

imagine...

safe, legal, low-cost ... **cancer killing treatments**



**HARVARD Award Winning  
CANCER KILLING Success**

Stage 4 Lung Cancer, Dead  
Skin Cancer, Dead  
Kaposi Sarcoma, Dead  
Stage 4 Breast Cancer, Dead



medicines

Pharma Grade Products



Clinical Drugs &  
Protocols

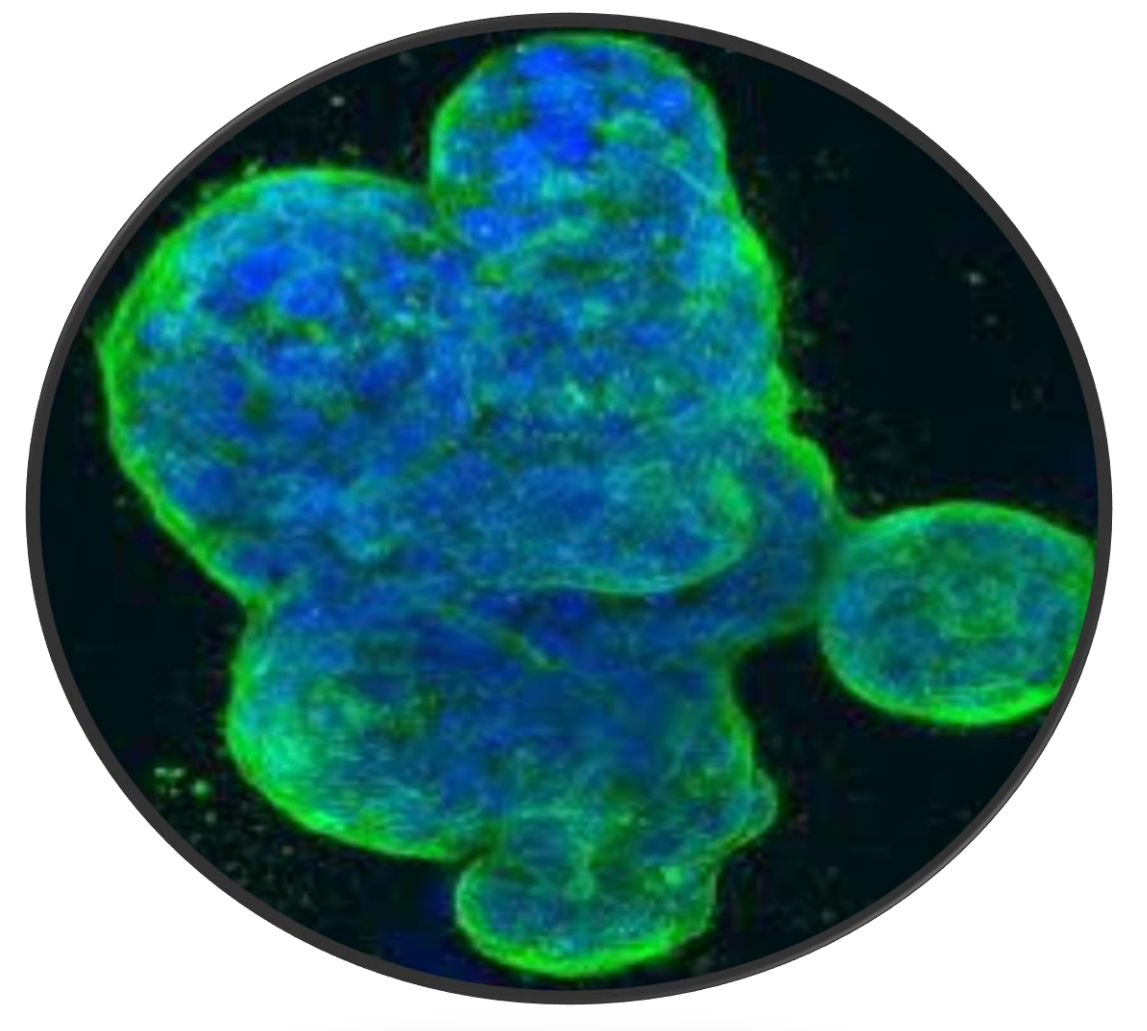


**Low-cost Cancer**

**Killing Treatments**

Targeting  
FDA Fast Track  
Clinical Trails





**53%**

**- REUTERS Reports**  
**New U.S. Cancer Drug prices rise 53% in five years from 2017 - 2022**

**1.8 million**

**- The National Cancer Institute**  
**In 2020 alone, 1,806,590 new cancer cases and that 606,520 new deaths from cancer**



**Cannabinoid Drugs will innovate Cancer Treatments**

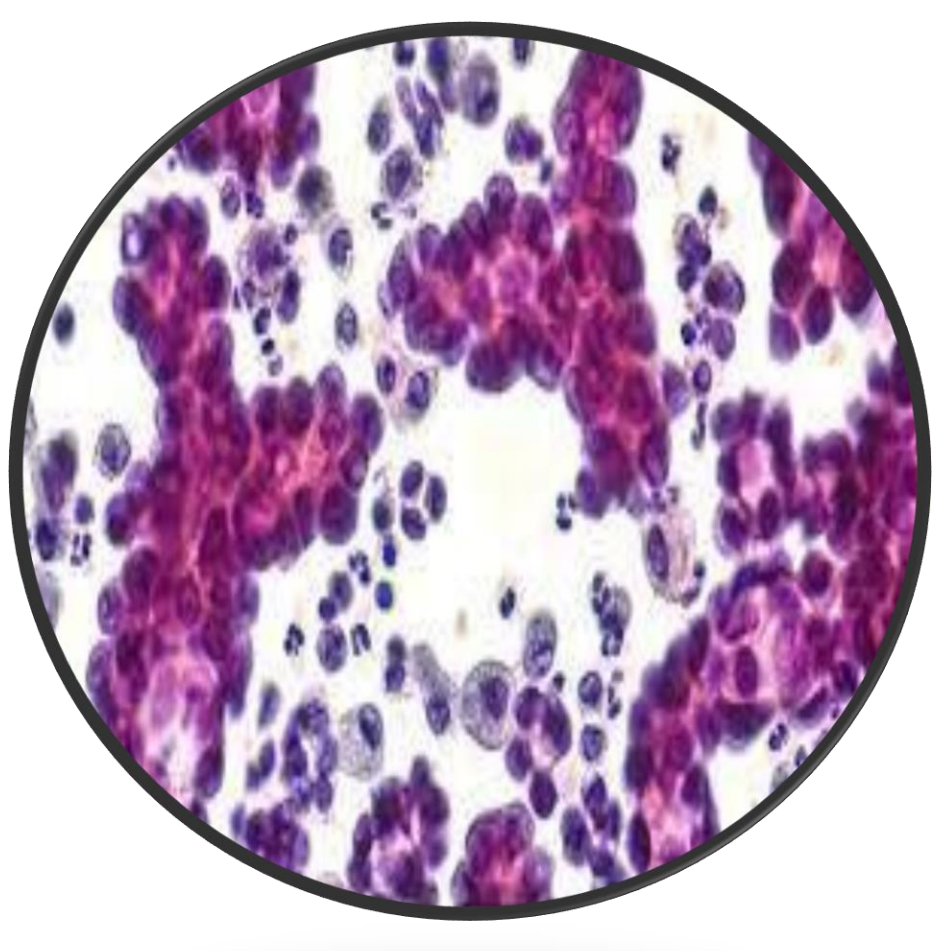
**State Regulated Therapy before FDA Licensed Medicines**

