ON THE RECORD

"I used to watch *Doctor Who* and *Star Trek*, but they went [politically correct] — making women commanders, that sort of thing. I stopped watching."

British television personality Patrick Moore, who has presented a show on astronomy since 1957, alienates a large proportion of his audience.

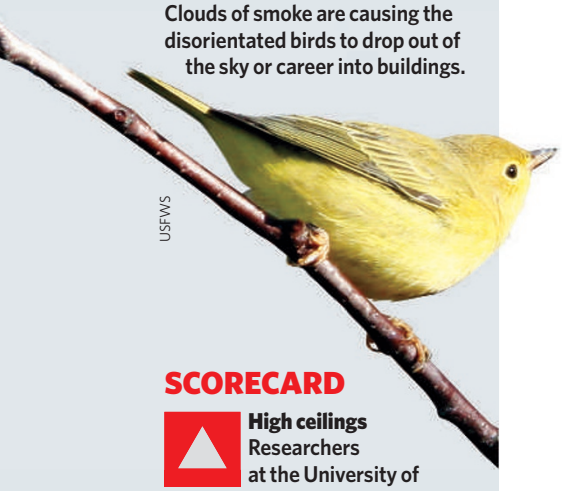
"I believe in evolution. But I also believe, when I hike the Grand Canyon and see it at sunset, that the hand of God is there also."

US presidential hopeful John McCain (Republican) tries not to alienate anyone at a recent debate. Three of his rivals for the nomination declared that they don't believe in evolution.

ZOO NEWS

Crash and burn

Wildlife workers in Florida say that the wildfires raging across the state are killing hundreds of yellow warblers (pictured). Clouds of smoke are causing the disorientated birds to drop out of the sky or career into buildings.



USFWS

SCORECARD

High ceilings

Researchers at the University of Minnesota claim that rooms with lofty ceilings encourage "freer, more abstract thinking", whereas more poky spaces activate more "confined concepts".

Texan skies

Plans for a 'body farm' to help forensic experts study decomposition have been shelved amid fears that the Texas State University facility would attract buzzards and endanger nearby planes.

Sources: ABC, BBC, Livescience.com, washingtonpost.com, Associated Press

SIDELINES

Applicants challenge male order at Howard Hughes

The Howard Hughes Medical Institute (HHMI) is one of the wealthiest philanthropic organizations supporting biomedical research, but Dora Angelaki didn't want to become one of its investigators just for the money.

With funding from the National Institutes of Health (NIH) and NASA, her neurobiology lab at Washington University in St Louis, Missouri, is hardly starved for cash. What she wanted was to embark on riskier projects that would be difficult to sell to conservative, federal research agencies. So when her colleagues encouraged her to enter the HHMI competition, she was eager to give it a go.

Unfortunately, as Angelaki soon discovered, the competition is open only to academic researchers who have been running a lab for between four and ten years. Angelaki has been at it since November 1993. And even with the two extra years that the HHMI allows to compensate for the fact that she had two children during that time, Angelaki missed the window by 18 months.

"The four-to-ten-year window works very strongly against women."

Her exclusion highlights what critics claim is a persistent problem for women scientists trying to become an HHMI investigator. Some argue that the institute's nominating practices and restrictive time limits hinder such career development — issues that the HHMI itself has recognized and taken steps to correct. But questions persist as to whether these steps go far enough.

"They've taken a huge step forward," says Ben Barres, a neurobiologist at Stanford University in California. "But they still need to diversify their selection committees. And I think this four-to-ten-year window works very strongly against women."

As a result of changes put forward in 2005 by the institute's president, Thomas Cech, the current competition is the first in which individuals can directly apply to the HHMI, rather than having to be nominated by a university. This is intended to make the process more open to women, minority groups and young scientists.

