



**United
Financial
Group**

Alginar
presentation
for the Investors

2022





United
Financial
Group

Content

Oncology statistics	02
World medical expenses	04
New drug development	06
Development history	10
Drug safety	15
Development Stage and funding	19
Economic overview	21
Development team	28

Cancer

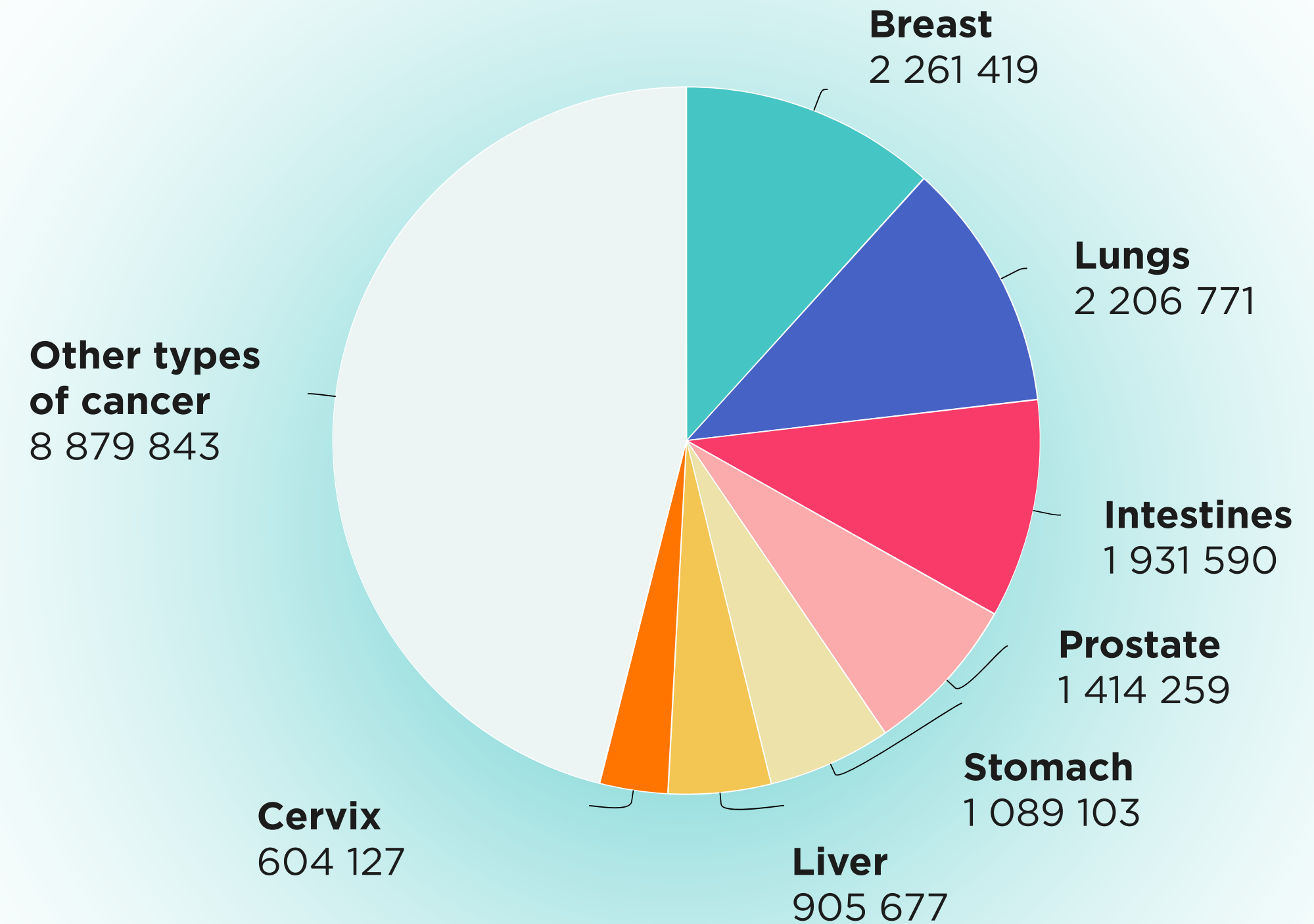
is the **second** leading cause of death in the world

In
2020

more than **11 million**
people

died from this disease worldwide

Estimated number of new cases in 2020 globally, for both sexes, all ages



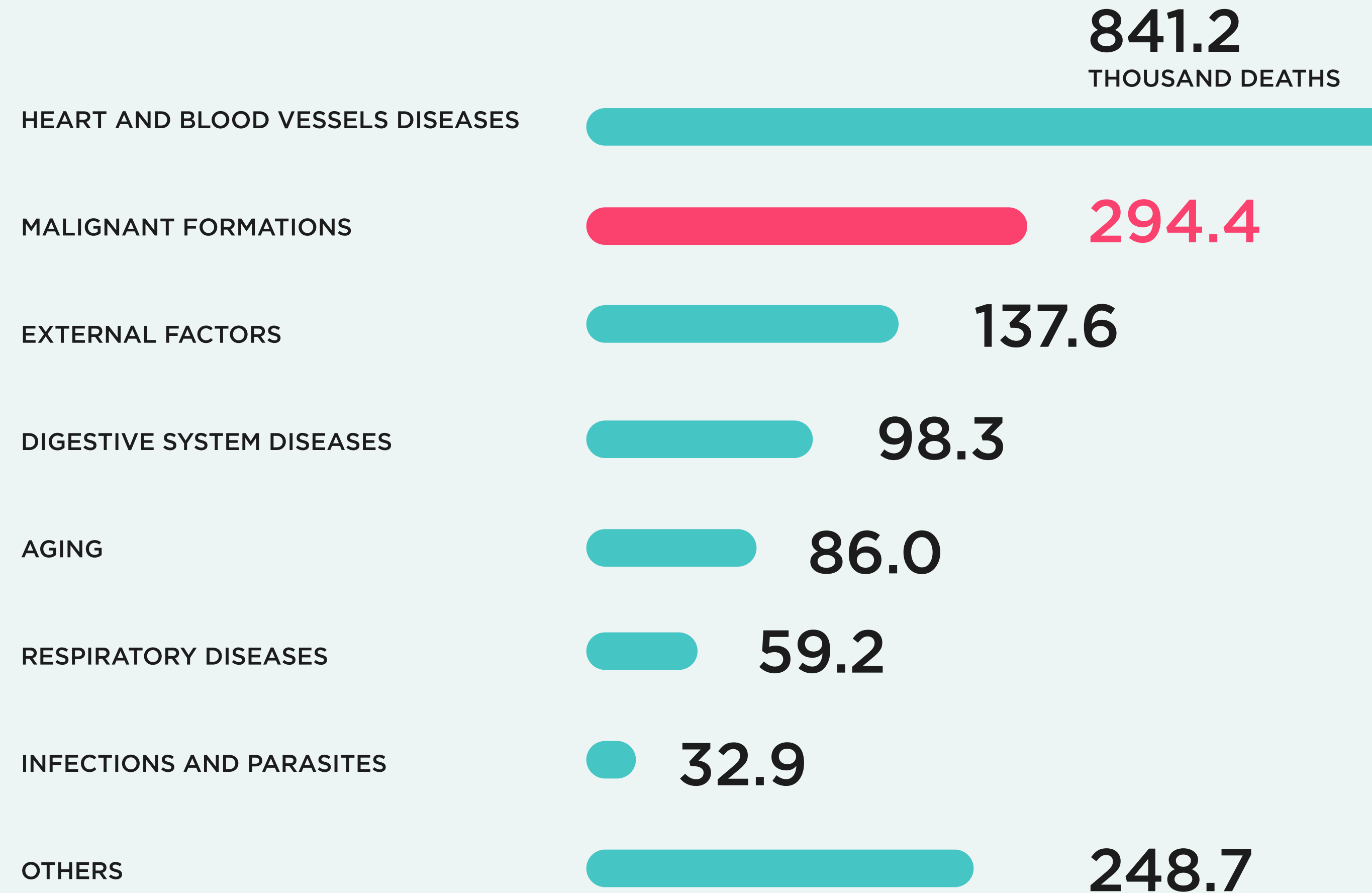
In total **19 292 789** people fell ill in 2020