**Shortage of Clinical Research Cancer Care Infrastructure**

**49% increase**

**Annual cancer cases will increase from 1,534,500 in 2015 to 2,286,300 in 2050**

**The rate of new cases of any type of cancer was 442.4 per 100,000 people per year, and the death rate was 155.5 per 100,000 people per year.**



**CANCER DRUG TREATMENT**

**PIPELINE**

CS-S / BCC-1 Skin Cancer  
 CBIS / LC-001 Lung Cancer  
 CBIS / PC-001 Pancreatic  
 CBIS / BC-001 Breast Cancer  
 Pharmacokinetics Ready

Clinical & Pre-Clinical Research for:  
 FDA Clinical Studies  
 FDA IND#



**Blue Chip Cancer Drug Development**

**Enhancing the Therapeutic Efficacy of Cancer Treatment With Cannabinoids**

37,201 TOTAL VIEWS  
 18 CITATIONS  
 34,873 ALL VIEWS  
 24,720 FRONTIERS VIEWS  
 10,153 PUBLISHED CONTENT VIEWS  
 98% VIEW RATE

ORIGINAL RESEARCH article  
 Front. Oncol. 24 April 2022  
 Sec: Radiation Oncology  
 https://doi.org/10.3389/fonc.2022.80234

Enhancing the Therapeutic Efficacy of Cancer Treatment With Cannabinoids

Sayeda Yamin-Karim<sup>1,2,3</sup>, Michele Morozzi<sup>1,2,3</sup>, Romy Muellet<sup>1,2,3</sup>, Neeharika Sinha<sup>1,2,3</sup>, Raymond Dabney<sup>1,2,3</sup>, Allen Herman<sup>1,2,3</sup> and Wilfred Ngwa<sup>1,2,3,4,5,6</sup>

**Nanoparticle Drones to Target Lung Cancer with Radiosensitizers and Cannabinoids**

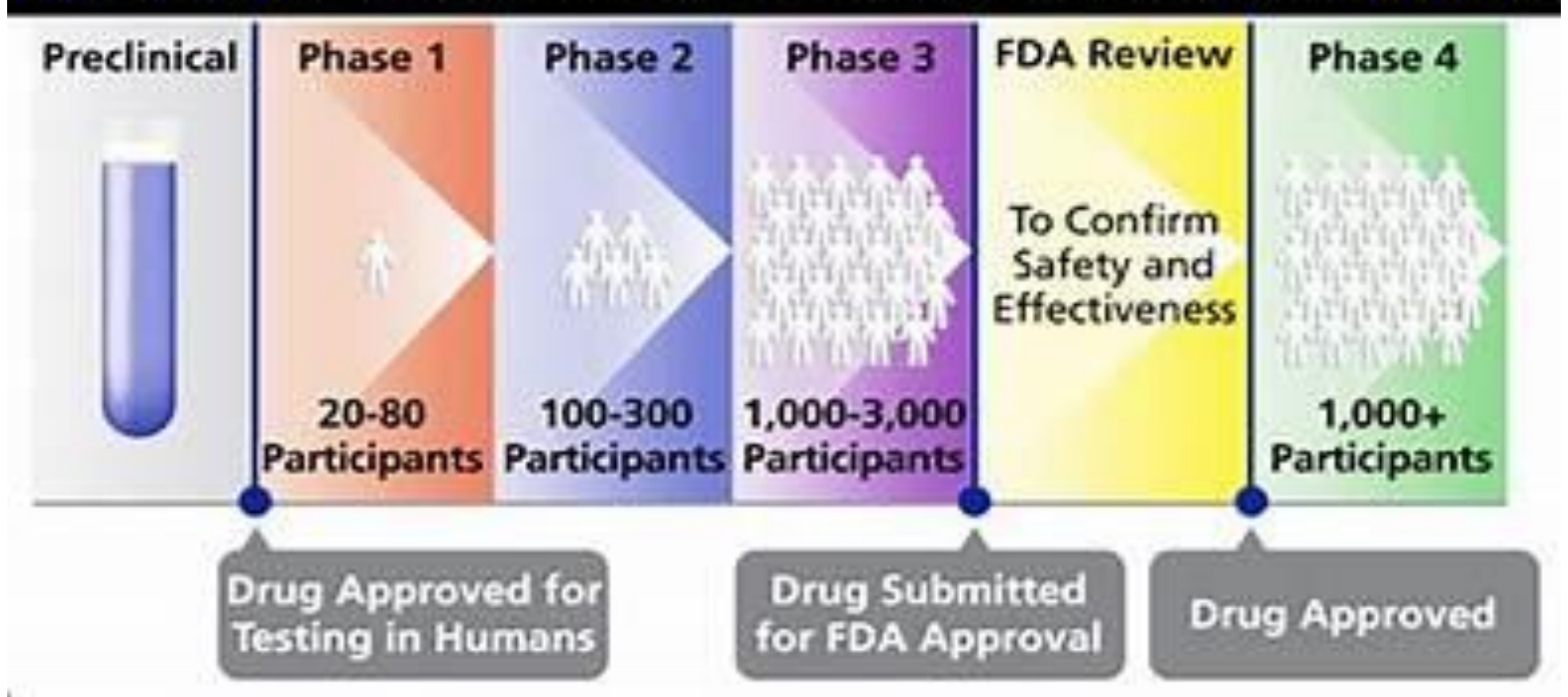
27,797 TOTAL VIEWS  
 27 CITATIONS  
 26,194 ALL VIEWS  
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 1,738 PUBLISHED CONTENT VIEWS  
 98% VIEW RATE

PERSPECTIVE article  
 Front. Oncol. 18 September 2017  
 Sec: Radiation Oncology  
 https://doi.org/10.3389/fonc.2017.00208

Nanoparticle Drones to Target Lung Cancer with Radiosensitizers and Cannabinoids

Wilfred Ngwa<sup>1,2</sup>, Rajiv Kumar<sup>1,2</sup>, Michele Morozzi<sup>1,2</sup>, Raymond Dabney<sup>1</sup> and Allen Herman<sup>1</sup>

**Different Phases of Clinical Trials by FDA**



**REGULATORY APPROVAL TIMELINE**



## HARVARD Award Winning CANCER KILLING Success

Stage 4 Lung Cancer, Dead  
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Stage 4 Breast Cancer, Dead



ASU/CSI-EDP Welcomes our  
Newest Partnership Group ...

