distinctions matter, for example, to researchers who are using the decay of potassium-40 (half-life of 1.25 billion years) to sort out the mass extinction of 250 million years ago (*Science*, 15 May 1998, p. 1007). But, although potassium-40, like beryllium-7, decays by electron capture, its innermost electrons—the ones most likely to be snagged—are more strongly shielded from external effects. The potassium ion has two complete shells of electrons protecting its two innermost electrons, whereas the beryllium ion has none. Thus, researchers expect the effect of chemical form on potassium-40 to be far less than on beryllium-7.

But that won't stop Huh from trying to check the constancy of this clock. Even now, he is counting decay rates of rubidium-83. It has an electronic structure that provides even more shielding than does potassium-40, but its 86-day half-life will make experiments reasonably quick to perform. In a few months, he'll know if ancient days are even a tiny bit closer than we thought.

–RICHARD A. KERR

SCIENTIFIC MISCONDUCT

Shalala Takes Watchdog Office Out of the Hunt

The Department of Health and Human Services (HHS) has decided to downgrade the role of its Office of Research Integrity (ORI) in policing scientific misconduct. The change, in line with a new government-wide policy, strips ORI of the power to conduct investigations and, instead, asks it to teach universities how to prevent misconduct. It will continue to review the results of university investigations and propose sanctions. "ORI now goes into the oversight/recommendation role," says Chris Pascal, acting director of the office, which became notorious a decade ago for its dogged pursuit of allegations against a colleague of Nobelist David Baltimore.

Created in 1989 and assigned its present status in 1992, ORI has had responsibility for both investigating misconduct by HHS-funded researchers and imposing sanctions. But the agency's effectiveness was weakened by several instances in which charges against individuals were later abandoned or findings overturned on appeal. The decision by HHS Secretary Donna Shalala essentially adopts a 4-year-old recommendation by a congressionally appointed commission headed by Harvard reproductive biologist Kenneth Ryan (*Science*, 1 December 1995, p. 1431).

The new plan, formulated by an internal review panel headed by Assistant Secretary for Health (ASH) David Satcher, makes HHS dependent primarily on an institution's own investigation. ORI will review the findings and, if necessary, draw up sanctions, which it will send to Satcher as recommendations. "The ASH has no role right now [in that process]," says Pascal. Any additional investigation will be conducted by HHS's inspector-general (IG). Appeals will continue to be heard by a separate HHS panel of experts.

The eight scientist-investigators in ORI's investigative unit will concentrate on oversight and onsite technical assistance, Pascal says. HHS may also provide more direct support: It will soon launch a pilot project to assist institutions unable or unwilling to do their own investigations by offering them help from a consortium of experienced universities. The new scheme is consistent with the approach taken by the National Science Foundation, where the IG handles misconduct investigations and forwards its recommendations to the deputy NSF director. Pascal says ORI has been relying on universities to do most investigations since 1995, when it began to limit the number of cases it pursues. Barbara Mishkin, an attorney at the Washington, D.C., law firm of Hogan & Hartson, who has specialized in misconduct cases, says that ORI has improved its reputation in recent years by training investigators and "being much more selective" about choosing cases.

> **"I'm ecstatic about how this has come out."**
>
> **—Howard Schachman**

In announcing the changes at ORI, Shalala also said the department will adopt a newly proposed federal research misconduct definition that would limit misconduct to fabrication, falsification, and plagiarism (*Science*, 15 October, p. 391). University of California, Berkeley, biochemist Howard Schachman, speaking for the Federation of American Societies for Experimental Biology, says the new procedures recognize that universities have learned a lot about handling misconduct cases in the past 10 years. "I'm ecstatic about how this has come out."

–JOCELYN KAISER

SCIENTIFIC MISCONDUCT

Cleared of Misconduct, Geoscientist Sues Critics

Ronald Dorn, a prominent geoscientist at Arizona State University (ASU) in Tempe, has filed suit against the authors of an article, published last year in *Science*, who raised doubts about some of his work. Dorn is charging that statements made in the article, along with other comments by some of the authors, implied that he had doctored rock samples used to date ancient stone carvings.

CREDIT: JEFF HAVIR/ASU

Hard words. Ronald Dorn says critics of rock-dating technique defamed him.

Earlier this month, two investigations concluded that Dorn did not commit scientific misconduct, and last week Dorn finished officially informing the eight scientists that he is suing them for defamation. Both sides are staying mum about the suit, but some observers worry that the litigation could deter potential whistleblowers and chill public discussion of scientific controversies.

The suit is based on a 4-year-old controversy that revolves around a dating technique that Dorn developed in the mid-1980s but abandoned as flawed in 1996. To date stone carvings and geological features such as old shorelines, Dorn used acid to extract microscopic quantities of organic material, including plant remains, from beneath a thin layer of natural varnish on rock surfaces. He then sent the material to an accelerator mass spectrometry (AMS) laboratory to measure the amount of radioactive carbon-14, which decays at a known rate, that was present in the samples. The technique became controversial after it yielded ages for some stone artifacts from the southwestern United States that were several thousand years older than those accepted by many archaeologists.

In 1996, geoscientist Warren Beck of the AMS laboratory at the University of Arizona,