



GRAFT POLYMER
COMBINE INCOMPATIBLE

GRAFT POLYMER

Intelligent Polymer Solutions

September 2023

COMPANY OVERVIEW

A specialty chemicals company offering modified polymer solutions for refiners, compounders and processors on an industrial scale thanks to its unique approach.

Listing information

Ticker: LSE:GPL

IPO: January 2022

Market cap: £2.5m

Operational Structure

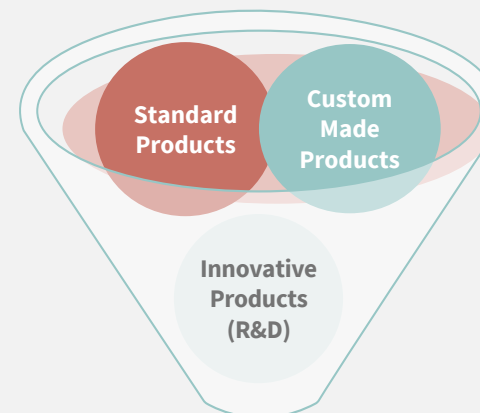
New Commercial Production Facility, completed June 23

Bio Division

- Nutritional supplements and drug delivery systems

Polymer Division

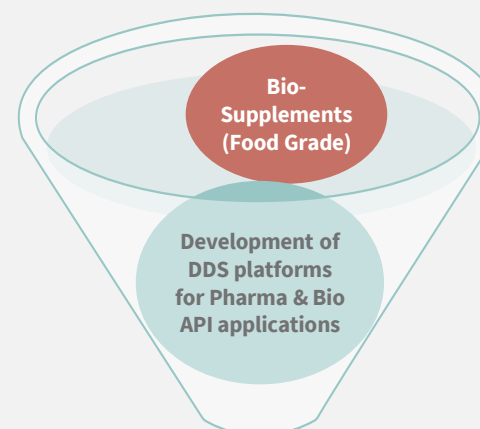
- **Bespoke polymer modification solutions** to plastics and rubber processing industries to improve product functionality and environmental credentials.
- **Product range:** Standard Polymers; Custom-made Polymers; Innovative Polymers



POLYMER DIVISION

More than **50** products already introduced

Multiple client **JVs** focused on both supply and R&D



BIO DIVISION

Two SNEDDS DDS licensed to MGC Pharma

R&D & supply agreements in US & Israel

7 Grades of innovative bio supplements marketed

UNIQUE INVESTMENT CASE



Market leading, pioneering R&D and technology edge in polymer modification



Exposure to **high growth, high margin markets**



Poised to capitalise upon **strong polymer market growth outlook**



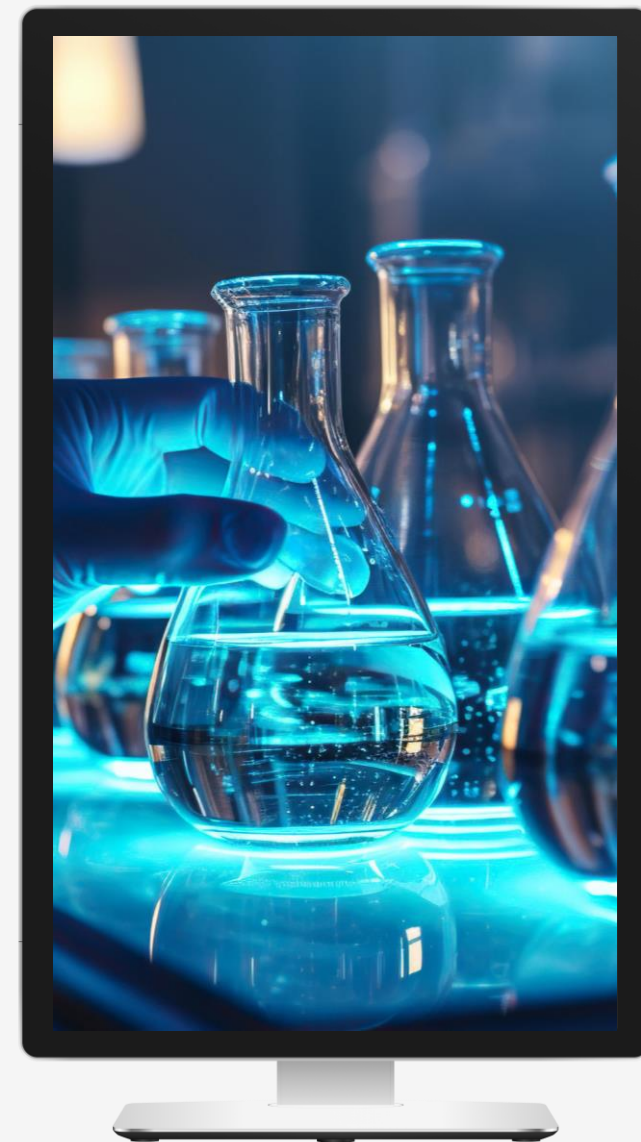
Industrial scale polymer modification and drug delivery platforms