# StrainsForPains Inc.

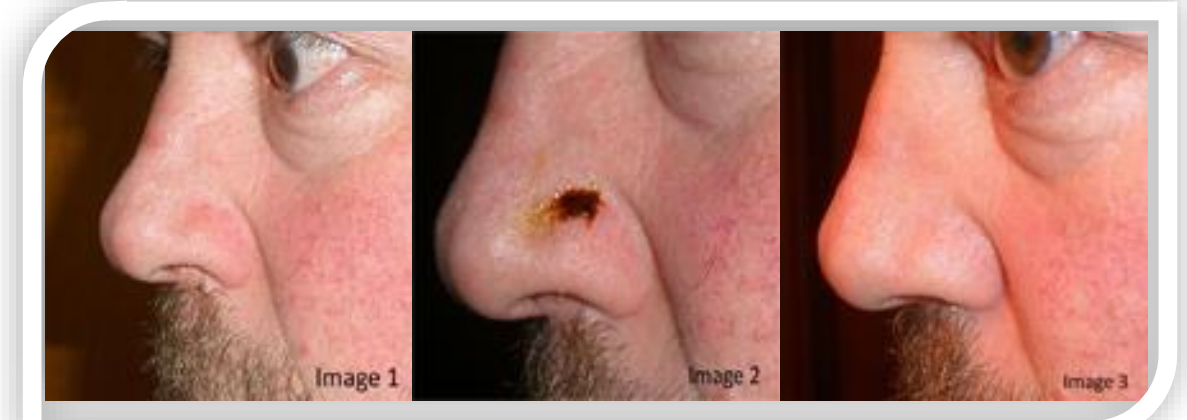
STRAINSFORPAINS.COM

OTC: EBYH



### Cancer Drug Development

- Stability, Formulation, Safety- Animal Studies
- Top University Research Partnerships
- Pre-Clinical Research Success (Harvard Award)



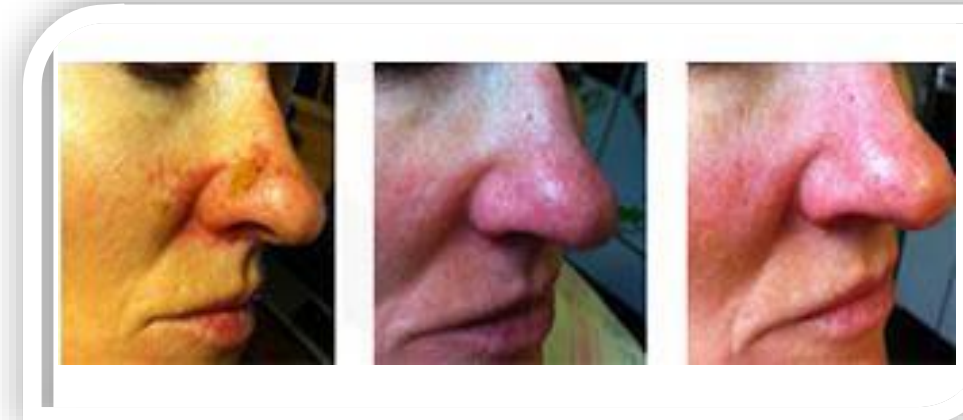
### Phase I, 2, 3 (In-Human) Study

- **Cancer Drug:** Safety & Dosage
- University Institutional Partnership



### FDA Approvals & Release

- **Cancer Drugs:** using cannabinoids
- FDA and indication expansions
- Access to early licensing revenues



### Next Steps:



**Pharmacokinetics**  
**FDA IND# Application Phase 1**  
**Clinical Trials**

01

**Phase 1 Study Cancer Drug**  
**for FDA Fast Track Qualified**

02

**Phase 2 & 3 Study Cancer Drug**  
**for FDA Fast Track Qualified**

03

**Healthcare Professionals**  
**University Partnerships**

04

**Proof of Concept for**  
**Cancer Drug Hospital**

05

2019 US Federal Contractor  
**DUNS number:** 830406356  
**CAGE code:** 5FZM9  
NAICS Codes selected:  
541711 - Research and Development in Biotechnology  
621511 - Medical Laboratories  
624230 - Emergency And Other Relief Services

*Mr. Raymond C. Dabney*  
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**Strainsforpains Inc., (OTC: EBYH)**  
**Partner**



