



HEALTH

The new

**Monoclonal
Antibodies**



The new pharmaceuticals

This year within the solid companies, that is to say, generators of cash, with product and above all results, that have grown the most in value there are, for the first time in a long time, two pharmaceutical companies.

The answer to the question of why this has been the case has a simple answer and a more complex one. The simple is that they have the vaccine for COVID 19, the complex is the object of this paper.

However, the simple answer is not that simple either, because while everyone knows Pfizer or Moderna, very few people know BioNTech, the German company that is really behind the Pfizer vaccine.

Pfizer, the first pharmaceutical company in the world according to several parameters, what it does, which is not little, is to use its enormous capacity to manufacture and distribute the vaccine developed by BioNTech, without it sharing its property rights.

The striking thing is that **while the value of Pfizer has grown by 30%** in the last year, that of **Moderna has grown by 560%** and. Modern, it is already worth 50% more than Sanofi. **BioNTech by 430%**

Sanofi, which after the purchase of the Pasteur Institute became known as “the vaccine company”, has clearly been left behind due to its failure in the race for the COVID vaccine. This forced him to spend some 3,200 million USD in early August on an American biotechnology company specializing in modified mRNA: *Translate BIO*.

This is just one more indication of what this paper is about, **the treatment of diseases is undergoing a real revolution**, and this for the good of patients, although the majority of the population is not aware of it.



Target drugs

Medical treatments are increasingly directed at specificity. So far, many drugs are very effective against diseases, but the collateral damage they cause is very important, and to ensure this, I invite the reader to read any of the leaflets of the drugs you take. In some cases, taking them, after such a reading, requires more than an act of faith in the doctor.

The new healthcare is on the way to leaning on three basic pillars:

- **Vaccines based on modified mRNA technology** (see the previous installment).
- **Monoclonal Antibodies:** Still in hospital use, but only for cost; They have been shown as the future of medicine due to their specificity. They are true precision missiles against those who attack us, even if we are ourselves, for example, suffering from an autoimmune disease.
- **Genetic tests:** Very complicated to interpret in the past, now they have become, thanks to advances in genetics and artificial intelligence, the basis of specific knowledge of our body.

Biotechnology is the anchor used by new drugs - precision missiles against disease - and these new drugs are called **Monoclonal Antibodies**.



Monoclonal antibodies (I)

One of the goals of medical treatments is their specificity. So far, many drugs are very effective against diseases, but the collateral damage they cause is very important. (To verify this, I invite the reader to read any of the leaflets for the medications you take. In some, taking them after reading requires more than an act of faith in the doctor who prescribed it).

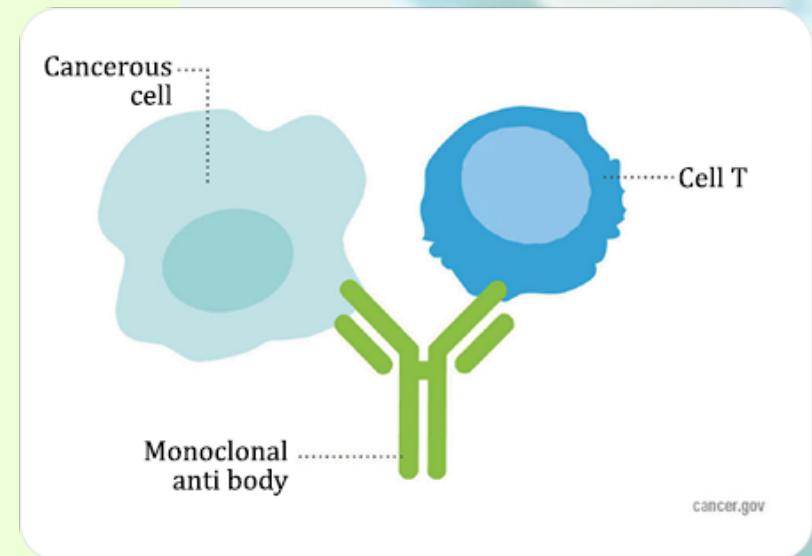
Precision missiles are being searched, and this is achieved through the manufacture, using biotechnology, of drugs called **Monoclonal Antibodies**.

