

The battle of the quality - Leaders of Latin American ranking, USP and Unicamp discuss how to raise the impact of its research

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Two institutions from the state of São Paulo, the University of São Paulo (USP) and the State University of Campinas (UNICAMP), and a Mexican university, The National Autonomous University of Mexico (UNAM) lead a ranking of scientific productivity in Latin America, the Caribbean and the Iberian Peninsula released by the Spanish research group SCImago (CRS 2010). The survey takes into account summaries and references of about 17 000 journals in the Scopus database, by Elsevier. Between 2003 and 2008, USP had produced 38 000 scientific articles, UNAM, 17 000, and Unicamp, 15 000. In the list of the 10 most productive universities there are five Spanish universities, four Brazilian (besides USP and Unicamp, also depicts the Universidade Estadual Paulista, Unesp, in 6th position, and the Federal University of Rio de Janeiro, UFRJ, 7th place) and a Mexican, UNAM.

The ranking provides qualitative data. One indicator is the CCP, which stands for Quality Science Media, in Spanish, which measures the impact of a scientific institution after eliminating the influence of its size. Another index is the Q1, which shows the percentage of university publications that comprise the ensemble composed of the most influential magazines of the world, 25% of the best placed in a ranking of publications of the SCImago. According to Marco Antonio Zago, pro-rector of Research at USP, these data are important because they show where the university has room to advance. "The university is increasing its contribution according to the total in the world, but my concern is the quality that can improve," he states. In the case of CCP, USP acquired 0.81 index, which means it is 19% below the world average in quality. In the case of Q1, the university has 40.35% of its publications in all the most influential journals. For comparison, the Universidad de Barcelona boasts CCP of 1.41 and Q1 of 62.16. According to Zago, there is a set of tools that can be

used to improve the impact and quality. "We encourage our researchers, especially new teachers, to submit projects to FAPESP. The Foundation has a review process that is known as good. This is educational and shows researchers that the university expects them to have scientific production," he says. The scientific leaders of the USP, "says the pro-rector, already produce with high quality. He made an impact analysis of articles published in a recent period of 23 project coordinators for thematic areas of Medicine and Biomedicine, linked to the USP, and found that 437 papers had recorded 11,148 citations. "The citation index of this group was exceptionally good, with 25.2 citations per paper. The average of Harvard University is 40 citations," he affirmed.

Unicamp faces the same challenge, with average scientific quality 19% below the world average and 38.18% of the articles in the list of the most influential magazines. The Pro-Rector of the University Research, Ronaldo Pilli says that one priority is to increase the visibility of their research, encouraging its researchers to publish in high impact journals. "We do not have the prospect of increasing significantly our number of researchers. Our emphasis will be to publish in the most influential journals," he said. Pilli recalls that, in terms of output *per capita*, the Unicamp stands out as a public university with better performance. "We have values of about 11 citations per paper after 10 years of publication, taking into account the production of all our researchers." The Unicamp has encouraged the submission of projects to agencies, supported the establishment of young teachers with values that reach up to \$ 40,000 reais for the first two years and encouraged the coming of teachers from abroad. "There will be approximately 30 visiting professors from abroad this semester that will participate in postgraduate programs," says Pilli.

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