POLIO VACCINE

French-Indian project in jeopardy

New Delhi

A JOINT venture between a French pharmaceuticals company and the Indian government to make an injectable polio vaccine for mass distribution appears to be doomed by the government's decision to support an older, oral vaccine.

Institut Marieux (IM) is building a $50-million plant outside Delhi to produce the injectable vaccine. Work on the plant, one of the biggest in Asia, began in 1989 after an agreement between the two countries. The plant, which will have the capacity to produce 50 million doses of injectable polio vaccine (IPV), is scheduled to be completed by the end of the year. But it so far has received no orders for its vaccine.

The company is now thinking of withdrawing from the joint venture. "If the health ministry does not want to use our product, we might as well close down the project", says a spokesman. A decision is expected later this month at a board meeting here of the joint venture.

The company is caught in the middle of a dispute between two Indian government agencies. The Indian Health Ministry, although it did not oppose the agreement when it was reached in November 1988, has said more recently that it will follow the recommendation of the World Health Organisation (WHO) and use an oral polio vaccine (OPV) in its national programme to eradicate the disease. As a result, it has so far refused to place any orders for the vaccine to be manufactured at the IM plant.

Officials from the Indian Department of Biotechnology, which set up the agreement with the French company, are highly embarrassed by the political feud. A spokesman for the department says that it will seek ways to export the injectable vaccine if the health ministry remains opposed to its use in India. The state-owned Indian Petrochemicals Ltd. is the other Indian partner in the joint venture with IM.

The health ministry says it has both scientific and economic reasons for its choice of an oral vaccine. The live oral vaccine confers humoral and intestinal immunity much faster than the injectable version, it says, and extends immunity to a wider population. In addition, the oral vaccine costs one-tenth as much and can be administered with drops to the mouth. In contrast, the injectable vaccine requires trained personnel, needles and syringes, and sterilization equipment. The ministry also rejects as impractical a suggestion to combine the injectable vaccine with the DPT (diphtheria, pertussis and tetanus) vaccines, pointing out that each has a different vaccination schedule.

Last week it became clear that the health ministry has won its battle. A statement issued by the prime minister in Parliament declared that the oral vaccine will continue to be used until feasibility studies of the injectable vaccine are completed. Those studies, large-scale trials that will take four years to conduct and analyse, are intended to test the idea of combining the polio vaccine with the DPT vaccine. But Marieux officials say that they cannot wait four years before deciding whether to begin production of their vaccine.

The health ministry cites a report from WHO to bolster its case. That document, issued last December, says that "OPV is the only vaccine that can displace circulating wild virus and thus assure community and individual protection". The report says that the IPV is suitable "only in industrialised, polio-free countries with high standards of sanitation and no circulation of wild polio virus, and where vaccine cost is no problem".

Not all Indian polio experts agree with the WHO assessment. Renu Patel, a Bombay paediatrician, calls that view "discriminatory" and sees it as an example of "recommending the latest vaccine to the rich and the oldest one to the poor". Patel has used an injectable vaccine effectively to immunize the children in two Bombay slums. A.B. Desai, a former president of the Indian Academy of Paediatrics, estimates that a campaign using an oral vaccine will require a minimum of ten doses. And he predicts that high drop-out rates will doom such an effort. **K.S. Jayaraman**

TECHNOLOGY TRANSFER

British Technology Group staff win fight for control

London

Management and staff of the British Technology Group (BTG), the world's largest technology transfer organization, have won their battle for control of the company.

Peter Lilley, UK trade and industry secretary, announced last week that the government has chosen a consortium headed by Ian Harvey, existing BTG chief executive, as the preferred future owners of the group. On Monday this week Harvey's team was negotiating with government officials over the terms of the company's sale. The announcement ends a period of uncertainty during which interested consortia were asked to make confidential bids, naming the price and describing their plans.

Harvey said last week that he believed his bid had been successful because of its "long-term aim of enhancing BTG's business in international technology transfer". But the government's decision will also avoid political controversy in the run-up to a closely fought general election.

The other front-runner in the race to win control of BTG was a consortium including BTG's principal international competitor, the US group Research Corporation Technologies (RCT). The opposition Labour party attacked the Conservative government for allowing a US competitor to bid for control of a group that is expanding into the US technology transfer market, and whose portfolio of patents includes many inventions from British academic researchers (see *Nature* **355**, 485; 1992).

Until negotiations with the government are complete, BTG managers are unwilling to name all the members of their consortium, or the exact price they are offering to pay for BTG. Nevertheless, the price is rumoured to be more than £23 million, and Tony Chrismas, BTG head of marketing, says: "I think the academic researcher will be pleased with the investors we have lined up".

Researchers have worried that BTG would fall into the hands of short-term investors who lack the vision to transfer technology successfully from academic institutions to industry. None of the investors in the successful consortium will own more than 15 per cent of BTG's shares, and Chrismas says that they include a number of leading British and European academic institutions and research foundations.

John Ashworth, director of the London School of Economics, who headed the RCT-backed consortium bidding for BTG, says he is very disappointed by the government's decision. Although he declined to discuss details of his bid, other sources indicate that the RCT-led consortium was prepared to offer a substantially larger sum than the successful consortium — perhaps approaching £50 million.

Ashworth still believes that there is room for Research Corp. to expand into the UK technology transfer market. "[RCT president] Gary Munsinger and I are talking about the possibility of opening an autonomous business in the United Kingdom," he says. Ashworth says that the business would concentrate on the transfer of technology invented by academic researchers.

Chrismas rejects any suggestion that BTG is turning its back on academic inventors. "Let me be quite clear," he says. "99 per cent of our business is pure technology transfer."

Peter Aldhous