**Clinical Trials  
Pharma Grade  
Fast-Track**



**HARVARD Award Winning  
CANCER KILLING Success**

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Stage 4 Breast Cancer, Dead

## Clinical Funding Steps:



### Cancer Drug (5) Development

Approximately  
\$5,000,000.00 USD  
October 2009 –2024

**02**

### Pharmacokinetics FDA IND# Application

Target Budget  
\$500,000.00 USD

**03**

### FDA Phase 1 Trials

Target Budget  
\$5,500,000.00 USD

**04**

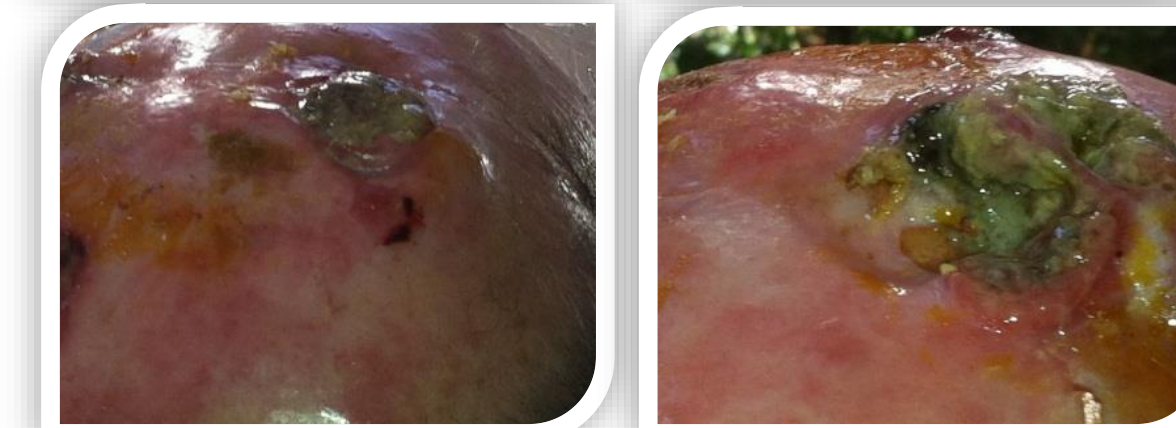
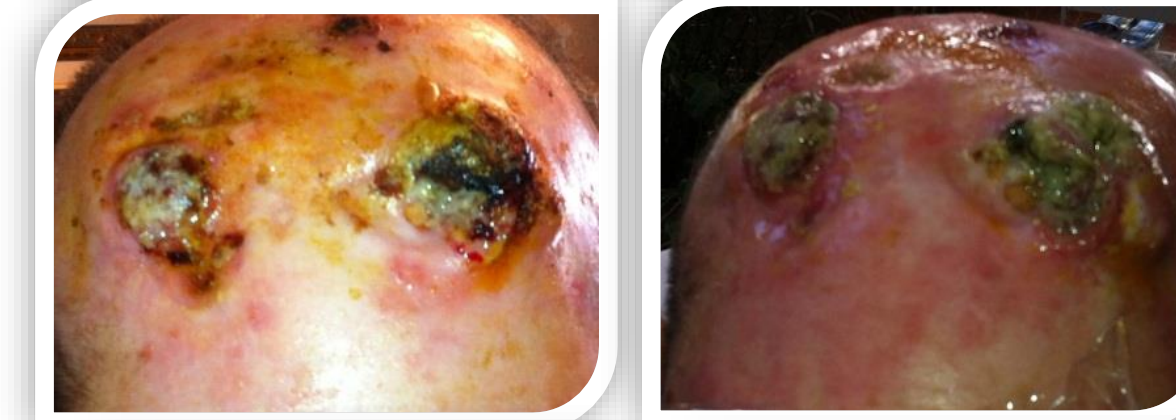
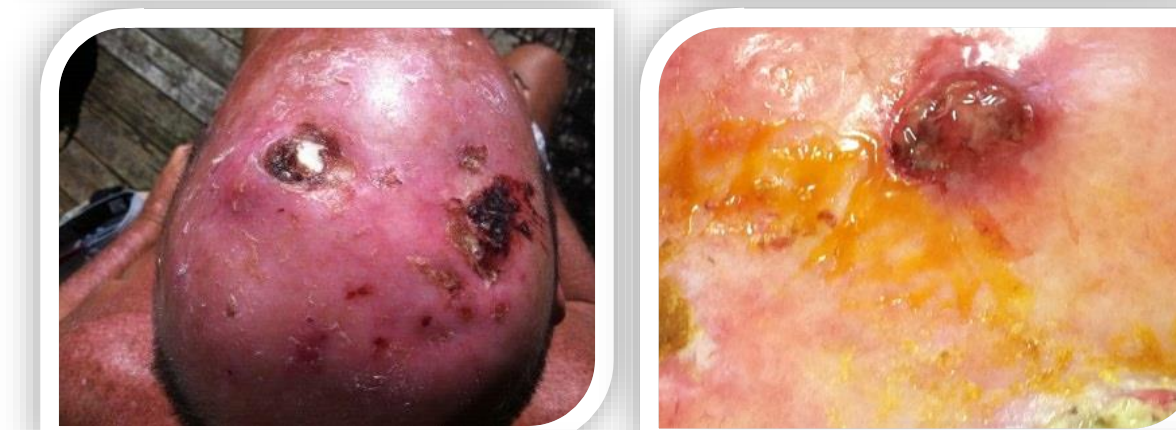
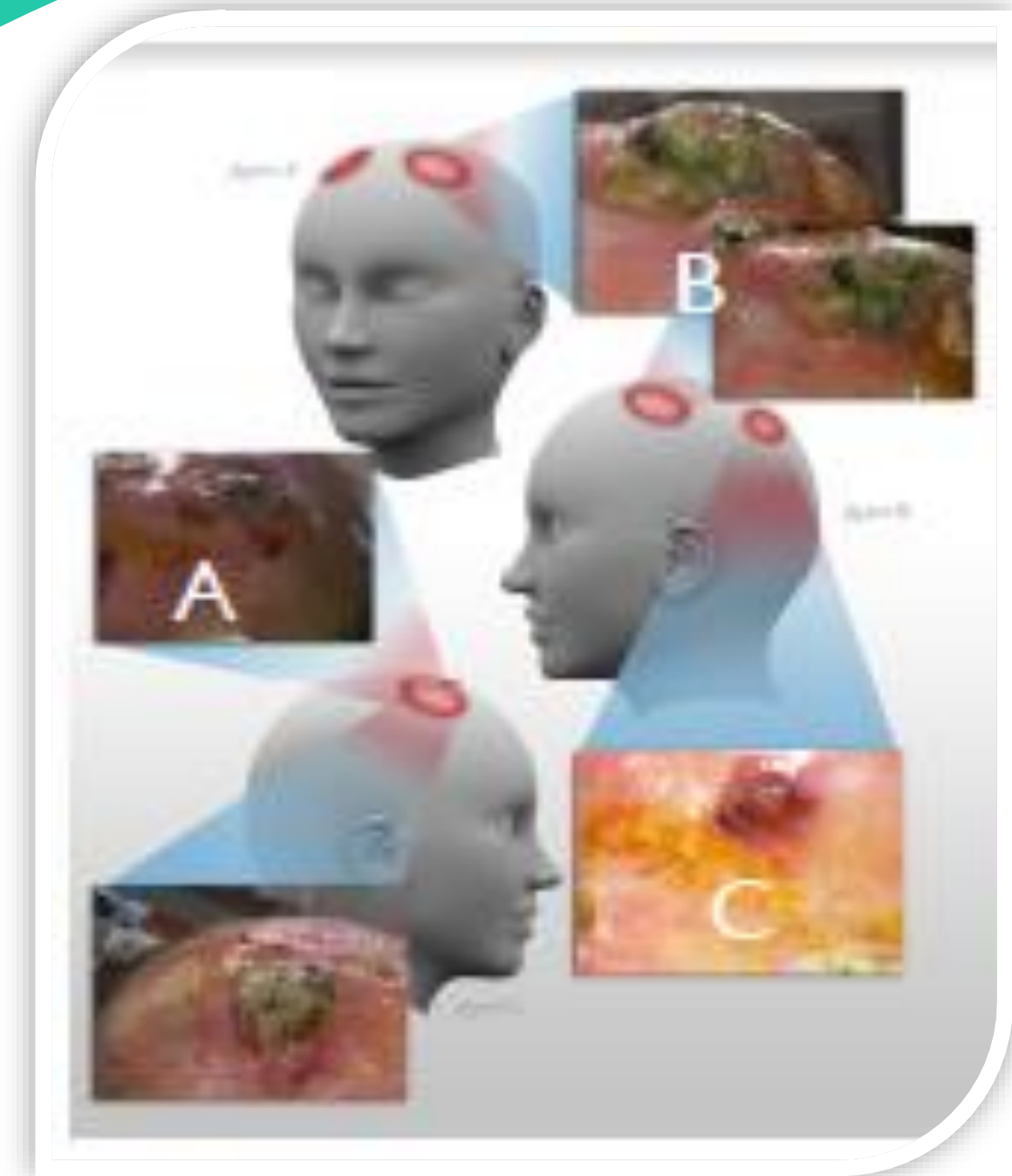
### FDA Phase 2 Trials