Scope for cashflow generation having turned cashflow positive in 2022

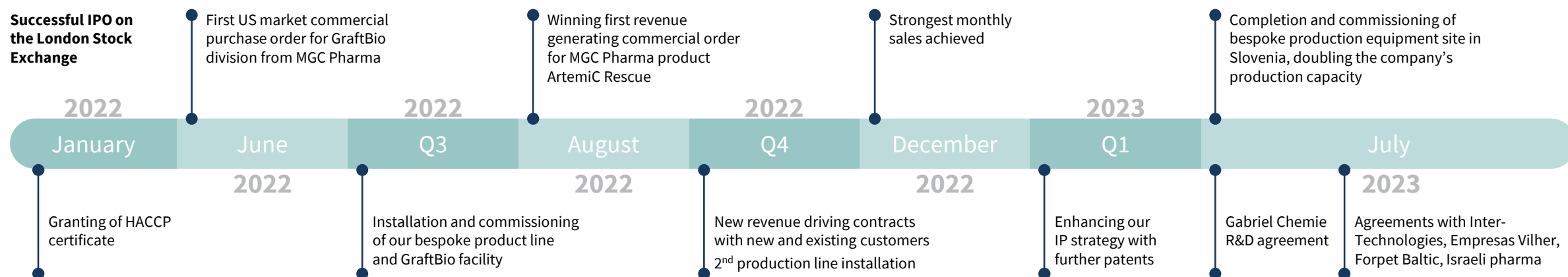


Strong management team with deep-rooted sector expertise, committed to effective ESG



KEY MILESTONES DELIVERED, FUTURE PRIORITIES

– ESTABLISHING THE ROOTS OF GROWTH



- **Five year operational track record** – New production facility recently commissioned using IPO funds
- **Core infrastructure in place** – R&D and Commercial facility, people, products, established industry networks
- **Expanding product ranges** and competing through specialist approach centred on innovation
- **Industrial scale production** ability to satisfy demand for modified polymers in cutting edge composite materials
- Production capacity at the Slovenian plant **6,000 tonnes / year**
- **Continued focus on cashflow generation** having achieved first cashflow positive month in late 2022
- **Committed to core focus on sales and revenue growth** in CY 2023 /24