What is a monoclonal antibody? **They are synthetic proteins that act as human antibodies.**

This synthetic antibody, just as a human antibody does, specifically attacks the antigen that causes the disease. This antigen can be:

- An external pathogen (virus, bacteria, parasite, toxin, ...)
- One produced by a failure of our immune system.

The advantage of an antibody over other drugs is its specificity over any other kind available on the market.





Monoclonal antibodies (II)

Future generations of the monoclonal antibody family will become increasingly specific, and therefore efficient.

It is important to highlight the difficulty of the production of monoclonal antibodies, since these are produced by living cells in bioreactors. Nothing to do with producing the pills that we all know.

This means that today this is not available to everyone.



FICHA TÉCNICA



- 1ª Pharma por fabricación de anticuerpos monoclonales
- 1ª Pharma por EBITDA/Ventas: **51** (media del sector: 33)
- 1ª Pharma por ROCE: **115**

Valor Intrínseco oculto: 66% de incremento

PER Actual: 16,01 - Media del sector: 26,59

VENTAS



PORTFOLIO

Características diferenciadoras

Muy Alta Especificidad Medicamentos Diana

22 Anticuerpos monoclonales

2 Inmunomodulares

- ⇒ Colesterol
- ⇒ Linfoma
- ⇒ Artritis reumatoide
- ⇒ Cancer de colon
- ⇒ Leucemia linfoblástica
- ⇒ Osteoporosis
- ⇒ Mieloma múltiple
- ⇒ Chron
- ⇒ Cáncer de piel
- ⇒ Cáncer de pulmón

Competidores ↔ Barreras de entrada

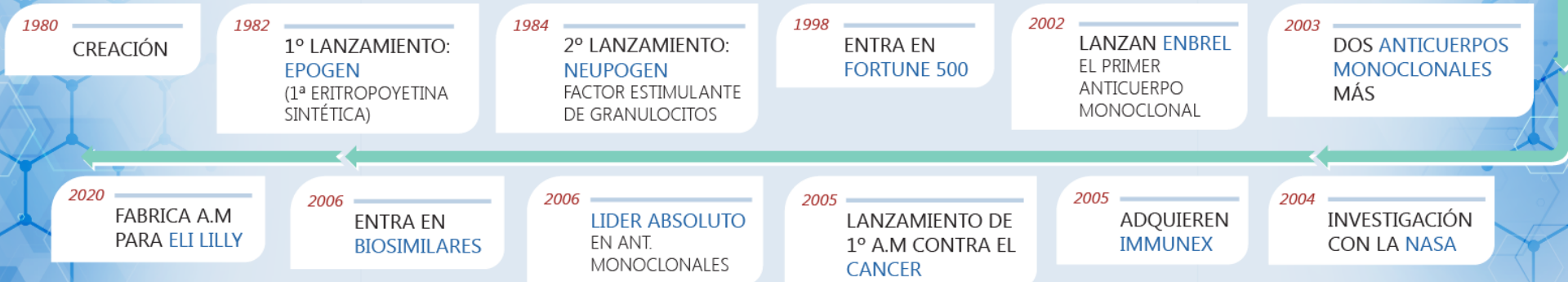
Alta especialización

Mercado selectivo

Patentes más duraderas

Biosimilares

EVOLUCIÓN



Health, the new growth is a technical note addressed to investors and prepared by the author that consists of three installments: Vaccines, target drugs and genetic tests.

Monoclonal Antibodies



The author

Miguel Ángel Temprano is an economist whose academic qualifications include a university degree in Biochemistry and Molecular Biology.

Although the vast majority of his 35-year professional career has been dedicated to management, he has always maintained very close contact with the scientific world that has enabled him to constantly analyze the health sector in depth.

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