Data source: GLOBACAN 2020 / Graph production: Global Cancer Observatory International Agency for Research on Cancer 2022

More than **10 million** new cases of pathology are detected annually

More than **27,000** people fall ill every day

Up to **80%** of cancer patients think about suicide according to research

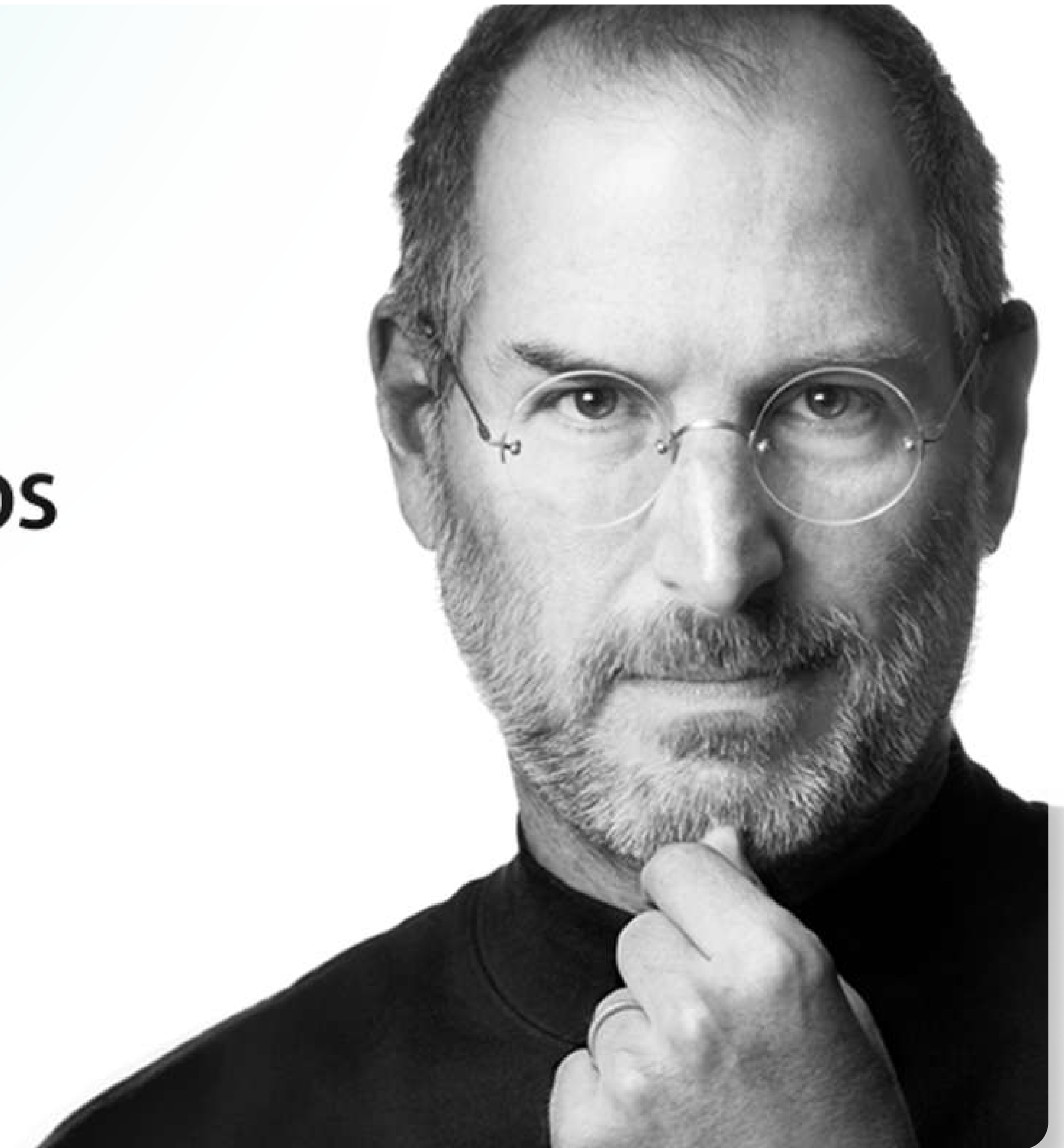


Unfortunately, even the availability of a sufficient amount of funds does not guarantee a cure: many well-known and famous financially unlimited people have not been able to recover from this diseases...

Steve Jobs died of cancer in 2011

Steve Jobs

1955-2011



The cost

of some types of surgery excluding consultations, tests, medications, and supportive care:

