

(No one is sure which pathway might be responsible for estrogen's apparent link to heart disease.)

The study, says Greene, supports the existence of nongenotropic pathways. Whereas most evidence has come from experiments with cultured cells, he says, the new study is "one of the most striking demonstrations" of such effects in live animals.

Many osteoporosis drugs are in the pipeline, but none boasts estrogen's track record for preserving bone, says Susan Ott of the University of Washington, Seattle. Time will tell if estrogen can bring out the best of estrogen therapy and leave its dark side behind.

—GREG MILLER

## PALEONTOLOGY

### Cuts at Dino Monument Anger Researchers

Vertebrate paleontologists are up in arms about a plan to cut back on research at Dinosaur National Monument. Although monument officials say the move will benefit paleontology in the long run, some scientists charge that the plan is misguided. "This is a big step backward," says Kenneth Carpenter of the Denver Museum of Natural History in Colorado.

The monument, which straddles the bor-



**Chipping away.** Paleontologists are concerned that cuts at Dinosaur National Monument will hurt research.

der between Utah and Colorado, includes a dramatic quarry face and 853 square kilometers of fossil-rich backcountry. It is well staffed for a site run by the U.S. National Park Service, boasting a paleontologist, a preparator, and a curator.

Last year, monument officials were charged with drawing up a 5-year plan that would eliminate nine positions out of 50. In the new plan, announced earlier this month,

the preparator and paleontologist positions will be combined into a "physical sciences resource manager." Research will be less than half-time. The monument's chief of administration and acting supervisor, Susan Richardson, says that the change will ultimately boost the monument's paleontology program, because the new manager will focus on attracting scientists, students, and funding there and on coordinating volunteers. "I think we're going to be able to make it way larger," she says.

But paleontologists say that using volunteers to prepare unique fossils is risky. What's more, the long training process and high turnover could make a volunteer program an "enormous waste of time," Carpenter says. He also doubts whether many paleontologists would have time to prospect for fossils in an area that's new to them.

Amy Henrici of the Carnegie Museum of Natural History in Pittsburgh, Pennsylvania, studies some of the oldest frog fossils in North America—which monument paleontologist Dan Chure found and has lent her. "It's very important for me to have them out there looking for more fossils," she says. The planned changes raise the prospect that her research, and that at the monument, would slow or halt, she says.

But Greg McDonald, who coordinates paleontological research for the National Park Service, says that each superintendent must decide how to meet the needs of his or her park. "There's the ideal," McDonald says, "and then there's the practical."

—ERIK STOKSTAD

## EUROPEAN RESEARCH

### Directive Could Give Postdocs Permanency

**CAMBRIDGE, U.K.**—Richard A'Brook has worked for more than a decade at the University of Dundee in Scotland—a steady job, you would think, but the epidemiological statistician is himself a statistic. He's one of a legion of contract researchers whose job security depends on their employers' fundraising prowess. Now, however, a new directive from the European Commission (EC) could lead to radical changes in how contract researchers, mainly postdocs, are employed, particularly in the United Kingdom and Ireland. It's a "right to equal treatment," A'Brook says.

The EC's Directive on Fixed-Term Work, incorporated into U.K. law earlier this month, mandates that E.U. nations "prevent the abuse of fixed-term contracts through their continuous use." Precisely how the rule is implemented is up to each country, explains the EC's Andrew Fielding, because "the situation on the ground is so different

from one country to the next.

In the United Kingdom, universities and other employers will be forced to give permanent positions to any research staff members whose positions are renewed and run longer than 4 years, unless they can offer good reasons for not doing so. The directive also requires that workers on fixed-term contracts be given "equal treatment" in terms of benefits such as paid holidays, maternity leave, and representation on departmental committees. Most E.U. nations already have rules protecting contract workers, but the directive is causing a considerable stir in the British Isles, where such regulation has been lacking until now.

According to the U.K.'s Association of University Teachers (AUT), some 59,000 academics are now on fixed-term contracts in the United Kingdom. And few of these researchers are bright-eyed trainees happy to live with uncertainty and low status: An AUT study showed that the proportion of research-only fixed-term contract staff members in the United Kingdom aged 30 or higher rose from 53% in 1995 to 63% in 2001. But because the clock started ticking on the new rules only this summer, they'll have to wait until July 2006 to see whether their status will change.

Larger, research-intensive campuses and institutions are not anticipating making wholesale changes. "This is really just enshrining in legislation good employment practice," says a spokesperson for the University of Cambridge, one of the country's biggest employers of contract research staff. Similarly, institutes run by Cancer Research UK will continue to employ postdoctoral researchers on fixed-term contracts as part of the charity's philosophy of regularly bringing in new blood and ensuring that postdocs move on for career development.

But the changes could have profound effects at smaller institutions, some of which are choosing to make life-changing decisions well before crunch time. The attitude at Robert Gordon University (RGU) in Aberdeen is "let's just get on with it rather than wait for others to force us to do it," says RGU's human resources director, Robert Briggs. Last August, the Scottish university moved its entire contract research staff onto the same open-ended contracts as the rest of its academic staff.

A'Brook anticipates a groundswell of support for RGU's approach. Real change, he says, "will depend on local unions or staff representatives actually pushing institutions to implement these things." —KIRSTIE URQUHART

Kirstie Urquhart is European editor for *Science's* Next Wave, where a longer version of this article appears ([intl-nextwave.sciencemag.org/cgi/content/full/2002/10/22/1](http://intl-nextwave.sciencemag.org/cgi/content/full/2002/10/22/1)).

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