



Pfizer (China) Business Analytics & Challenge and Strategy for Elevating Migraine Treatment

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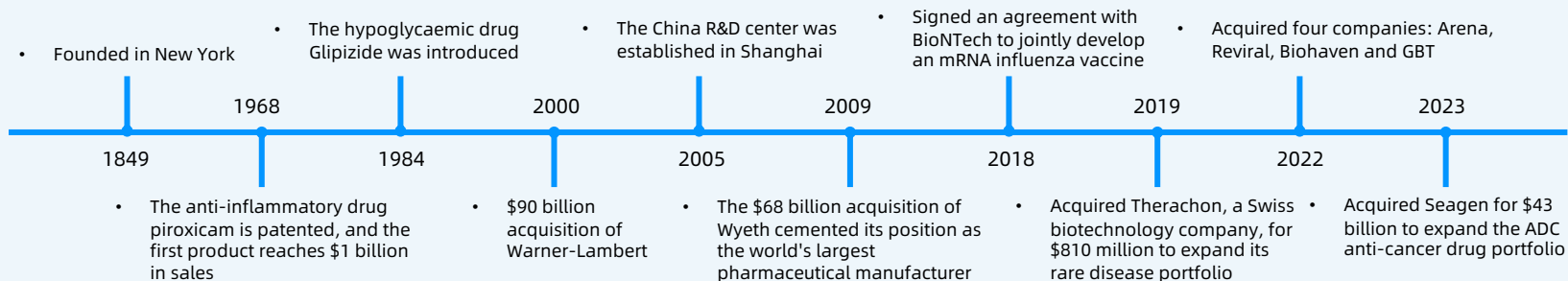
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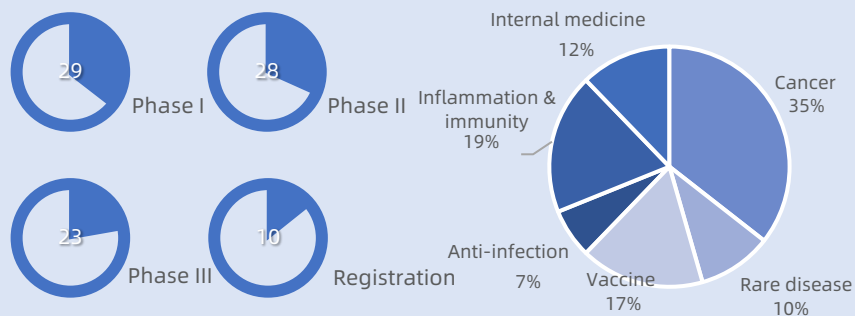


Overview: Development History, R&D Pipeline and China Layout

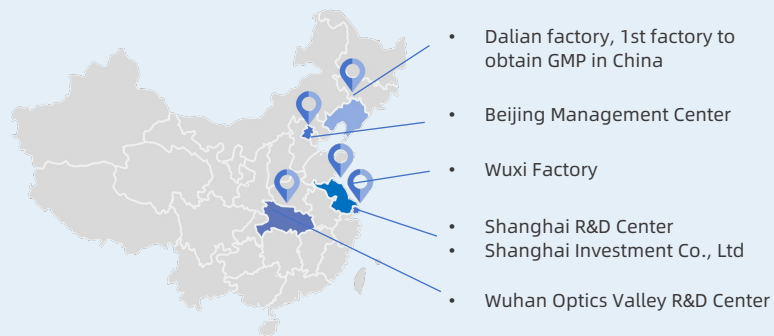
Development History and Important Events



R&D Pipeline R&D Stage/Therapeutic Area Dist. (as of Aug 23)



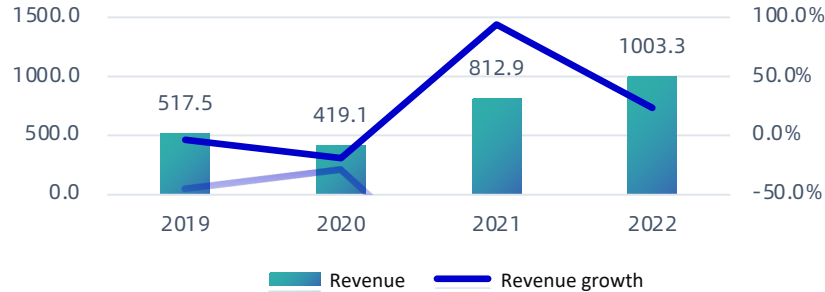
Investment and Construction Layout in China



