suggested the strategy of trying to trap metal ions inside the molecule. Heath says the idea was obvious—any chemist would have thought of it. In any case, Kroto had suggested iron, which didn't work; Heath then tried lanthanum ions, which did. The experiments took place after Kroto left, and the draft reporting them, instead of listing Kroto as an author, only acknowledged him for "stimulating discussions."

When Kroto saw the draft, says Smalley: "Harry was really steamed. He felt that we were trying to ride him out of this." Kroto believes he was entitled to authorship by virtue of his role in the original discovery. "I felt I had earned an inalienable right to be an equal partner in bringing up the baby. No one had made a greater contribution to its birth," he says, pointing out that he was first author on the original paper.

After a day's reflection, Smalley agreed to write him in as an author. Smalley stipulated, however, that he would include Kroto in future papers only if he were an active collaborator. That put Kroto in what Curl calls the "terrible position" of having to commute from England if he wanted to share credit for the continuing C_{60} work. As a result, Kroto recalls, he went back and forth between Houston and Brighton "like a yo-yo."

The resentment between Kroto and Smalley finally crystallized in March 1986, when Kroto lectured to the space physics group at Rice. Smalley heard the presentation and bristled. He felt that Kroto had portrayed himself as the idea man and the Rice contingent as the technical help. Heath, Curl, and O'Brien saw no reason to object initially, although Heath says he later acknowledged Smalley's point. Smalley then discussed his objection with Kroto, and their relationship "deteriorated overnight," according to Kroto. To Smalley, too, it became "increasingly unpleasant."

Finally, in April, 1987, after Kroto had made eight fruitful trips to Rice, the collaboration died. It had produced some of the best science of his and Smalley's careers—at the price of an intensity that, for a few hours at least, dissolved the clear boundaries separating the two men's intellectual claims. "There is still a question of what really happened," says Smalley, "and we'll never know." Kroto, not surprisingly, disagrees. It's unfortunate, he says, that individual contributions were ever singled out, but once they were, it's never too late to get them right.

C_{60}, the molecule that is an emblem of technical possibilities to so many chemists, is also a monument to the power and perils of collaboration. ■ GARY TAUBES

Gary Taubes is still working on a book on cold fusion for Random House.

France Set to Reopen AIDS Pact?

Paris—Even though the investigation by the U.S. National Institutes of Health into the early AIDS work of National Cancer Institute virologist Robert C. Gallo is not yet completed, some French government officials and researchers have apparently seen enough. Last week, *The Chicago Tribune* published parts of a draft report of the investigation indicating that NIH investigators had determined that a landmark paper published by Gallo in *Science* in 1984 contained inaccurate and misleading statements (*Science*, 20 September, p. 1347). This week, a senior official at the French Ministry for Research and Technology, who asked not to be identified, told *Science* that French diplomats have been instructed to "lean harder" on Washington to tear up a 1987 Franco-American agreement over patent rights to the blood test for the AIDS virus.

The agreement, signed by former President Ronald Reagan and then French Prime Minister Jacques Chirac, gives Gallo and Pasteur Institute virologist Luc Montagnier equal credit for discovering the AIDS virus, and splits royalties from the patent on the blood test equally between the United States and France. Gallo's 1984 paper was central to the agreement. Gallo and cell biologist Mikulas Popovic reported in that paper that they had grown the AIDS virus in a permanent cell line for the first time—a key step in developing the blood test.

The draft report of the NIH investigation says that Gallo edited out of early draft versions of the paper references to the fact that Popovic had infected cells with samples of the AIDS virus Montagnier sent him in 1983. Those references, which Popovic had put in the draft, would have made it clear that the Gallo lab did more with Montagnier's virus than Gallo publicly acknowledged at the time. The report, which is currently being rewritten, also accuses Popovic of making false statements in the paper, although it says these alleged misstatements "did not negate the central findings of the paper."

"As far as we are concerned there is now little doubt that the agreement is null and void and should be renegotiated," the research ministry official told *Science*. "We are getting very impatient," he added. This impatience is news: It is the first time since the dispute over patent rights first arose that the French government has broken diplomatic silence over the affair, even off the record.

Gallo and Popovic, in a statement released by their lawyers, say that references to their work with Montagnier's virus were omitted from the *Science* paper because they intended to publish a joint paper with the Pasteur Institute scientists on this work. Montagnier was informed that "we had successfully cultured the 'French virus' in a cell line," they state, adding that "we did so only transiently." "Publication of the *Science* article (with or without reference to the work of the Institut Pasteur) does not change the conclusion that we and Dr. Montagnier, together with his former colleagues Drs. [Jean-Claude] Chermann and [Françoise] Barré Sinoussi, are co-discoverers of the AIDS virus," the statement says.

Montagnier, who is head of the viral oncology department at the Pasteur Institute and co-owner of the patent on the AIDS blood test, is not satisfied, however. "If Popovic had said at the outset what he has said now, it could have saved a lot of time," Montagnier told *Science*. "And, more important, the outcome of the 1987 agreement would have been different." If all the facts had been known at the time, Montagnier claims, "the agreement would not have been 50:50, but it would not have been 100:0 either. Of course there is still a contribution from Gallo's laboratory. We could grow the virus in continuous cell lines in 1984, but they did it better. They carried out a Western blot and confirmed it with serological findings."

Montagnier also argues that the *Science* paper—and some later papers—should be retracted. And, 7 years after Gallo says he first proposed it, Montagnier says: "We should perhaps write a joint paper" about the work the two labs did with the virus Montagnier isolated. He adds: "I am not aggressive about this, but it is important to clarify what happened. The scientific debate is closed now. Gallo has recognized that HTLV-IIIB [Gallo's virus] was contaminated by LAV [Montagnier's virus]. The only remaining problem is scientific history, which is important, but only affects a few people. It will not affect the problem of AIDS as an illness." ■ PETER COLES

Peter Coles is a free-lance science writer based in Paris.