EXISTING MARKET ACTIVITIES

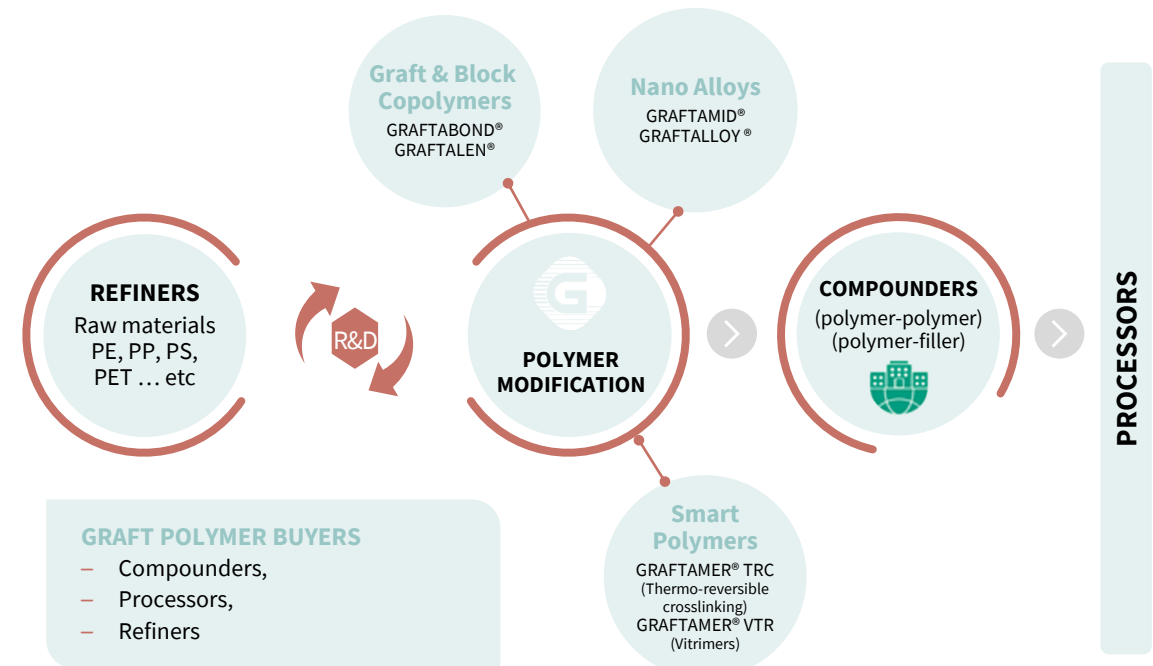
Market dynamics

- **Demand for polymer modification** driven by industries seeking better and more efficient uses of everyday materials including metals, glass and paper
- **Refiners, Compounders and Processors focused on:**
 - Product improvement and differentiation
 - Lower costs
 - Environmental issues
- **Customers seeking tailored polymer additives**
 - Specific requirements for business-critical applications
- **New environmentally friendly processes coming onstream**

Bio

- Approaching pharma / life science / supplement industries to **provide delivery platforms** for existing and innovative drugs and supplements
- **Aiming to achieve better bioavailability, stability and safety** of drug delivery systems

GPL PLACE IN THE MANUFACTURING CHAIN



GPL'S UNIQUE, TAILORED SOLUTIONS

THREE TAILORED PRODUCT RANGES

- **Standard**, for use in the multiple polymer sectors
- **Custom-made** to satisfy particular customer needs
- **Innovative products** centred on research or ad hoc needs

POLYMERS

- **Raw materials** tailored to deliver product improvements e.g. strength, thermal stability, flexibility, bio-degradability
- Working with **market leading, trusted partners** to advance R&D
- **Specialist**, proven technological advances producing new polymer compounds

BIO

- **Offers 5 different drug platforms** tailored to client needs
- **Graft Bio SNEDDS** (self-nanoemulsifying drug delivery system) tailored to nutritional supplement and pharmaceutical market
- **Novel and patented micelle technology** encapsulates particular substances in homogeneous individual parts