Prostate cancer radiation therapy

\$8,800-60,000

Cervical cancer radiation therapy

\$20,000-25,000

Stomach cancer surgery

\$18,000-30,000

Lung cancer surgery

\$23,000-35,000

Breast cancer surger

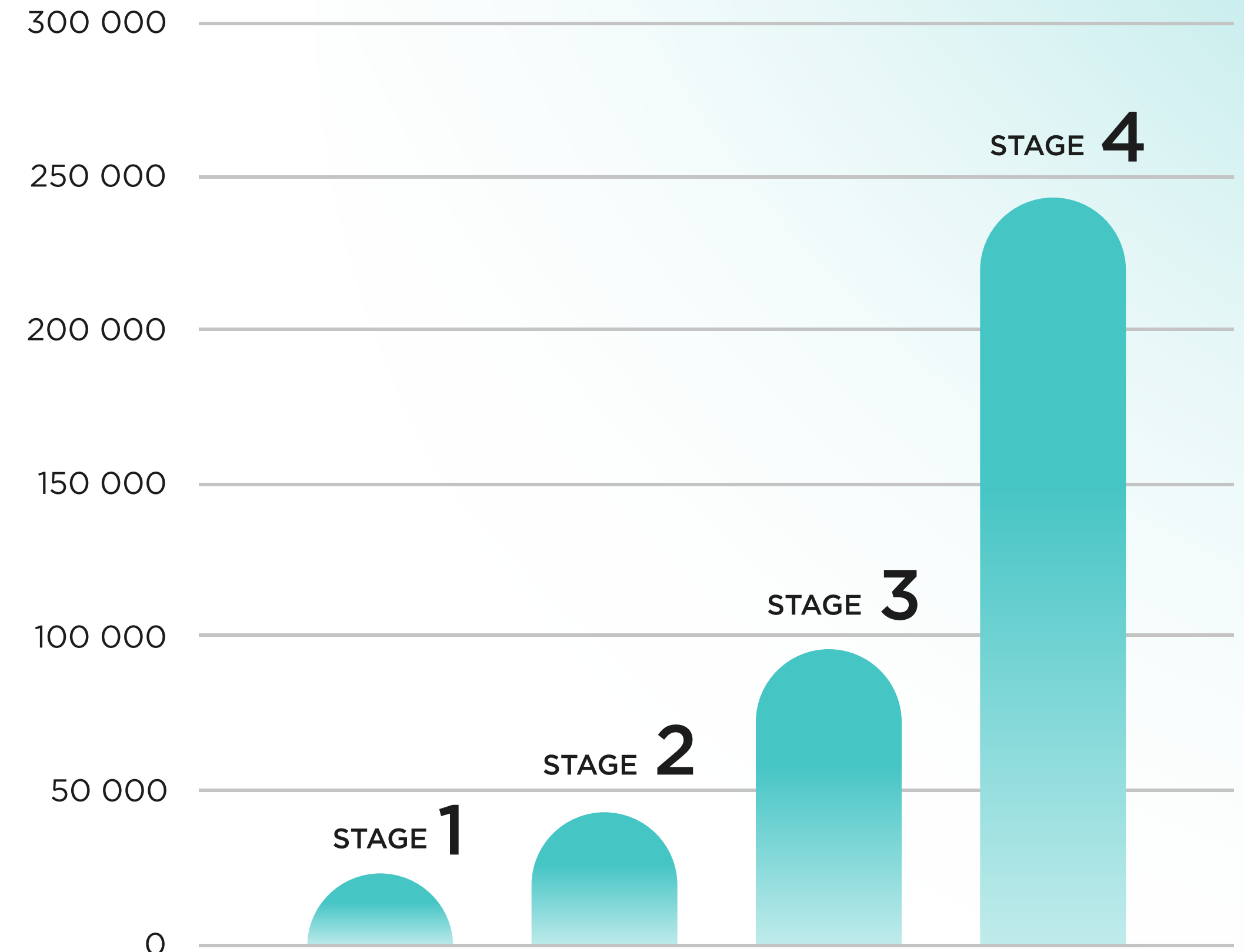
\$9,000-18,000

Keytruda cancer immunotherapy cost

\$150,000 dollars a year

And the leukemia treatment with the gene therapy drug Kimriah from Novartis will cost

\$450,000 dollars a year



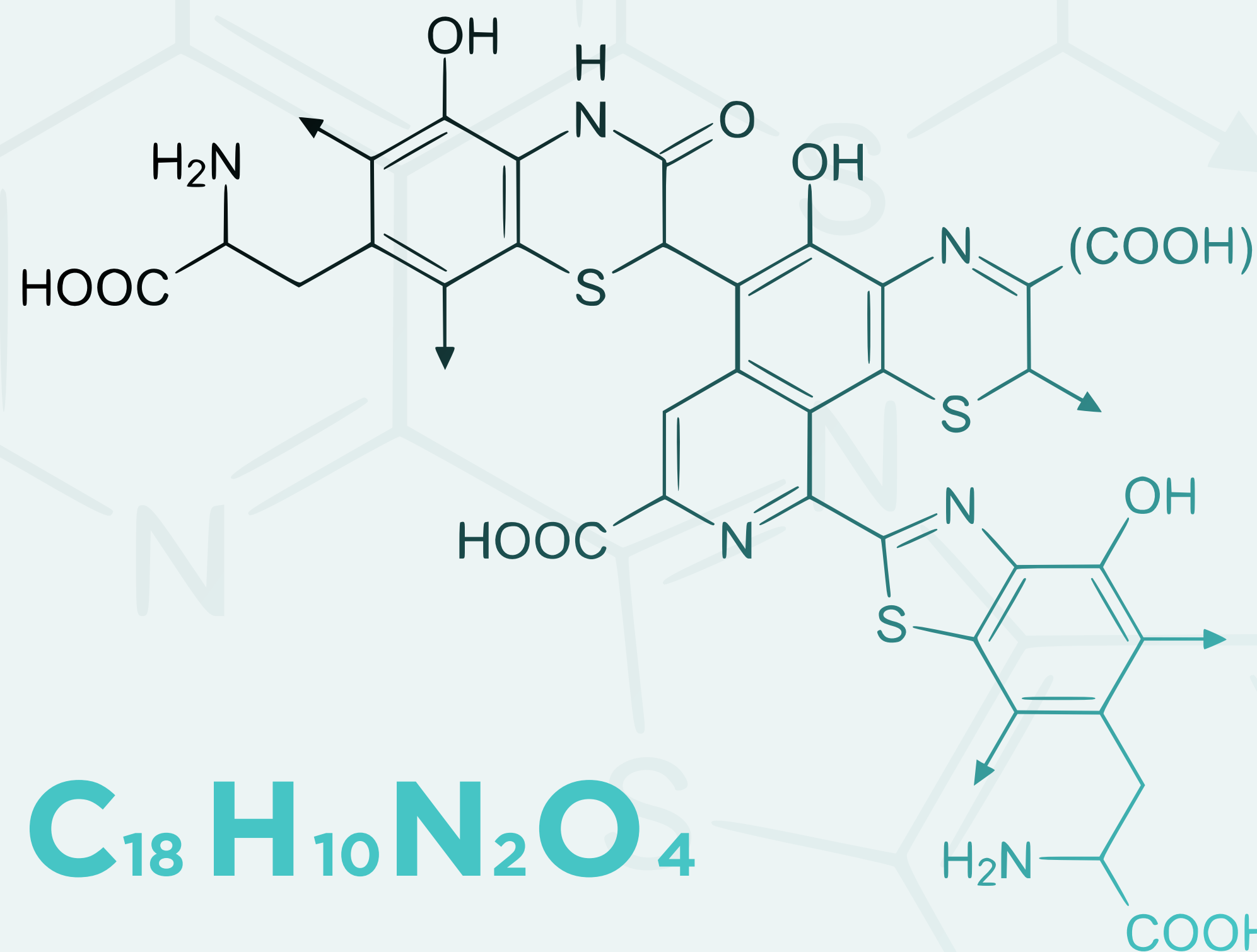
Increase in the cancer treatment cost in Israel depending on the stage

Our team is developing
a new medicinal dosage form
for the treatment of oncology.
R&D started in 2019

Formula development is the most difficult step in drug development and carries the highest risks; there are excessively many methods of extraction, processing, drying and other procedures on the each step of development. That is why for achievement of a successful result, it is necessary to identify the right way for each link in such a chain of creation, because in case of failure the whole process has to be started from the beginning.

We have already passed this stage,
and name of our drug is Alginar.

