

may have evolved these suspensory adaptations independently, says Moyà-Solà.

Because there are few fossils to put *Pierolapithecus* into context, opinions about its place in the ape family tree vary widely. The team puts it at the key branch point between the great apes and the smaller lesser apes, represented today by the gibbons. Paleoanthropologist David Begun of the University of Toronto, Canada, however, cites facial features that he thinks link *Pierolapithecus* to the African apes, the group that eventually led to

chimpanzees and humans, rather than to the Asian orangutans. "I'd put it closer to humans than they would, which makes it even more interesting in some ways," he says.

On the other hand, David Pilbeam of Harvard University thinks that the new skeleton could be even more primitive than the authors suggest. He is not convinced that the characters the team cites—wrist, vertebrae, face, and ribs—indicate an evolutionary link to great apes, and he suggests that the similarities may be due to convergent evolution. "I

didn't think the face looked particularly like any living ape. I'm agnostic about the idea that it is part of the group that gave rise to extant apes," he says. "If chimp-orang adaptations are convergent, why believe that *Pierolapithecus* resemblances are not?"

Even as they debate the ramifications of the find, researchers are united in their appreciation of a fossil that is sure to advance the field. "We can't say yet what it all means," says Pilbeam. "But this skeleton is great."

—ELIZABETH CULOTTA

TOBACCO WARS

Research on Secondhand Smoke Questioned

The Philip Morris tobacco company quietly conducted extensive animal research in the 1980s that documented the toxicity of secondhand smoke while arguing publicly that it was safe, according to an analysis, published online last week by *The Lancet*, of thousands of industry and court documents. In a related move, the University of Geneva (UG) has raised doubts about more than 3 decades of tobacco-smoke studies authored by a retired UG environmental-medicine professor who coordinated research for Philip Morris. His failure to disclose that he was a "secret employee of the tobacco industry," according to a UG faculty commission, tainted his research.

The allegations in *The Lancet* drew an immediate response from Philip Morris's parent company, Altria of New York City. It issued a statement saying the charges are "highly distorted and misleading" and that the company has successfully defended against similar allegations in U.S. tobacco litigation. The retired UG professor at the center of the storm, Ragnar Rylander, who is now a professor emeritus at the University of Göteborg, Sweden, maintains that his science was independent and that he is the victim of an antitobacco witch hunt.

The *Lancet* study grew out of efforts by two antismoking activists, Pascal Diethelm, president of the Swiss antismoking group OxyRomandie, and Jean-Charles Rielle of the Swiss smoking-prevention group CIPRET-Genève. They mined an online database of millions of documents Philip Morris released as part of a 1998 legal settlement with the state of Minnesota. Diethelm, who worked as an information-

technology officer for the World Health Organization's Tobacco Free Initiative, knew that Rylander had authored studies exonerating secondhand smoke. A search in the Philip Morris database flagged 16,000 documents in which Rylander's name appeared, including confidential company memos and scientific reports, financial records, and a company consulting contract with Rylander.

In 2001, the two Swiss activists publicly denounced Rylander's work on tobacco smoke as "an unprecedented scientific fraud."

Rylander sued Diethelm and Rielle for libel in a Swiss court and won. Diethelm and Rielle appealed; in December 2003 a Swiss appeals court reversed the lower court's decision on grounds that the charges were true. Meanwhile, UG created a faculty fact-finding commission to investigate the charges on its own.

The *Lancet* paper involves many of the players in these battles. Its authors—Diethelm, Rielle, and Martin McKee, a public-health physician at the London School of Hygiene and Tropical Medicine who testified in de-

fense of Diethelm and Rielle at their trial—reported finding more than 800 unpublished studies on secondhand smoke completed between 1981 and 1989 at a Philip Morris facility called the Institut für Industrielle und Biologische Forschung (INBIFO) in Cologne, Germany. In one key 1982 study in rats, INBIFO researchers showed that sidestream smoke, which drifts from lit cigarettes, caused severe damage to the nasal epithelium and abnormal cellular alterations called metaplasia sometimes associated with cancer and was up to four times more toxic than the direct smoke sucked from a ciga-

rette. The data were not published.

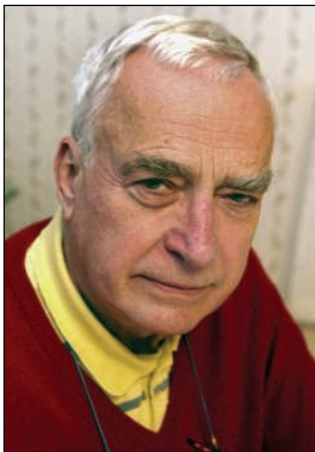
The *Lancet* authors maintain that Philip Morris created INBIFO from the start to learn about the effects of tobacco smoke but concealed the work to reduce liability. For example, the authors say, the company situated the lab in Germany instead of the United States, funded it through a Swiss subsidiary, and told few employees about the tobacco-smoke research. The company contracted with Rylander to serve as an intermediary between INBIFO and Thomas Osdone, a Philip Morris executive responsible for research and development.

According to the UG report, released in French on 6 September and in English on 29 October, Rylander also organized industry-controlled symposia that excluded researchers who believed secondhand smoke was harmful and failed to identify himself as a tobacco company consultant in letters to the U.S. Environmental Protection Agency downplaying the toxicity of secondhand smoke.

Last week, UG, acting on advice of the faculty commission, wrote to three journals in which Rylander had published—*The European Journal of Public Health*, *The Archives of Environmental Health*, and *The International Journal of Epidemiology*—warning that "Rylander's work reflects his position as an industry agent rather than a free scientist." From now on, UG researchers will be barred from accepting tobacco-industry grants or contracts, says André Hurst, the university's president.

Rylander argues that UG freely accepted Philip Morris's funding for decades and that the authors of the *Lancet* paper quoted from the tobacco documents out of context to "support their message." Furthermore, he says that his science was independent, that he was merely INBIFO's "scientific adviser," and that he had "no insight into their funding." Quoting the Swedish diplomat Hans Blix, Rylander concludes: "If you believe in witches, and you look hard enough, you'll find them."

—DAN FERBER



Smoking gun? Critics of Ragnar Rylander cite evidence of his work for a tobacco company.