OUR ADVANTAGES

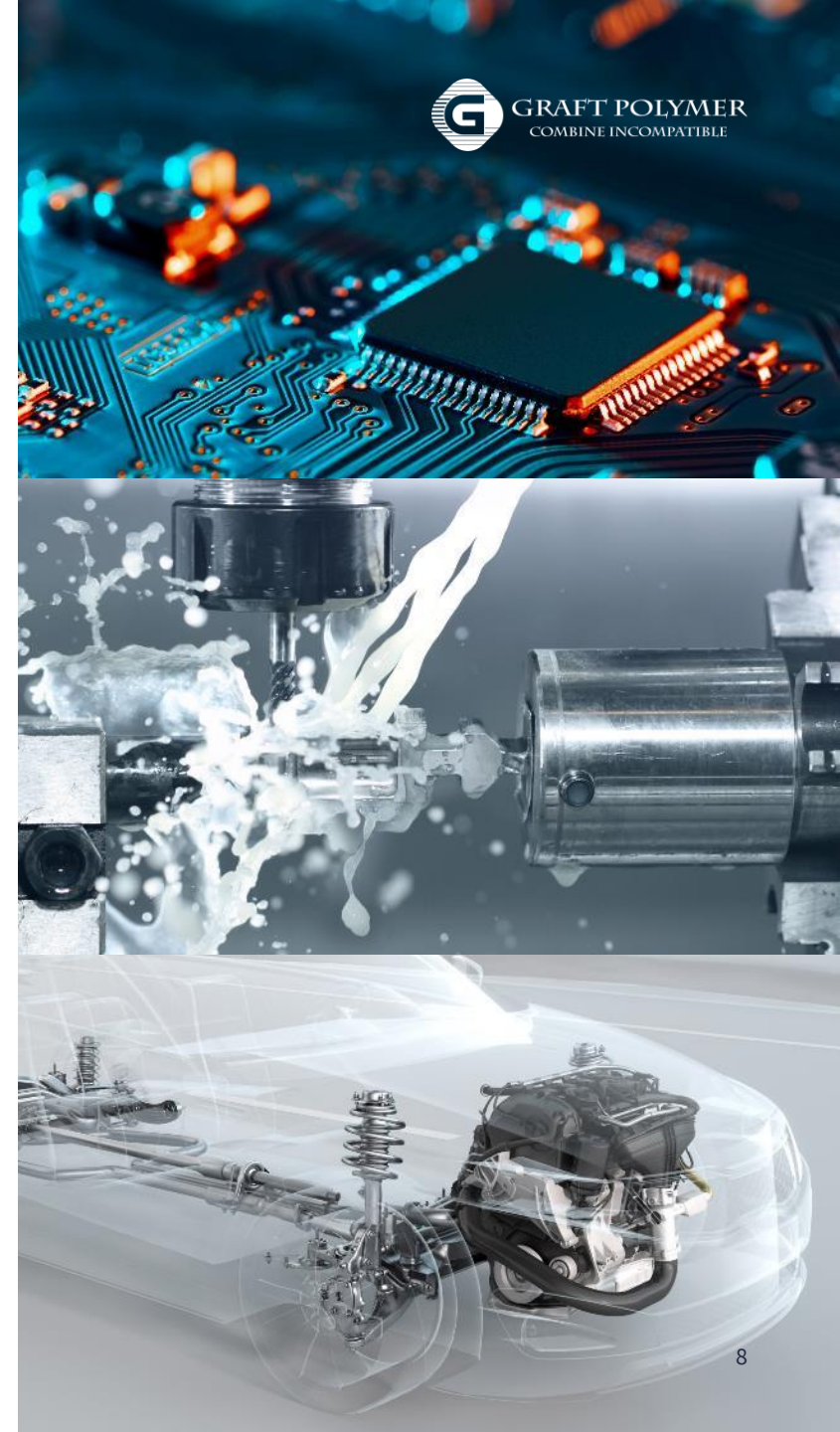
- Producing **quality, sophisticated polymer modifiers**, with **quantifiable customer benefits** compared to incumbents' materials
- State of the art, industrial scale (6,000 tonnes p/a) research, development and **manufacturing facility in Slovenia**
- Proprietary processes and patents create **barriers to entry**
- **One Stop solution** – Graft Polymer covers the waterfront of polymer solutions whilst peers focus on smaller ranges of bulk, standardized products
- **Specialist R&D focus** makes company agile in constantly evolving industry
- Distribution agreements with **range of international partners**



SELECTED CUSTOMER PROGRAMS

SEPTEMBER 2023

- **Fluoropolymer** grafting and alloying solutions utilizing **hot ozone/plasma technology** (Gabriel Chemie , WPP).
- **Vitrimers** - a unique class of smart polymers for a wide range of applications (FTPO, EU Horizon program).
- Polymer **nano composites** made by vacuum **infusion technology** (Vilher, Gabriel Chemie).
- Ultra-High Molecular Weight Polyethylene (**UHMWPE**) alloys – a high-performance plastic with exceptional wear and impact resistance (For-Pet).
- Modified **graphene oxide** based on HOPT and GraftBio technologies – CPC DDS, Nuclear Sciences-National Institute (EU Horizon, ‘EMI GrInShield’)
- Further developments of GraftBio nano-technological **Drug Delivery Platforms** for pharma and food supplement applications (CPC , MGC, GraftBio supplements).



STRATEGIC SALES AND MARKETING PLAN

- 01 **Expand distribution** to existing customers
- 02 **Establish partnerships** in new markets
- 03 **Establish distribution channels** in new markets (India / EU / Mexico / Turkey / Israel)
- 04 Evolve stickier product pipeline – through R&D relationships – with **further products** introduced
- 05 Build **operating cashflow generation**
- 06 **Potential fundraising later in 2023** with proceeds used for marketing, profile raising and building contract pipeline



FINANCIALS

£1.3M CAPEX INVESTMENT IN STATE OF THE ART SLOVENIAN PLANT:

- **Doubled** company's production capacity
- **Heightens advantage** as market leading, pioneering operator in research and technology commercialisation within polymer modification, biological supplement and drug delivery industries
- Drives **greater revenue generation**

FURTHER REVENUE POTENTIAL FROM BIOPHARMA ORDERS

following **first commercial order from MGC Pharmaceuticals ArtemiC™** for over the counter medicine in August 2022 and subsequent Inter-Technologies and Israeli pharma deals

PRUDENT STRUCTURE WITH HIGH MARGIN

- **Nil debt**
- **Commercial scale facility** funded from IPO equity
- Limited inventory as primarily **manufacture to order**
- High **gross margin** on sales (c.40-70%) – highly levered to sales delivery