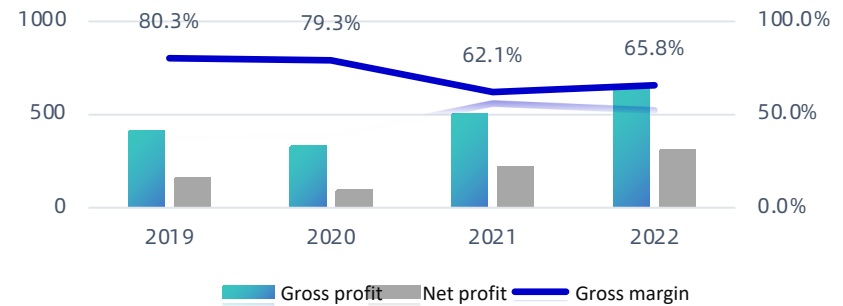
Source: Pfizer official website, annual report

Financial review: market cap reached US\$187.3 billion¹, and revenue in the post-epidemic era needs to be structurally adjusted

Pfizer operating income (US\$ billion)

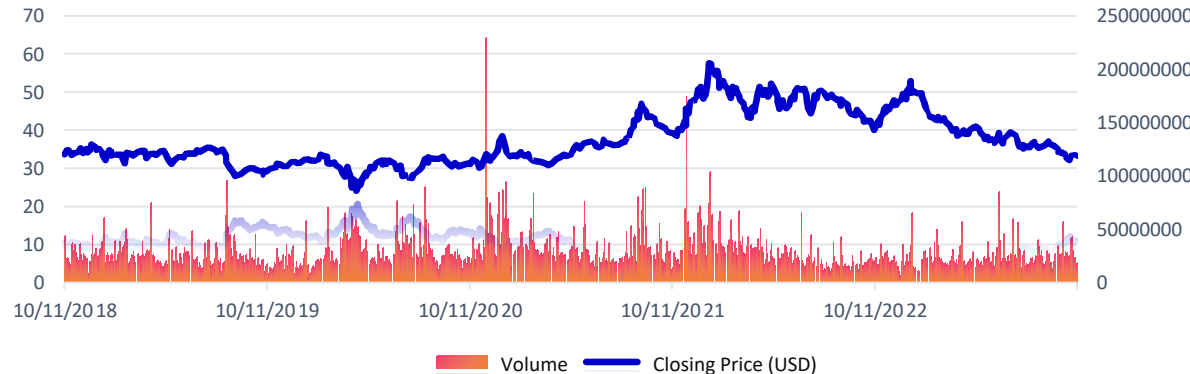


Pfizer gross profit and net profit (US\$ billion)

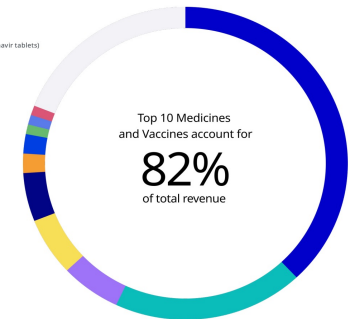


Revenue in the 23Q2 reporting period was \$12.7 billion, down 53% year-on-year, with sales of Paxlovid and BioNTech plummeting, and the product portfolio needs to be updated urgently

Pfizer (PFE) stock trend



- \$37,806 million (38% of total revenue)
COMBIVAX[®]
- \$18,933 million (19% of total revenue)
PAXLOVID[®] (nirmatrelvir tablets and ritonavir tablets)
- \$6,480 million (6% of total revenue)
ELIQUIS[®] (apixiban)[†]
- \$6,337 million (6% of total revenue)
PREVNAR[®] Family[†]
- \$5,120 million (5% of total revenue)
BRANICE[®] (gabaceticils)
- \$2,447 million (2% of total revenue)
VYNDAQEL[®] Family[†]
- \$1,796 million (2% of total revenue)
XELJANZ[®] (tofacitinib)
- \$1,198 million (1% of total revenue)
XTANDI[®] (enzalutamide)[†]
- \$1,003 million (1% of total revenue)
ENBREL[®] (etanercept)
- \$1,003 million (1% of total revenue)
ONLYTA[®] (tasitinib)



