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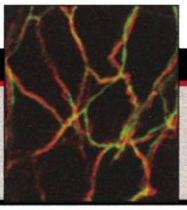
Spitting on leishmaniasis



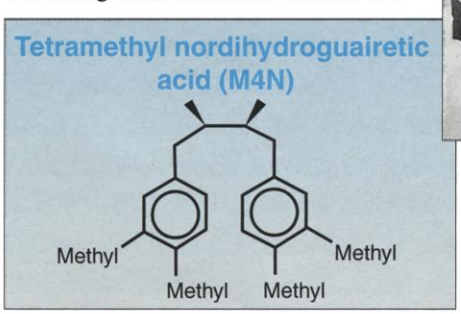
1030
Putting pressure on hypertension

CLINICAL RESEARCH

Hopkins Reviews Investment In Indian Cancer Drug Trial

Now add financial interest to the mix of combustible elements in the controversy over tests of a new drug for oral cancer in India (*Science*, 3 August, p. 777). Johns Hopkins University, whose professor helped design a trial at the Regional Cancer Center (RCC) of Trivandrum, India, has also invested in a Minnesota start-up medical company that plans to test the drug at other Asian sites. Hopkins is also trying to explain how it could have sent a check to support the cancer study in India, led by biologist Ru Chih C. Huang of its school of arts and sciences, without first seeking approval from a university ethics panel.

Hopkins's financial involvement in this research will complicate the task of responding to allegations of patient mistreatment, which surfaced last month in Indian and U.S. media. It was another in a string of recent setbacks for Hopkins, which is recovering from the recent death of a research subject at its medical school (*Science*, 27 July, p. 587). The confusion over who authorized the clinical trial in Trivandrum and who signed the checks feeds into a larger set of concerns about Western companies prospecting for biomedical discoveries in the developing world.



The drug in question is M4N, a methylated extract of the creosote bush. Huang and colleagues discovered a related compound in studies of HIV therapy several years ago at Huang's lab at Hopkins. Because it is insoluble, Huang says, M4N stays put in tissue, where it blocks the cell cycle locally. In 1999 Huang and her Indian clinical co–principal investigator, M. Krishnan Nair, director of the RCC, enrolled 26 patients in a pilot study at the RCC to test whether it could work against solid tumors. In July 2000, Hopkins joined with a Singapore businessman to finance a new company to develop the drug. And in April 2001, Huang and the university obtained a U.S. patent on the anticancer formula now being tested (patent number 6,214,874).

On hold. Ru Huang, inventor of an experimental cancer drug, M4N (*left*), awaits Hopkins's review.

Initial reports of patients responding within days to the injections led Huang to conclude that "this is a wonderful drug, and it's not toxic in humans." But a senior clinician at RCC thought otherwise. V. Narayaman Bhattathiri, a Ph.D. chief of radiology, challenged the trial after seeing some of the patients. "I asked for details of the study, and they were not given to me," he says. "Then I complained to the ethical committee: No action. Two months passed, and then I complained to the Human Rights Commission," a parliamentary body.

Bhattathiri charged that Nair's experiment had begun in 1999 without a proper ethics review or approval of the Drugs Controller General of India. Bhattathiri also alleges that patients were diverted from standard therapy for 3 to 4 days, that they had been led to believe they were getting therapeutic injections (they weren't), and that the experiment might interfere with radiotherapy. He also made a claim—later discredited—that unapproved "toxic" compounds were being used.

Huang told *Science* that she is baffled by the criticism. She did not apply to Hopkins's Institutional Review Board (IRB) until this year, she says, "because I thought the local IRB in India was sufficient, and none of the Hopkins administrators objected." Last week, Nair released a six-page rebuttal, saying that the RCC obtained an ethics clearance required by India before beginning the trial and that "discussions were held with the Drugs Controller General. ... All patients received standard treatment," it says, and none developed "any side effects or suffered any harmful effects due to drug injection."

Hopkins spokesperson Dennis O'Shea says that the university first learned of the trial in March 2001—and that it had not gone through Hopkins's IRB. Hopkins put a hold on the research, asking for an IRB review that is still pending. Last month the Indian media reported charges from Bhattathiri that RCC patients were being "used as guinea pigs."

Hopkins never directly funded the trial, O'Shea says. But the RCC clinician in charge, Manoj Pandey, says that the RCC has received two checks signed by Hopkins's treasurer, William E. Snow Jr., for a total of $19,400 and is awaiting a third. In addition, Pandey says that Hopkins has received permission from the U.S. government to import tissue from Indian cancer patients to Baltimore for study.

Huang says that funding for this project comes entirely from private sources, including Hopkins and a new company, Biocure Medical LLC of Edina, Minnesota. In July 2000, according to a press notice on Hopkins's Web site, Huang met with Hopkins vice provost Ted Poehler and Ang Tiong Loi, a Singapore businessman, to form this "groundbreaking new start-up company" for cancer research. Huang says backers have committed about $2.5 million to pilot trials at four sites in Asia, and investments may rise to $50 million.

"I'm not saying we know where these funds came from," says O'Shea. "Just because Johns Hopkins cuts a check doesn't necessarily mean" it approved the project being funded. Making sense of the financial transactions is a task for a new investigative panel, he says, which will report its findings "as expeditiously as possible."

–PALLAVA BAGLA AND ELIOT MARSHALL