No burial for 10,000-year-old bones

SAN DIEGO

In the latest twist in the tug-of-war between Native Americans and anthropologists, officials at the University of California have decided not to repatriate a pair of well-preserved skeletons that are nearly 10,000 years old.

Archaeology students unearthed the bones in 1976 near the clifftop home of the chancellor of the University of California, San Diego (UCSD). It may be possible to extract some of the oldest human DNA in North America from the exquisitely preserved remains, say researchers. But in the past two years the bones have become a political football over US$7-million plans to demolish and rebuild the house.

A group of 13 local bands, known as the Kumeyaay tribes, argued that the site was a sacred burial site, and that the bones found there should be repatriated to them. In March this year, UCSD dropped plans to knock down the house, opting instead for a renovation. But last week, University of California officials notified federal authorities that the bones could not be proved to be culturally affiliated with the Kumeyaay and thus would not be returned.

Steve Banegas, a tribal spokesman for the Kumeyaay, says they hadn't been notified of the decision. "They are our relatives," he says. "We want them reburied. They should stop playing politics with the remains."

The dispute reflects the increasingly acrimonious debate over decisions involving ancient skeletons. In 2004, a federal court ruled that the roughly 9,300-year-old Kennewick Man skeleton, found in a riverbank in Washington state, should not be returned to local tribes that could not prove cultural affiliation. In other cases, usually involving younger bones, museums have returned specimens when they were shown to be culturally affiliated to local tribes.

"There are many points of view on the cultural affiliation of the remains."

In San Diego, tribes newly enriched by casino earnings have enlisted powerful state legislators to their cause. Facing such pressure, University of California officials are reviewing the 10-campus university's policy on how cultural affiliation is determined.

Currently, decisions about cultural affiliation are made by a panel of scientists — typically including a Native American — at each campus. Campus actions are then reviewed by a nine-person University of California panel, which includes two Native Americans, before a final decision is reached. But in September, the office of Mark Yudof, the president of the University of California, initiated discussions about possibly eliminating the system-wide committee.

Four prominent University of California anthropologists wrote a letter to Yudof on 30 September, strenuously objecting to the proposed change. They include Phillip Walker and Michael Glassow of the University of California, Santa Barbara; Robert Bettinger of the University of Californa, Davis; and Philip Wilke of the University of California, Riverside. "It is counterproductive to devolve final decision-making authority to the often inexperienced and legally ill-informed level of the local campus," says the letter.

In an interview, Bettinger said that the system-wide panel serves as a vital form of peer review. "If the analysis is not rigorous, something is missed or a campus drops the ball, the University of California system-wide panel can correct that," he says. "This has happened a bunch of times." For instance, in 2001 the system-wide committee overruled a decision by the University of California, Los Angeles, in which skeletons and funerary objects were recommended for repatriation to the Kumeyaay.

Gabon centre refocuses on emerging diseases

The International Medical Research Centre (CIRMF) in the former French colony of Gabon wants to have something to celebrate on its 40th birthday next year. Many hope that the centre's newly appointed director-general, Jean-Paul Gonzalez, can lead the institution — which fell into disarray in the 1990s — to a position of international excellence in global health research.

Gonzalez, from France's Research Institute for Development, will be charged with guiding the CIRMF's 157 staff and US$5-million annual research budget. The centre, based in Franceville in southeast Gabon, boasts research infrastructure that is rare in Africa, including a biosafety level 4 lab for working with the world's most dangerous pathogens, and has long been seen as having the potential to make a worldwide impact. It is funded largely by the French oil giant Total, which helped bring El Hadj Omar Bongo to power as Gabon's president in 1967. The centre was created jointly by the government and Total in 1979, as part of a deal giving France access to Gabon's oilfields.

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Ebola virus, carried by bats, is one of the pathogens studied at the CIRMF.

But despite its healthy finances, the centre has largely been a white elephant, some say. "The CIRMF is a very well-funded institution that has not obviously delivered in terms of establishing a regional or international profile," adds one senior researcher in tropical disease at a leading African research centre, who asked not to be named. At the same time, he says, he understands all too well the difficulties and time involved in building up a field research centre in Africa. "The new director has plenty of scope for raising its profile and relevance," he explains.