Click to view the interactive graph on the Annual Report 2022



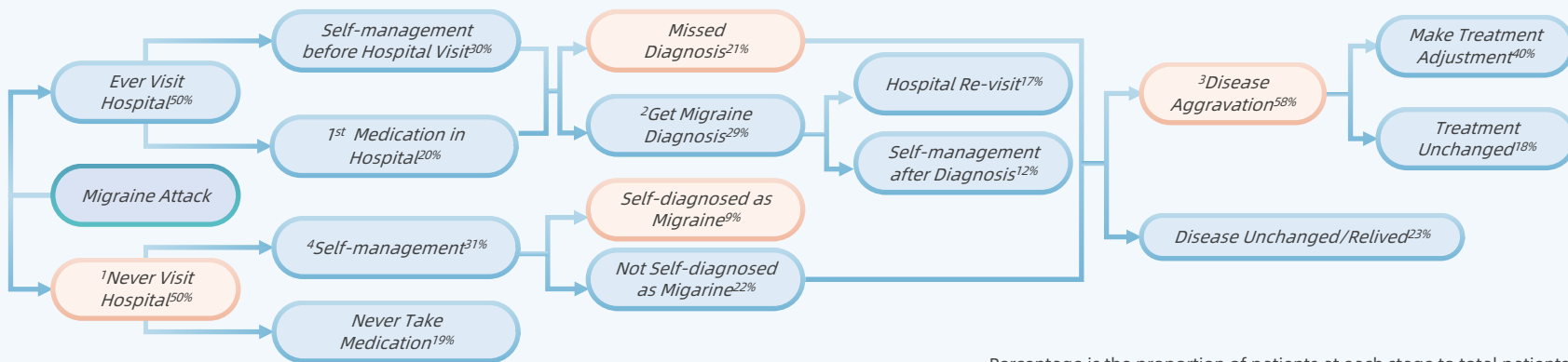
1. As of 11 October 2023, Source: Yahoo Finance, 10-K

Opportunities and challenges: Strengthen R&D, promote acquisitions, and improve the layout of the oncology track

	Opportunity	Challenge
 Strengthen internal R&D	<p>19 new products to be launched in the next 18 months (indications)</p> <ul style="list-style-type: none">✓ Primary Care: Nurtec ODT/Vydura, RSV(2)✓ Specialty Care: Ritlecitinib, Etrasimod✓ Oncology: Elranatamab, Talzena+Xtandi	<p>The risk of R&D failure and the revenue structure still need to be optimized</p> <ul style="list-style-type: none">✓ Pipeline R&D is still at risk of termination (9 R&D pipelines were terminated from May to August)✓ Unsustainable COVID revenues (Paxlovid and vaccines)
 Advance acquisition plans	<p>Hedging the risk of declining revenue from core product patent expiration</p> <ul style="list-style-type: none">✓ M&A strategy: Targeting commercial (quasi-commercial) products✓ The transaction is expected to increase annual revenue by \$25 billion by 2030	<p>Blockbuster product patents expire</p> <ul style="list-style-type: none">✓ By 2030, the company will lose patent exclusivity on six drugs, and its annual revenue will be reduced by \$17 billion, including Eliquis, Intlya, Ibrance, etc
 Seize the mRNA track	<p>Strengthen and expand mRNA vaccine leadership</p> <ul style="list-style-type: none">✓ There are 7 projects of COVID, influenza, combination and VZV vaccines, COMIRNATY has reached the registration stage✓ \$100-\$15 billion potential commercial portfolio	<p>The immunotherapy bonus period has passed</p> <ul style="list-style-type: none">✓ The immunotherapy track entered the track late, and through the acquisition of Seagen, it is urgent to strengthen drug development in the field of oncology

Current Challenges of Migraine Treatment in China

Migraine Patient Flow



Percentage is the proportion of patients at each stage to total patients

Challenges



High incidence¹ and low visit rate²

One in ten Chinese suffer from migraine, and women incidence is 3 times that of men, but 50% patients never visit hospital and 21% are undiagnosed.



58% of patients aggravated³, poor diagnosis & treatment effect

The rate of correct diagnosis by physicians was only 13.8%, the rate of self-management was 30%⁴, and there was a general lack of prophylactic treatment and overuse of analgesic drugs.



Low neurology attention to headache, payer awareness to be improved, and high socio-economic burden.

The annual treatment cost of patients diagnosed with migraine in China exceeds ¥ 299.4b, migraine is the 2nd leading cause of YLDs.

Improve the overall treatment awareness of migraine patients, increase the **rate of medical treatment of patients**, and lift the diagnosis and treatment ability of doctors.