Target Budget  
\$7,500,000.00 USD

**05**

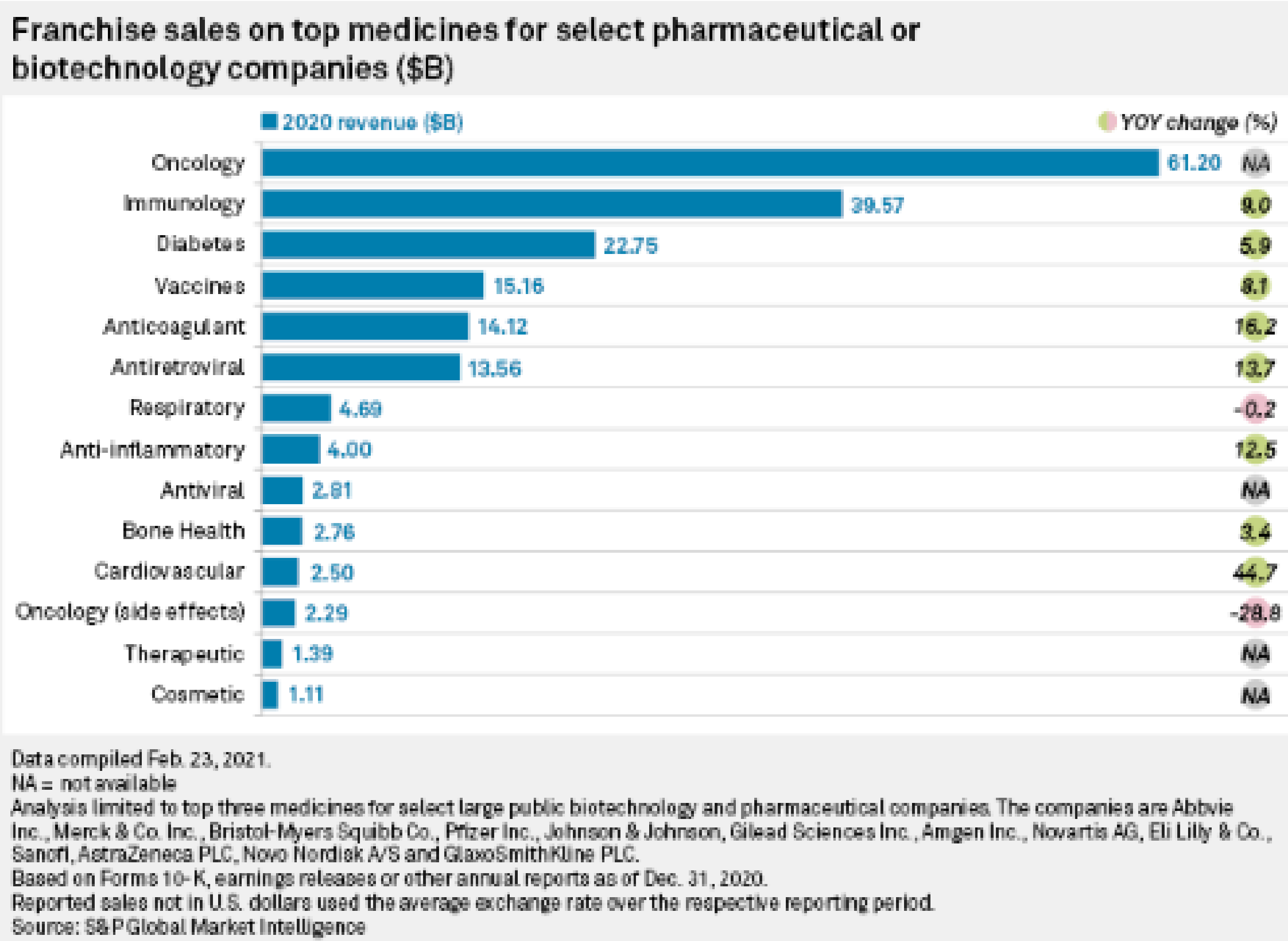
### FDA Phase 3 Trials

Target Budget  
\$13,500,000.00 USD



The Images above show the progressive tumor killing on the top of the patient's head as he continues the cannabinoid treatment of what has been labeled by his doctors as "the worst squamous cell carcinoma they had ever seen." Cannabis Science is showing you the treatment progression as we get the data. It is shown to you for your own evaluation.

## Oncology drugs remain the fastest growing category in pharma, and forecasters say the top 15 will be hauling in almost \$90 billion by 2022.



### Comparison of Sales Income and Research and Development Costs for FDA-Approved Cancer Drugs Sold by Originator Drug Companies

How does income from the sales of cancer drugs compare with the costs of research and development?

**Findings** In this observational study of 99 cancer drugs approved by the FDA from 1989 to 2017, the median income return by the end of 2017 was found to be \$14.50 (range, \$3.30-\$55.10) for every \$1 research and development spending. Many drugs, particularly biologics, continued to generate high-sales incomes for the originator companies after expiry of patents and exclusive marketing rights.

**Meaning** Cancer drugs, through high prices, have generated incomes for the companies far in excess of research and development costs; lowering prices of cancer drugs and facilitating greater competition are essential for improving patient access, health system's financial sustainability, and future innovation.

In 2017, the most expensive new cancer tablet was Celgene's Idhifa at \$298,465 a year. Celgene was later acquired by Bristol Myers ([BMY.N](#)), which said in 2020 that a study of Idhifa, approved to treat a subset of leukemia patients, failed to show that it improved survival compared to standard care. No other new drug launched in 2017 had an annual price over \$200,000.

