



CARLOS DE GREGORIO



Founder and CEO of Peaches Biotech

"Plasma Rich Selective (PRS) is a research model and a drug production model based on co-culture and cell signaling for regenerative of tissues. In other words, we have seen how stem cells are able to identify damage in peripheral tissues, signal it and send them messages. At Peaches we are able to collect these instructions, isolate them and turn them into a medicine.

Thus, it is not necessary to have the stem cells operational to be inoculated into a patient, but rather we simply have the codified commands and isolated, available that any medical space in a hydrofilized manner."

To begin with, can you share with us a brief introduction about you and your experience in the field of biotechnology?

I have a degree in Pharmacy (specializing in Food Technology and Enzymology and Industrial Galenics), Executive M.B.A. (IESE) and I am a professor at the Official College of Pharmacists of Madrid.

I have been in the biotechnology field for 20 years.

I worked in the pharmaceutical industry from the age of 23 to 33, assuming different positions.

I had a management career until the time came when my next step would have been to pursue an international career. However, I decided to move into the world of entrepreneurship, creating a company for extracts of active ingredients from medicinal plants, linked to the generation of raw materials by cells in a biotechnological model to create phytotherapeutic drugs. It was the first biotechnology company dedicated to this field. It grew for 7 years, we sold in 30 countries and had up to 30 products with drug master files.

We were subsequently acquired by Puleva Biotech and I became CEO. For five years I was in charge of the company's biotechnological path.

I later founded Peaches where the core of our business is the technology necessary for the development of advanced therapies.

What are Peaches Biotech's main objectives and areas of research focus at present?

We started with a line of research based on the biological therapies available at that time, such as platelet-rich plasma.

Later, we incorporated a line of research led by Dr. Pedro Lapuente and, from there, we discovered that we had very high innovation possibilities in our hands and we decided to patent the procedures that we began to develop with Lapuente, which is called Selective Rich Plasma (PRS).

It is a research model and a drug production model based on cell co-culture and signaling for tissue regeneration. That is, we have seen how stem cells are able to identify damage in peripheral tissues, signal them and send them messages. At Peaches we are able to collect these instructions, isolate them and convert them into a drug. In such a way that it is not necessary to have the stem cells operational to be inoculated into a patient, but we simply have the coded and isolated commands available to any medical facility in a hydrophilized form.

This concept of cell signaling means that we are able to regenerate and rejuvenate a multitude of different tissues in our body, since the stem cells which are involved in the concept of tissue regeneration, are responsible for giving the correct instructions to the damaged tissues.

We have a second line of research at Peaches, which is to use this method for the co-culture of T-lymphocytes, which are responsible for the defense against

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tumor cells. We are developing our own technology that, also by cell co-culture, will serve to "educate" T-lymphocytes to sequentially attack tumor cells from different types of solid cancers.

What is the Living Cells project that you are carrying out in collaboration with the Hospital Universitario de Fuenlabrada?

It was an opportunity to be part of this public hospital in which there was a space developed by the CNIO of high scientific quality, dedicated to oncology.

After winning the public tender for the use of this laboratory where advanced therapies could be developed, this is where we have integrated all lines of research.

This public-private project provides us with resources to have a laboratory of excellent quality. This type of partnership with public entities facilitates the path of science and is a fundamental element for the advancement of biotechnology in our country.

Biotechnology is a constantly evolving field. How do you keep abreast of the latest trends and developments in the industry to apply them in your work?

With constant reading of scientific publications, specialized journals such as Farmabiotec, being in contact

with



industry associations such as AseBio and, of course, with other scientific professionals.

In your research projects, are technologies such as Big Data or artificial intelligence integrated in any way?

In biomedicine we make use of biostatistics that allow us to predict certain evolutions of our medicine by predictive and biological calculations.

This type of science, now greatly aided by a large amount of data and technology, allows us to advance in a much faster and more efficient way than what has been done so far.

Biotechnology education and training are essential for the advancement of the industry What are Peaches Biotech's initiatives to promote education in this field and attract new talent?

We have an internal policy of knowledge exchange thanks to having international teams that handle different contexts. One part of the team is in Boston, led by Dr. Manuel Hidalgo, and the other here in Spain, led by Dr. Pedro Lapuente. Both are eminent in their fields, so we encourage the interconnection between the two main lines of research, PRS and pancreatic cancer, for the formation of a new generation of researchers.

internal.

Living Cells, where we have high scientific quality and high investments, makes us a pole of attraction for external talent, such as Harvard scientific groups related to advanced therapies.

In a broader context, how do you see the future of the sector in our country?

Our country is very well positioned in clinical research.

The field in which I work, my experience tells me that the strongest lines coming soon are cell therapies based on the use of secretomes.

The use of stem cells, due to the fact that they are a living being, is generating a series of disadvantages that make the application of living cells in patients expensive and very difficult to access.

However, the use of the information generated by stem cells, i.e. secretomes, which can be generated in a laboratory, opens the way to democratization and price reduction.

I believe that the biotechnology sector will provide, in the very near future, since we are moving very fast, medical and clinical solutions that will give us access to a much more democratic medicine. Our mission is not only to carry out research, but also to make biomedicines accessible to all.