BOARD AND CORPORATE SUMMARY



Decades of **polymer product development** and industry experience through CEO



Wide ranging knowledge of **broader chemicals sector**



Entrepreneurial approach to delivering clients unique tailored products



Commitment to **new industry products** e.g. recycling

Victor Bolduev

Founder and
Managing Director

- Globally renowned chemist
- 20 years experience in international polymer industry

Roby Zomer

Non-Executive
Chairman

- Serial entrepreneur
- Strong track record in biotech and renewable energy

Yifat Steuer

Executive Director
and CFO

- 20 year track record in pharma, medtech and digital health
- Qualified accountant

Pavel Kobzev

Exec. Director
and CMO

- 10 years experience in management
- 5 year track record managing GPL client base

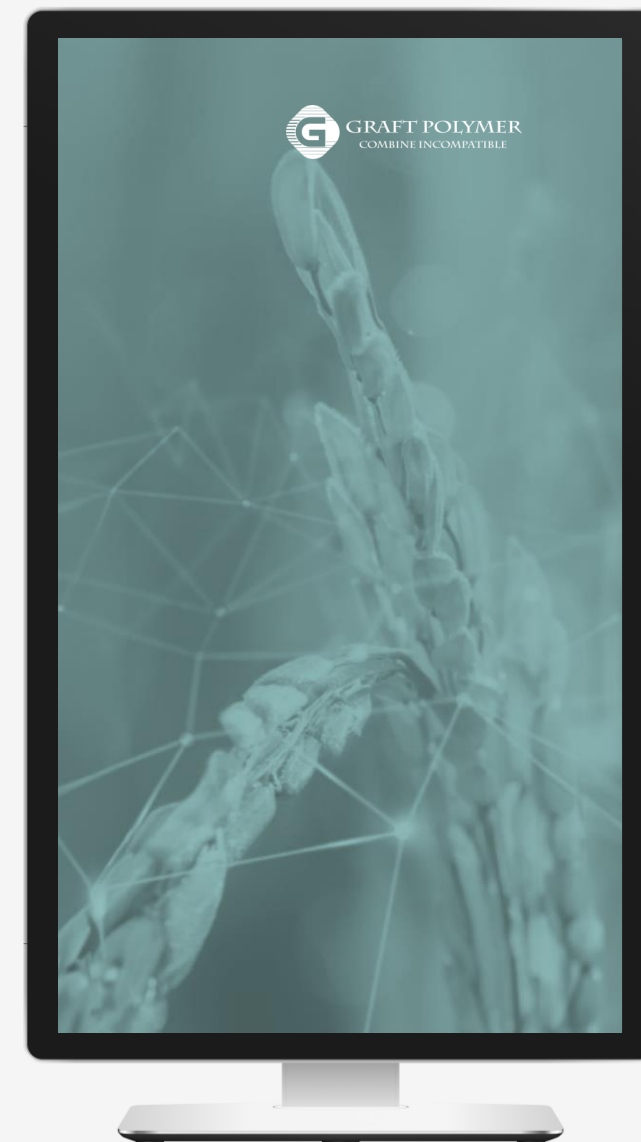
Alex Brooks

Independent NED

- Financial analyst with Canaccord Genuity
- Specialised in healthcare / energy / chemicals

ESG COMMITMENT

- Board commitment to **highest environmental and performance standards**
- **Granting of ISO 14001 accreditation to new Slovenian plant** recognises benefits of installation of closed-loop processing technique for environmental management reducing waste to almost zero
- **GPL clean recycling scrap matrix** used during production of modifiers
- Only raw materials compliant with **REACH / ROH directives** used in processes
- Proprietary R&D has developed **specialised recycled polymer additives** strengthening recycled blends and reducing plastic waste by 40-50%
- **Improved efficiency** of drug delivery systems facilitates dosage reduction



INVESTMENT CASE

- ✓ **5 year track record**, commercial production facility built with IPO funds
- ✓ **Strong management team** with extensive polymer sector expertise
- ✓ **Positive market fundamentals** and **strong growth outlook**
- ✓ **Strong sales focus** with new commercial facility now commissioned
- ✓ **High margin products** – key to delivering future profitability
- ✓ **Specialist competitive edge and market leading**, commercial scale positioning
- ✓ Clear commitment to **effective ESG**
- ✓ **Positive sales and cashflow outlook** for 1-2 years with sales pipeline in place



APPENDIX

GRAFTBIO NANO TECHNOLOGY PLATFORM

The improvement of the solubility of poorly water-soluble drugs is one of the principal current challenges to pharmaceutical sciences.