By 2022, six out of the eight newly-launched oral cancer drugs had prices over \$200,000 per year. These included lung cancer pills such as Takeda Pharmaceutical's ([4502.T](#)), Exkivity at \$299,995, Merck KGaA's ([MRCG.DE](#)), Tepmetko at \$250,775 and Amgen Inc's ([AMGN.O](#)), Lumakras at \$214,800. Based on current trends, the report calculated that by 2026, when Medicare will first be able to negotiate drug prices, the average self-administered cancer drug launch price will be nearly \$325,000 per year and over \$525,000 for pills and biologics.

<p><b>1. Revlimid</b></p> <p><b>Product:</b> Revlimid  <b>Generic name:</b> lenalidomide  <b>Company:</b> Celgene  <b>2015 sales:</b> \$5.80 billion  <b>2022 sales:</b> \$13.44 billion  <b>Current indications:</b> multiple myeloma; myelodysplastic syndromes; mantle cell lymphoma</p>	<p><b>2. Opdivo</b></p> <p><b>Product:</b> Opdivo  <b>Generic name:</b> nivolumab  <b>Companies:</b> Bristol-Myers Squibb; Ono Pharmaceutical  <b>2015 sales:</b> \$1.12 billion  <b>2022 sales:</b> \$12.62 billion  <b>Current indications:</b> non-small cell lung cancer; metastatic melanoma; renal cell carcinoma; classical Hodgkin lymphoma</p>	<p><b>3. Imbruvica</b></p> <p><b>Product:</b> Imbruvica  <b>Generic name:</b> ibrutinib  <b>Companies:</b> AbbVie (Pharmacyclics); Johnson &amp; Johnson  <b>2015 sales:</b> \$1.23 billion  <b>2022 sales:</b> \$8.29 billion  <b>Current indications:</b> chronic lymphocytic leukemia; mantle cell lymphoma; Waldenström macroglobulinemia</p>	<p><b>4. Keytruda</b></p> <p><b>Product:</b> Keytruda  <b>Generic name:</b> pembrolizumab  <b>Company:</b> Merck &amp; Co.  <b>2015 sales:</b> \$566 million  <b>2022 sales:</b> \$6.56 billion  <b>Current indications:</b> advanced melanoma; non-small cell lung cancer; head and neck squamous cell cancer</p>	<p><b>5. Ibrance</b></p> <p><b>Product:</b> Ibrance  <b>Generic name:</b> palbociclib  <b>Company:</b> Pfizer  <b>2015 sales:</b> \$723 million  <b>2022 sales:</b> \$6.01 billion  <b>Current indication:</b> metastatic breast cancer</p>
<p><b>6. Tecentriq</b></p> <p><b>Product:</b> Tecentriq  <b>Generic name:</b> atezolizumab  <b>Company:</b> Roche  <b>2015 sales:</b> N/A  <b>2022 sales:</b> \$5.53 billion  <b>Current indications:</b> urothelial carcinoma; non-small cell lung cancer</p>	<p><b>7. Darzalex</b></p> <p><b>Product:</b> Darzalex  <b>Generic name:</b> daratumumab  <b>Company:</b> Johnson &amp; Johnson  <b>2015 sales:</b> \$20 million  <b>2022 sales:</b> \$4.91 billion  <b>Current indication:</b> multiple myeloma</p>	<p><b>8. Perjeta</b></p> <p><b>Product:</b> Perjeta  <b>Company:</b> Roche  <b>Generic name:</b> pertuzumab  <b>2015 sales:</b> \$1.50 billion  <b>2022 sales:</b> \$4.73 billion  <b>Current indication:</b> HER2-positive breast cancer</p>	<p><b>9. Xtandi</b></p> <p><b>Product:</b> Xtandi  <b>Generic name:</b> enzalutamide  <b>Companies:</b> Astellas Pharma; Pfizer  <b>2015 sales:</b> \$2.10 billion  <b>2022 sales:</b> \$4.71 billion  <b>Current indication:</b> prostate cancer</p>	<p><b>10. Avastin</b></p> <p><b>Product:</b> Avastin  <b>Company:</b> Roche  <b>Generic name:</b> bevacizumab  <b>2015 sales:</b> \$6.95 billion  <b>2022 sales:</b> \$4.68 billion  <b>Current indications:</b> colorectal cancer; non-small cell lung cancer; ovarian cancer; cervical cancer; renal cell carcinoma; glioblastoma</p>

# GW Pharma Clears the Path to FDA Approvals for Cannabinoid Drugs



## Oncology drugs remain the fastest growing category in pharma, and forecasters say the top 15 will be hauling in almost \$90 billion by 2022

DUBLIN and LONDON, Feb. 3, 2021 /PRNewswire/ -- Jazz Pharmaceuticals plc (Nasdaq: JAZZ) and GW Pharmaceuticals plc (Nasdaq: GWPH) today announced the companies have entered into a definitive agreement for Jazz to acquire GW for \$220.00 per American Depositary Share (ADS), in the form of \$200.00 in cash and \$20.00 in Jazz ordinary shares, for a total consideration of \$7.2 billion, or \$6.7 billion net of GW cash. The transaction, which has been unanimously approved by the Boards of Directors of both companies, is expected to close in the second quarter of 2021. Upon close of the transaction, the combined company will be a leader in neuroscience with a global commercial and operational footprint well positioned to maximize the value of its diversified portfolio.

GW is a global leader in discovering, developing, manufacturing and commercializing novel, regulatory approved therapeutics from its proprietary cannabinoid product platform to address a broad range of diseases. The company's lead product, Epidiolex® (cannabidiol) oral solution, is approved in patients one-year and older for the treatment of seizures associated with Lennox-Gastaut Syndrome (LGS), Dravet Syndrome and Tuberous Sclerosis Complex (TSC), all of which are rare diseases characterized by severe early-onset epilepsy. *Epidiolex* was the first plant-derived cannabinoid medicine ever approved by the U.S. Food and Drug Administration (FDA). This product has also been approved, under the tradename Epidyolex®, by the European Medicines Agency (EMA) in patients two years of age and older for the adjunctive treatment of seizures associated with LGS and Dravet syndrome in conjunction with clobazam and is under EMA review for the treatment of seizures associated with TSC. In addition to the approved indications for *Epidiolex*, there are considerable opportunities to pursue other indications within the epilepsy field, including other treatment-resistant epilepsies where significant unmet needs of patients exist.

