



What are biological drugs



This project has received funding from the Innovative Medicines Initiative 2 Joint Undertaking under grant agreement No 101007939. This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme and EFPIA companies.

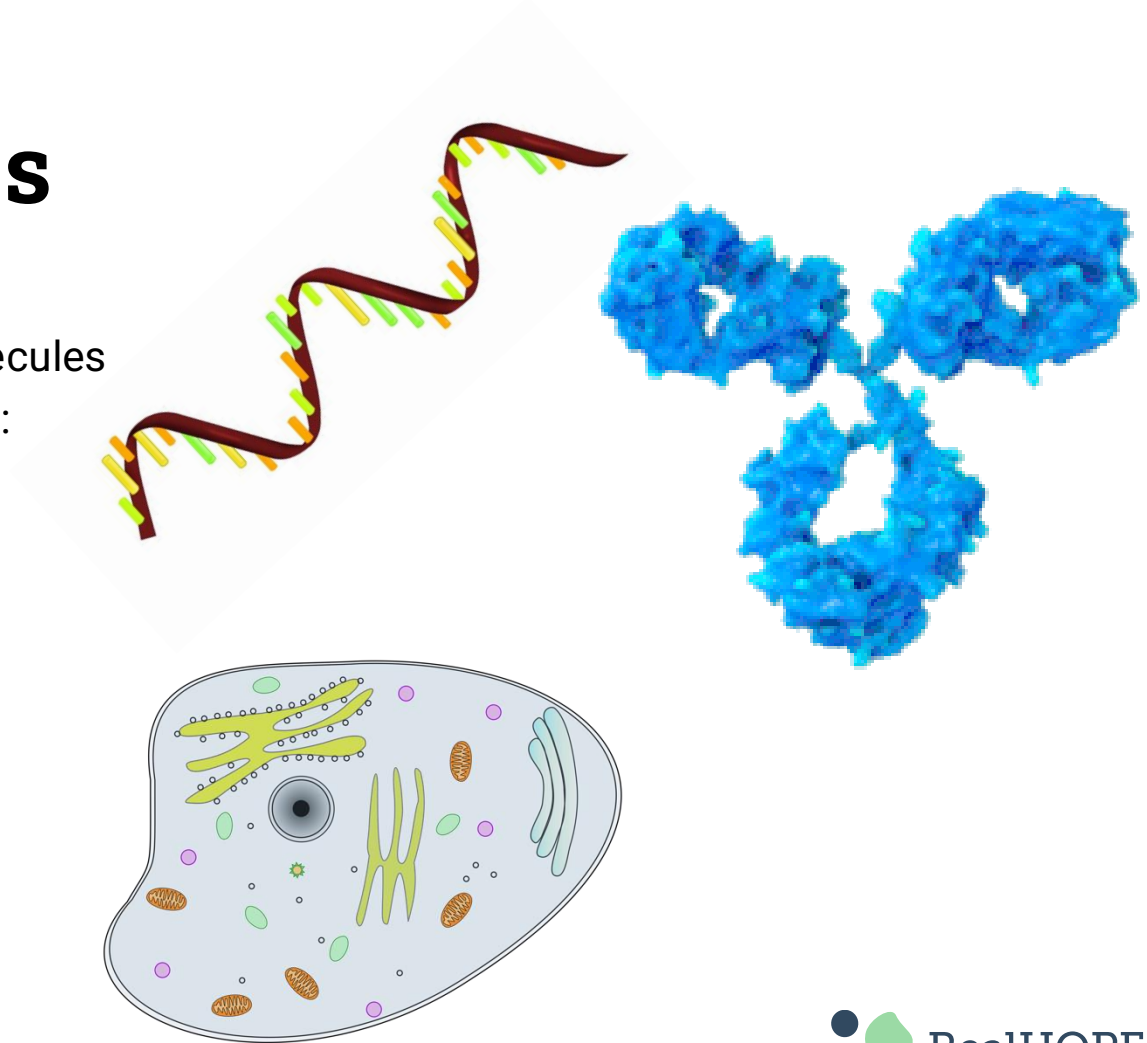




What are biologics

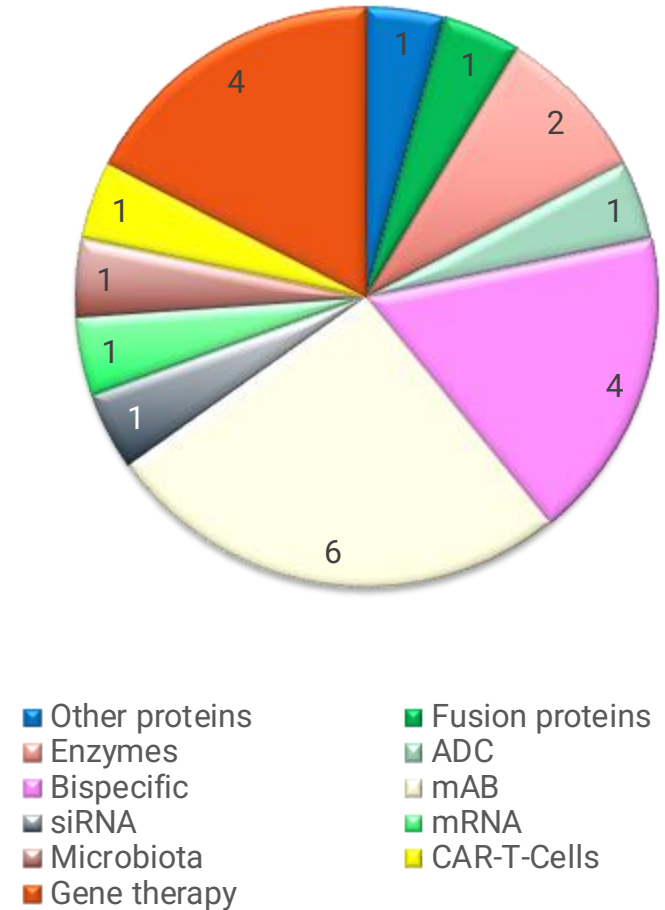
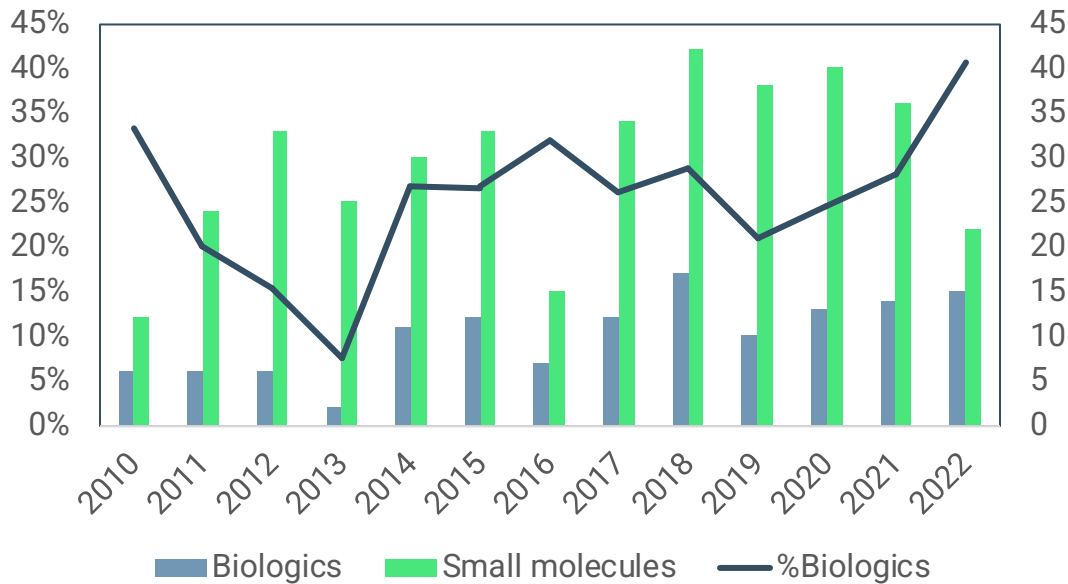
Drug products based on cells or large molecules produced by living organism. This includes:

- Vaccines
- Blood products
- Proteins, such as antibodies
- DNA, siRNA
- Stem cells





An increasing part of pharmaceutical products





Det här fotot av Okänd författare licensieras enligt [CC BY-NC](#)

Fantastic therapies but fragile and difficult to deliver

Lives are saved everyday thanks to biological drugs

Today we have medicines for diseases that previously could not be treated

This includes cancers, autoimmune diseases, and diabetes

However, these drugs are much more sensitive to handle than traditional drugs

They usually have to be delivered as injections



Complex structures



The molecules in biological drugs are complex and their function is dependent on their specific structure. Just as a key only fits a lock if it has the right geometry, a biological molecule will only work if the structure is correct.

This makes biological molecules sensitive and thus they need to be handled carefully.



Developed for safety and efficacy

Pharmaceutical drugs go through a rigorous process at the companies that develop them to make sure that they are safe

The development process is overseen by regulatory authorities before the drugs are allowed to be used

However, the drugs are only safe if used correctly



Det här fotot av Okänd författare licensieras enligt CC BY-ND



RealHOPE

Real World Handling of Protein Drugs
– Exploration, Evaluation & Education



This project has received funding from the Innovative Medicines Initiative 2 Joint Undertaking under grant agreement No 101007939. This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme and EFPIA companies.

Most pictures used in this power point was from unknown authors and licenced according to CC BY-NC