

THE GROWING MARKET OF BIOTECHNOLOGY

Biotechnology is affording us the freedom to create, curate, and control pharmaceutical products at our own pace and to society's needs. Over one decade, the value of the sector has more than doubled, and its share of the total global drug market continues to grow exponentially. We consider the multi-functional uses and potential of biotechnology, highlight some of the biggest players in biotech, and forecast how the market could ascend in the coming years.

THE BIOTECH BOOM OF 1980

OCT 14 Genentech makes its initial public offering on the New York Stock Exchange

OCT 14 Paul Berg wins the Nobel Prize for Chemistry for research into recombinant DNA

OCT 21 The Stevenson Wyder Technology Innovation Act is signed into law

DEC 02 The Cohen-Boyer patent is granted, and the Patent and Trademark Law Amendments Act is signed

Source: StatNews, 2020

THE MANY USES OF BIOTECHNOLOGY



Source: CPI, 2015

THE BIGGEST PLAYERS IN BIOTECH

NOVO NORDISK

Focus

- Diabetes
- Haemophilia
- Growth hormone therapy
- Hormone replacement therapy

Revenue
\$18.3 billion

Net Income
\$5.8 billion

Headquarters
Bagsvaerd, Denmark

REGENERON PHARMACEUTICALS INC.

Focus

- Eye disease
- Oncology
- Cardiovascular
- Allergy and inflammatory
- Infectious diseases

Revenue
\$7.9 billion

Net Income
\$2.1 billion

Headquarters
Tarrytown, New York (US)

ALEXION PHARMACEUTICALS INC.

Focus

- Cardiology
- Immunology

Revenue
\$5.0 billion

Net Income
\$2.4 billion

Headquarters
Boston, Massachusetts (US)

VERTEX PHARMACEUTICALS INC.

Focus

- Oncology
- Cystic fibrosis
- Autoimmunology
- Neurology

Revenue
\$4.2 billion

Net Income
\$1.2 billion

Headquarters
Boston, Massachusetts (US)

JAZZ PHARMACEUTICALS PLC

Focus

- Narcolepsy
- Psychiatry
- Pain management
- Oncology

Revenue
\$2.2 billion

Net Income
\$0.5 billion

Headquarters
Dublin, Ireland

INCYTE CORP.

Focus

- Oncology
- Hematology

Revenue
\$2.2 billion

Net Income
\$0.5 billion

Headquarters
Wilmington, Delaware (US)

BIOMARIN PHARMACEUTICALS INC.

Focus

- Dermatology
- Rare genetic diseases

Revenue
\$1.7 billion

Net Income
\$-0.02 billion

Headquarters
Novato, California (US)

UNITED THERAPEUTIC CORP.

Focus

- Rare diseases
- Vascular

Revenue
\$1.4 billion

Net Income
\$-0.1 billion

Headquarters
Silver Spring, Maryland (US)

ALKERMES PLC

Focus

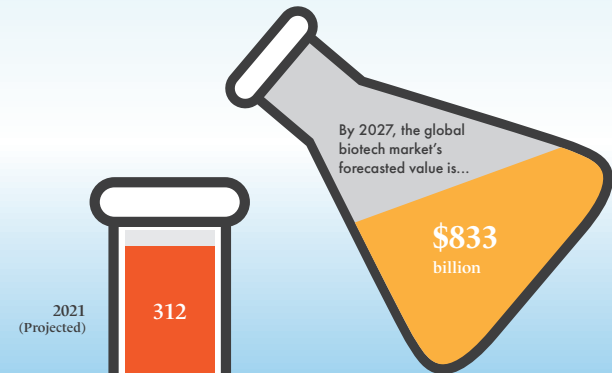
- Diabetes
- Psychiatry

Revenue
\$1.2 billion

Net Income
\$-0.2 billion

Headquarters
Dublin, Ireland

TOTAL GLOBAL DRUG SALES OF BIOTECH DRUGS



2021 (Projected)

312

2020

284

2019

266

2018

242

2017

215

2016

197

2015

179

2014

174

2013

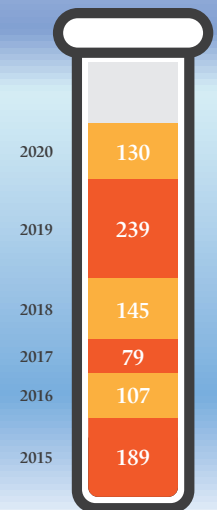
162

2012

149

Total sales (\$ Billion)

BIOTECH AND PHARMACEUTICAL MERGERS AND ACQUISITIONS



Value of M&A deals (\$ Billion)

Source: Investopedia, 2020

Source: Statista, 2021