Nevertheless, some researchers would like the HHMI to go further. Barres says it should extend its window of eligibility from 10 to 16 years, to lessen the disadvantage faced by women who have had children soon after becoming assistant professors. But HHMI spokeswoman Avice Meehan says that the 10-year limit is important to enable the institute to maintain a pool of early-career investigators. And, she adds, applicants for the investigator competition are

Time runs short for HapMap

Geneticists at the genomics meeting in Cold Spring Harbor, New York, last week celebrated the success of the International HapMap project — and predicted its eventual demise.

The project, unveiled in 2005, is a database of markers of genetic diversity called single nucleotide polymorphisms, or SNPs. By comparing HapMap data against SNPs from people with specific diseases, researchers hope to pinpoint the genetic glitches that underlie those diseases.

Many studies have now been published that have used data from the HapMap project, which aims to cut down the cost and effort involved in finding the genetic errors that lead to common disorders such as heart problems, mental illness and diabetes.

At the meeting, Peter Donnelly of the University of Oxford, UK, who is one of the investigators in the Wellcome Trust Case Control Consortium, presented findings from a major study the group conducted of seven common diseases in 16,179 participants. The study, expected to be published shortly, is perhaps the most ambitious trawl yet for common disease genes. And it did turn up possible genetic causes for some of the diseases, Donnelly said. Together with results from other 'genome-wide association studies', Donnelly's report had researchers toasting their successes, and hoping for more.

"For ten years, we have been predicting that genome-wide association studies will work, and it is clear now that they do," says Ewan Birney, who runs the gene bank at the

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Critics say it remains difficult for women to become investigators with the Howard Hughes Medical Institute.

P. FETTERS/HHMI

eligible for extensions on the basis of childcare, parent care or military service.

At present, 62 out of 299 HHMI investigators are female. That's not much different from the balance in the pool of faculty members from which the HHMI draws its candidates: at US research universities, women accounted for 30% of assistant and associate professors and just less than 20% of full professors in the life sciences in 2003, according to the National Academies. That means it will be hard to dramatically change the percentage at the HHMI, concedes Nancy Hopkins, a developmental biologist at the Massachusetts Institute of Technology in Cambridge.

But Hopkins thinks it would be a good idea if the HHMI put more women on its powerful executive boards. "It's these powerful organizations and the people at the top that are really visible and send a strong message," she says. Two of the eight members of the medical advisory board and four of the nineteen members of the scientific review board are female. Among the ten HHMI executive officers, Meehan is the only woman. "That is a male organization," Hopkins says. "It just is."

Cech has already pledged to increase the percentage of women on the review panels that select investigators. These panels have been between 22% and 30% female, but the panel for the 2008 competition has not yet been selected, says Meehan.

The community will be watching closely to see whether the present changes have the intended effect, but for Angelaki, they are too late. When she got notice that she was not eligible to become an HHMI investigator, she sent an e-mail back. "Thank you for your response," she wrote. "It's too bad for both of us." ■

Heidi Ledford

European Molecular Biology Laboratory in Cambridge, UK. "What this meeting says to me is that we have got to do this in every disease that matters to us, including diseases of the developing world."

But another message from the meeting was that tools not available at the dawn of the HapMap could soon make the project obsolete. Scientists described some of the first sequencing projects that use new technologies developed to decode DNA faster and more cheaply than ever before.

The new technologies will allow researchers to compare many more types of variation than just SNPs, and in greater numbers of people. The fast sequencers available now — made by 454 Life Sciences in Connecticut, and Solexa in San Diego, California, both of which were acquired this year by larger corporations

"The HapMap was a substitute until we could afford to do whole genomes."

— enable scientists to read the genomes of small organisms in weeks, and of larger organisms in months. For instance, 454 is expected to announce shortly that its technology was able to start and complete the sequencing of the genome of geneticist James Watson between January and March.

Over the next year, new rapid sequencers from Applied Biosystems in Foster City, California, and Helicos Biosciences in Cambridge, Massachusetts, are expected to make their debut. Once these quick sequencers become routine, it will obviate the need for tools such as the HapMap, scientists say. "The HapMap was a substitute until we could afford to do whole genomes," says plant genomicist Magnus Nordborg of the University of Southern California in Los Angeles. ■

Erika Check

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