Melanin



Our achievements



December 2020

Primary spectral study of melanin

February 2021

Research of samples using Electron Paramagnetic Resonance, which directly displays their antioxidant properties

March 2021

Obtained a strain of Antarctic yeast *Nadsoniella nigra* var. *hesuelica* from the base of storage of yeast cultures and practical work has begun on the cultivation of raw materials for production

July 2021

Started cultivation of two different strains under normal conditions. The choice of methods for separating the strain from the cultivation medium was made

June 2021

Certain conditions for keeping the best reproduction and accumulation of melanin in the strain on a solid nutrient medium were selected. In addition, the cultivation of the strain in a liquid medium on various aqueous substrates was tested

The optimal substrate for the rapid and stable growth of the strain was found. Cells of the strain were isolated from aqueous substrates and prepared for extraction of melanin

October 2021

Independently isolated the first batch of melanin from our own raw materials of black yeast *Nadsoniella Nigra*

We selected the necessary parameters for the isolation of melanin from the finished yeast mass, which we have grown for 3 months

An EMR study was conducted to determine the antioxidant activity of various melanin samples

Our sample showed the highest antioxidant activity, which is comparable to the data from the works of Lyakh S.P.

A comparative study of available melanins and those isolated according to the original method from the strain *Nadsoniella Nigra* (VKM F-2137) was carried out using the EPR method (electron paramagnetic resonance)

June 2022

The technology for extracting melanin from raw materials has been improved

The output is 150% more of the finished substance from the same volume of raw materials, which reduces the cost of production

November 2021

A technology for obtaining a water-soluble form of melanin has been developed

Tests with another form of melanin derived from a yeast structure were carried out

Studies on the antioxidant activity of melanin samples isolated in various ways using the Electron Paramagnetic Resonance (EPR) method were carried out



Our achievements

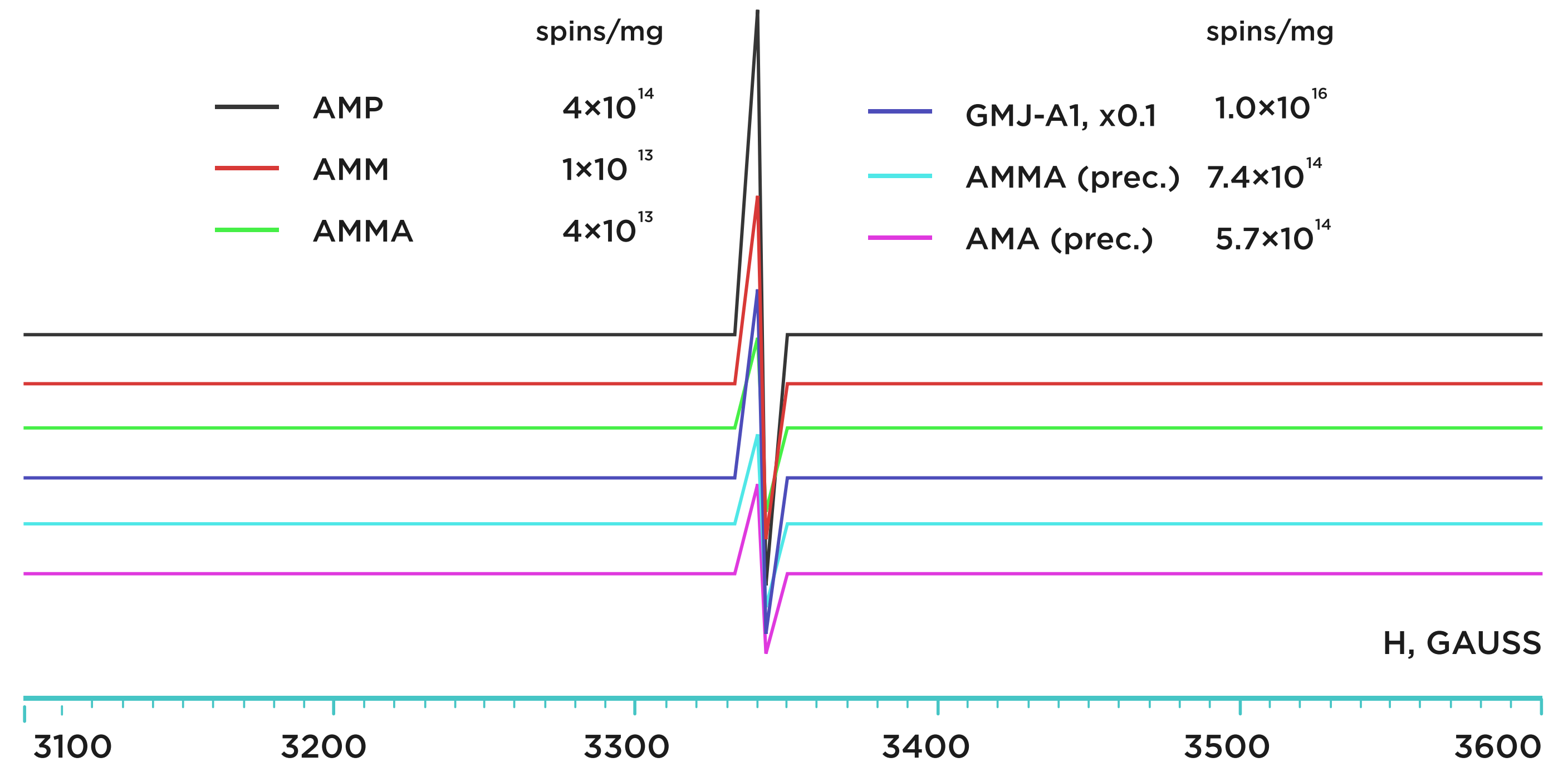


A technology for **breeding yeast culture** has been developed

A technology for **extracting melanin** from various yeast cultures with **the least losses** has been developed

Studies have been carried out to establish the molecular structure of the isolated melanin using the method of solid-phase Nuclear Magnetic Resonance (NMR)

Studies have been carried out to establish the antioxidant activity of the isolated melanin sample using the method of Electron Paramagnetic Resonance (EPR)



The GMJ-A1 melanin isolated according to the original method from the fungal strain *Nadsoniella Nigra* turned out to be the most active and contains 2 orders of magnitude more radicals - 10^{16} spin/mg. For convenience, in the diagram, the data for this melanin was multiplied by 0.1 for not to go beyond the graphs. In terms of 1 g of melanin, spins are 10^{19} , which is quite enough to provide high antioxidant activity



Svetlana Lyakh

Soviet
microbiologist

We took the scientific work of the Soviet microbiologist Svetlana Lyakh and her drug **AstroMelanin** as the basis for our development

Her scientific work began with a doctoral dissertation in 1969. In total, more than **30,000** pages of scientific papers have been written

The drug (AstroMelanin), the predecessor of our development,

showed **a positive effect**
on many types of cancer

In addition,
it has **a proven effect**
on the following
diseases:



type 2 diabetes



stomach ulcer



bronchial asthma



МЕДИЦИНСКИЙ ЦЕНТР
УПРАВЛЕНИЯ ДЕЛАМИ ПРЕЗИДЕНТА
РОССИЙСКОЙ ФЕДЕРАЦИИ

ЦЕНТРАЛЬНАЯ КЛИНИЧЕСКАЯ БОЛЬНИЦА
С ПОЛИКЛИНИКОЙ
ТЕРАПЕВТИЧЕСКИЙ КОРПУС № 11

Г-же С.П. Лях

103875, Москва, Воздвиженка, 6/2
Тел.: 222-8944 Факс: 202-1467
03.04.2000 № 21-14/326

На № _____ от _____

Уважаемая Светлана Павловна!

