



Luiz Rizzo: going for quality over quantity in Brazil

Picture a super modern building, bustling with legions of security guards stationed after the efficient valets have dispatched all the waiting cars. An inviting spa and a chocolate shop accompany a bright restaurant with views of a spectacular skyline. No, not a hotel — these amenities are all contained in a hospital: the Albert Einstein Jewish Hospital in São Paulo, Brazil. Einstein has been named the best hospital in Latin America and was the first institution to be certified by the Joint Commission (the hospital accrediting body) outside the United States.

The charismatic executive director, Luiz V. Rizzo (Figure 1), joined Einstein two years ago, after leaving his position as a full professor at the University of São Paulo. Rizzo returned to his native Brazil in 2003 after 15 years in the US, first at Stanford University doing his pediatric fellowship, and then later at the National Eye Institute of the NIH as acting chief of the Clinical Immunology section before a brief time at MD Anderson Cancer Center. Rizzo is responsible for all the training, education, research, and introduction of new technologies, processes, and medications at Einstein.

The *JCI* recently had a chance to speak with Rizzo about his unique hospital and the state of Brazilian science.

JCI: You are at a very distinctive and modern hospital renowned for its clinical achievements, but one that also cherishes research — how do you make it work?

Rizzo: For research, we have a “shared platform” system: use of space and equipment is determined by needs, not wants. Nobody “owns” equipment or bench space; they are to be used if you have ongoing projects. We have technicians assigned to every area and all equipment and weekly user schedules for everything from the bench space for cellular or molecular biology to the use of the flow cytometers. Because the technicians oversee the use of the equipment full time, sometimes operating it themselves, other times guiding trained users, we have very low maintenance costs and highly reproducible results within one given platform. Because all researchers are hired to work within this system, we have had no problems with it thus far. It has optimized the use of resources, decreased contamination in both the cellular and molecular biology level, and it has sprouted an “institution first” approach that

has had a great impact in the way research is seen within the hospital.

JCI: How are you orchestrating the expansion of the basic science enterprise?

Rizzo: There is an institutional goal to move from the 300 papers we published last year to 1500+ in the next years, but I am more concerned with the quality of what we produce than the quantity. We are investing in hiring promising young scientists in Brazil as well as from abroad. We are concentrating our research efforts on what we



Figure 1
Luiz Rizzo, in charge of quality in Brazil.

do best: applied and translational medical science. But we do understand the importance of basic research, so we are focusing our efforts on bringing scientists from outside the organization to compliment what we feel is a strong group already in place.

We are also trying to get our own Journal (*Einstein*) on PubMed. To improve the quality of the works we publish, we have introduced a series of economic incentives to publish with us, such as several monetary prizes that range from \$2,000 to \$4,000. We offer free translation to English and statistical analysis of any accepted work. We have also worked on revamping our international editorial board and enhanced visibility with a new website, easier online submission, and epub ahead of print services.

JCI: What is your opinion about where Brazil needs to start in order to be more competitive on the global scientific stage?

Rizzo: First, related to the way the Brazilian graduate system works: since students must publish as first authors in order to get degrees, publications tend to be shallow and scant on data; again, we need more quality instead of quantity. Coupled with the problems we have related to obtaining supplies for research and poor distribution of federal funds, we can paint a picture of what should change in order for us to have better results as a country. And certainly, individual scientists have achieved the level of excellence we would expect.

I'd also love to see more collaboration with Brazilian biotech companies. Enhancing the number of grants for post-doctoral students would be smart. In fact, general changes in fiscal policies to allow for greater participation by the private sector in the country's research efforts (today at less than 15% by any indicator you choose) would be helpful.

JCI: So how is the current state of funding in Brazil and at Einstein?

Rizzo: We have good opportunities in the State of São Paulo, where a state government agency (FAPESP) has done a good job in administering funds for research, and most good projects in São Paulo get funded. Nevertheless, some think that the agency is outdated in its focus and capacity to recognize the needs for science development, since it is focused almost exclusively in academic-driven research. In other states in Brazil, the National Science and Technology funding agency (CNPq) tends, by force of federal law, to disperse funds geographically; 30% of most funds are given to research in the most impoverished regions of the country in hopes that at \$15,000 per grant, it will stimulate worthwhile research in these regions. Many would rather have an approach in which fewer people are awarded bigger grants.

At Einstein we have a research fund provided by several private donors that allows us to give seed money to researchers that we hire. In addition, it allows for the upkeep of the platforms mentioned above. We have established a system of rewards in which the better your work, measured by external grants and publications with high citation levels, the longer you will get money from the fund.

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