ON THE RECORD

“Evolution in the sense of common ancestry might be true, but evolution in the neo-darwinian sense is not.”

Cardinal Schönborn, Roman Catholic archbishop of Vienna, writes in *The New York Times* that the Church's position on evolution has been misunderstood.

“This is about stealing our intellectual property right and left and we're going to have to do something about it.”

Robert Goldberg of the Manhattan Institute for Policy Research criticizes a threat from Brazil to break a US patent on AIDS drug lopinavir.

SCORECARD

Globe trotting
Swiss aviator plans to give wings to renewable energy by flying a solar-powered plane around the world.

Polly math
African grey parrot is first bird to zero in on the concept of 'none' when counting objects — could this be the first parrot with nothing to say?

Mobile mayhem
Stop dialling and drive. An Australian study reports that using a cell phone while at the wheel of a car — even if it's on a hands-free device — quadruples the risk of having a crash.

NUMBER CRUNCH

A poll released last week suggests that President George W. Bush's policy on human embryonic stem-cell research doesn't match his country's mood.

63% of Americans say there should be a national policy for research using embryonic stem cells.

57% of Americans support using federal funds for embryonic stem-cell research.

59% of Americans would allow research into 'therapeutic cloning', a technique that can produce new stem-cell lines.

Source: Research!America

Caveman DNA hints at map of migration

The oldest sample of human DNA ever isolated in the Americas is providing a glimpse of how people spread across the land masses.

The DNA was extracted from teeth, more than 10,000 years old, found in a cave on the northern tip of Prince of Wales Island, off southern Alaska. Researchers compared the pattern of mutations in the DNA against those in thousands of samples. They found matches with 47 Native Americans from tribes living in areas ranging from North America to Tierra del Fuego, showing how the caveman's descendants must have spread.

“I could hardly believe what I found,” says molecular anthropologist Brian Kemp from the University of California, Davis, who reported the results last month at a regional meeting of the American Association for the Advancement of Science in Ashland, Oregon.

The work, which has yet to undergo peer review, indicates how genetic techniques are giving researchers a new window on genetic migration, says Kemp. Cooperation between scientists and Native American tribes on the project is cited as an example of how science and traditional cultures can coexist — in stark contrast to the case of Kennewick man, bitterly

disputed for nine years before studies finally began last month (see *Nature* 436, 10; 2005).

The DNA was extracted from teeth on a mandible found in 1996 in On Your Knees Cave, named by the explorer who first crawled inside in 1993. Carbon dating in 1997 showed the remains to be from someone living 10,300 years ago. Attempts to extract DNA from the bone failed, so Kemp spent two years probing the teeth. Working in high-containment facilities to prevent contamination, he and his colleagues finally managed to isolate fragments of mitochondrial DNA, which is passed down the maternal line, and Y chromosome DNA, which is passed from father to son.

The researchers compared the mitochondrial DNA with nearly 3,500 Native American sequences available in public databases. They found 47 matches, mostly from modern individuals but some from samples up to 1,500 years old. More than half of the matches were with members of the the Cayapa coastal tribe in Ecuador. Others were with members of the Chumash tribe of California, the Klunk Mound people in Illinois, the Tarahumara of Chihuahua in Mexico and the Mapuche and Yaghan tribes of Chile.

The caveman belonged to 'lineage D', one of the five founding lineages believed to have settled in the Americas more than 10,000 years ago. Lineage D is thought to have originated in Asia, and researchers also found a close match with a member of the Han ethnic group from Qingdao in eastern China.

“This is an exciting frontier,” says co-author James Dixon, an archaeologist at the University of Colorado, Boulder, who first dated the remains. But he adds that it will be important to repeat the work with other samples.

The local Tlingit and Haida tribes welcomed the project, which supports their concept of 'haa shagoon', learning from their ancestors.

“We went right to the tribes within 24 hours of finding the bones, asking them to be a partner,” says Terence Fifield, the US Forest Service archaeologist for the region.

“We viewed the remains as offering us knowledge,” says Rosita Worl, a Tlingit tribal member who is a Harvard-trained cultural anthropologist. “We wanted the knowledge for current and future generations.”

Rex Dalton

CROSSING CONTINENTS