Gonzalez took over on 1 September from Philippe Blot, who has been interim head since 2003. Blot was brought in with a remit to clean up after a turbulent period in the 1990s, when local management and expatriate researchers clashed repeatedly over administrative and other matters[1]. The situation persisted until around 2003–04, and was not helped by a constant staff turnover, including

California's Kumeyaay tribes are fighting to reclaim the skeletons.

Bettinger says the review ensures that science, not politics, is paramount. "The way to avoid the inevitable local politics," he says, "is to kick it to a higher level for independent review."

The turbulent history of the bones reflects this. The skeletons — of a man and a woman buried in alignment, along with the less-well-preserved remains of a third individual — were stored at the independent San Diego Museum of Man. They were also examined at the Smithsonian Institution in Washington DC. Most recently they have been at San Diego State University, where Native American scientists have been conducting morphometric analyses.

Isotopic analysis of the bones suggests that the people ate mainly seafood; anthropologists say this indicates they were seafarers, not inland dwellers like the Kumeyaay. Still, in May, the office of UCSD chancellor Marye Anne Fox wrote to Yudof's office outside the normal channels, saying that UCSD executives wanted his office to facilitate returning the skeletons to the tribes to avoid any "cultural insensitivity".

"There are many points of view on the cultural affiliation of the remains," says Art Ellis, the vice-chancellor for research at UCSD. "We wanted to make sure the office of the University of California president took into consideration all points of view when making the final decision." ■

Rex Dalton

three director-generals in almost as many years, and a corruption scandal.

With Blot's efforts, the worst is now over and a culture of nepotism has been cleaned up, says Patrice Debré, head of the CIRMF's scientific board. But with all the past focus on administrative matters, the centre has not had a coherent research strategy, he says. "Research fell behind; there was no real scientific leadership. That's the leadership that Gonzalez's appointment will now bring."

Gonzalez wants the centre to focus on emerging infectious diseases, which is his own research background, and to become an international centre for research into Ebola virus, arboviruses and other novel pathogens. New labs set up at the centre over the past five years have notched up some success in this area, notably the discoveries that bats are a reservoir of both Ebola[2] and Marburg[3] viruses. The centre has also strengthened its retrovirology research.

"We are now in an ascendant phase for research, after a long period where that wasn't the case," says Gonzalez. He hopes to reinstate parasitology and malaria research, areas that were lost by staff departures. He also wants to add a new theme: how ecosystem biodiversity affects the emergence and transmission of disease. And, to complement the centre's existing tropical-forest stations, he plans to build a field station in the savannah in southern Gabon.

The common thread running through this strategy is to refocus the centre on its key strengths. Its location in an emerging-diseases hotspot makes it ideal for studying the emergence and transmission of diseases from primates to humans.

Furthermore, the CIRMF's primatology centre is among the largest in Africa. It contains around 450 primates, including gorillas, mandrills and macaques, half of them housed in a forest enclosure. "The natural hosts for SIV [simian immunodeficiency virus] and STLV [simian T-lymphotropic virus] and many other viruses are African primates," says Bettina Salle, the veterinary surgeon who runs the primate centre. "We have the ideal animal colonies and geographical location for research into the viruses in their natural hosts."

Debré notes that the centre can't begin to compete with international clinical research in retroviruses such as HIV, in part because it lies too far from major hospitals. So instead it hopes to capitalize on the current back-to-basics shift in AIDS research, to position itself as a place to study wild retroviruses in primates and carry out HIV research and vaccine trials in primate models.

The CIRMF should take advantage of the infrastructure provided by the government and by Total, says Debré, but balance that by pursuing outside, independent research funding. Gonzalez says he hopes to have obtained a 50% increase in the centre's research budget and staff by 2010. "A test of Gonzalez will be how successful he is here," says Debré.

One former CIRMF researcher praises Gonzalez's track record, but reckons the director-general faces an uphill battle. Salle is more optimistic: logistics and cultural challenges mean that working at the CIRMF is "not always easy", she says, "but we can do great things here. Gabon has a great tool for science." ■

Declan Butler

1. Butler, D. *Nature* **394,** 113 (1998).
2. Leroy, E. M. *et al. Nature* **438,** 575–576 (2005).
3. Towner, J. S. *et al. PLoS ONE* **2,** e764 (2007).