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# HAVING AN IMPACT ON EDUCATION BY ASKING A RESEARCH QUESTION

With the certainty that supporting scientific talent strengthens the capacities of professors and students, María Martínez Agüero, Vice Provost of Research and Innovation, explains the scope of research training (investigación formativa) at the Universidad del Rosario.

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> ike a snowball whose size and impact grows as it rolls along, such is research in the Universidad del Rosario. Three years ago, its directors gave it an initial thrust by creating the Research and Innovation Office. Today, there are proven results and research permeates the whole of its scientific ecosystem, from undergraduate students to post-doctoral researchers.

It all began with a strong injection of resources and a new, more holistic approach to the job. In 2016, the maximum authority of the University, the Consiliatura (the University Council) approved a grant of 18,000 million Colombian pesos (approximately USD\$5,381,000) in addition to the resources for research, to implement a Promotion Fund (*Bolsa de Fomento*) to finance, during the following four years (2016-2019), the presentation of proposals for research to institutions which fund such projects, publish scientific journals, support and encourage scientific talent and grant monies through open



competitions, the latter to support the development of research projects which fall into six categories.

Since then, investment in science, technology and innovation has shown a sustained growth at the Universidad del Rosario. In 2018 alone, it committed 45,000 million pesos (approximately USD \$13,453,000) to research and the infrastructure required to advance it. In the end, this diversification of resources made the recent implementation of a new strategic view of educating students possible, the objective per se of the institution.

"Now, from the field of research, we link all of the actors of the system around training. With the question the research seeks to answer, projects are set forth which are no longer a matter of the researcher: They become more inclusive and collective, so that the student, whether he or she is an undergraduate or studying for a Ph.D., may play a specific role in the research, write his or her thesis and publish in scientific journals, among other alternatives," explains María Martínez Agüero, Vice Provost of Research and Innovation at the Universidad del Rosario.

## The wager on talent is not an ephemeral decision

Improving the basic skills of the students of the Rosario in order to awaken that curiosity about new knowledge which has an impact on their education is not a temporary or accidental matter. It is the result of implementing a scientific ecosystem which responds to the profile of new professionals, where research is set forth as a life choice but also as an activity which provides tools which are indispensable for any professional pursuit.

Martínez Agüero, who is also a biologist and professor at the university's Faculty of Natural Sciences and Mathematics, is very familiar with the coming challenges, but, more important, knows how to confront them. "With the whole team of the Vice President and Provost, we have prepared ourselves for making new schemes of research available to our students and professors, ones which support our academic units and strengthen our Masters and Doctorate programs."



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María Martínez: "With the question the research seeks to answer, projects are set forth which are no longer a matter of the researcher: They become more inclusive and collective, so that the student, whether he or she is an undergraduate or studying for a Ph.D., may play a specific role in the research."

That being so, the benefits are mutual. The students have the possibility of participating in research incubators: They choose the option of coterminal courses to advance their education and, at the postgraduate level, play the role of young researchers or graduate assistants, with the financial support of the faculty or school.

For their part, the professors are no less fortunate. In addition to linking undergraduate and postgraduate students to their research projects, they can count on a staff which is highly qualified in research. Towards that end, the university created the category of post-doctoral and adjunct (visiting) professors, who, during their stay at the institution, contribute their knowledge and experience in order to further research activities which, in the end, will have an impact on the undergraduate and Masters courses, as well as the doctoral schools.

In the opinion of the director of research, this is the right path to follow: "We are winning the wager on scientific talent. We now have more students who are linked to research in all fields; more funding for internal projects; more collaborative scientific publications; more doctorates who are working full time – some on fellowships and others on our staff – and more research groups, with more productivity."

In the end, it is a matter of ensuring that the research project is interdisciplinary, has an impact on the whole community and that it turns into a wager on the training revolving around its development. "We are going beyond obtaining funding. What we want is to teach people the basic skills of research, develop scientific talent at the undergraduate level and promote training in research at the postgraduate one, all of it based on the question the research projects asks," says María Martínez.

## SUPPORTING SCIENTIFIC TALENT

Regulating the existing posts

Young researchers

At the Rosario, research is set forth as a life choice but also as an activity which provides tools which are indispensable for any professional pursuit.

# Creating new posts

## Linking all of the actors with the research training strategies



UR programs for young researchers

Research Incubators Masters degrees Doctorates



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# UNIVERSIDAD DEL ROSARIO GRANT FUNDS

- 1. In 2002, the university decided to support the development of research projects
  - The "Fiur" Fund was created the Research Fund of the Universidad del Rosario
  - Projects requiring small amounts of funding

- 2. The funds were restructured in 2016
  - Grant funds
  - Six categories
- 3. Annual invitation to participate

- In 2018, the university decided to keep the category of Seed Funding open, with three evaluations per year

Category 1. Large amounts



## Category 3. Seed Funding



Category 4. Conferences and academic networks

Category 5. Innovation and Entrepreneurship



Category 6. Research Incubators