Beyond *Epidiolex*, GW has a scientific platform and deep innovative pipeline of cannabinoid product candidates, as well as highly specialized manufacturing expertise, developed over two decades of pioneering and building leadership in cannabinoid science. This pipeline includes nabiximols, for which the company is in Phase 3 trials to seek FDA approval for treatment of spasticity associated with multiple sclerosis and spinal cord injury, as well as earlier-stage cannabinoid product candidates for autism and schizophrenia.

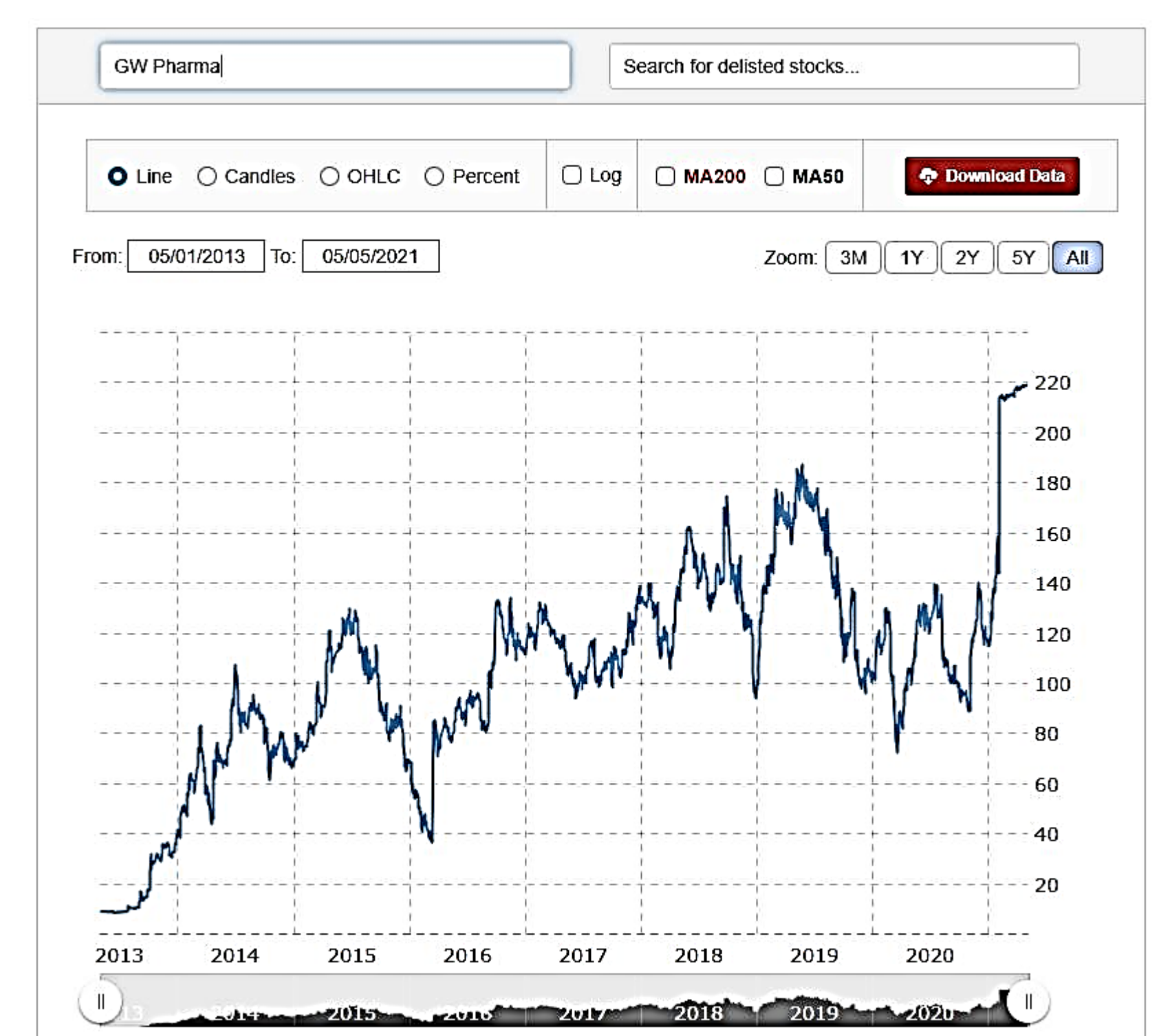
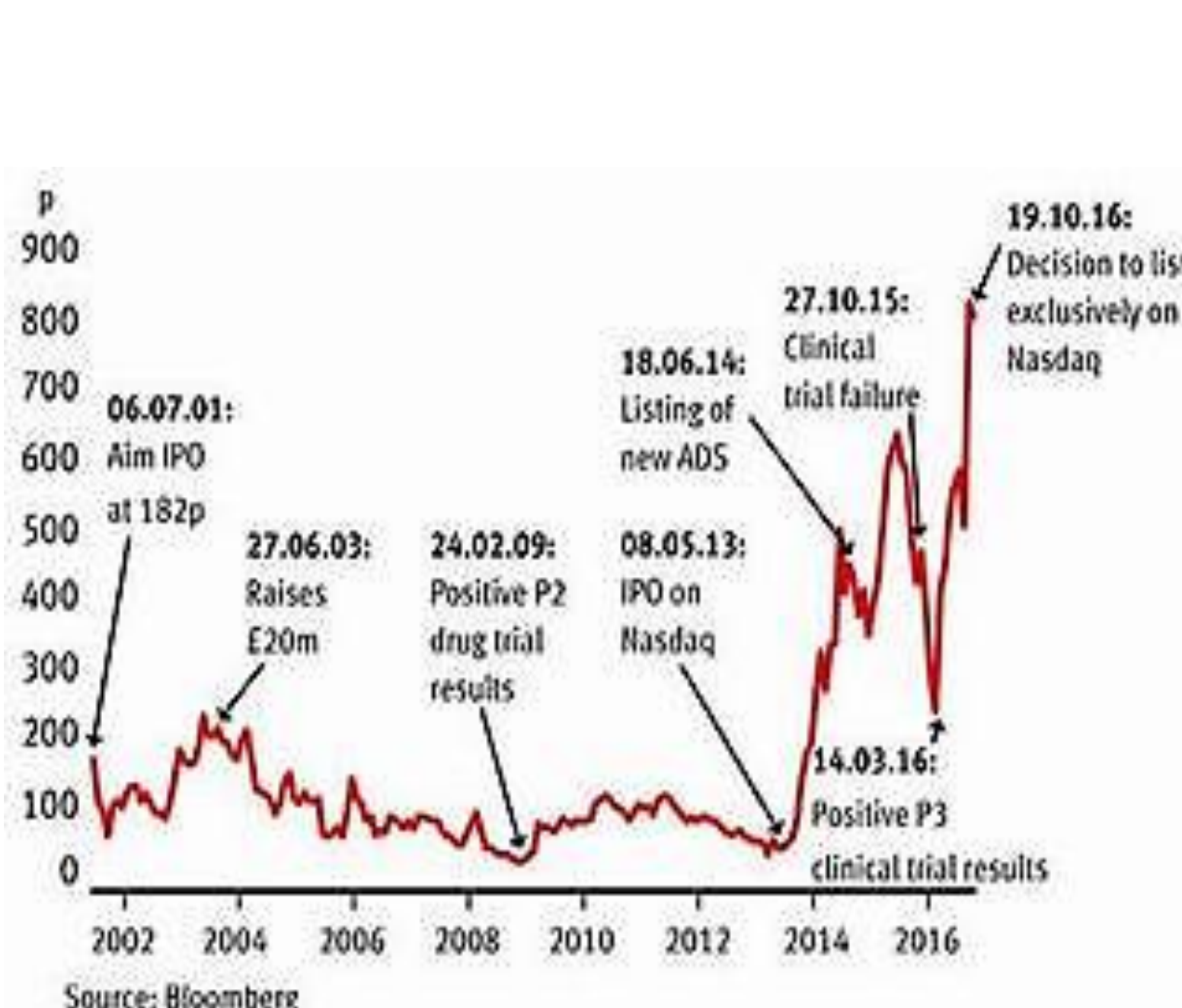
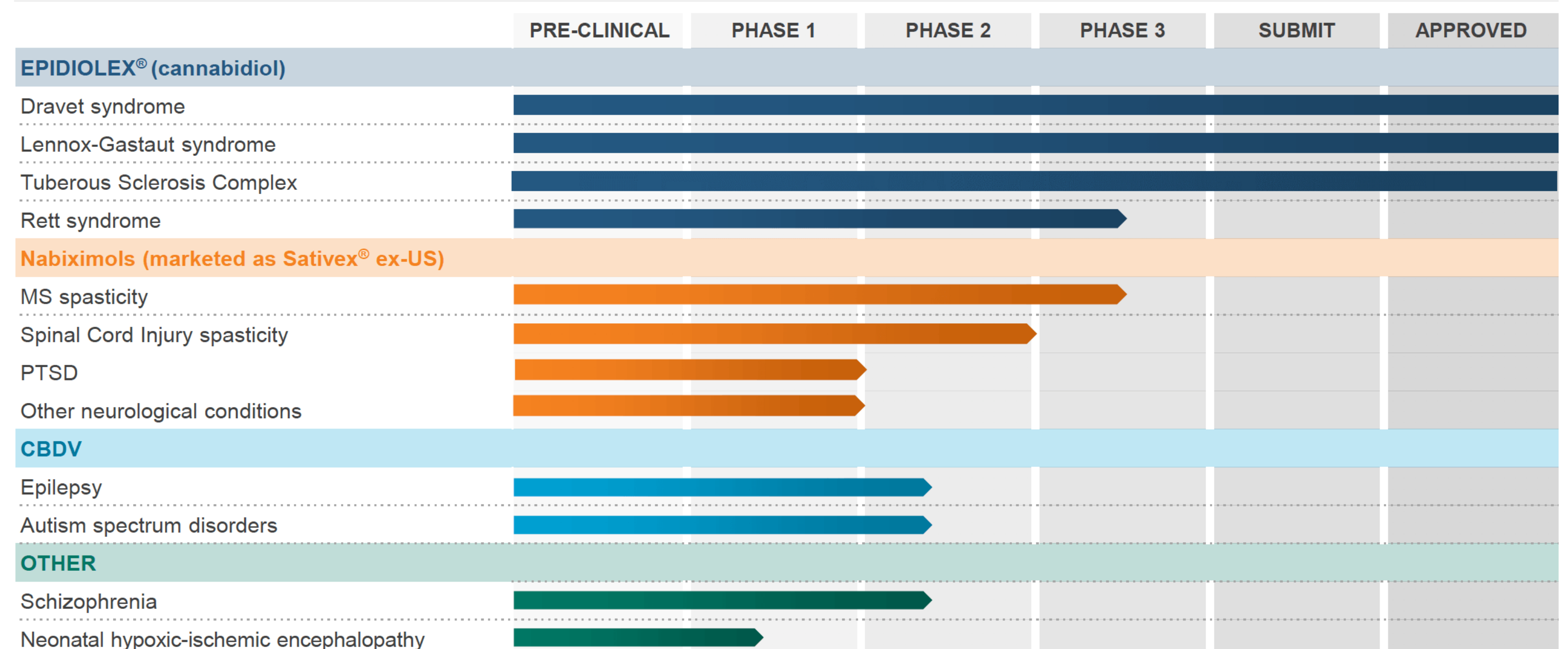
### GW Pharmaceuticals Limited



