



The MECOR program: almost three decades inspiring and improving respiratory clinical research in Brazil and across the globe

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Physicians and other healthcare workers can have several professional roles. Besides our core role as clinicians, many of us also have roles as researchers and/or educators. These roles have long been part of the practice of Medicine and are contemplated in the Hippocratic Oath, which includes the duty to share scientific knowledge and teach the next generation of physicians.⁽¹⁾ However, our formal training in medical school and residency is largely focused on clinical skills, while the necessary skills to design and conduct research or to teach residents and medical students is usually learned on the go, by imitation, leading to less than ideal performance and contributing to burnout and low self-confidence.⁽²⁾

In Brazil, clinical research is mainly conducted by investigators who have a PhD degree or a Master's degree in Science, and by graduate students enrolled in PhD's and Master's programs. Such programs last three to four years, require full-time dedication, are unevenly distributed across the country,⁽³⁾ and scholarships are scarce and financially unattractive. As a result, many clinicians who wish to conduct research may be discouraged from doing so because of insufficient training, and there is a need to strengthen research capacity in the country.^(4,5)

In this scenario, the American Thoracic Society (ATS) Methods in Epidemiologic, Clinical, and Operations Research (MECOR) program offers an opportunity to learn research methodology with a hands-on approach by providing an annual course, during which students from all Latin America spend an immersive week learning how to conduct research by designing, analyzing, and interpreting the results of their own research projects. The MECOR program is intended for clinicians, investigators, academicians, and public health care professionals, being created by the ATS to strengthen the capacity and leadership in epidemiological, clinical, and operational research related to respiratory diseases, intensive care medicine, and sleep medicine in low- and middle-income countries.

Since the initiation of the program in Latin America in 1994, the scope of the ATS MECOR program has grown tremendously. Today, the program's footprint is truly global, with courses running in seven regions/countries across the globe annually and involving more than 1,800

graduates. In Latin America, it is now jointly supported by the ATS, the *Asociación Latinoamericana de Tórax* (ALAT), and the respiratory society that hosts the annual meeting each year, including the *Sociedade Brasileira de Pneumologia e Tisiologia* (SBPT). At the end of 2021, 621 Brazilian students had attended MECOR courses, comprising approximately 35% of the students from Latin America.⁽⁶⁾

One of the many strengths of the program is that it offers the opportunity to learn by doing, with the supervision of dedicated faculty and mentors, and feedback from peers. During the week, students work on their own projects, which they then conduct when they go home to their countries and institutions. This educational method is powerful because it incorporates many aspects of adult learning theory and active learning, and students report high rates of satisfaction with the program.⁽⁷⁾ Beyond satisfaction, graduates report good outcomes with the publishing of the results of their projects,⁽⁸⁾ and, since 2012, most of the faculty in Latin America have been graduates of the program, including course directors.

Throughout the 29 years of MECOR in Latin America, numerous SBPT members have actively participated in the program, many of them subsequently assuming leadership positions in their institutions and within the SBPT. The current and the past SBPT presidents, for example, have been MECOR students. The objective of the MECOR program aligns with the SBPT's mission to promote continuous professional growth and excellence, and to stimulate partnerships and scientific research.⁽⁹⁾ This partnership has resulted in seven MECOR courses held in Brazil so far.

There is a need for research capacity building in Brazil, and the partnership between SBPT and the ATS MECOR program has impacted the careers of many researchers in Respiratory Science. As graduates of the program rise to leadership positions in their institutions and pass on their knowledge and skills learned during the MECOR program to their trainees, this virtuous cycle has the potential to make a difference in medical education and research careers, with the final goal of improving Respiratory Health in Latin America.

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