Biotechnology looks for niche that will profit local science

Santiago. Chilean-born Pablo Valenzuela had learned the risks of starting a biotechnology company as a co-founder in 1980 of the US-based Chiron. But it was still a big step when in 1986 he and two other Chilean scientists from Catolica University decided to start the first one in their own country.

Seven years later, Bios Chile is alive and well. In January, the company and its 28 employees moved into larger offices to accommodate its steady growth. Arturo Yudalevitch, another co-founder, has greatly reduced his university links to spend more time managing its research programme.

Having proved that biotechnology can take root in Chile, the founders of Bios Chile have set their sights on a more ambitious goal: to create a successful Latin American pharmaceutical company with strong links to university-based research that can be a model for biotechnology and other high-technology sectors of the economy. Their reward, apart from money, would be a self-supporting research base and greater opportunities for scientists.

"The big problem with Chile is that we produce scientists and they all end up elsewhere", says Valenzuela, senior vice president for research and development at Chiron, in Emeryville, California. Valenzuela returns to Chile ten times a year for several days at a time. He says that "there is no industrial biology to speak of, so there's no place for new PhDs to get a job. One of things we hope to do with Bios Chile is to show that a small company can offer an alternative to the university."

Bios Chile is following a conservative business plan that reflects the risks of charting a new course without government support. It sells custom-made monoclonal antibodies to scientists in the United States, Europe and Japan, and last year it acquired Prater Laboratories, a Chilean company with 300 employees and annual sales of $7 million from generic drugs and cosmetics. At the end of 1991, Chiron bought 19 per cent of the company's stock and a subsidiary called Austral Biologicals was formed in San Ramon, California, to sell a range of specialized biological products made by Bios Chile, Chiron and others. The company also has a joint venture with a Belgian company, Eruogentec, to develop a full line of products for the salmon farming industry. (Chile is now the world's second largest exporter of salmon, behind Norway, after recently surpassing Scotland.) Its scientists are working on a vaccine against hepatitis B and on various diagnostic products for pregnancy and blood testing.

The company's founders do not expect Bios Chile to compete with global drug companies and their vast resources. But although they are not looking for a handout, they do not want to be completely on their own. "We need an umbilical cord with the First World", says Valenzuela, "because Chile is isolated. But in this business, unless the government or a big foundation is behind you, your primary aim must be survival. We think that by focusing on monoclonal antibodies and some other niches, we can grow and prosper."

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Jeffrey Mervis

Yudalevitch outside Bios Chile's new headquarters.

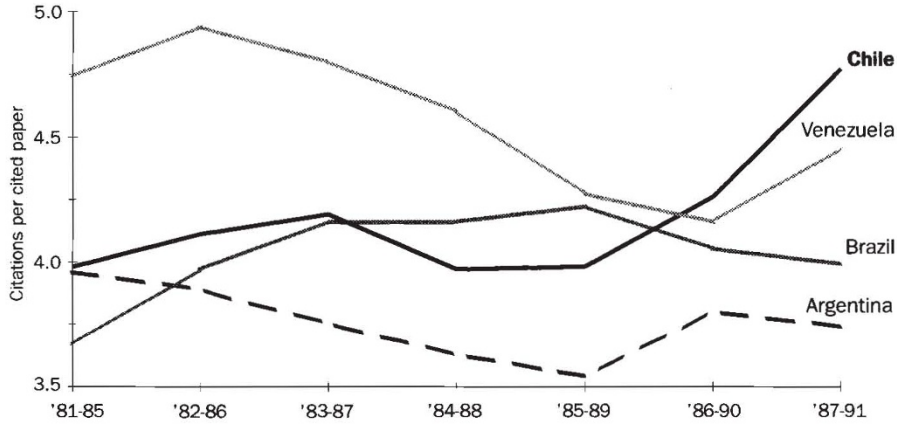
Although most of Yudalevitch's academic colleagues still look down their noses at collaborating with industry, he says that a handful of graduate students are working on various company projects. There are only half a dozen biology departments in Chile of sufficient size and quality to make such collaborations possible.

Yudalevitch never had that opportunity. As an undergraduate during the 1960s, he had to travel abroad, in his case to Britain, for his graduate training. Despite many job offers from US institutions, he accepted a position at Catolica University in 1970. Within a few years, however, working conditions under the military dictatorship became so bad that he accepted a fellowship at Albert Einstein Medical College in New York City, where he worked under Jerald Hurwitz and next door to Valenzuela.

In 1975, with his leave about to expire, Yudalevitch had to decide whether to remain in New York or return to Chile. Although he recalls that Hurwitz told him "you're wasting your time [trying to do meaningful science] in Chile", Yudalevitch chose to return to Catolica University, where, 18 years later, he is winding down his research to devote himself to Bios Chile. "You can do good work in Chile", he says, "but it's not easy."

Although success is uncertain, Valenzuela is already planning for the time when Bios Chile has ten times its current number of employees and occupies an important place in the global biotechnology industry. "I'm not planning to stay in the United States forever", he says. "When I left [Chile], it was because of the military government, and I've always intended to go back. But the company needs to grow a bit before there's room." □

Chilean biology rises to the top



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