<b>Formerly</b>	GW Pharmaceuticals Group PLC (2001–2001) GW Pharmaceuticals PLC (2001–2021) <sup>[1]</sup>
<b>Company type</b>	Subsidiary
<b>Industry</b>	Pharmaceutical industry
<b>Founded</b>	1998; 26 years ago
<b>Founder</b>	Geoffrey Guy Brian Whittle
<b>Headquarters</b>	Cambridge, United Kingdom
<b>Key people</b>	Justin Gover (CEO)
<b>Products</b>	<a href="#">Epidiolex</a> (Epidyolex in Europe) <a href="#">Nabiximols</a> (Sativex)
<b>Revenue</b>	▲ \$527 million (2020)
<b>Net income</b>	▼ -\$58 million (2020)
<b>Total assets</b>	▲ \$939 million (2020)
<b>Total equity</b>	▲ \$741 million (2020)
<b>Number of employees</b>	1,161 (2020)
<b>Parent</b>	<a href="#">Jazz Pharmaceuticals</a>
<b>Website</b>	<a href="http://gwpharm.co.uk">gwpharm.co.uk</a>

Footnotes / references [2]

### GW's Cannabinoid Platform: A Proprietary Growth Engine



**GW Pharmaceuticals Limited** is a British [pharmaceuticals](#) company known for its [multiple sclerosis](#) treatment product [nabiximols](#) (brand name, Sativex) which was the first natural [cannabis](#) plant derivative to gain market approval in any country. Another cannabis-based product, [Epidiolex](#), was approved for treatment of epilepsy by the US [Food and Drug Administration](#) in 2018. It is a subsidiary of [Jazz Pharmaceuticals](#).