



Entrepreneurship as an alternative path for PhDs in Biomedical Sciences.

Ricardo Cartes-Velásquez.¹

In my previous editorial I wrote about the necessity to work on the integration of two groups: healthcare professionals and entrepreneurs. I pointed out that there are persons focused on non-maleficence (*bioethical committee*) and other persons focused on innovation (*entrepreneurs and startups*). The interests and practices of this two groups of persons are clearly different, in fact, their careers are commonly different. But if you get the bigger picture you could realize that interests are quite similar for both groups, to deliver the best healthcare possible (*Cartes-Velásquez, 2018*). My purpose was to find common ground to foster teamwork amongst these professionals.

In order to address this lack of integration, I propose three ways focused on the education or training of these groups of people. First, to create multidisciplinary programs where health and social science professionals can work side by side with engineering and design professionals. Second, to create and foster dual degree programs where professionals from both sides can get training (*and degrees*) in order to get the bigger picture. And third, to create and fund positions inside the hospital for engineering and design professionals.

These propositions are not new; they have been extensively used across the world, but in Chile just a few programs have been created to foster integration. However, there is a more radical view about the training of healthcare/biomedical professionals, especially those who pursued a doctoral degree. As I said, there are two groups or teams. Bioethical teams probably include some PhDs in Biomedical Sciences to assess the scientific value of health research projects. Startup teams rarely include PhDs, as they are mainly composed by young engineers and designers. PhDs have completed a doctoral thesis, which means they have some skills in (*research*) project management, knowledge on health sciences, and communication skills. So, they could move from the Bioethical team to a Startup team. But that is not an easy path.

An entrepreneur has some distinctive skills; it is not just about project management or communication. PhDs in Biomedical Sciences have structured/constrained skills, their methods are clearly defined, they are supported by protocols and guidelines. Entrepreneurs also use methods, but they are more free, that is, they are focused on solutions, not the methodology.

Despite the above, I am certain that PhDs in Biomedical Sciences can acquire entrepreneurship skills, if they are trained or exposed to innovation, multidisciplinary teams and projects. Moreover, I am also certain that current PhDs in Biomedical Sciences could be involved in startups to develop these skills. Furthermore, I am truly certain that they can lead startups that provide disruptive solutions on healthcare.

In my own experience, I obtained a doctoral degree in Medical Sciences and a Master's degree on Public Health five years ago. Since then, I have been involved in several research projects, I did not perish on the publishing duties, and I've received academic positions in some universities. However, two years ago I began to develop some assistive and healthcare technology projects with engineers and designers. My team has received some entrepreneurship/innovation grants, and now we are develo-

Affiliation:

¹Universidad Autónoma de Chile, Chile.

Corresponding:

Ricardo Cartes-Velásquez. Beltrán Mathieu
7, Concepción. Phone: +56977575655.
E-mail: ijmss@uautonoma.cl.

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ping assistive and healthcare solutions. It was not easy, but my research skills have really helped me over these two years, and they were the foundations for the acquisition of some entrepreneurship skills, a process still in progress.

Maybe in the future some doctorate programs will consider or require that PhD theses include some innovation components. If this would be the case, PhDs in Biomedical Sciences will have another way to contribute to better healthcare.

REFERENCES

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