Администрация Терапевтического корпуса № 11 ЦКБ МЦ УД Президента РФ благодарит Вас за возможность принять участие в клинической апробации Вашего препарата «Астромеланин».

Использование аппликационной формы данного препарата у ряда больных сахарным диабетом II типа позволило добиться существенного улучшения клинического течения заболевания и уменьшить объем пероральной терапии сахароснижающими средствами.

Главный врач
Терапевтического корпуса № 11 ЦКБ МЦ УД Президента РФ



Ю.А.Суровов

The gratitude letter to Svetlana Lyakh

from the chief physician of the therapeutic building No. 11 of the medical center for managing the affairs of the President of the Russian Federation on the results of use in type 2 diabetes mellitus



Conclusion on the results of the use of AstroMelanin in various diseases

from the Doctor of Medical
Sciences, Honored Doctor
of the Russian Federation
V. Ivanov

В результате анализа проведенного лечения больных с указанными выше патологическими состояниями препаратами «АстроНэлла» и «АстроМеланин» отмечается их высокая эффективность, как при оральном, так и при контактном и бесконтактном применении.

Указанные препараты являются быстрого многофункционального действия, способствующие снятию болевого синдрома, воспаления тканей, восстановления дефектов слизистой без деформации подлежащих тканей, разблокированию спазмированных глубоких мышц и восстановлению энергетического потенциала организма.

Препараты могут применяться как самостоятельно, так и в сочетании с другими способами лечения (мануальной терапией, иглоукалыванием, массажем, диетотерапией, физиотерапией и ЛФК).

Заведующий кабинетом рефлексотерапии,
Заслуженный врач Российской Федерации.
Доктор медицинских наук (В. Иванов)





Основные преимущества «АстроМеланина» при лечении злокачественных новообразований заключаются в его пролонгированном действии, отсутствии выраженного побочного эффекта и облегчении сильных болевых ощущений при тяжелых формах рака. Невысокая себестоимость «АстроМеланина» может обеспечить программе экономическую эффективность.

Отдавая себе отчет в масштабности стоящих перед нами задач, высочайшей социально-экономической значимости вопроса борьбы с раком, мы обращаемся к Вам, Борис Николаевич, и Вашему Фонду Первого Президента России с просьбой поддержать общественную инициативу, взять дело здоровья россиян под Вашу личную опеку и оказать содействие в развитии программы «АстроМеланин» и внедрении результатов исследований в практику.

С Уважением,

Директор Российского Онкологического
Научного Центра им. Н.Н. Блохина
РАМН, Академик

Трапезников Н.Н.

Директор НИИ Экспериментальной
диагностики и терапии опухолей,
Российского Онкологического Научного
Центра им. Н.Н. Блохина РАМН
Доктор медицинских наук, профессор
Академик РМТА

Барышников А.Ю.


Директор Медицинского
Радиологического Центра РАМН
Академик РАМН

Цыб А.Ф.

AstroMelanin

received **positive feedback** and support from the heads of three Russian oncology centers, which rated it as a promising drug that reflects the latest methods in the treatment of tumor diseases

From a letter to the President of the Russian Federation B.N. Yeltsin from the leaders of the largest oncological centers in Russia



Unlike other drugs for the treatment of oncology **Alginar is non-toxic and does not cause side effects** on other organs and body systems

Our drug can be used by anyone without restrictions **as a regular food supplement**, which other similar drugs cannot afford, as they have a destructive effect on the body

The way drugs affect cancer cells is related to their toxicity, which, in turn, poisons cancer cells and **has a toxic effect on the human body**

Almost all drugs for the treatment of cancer are toxic to the body drugs and have **a huge number of side effects on**



The great advantage of our drug is that it can be used both for the treatment and for the prevention of the disease

This is very important since the drug **has no side effects** on the body, its use has **only a positive effect** and can prevent the development of cancer at an early stage

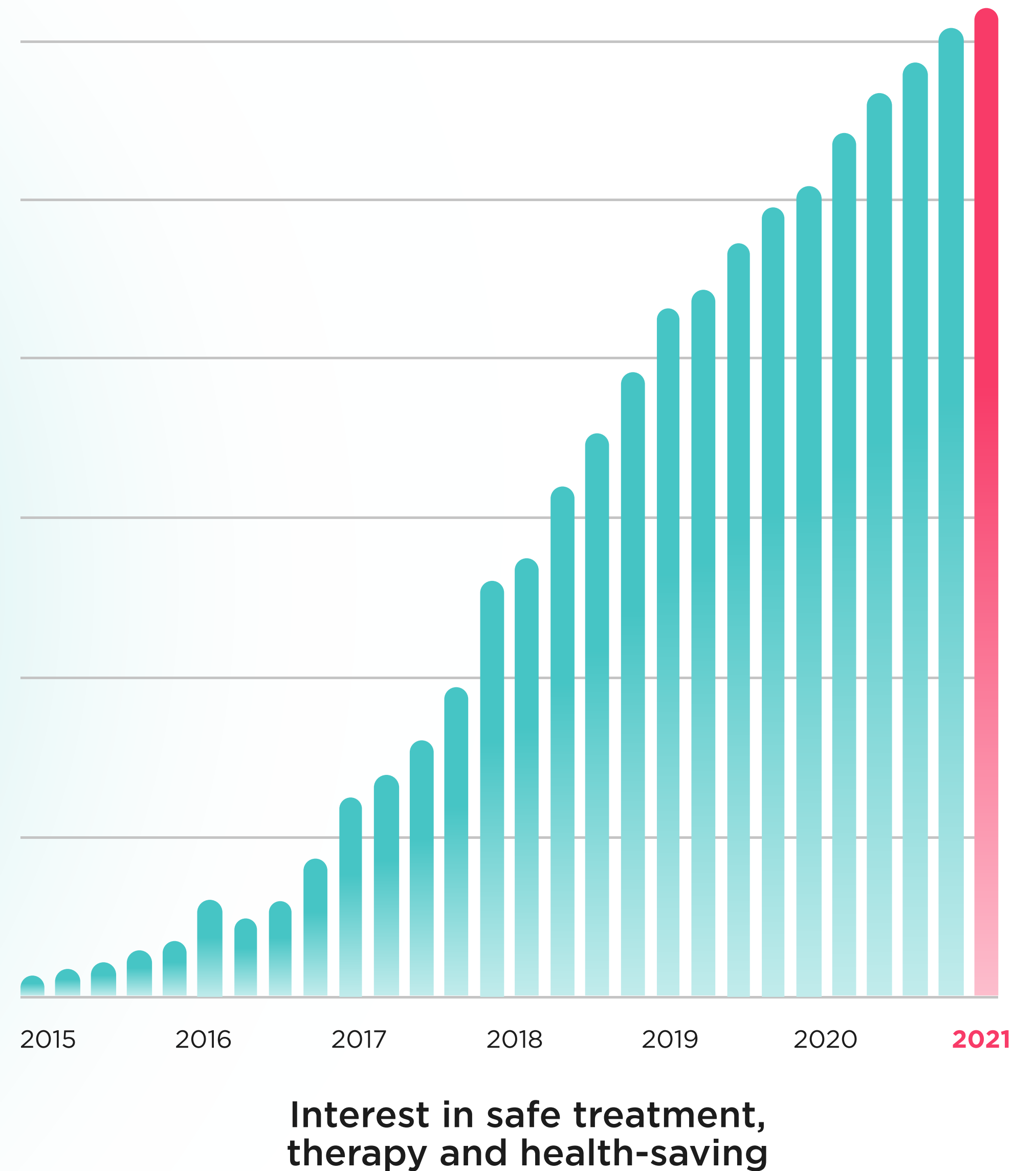
Already in the process of conducting preclinical and clinical studies, **it is planned to conduct negotiations on cooperation (merger) with large pharmaceutical companies** in the direction of introducing our drug for sale on the world market