Strengthen patient education, improve the awareness of **CGRP targeted drugs** (e.g. RIM), and improve information delivery and drug accessibility

Strengthen policy shaping, promote the impact on the payment side (Medical insurance), and support drugs to enter **NRDL**



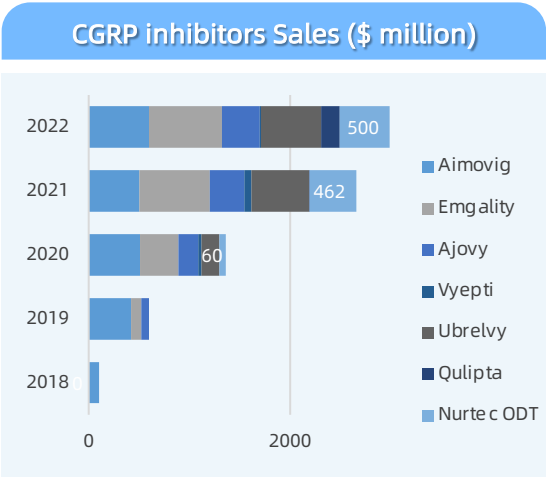
Source: Pfizer, Chinese Guidelines for Diagnosis & Treatment of Migraine (Chinese Society of Neurology, 1st Edition)

Market Analysis and Response Strategies


CGRP Pathway Pipelines

Nurtec and Zavzpret are expected to reach peak sales of \$6 billion, and the Chinese market has huge potential

type	trade name	generic name	Chinese	firm	dosage form	scope	availability
mAb	Aimovig	Erenumab	依瑞奈尤单抗	Novartis/Amgen	Subcutaneous	Preventive	2018.5
	Emgality	Galcanezumab	伽奈珠单抗	Lilly/Daiichi Sankyo	Subcutaneous	Preventive/acute	2018.9
	Ajovy	Fremanezumab	瑞玛奈珠单抗	Teva	Subcutaneous	Preventive	2018.9
	Vyepti	Eptinezumab	艾普奈珠单抗	Alder/Lundbeck	Intravenous	Preventive	2020.2
SM	Ubrovelvy	Ubrogapant	乌布吉泮	AbbVie	Oral tablets	Acute	2019.12
	Qulipta	Atogepant	阿托格潘	AbbVie	Oral tablets	Preventive	2021.9
	Nurtec ODT	Rimegepant	瑞美吉泮	Biohaven/Pfizer	ODT	Preventive/acute	2020.2
	Zavzpret	Zavegepant	扎维吉泮	Biohaven/Pfizer	Nasal spray	Acute	2023.3




4P Response Strategy: 1 Promotion + 3 Plans




Drug Promotion Strategies

Highlight the advantages of new drugs such as RIM and enhance market awareness. This includes clinical case-sharing sessions, patient story-collection activities, and cooperation with pharmacies to promote.




Media Partnership Program

Increase social attention and understanding of migraine, emphasizing socio-economic burdens. E.g., co-production of feature documentaries, public service announcements, public lectures, and free clinics.



Public Education Program




To raise public awareness of migraine and new drugs, and to promote early medical treatment. This includes setting up an official website, social media platforms, holding seminars and free clinic activities, etc.



Physician Training Program

Improve the diagnosis and treatment level of doctors, and enhance the understanding and application of CGRP-targeted drugs. This includes regular seminars, online courses, and expert team support.

Program implementation and effect evaluation: key nodes and risk control

	Timepoints and key steps	Effect evaluation and risk control
 Drug promotion strategies	Increase drug penetration <ul style="list-style-type: none">✓ Promotion campaign launch time: 1 year as a cycle✓ Key Milestones: Milestones✓ Key steps: promotional content, promotion channels, hospital cooperation arrangements	Competitive strategies must be rapidly responsive <ul style="list-style-type: none">✓ Key metrics: sales growth rate, market share growth, development of an evaluation plan✓ Promotion risk: competitor reaction, adverse event response
 Public Education & Media Partnership Program	Raise public awareness and increase medical attendance rates <ul style="list-style-type: none">✓ Time point: 3 months as a cycle✓ Key steps: subdivide the crowd publicity activities and educational lecture planning, formulate publicity content, and determine the media platform	Grasp the trend of public opinion in a timely manner <ul style="list-style-type: none">✓ Key indicators: increase in public awareness of migraine and participation in activities✓ Publicity risk: poor effect, public opinion risk
 Physician Training Program	Enhance D&T level of doctors and improve awareness of CGRP <ul style="list-style-type: none">✓ Time: Flexible processing to ensure that doctors reasonably participate in training and academic conferences✓ Key steps: content design, format selection, expert team arrangement	Promote NRDL access and policy shaping <ul style="list-style-type: none">✓ Evaluation indicators: the improvement of doctors' awareness of new drugs, diagnosis and treatment ability after training, and access to NRDL✓ Training Risks: Anti-corruption risks, low participation