The oral bioavailability of a drug depends on its solubility and dissolution rate, which is **the rate-determining step for the onset of therapeutic action**. Several techniques have been developed over the years to enhance the dissolution of the drug such as micronization, solubilization, salt formation, complexation with polymers, change in physical form, use of prodrugs, drug derivatization, alteration of pH, the addition of surfactants, etc.

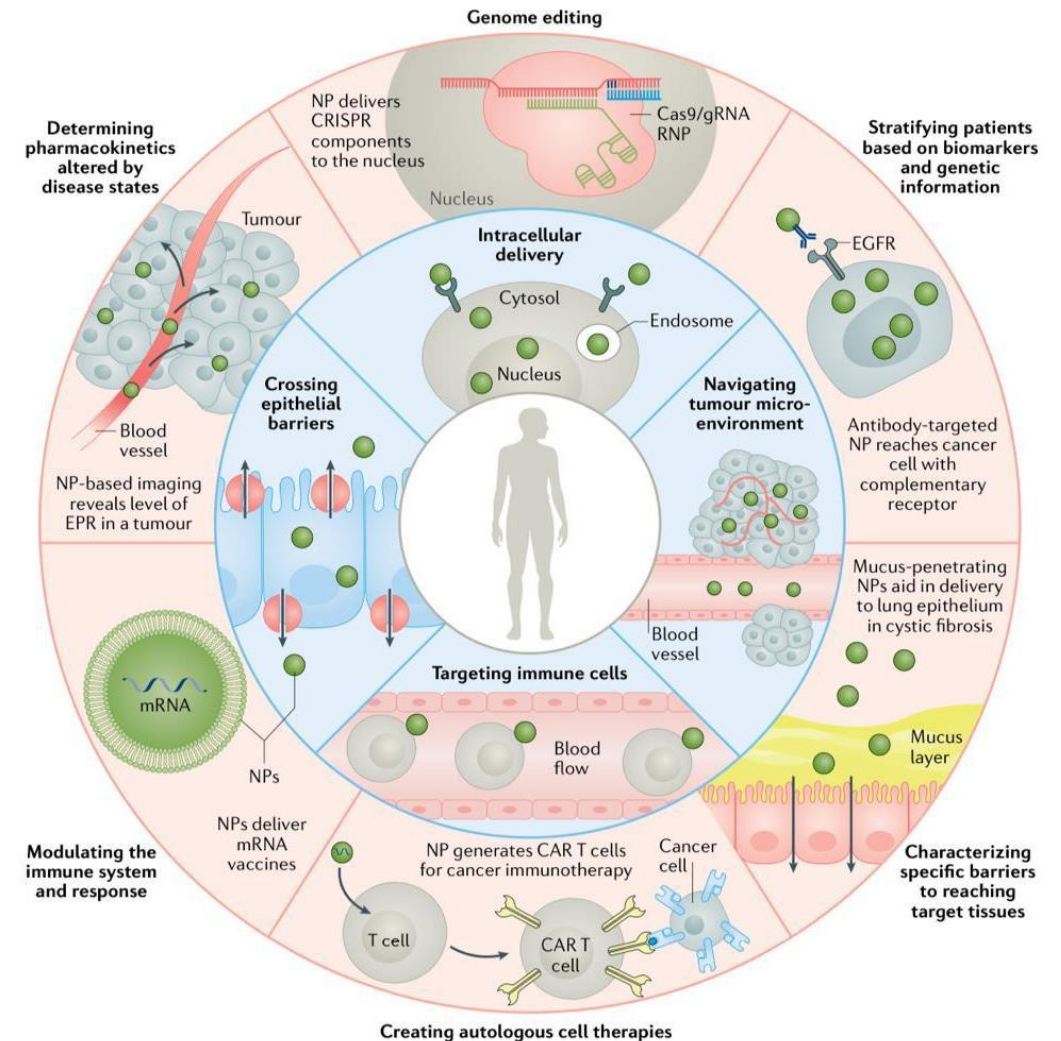
As noted, there are a variety of natural and synthetic APIs around the world. However, there is a need for the safe and effective delivery of APIs to the body, **which is 80% water**.

Thus, the main challenge is to increase bioavailability, stability and safety of Drug Delivery Systems.



Bioavailability
Stability
Safety of DDS

HUMAN BIOLOGICAL BARRIERS



GRAFT POLYMER BUSINESS MODEL IN DDS