Based on previous tests, **this is an absolutely safe drug for the treatment of oncology**, which works directly on cancer cells and does not have side effects on other body system



Based on these data,
we assume that
**the demand for the drug
will continue to grow
and may exceed sales
of many other oncology
treatment drugs**

This will also be facilitated
by its safety for the body
and the absence of toxicity



In progress

- Testing the strain for toxicity
- Development of a flow chart for industrial production
- Selection of industrial production equipment
- Contractual relations with partners in the field of marketing and sales of the drug
- Preparation of documentation for the patenting of the development

Within next 12 months

- Launch of drug production
- Release of the first commercial batch of Alginar
- Registration of a drug as dietary supplement
- Start of sales of Alginar

Implementation timeline and required funding

Stage II (start-up of production)

required financing is from \$1 000 000 - \$10 000 00 and depends on the capacity of the production line

Stage III/IV/V

(clinical trials and drug registration)

required funding is from \$3 000 000 - \$4 000 000

Drug Development Process



Formula development

1-3 years

- target identification
- drug target
- production technology
- registration as dietary supplement
- start of sales as dietary supplement

years development of a flow chart for industrial production

0.5-1.5 years

- proof of action
- safety and toxicity
- dosage
- delivery method

Preclinical studies

1-1.5 years

- Phase I of research
- Phase II of research
- safety and toxicity
- diagnostics
- competitive advantages
- monitoring and treatment planning

Clinical studies

1.5-2.5 years

Drug Registration / Start of sales

0.5-1 years

- drug registration
- market research
- start of sales

● Completed
 ● In progress
 ● Upcoming

Project economics and development cost:

According to the US National Library of Medicine National Institutes of Health 2017

the cost of anticancer drugs typically exceeds **\$100,000 per year** per course of treatment

The average cost of developing a single drug in 2017 was **\$793.6 million**

Five companies have developed drugs that **have received fast-track approval** from the FDA. **Five drugs** have received regular approval

7.3 **years**

the average development time for a single drug

The average revenue of these companies in 2017 was

\$1.658 billion

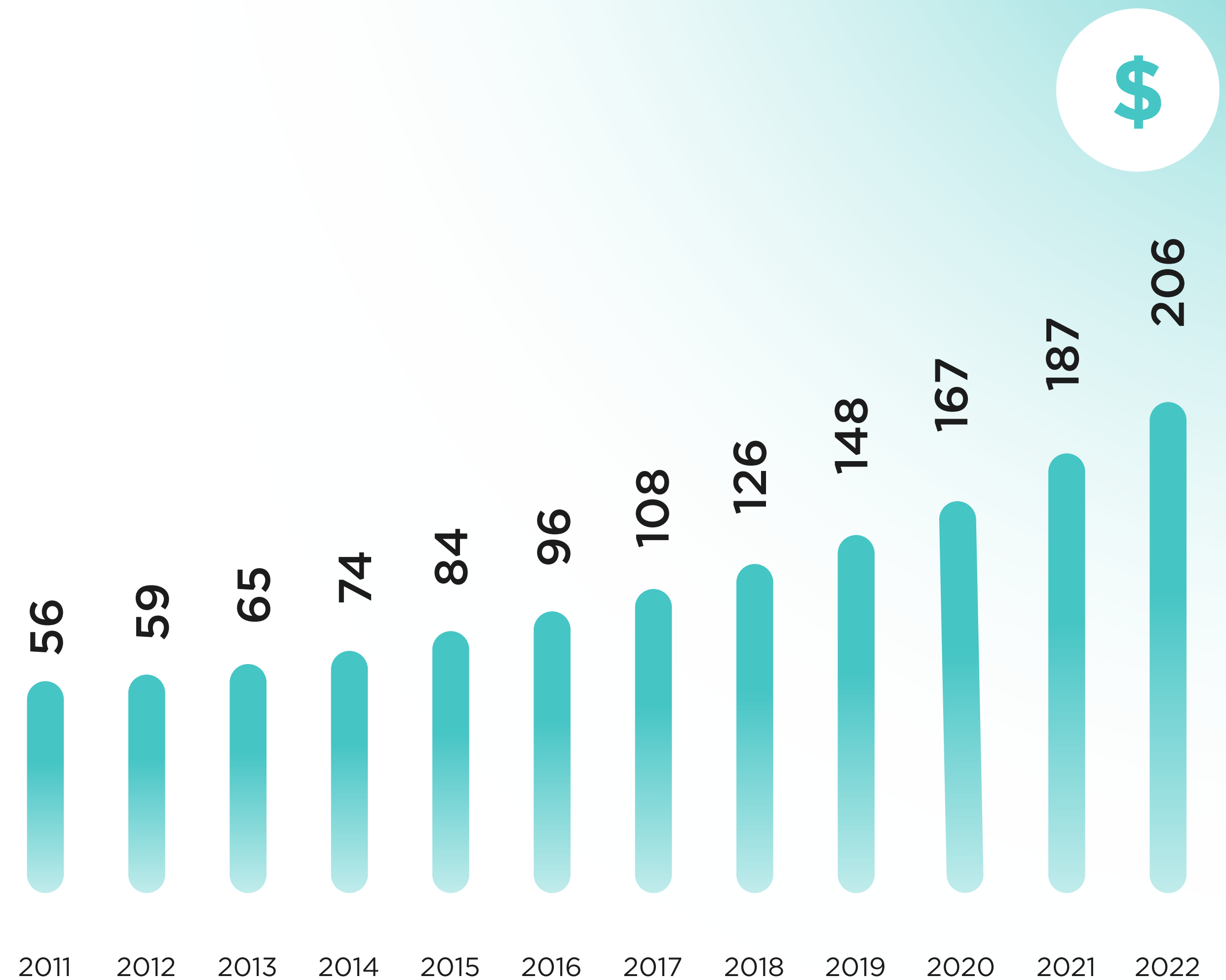
From approval to December 2016, the total revenue from these 10 drugs was **\$67 billion**

The cost of all medicines used to treat cancer patients has more than tripled in past 10 year

