

The generation of innovative ophthalmologists

A geração de oftalmologistas inovadores

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In Brazil, it is notorious that there is a disparity between the increase in the number of vacancies in medical schools and the offer of specialization. According to Kara-Junior et al.,⁽¹⁾ from 2002 to 2019, the number of vacancies offered in medical schools increased from 11,243 to 52,873, representing an increase of 370%, while the number of vacancies available for specialization in Ophthalmology increased from 319 to 498, a growth of just 56%. Considering that in Brazil doctors can act as a specialists even without having completed specialization, with a greater increase in vacancies in graduation than in residency, there is a risk of a decrease in the quality of clinical practice, since many doctors are excluded from the opportunity to do specialization and they might not want to work as generalists at the public health system or in remote regions, opting to work in specialties and in the central regions of the country, where they are better paid.⁽²⁾

The saturation of the medical market in large urban centers, mainly in Ophthalmology, gave rise to the emergence of a generation of doctors with different professional perspectives – innovative doctors. As massification enhances quality, it has not been different in the medical field, and Medicine is receiving many bright young people, with talents that transcend the traditional practice of the profession. These young and ingenious doctors, dissatisfied with traditional professional perspectives, are creating new opportunities and innovating medicine, achieving success in the profession even before their professors, with a performance that will go far beyond patient care, as it would traditionally occur.

While the *stricto sensu* postgraduate course is increasingly less interesting for future clinicians and surgeons, many innovative physicians seek universities to improve their projects and file patents. In the Postgraduate Program in Ophthalmology at the Universidade de São Paulo (USP), we worked with several innovators, who even collaborated in increasing the Qualis-Capes score to 6, the second highest in the ranking.

Rafael developed a portable device for health agents to identify people with visual impairment due to cataracts. Next, he created an Artificial Intelligence program for remote interpretation of eye image exams. Tauanni built an artificial eye for simulated surgical training. Leonardo set up a Distance Learning system. These are projects that are revolutionizing medical practice, whether in disease diagnosis, surgical training or teaching, and that arouse the interest of the industry, strengthening ties between academia and the productive sector, to bring solutions to the simple and complex demands of society.

In the past, physicians chose between a clinical or a surgical career. Innovations were exclusive to physicists and engineers, who worked for the foreign pharmaceutical industry. Now, our physicians are inventing solutions to local problems, using national technology.

Thus, although the excess of doctors with incomplete training due to the lack of specialization vacancies may even become a problem, it is undeniable that, with the availability of technologies and information from other areas of knowledge, we see the emergence of a new generation of innovative doctors bringing benefits to the population.

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