In 2011, the sum of all expenses was **\$56 billion dollars**

In 2021, expenses has reached **\$187 billion dollars**

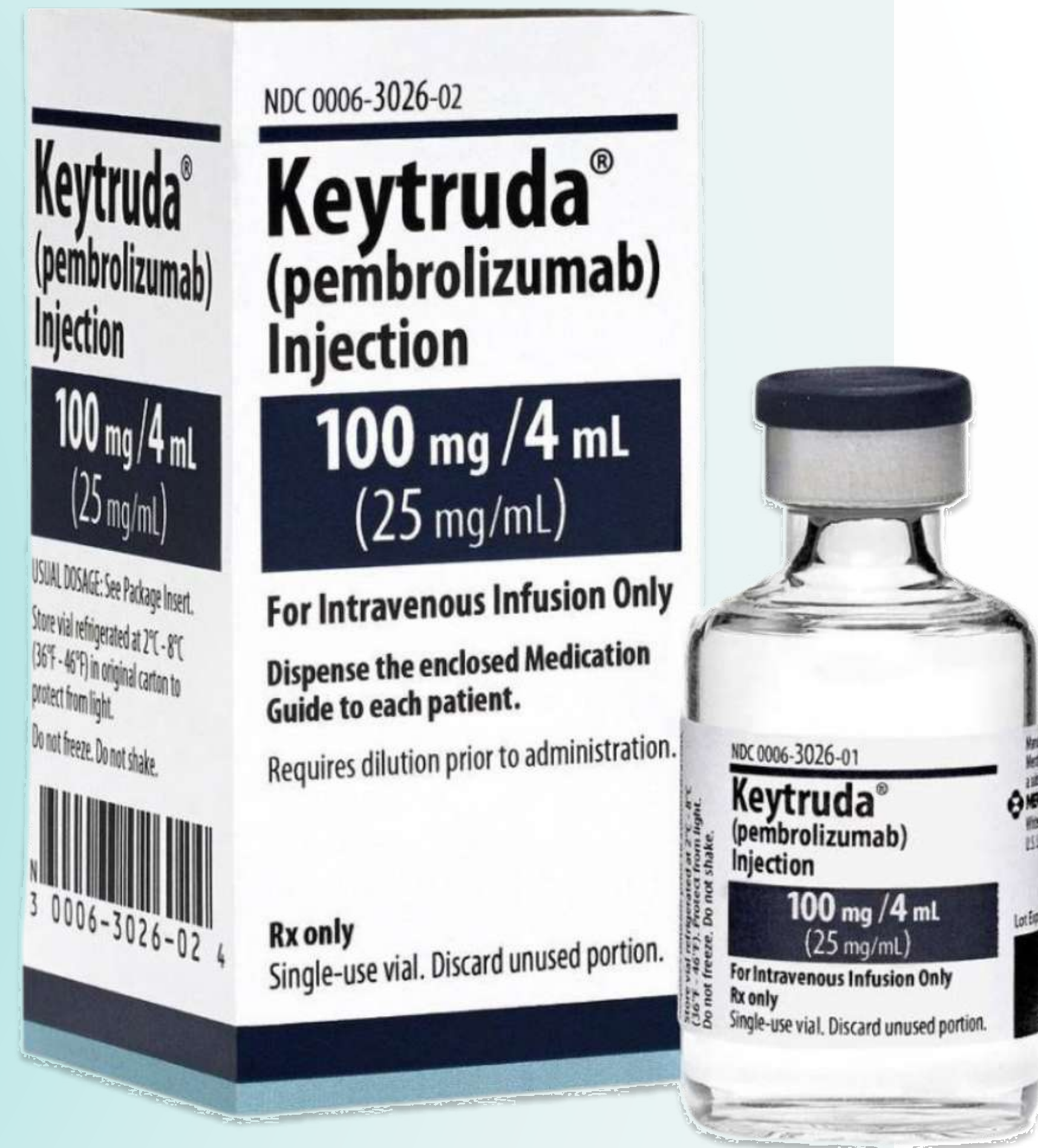
The market is expected to grow up to **\$280-300 billion dollars** over the next 5 years



Global oncology spending from 2011 to 2022

(in billion U.S. dollars)

The top selling cancer treatment drug on the market is **Keytruda (pembrolizumab)** Merck



\$14,380,000,000
sales in 2020

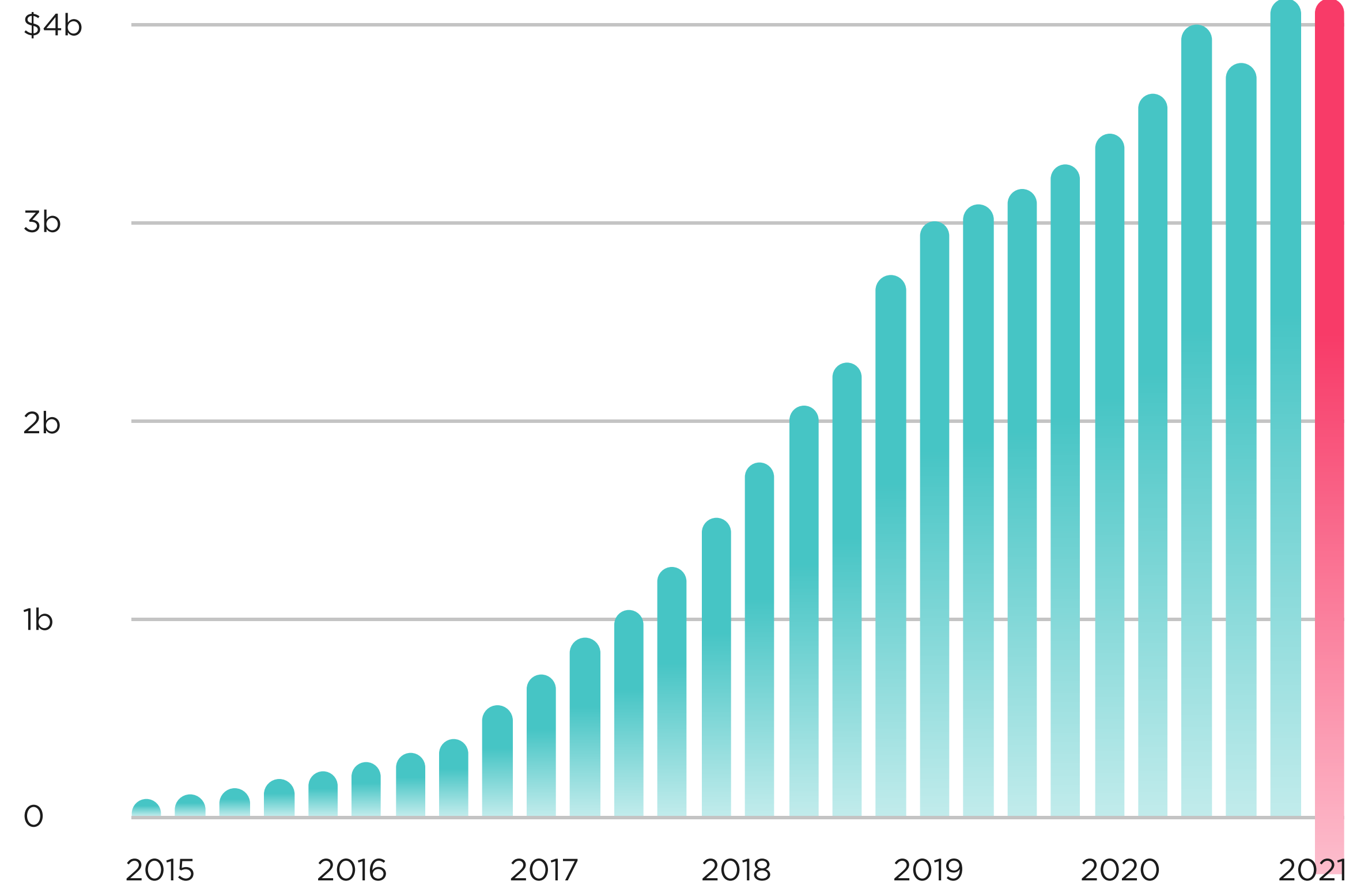
The drug received FDA approval
in 2015



Sales of this drug for 6 years amounted to more than **\$51 billion dollars**

At the same time, this drug has **a huge number of side effects** on the human body

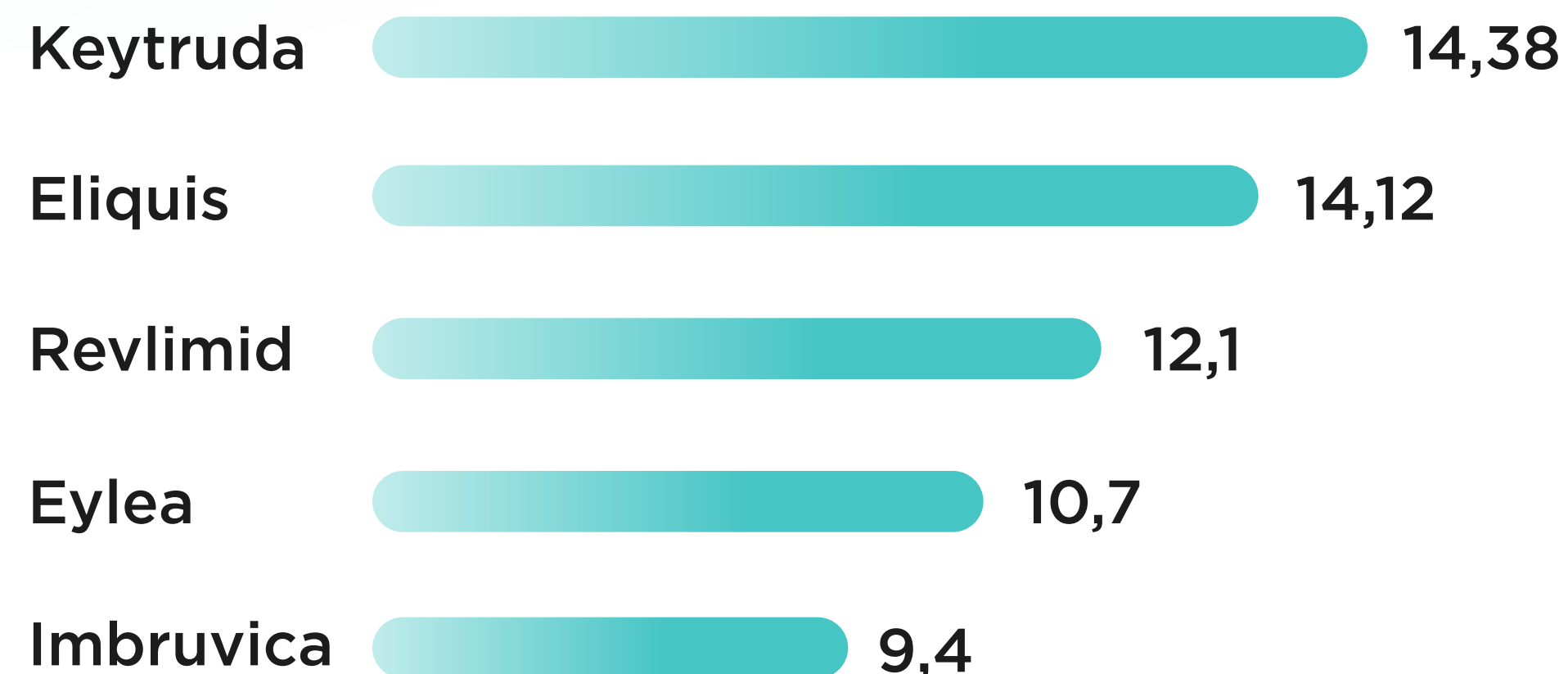
Predicted sales volume of Keytruda will amount to about **\$27 billion dollars a year by 2026**



Keytruda Quarterly Sales Chart 2015-2021

Drug Sales Volumes in 2020

S&P Global Market Intelligence Cancer Treatment



Keytruda (pembrolizumab) Merck

\$14 380 000 000

Eliquis (apixaban) Bristol Myers Squibb and Pfizer

\$14 117 000 000

Revlimid (lenalidomide) Bristol Myers Squibb

\$12 106 000 000

Eylea (aflibercept) Regeneron Pharmaceuticals, Bayer

\$10 722 220 000

Imbruvica (ibrutinib) Pharmacyclics (AbbVie) and Janssen (Johnson & Johnson)

\$9 442 000 000

Examples of transactions for cancer drugs

In addition to sales volumes of similar drugs, we can indirectly estimate the cost of development in transactions between pharmaceutical companies. Some transactions in the market of oncological drugs and companies:

2004 - Pfizer Inc. acquired cancer drug Campto from Aventis SA for **\$620 million**

2016 - Pfizer offered **\$14 billion** for the producer of oncodrugs Medivation

2018 - GlaxoSmithKline plc acquires TESARO, an oncology-focused company; the transaction amount is approximately **\$5.1 billion**

2019 - Pfizer bought cancer drug maker Array BioPharma for **\$11.4 billion**



Venture financing in the biotechnology sector

Below is a list of biotech startups that received venture capital funding in January 2021. The first 5 companies are at the stage of preclinical studies. Plexium is in development phase and reMYND is in Phase 1 of clinical trials

Our company is now at the stage of preparation for preclinical studies

Company Name	Date	Amount in \$ mln	Medical Directions	Phase
Cellino	02.01.2021	\$16	Dermatology, Preclinical	Preclinical
Nuvalent	01.27.2021	\$50	Oncology	Preclinical
Ukko	01.27.2021	\$40	Autoimmune, Inflammation	Preclinical
Nirogy Therapeutics	01.26.2021	\$16	Autoimmune, Oncology	Preclinical
TScan Therapeutics	01.25.2021	\$100	Oncology	Preclinical
Plexium	01.21.2021	\$35	Neurodegenerative, Oncology	Discovery
reMYND	01.21.2021	\$14	Alzheimer's disease, Diabetes	Phase 1

The Team

for obvious reasons,
the personal data of the drug
development team members
is anonymized

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Leading Researcher -
Doctor of Biology

Solid-state NMR operator -
Senior Researcher,
Candidate of Chemical Sciences

Senior Researcher -
Candidate of Chemical Sciences

**Candidate of Chemical Sciences
Researcher** -
Candidate of Biological Sciences

EPR spectrum operator -
Senior Researcher

IN VIVO Research -
Senior Researcher,
Candidate of Chemical Sciences