



do more  
feel better  
live longer

**GSK,  
a unique  
company  
in Belgium**

Lucas  
Patient

# Who we are

**We are a science-led global healthcare company with a special purpose: to help people do more, feel better, live longer.**

We have 3 global businesses that research, develop and manufacturer innovative pharmaceutical medicines, vaccines and consumer healthcare products.

**Our goal** is to be one of the world's most innovative, best performing and trusted healthcare companies.



Arthur  
Scientist

# Our DNA



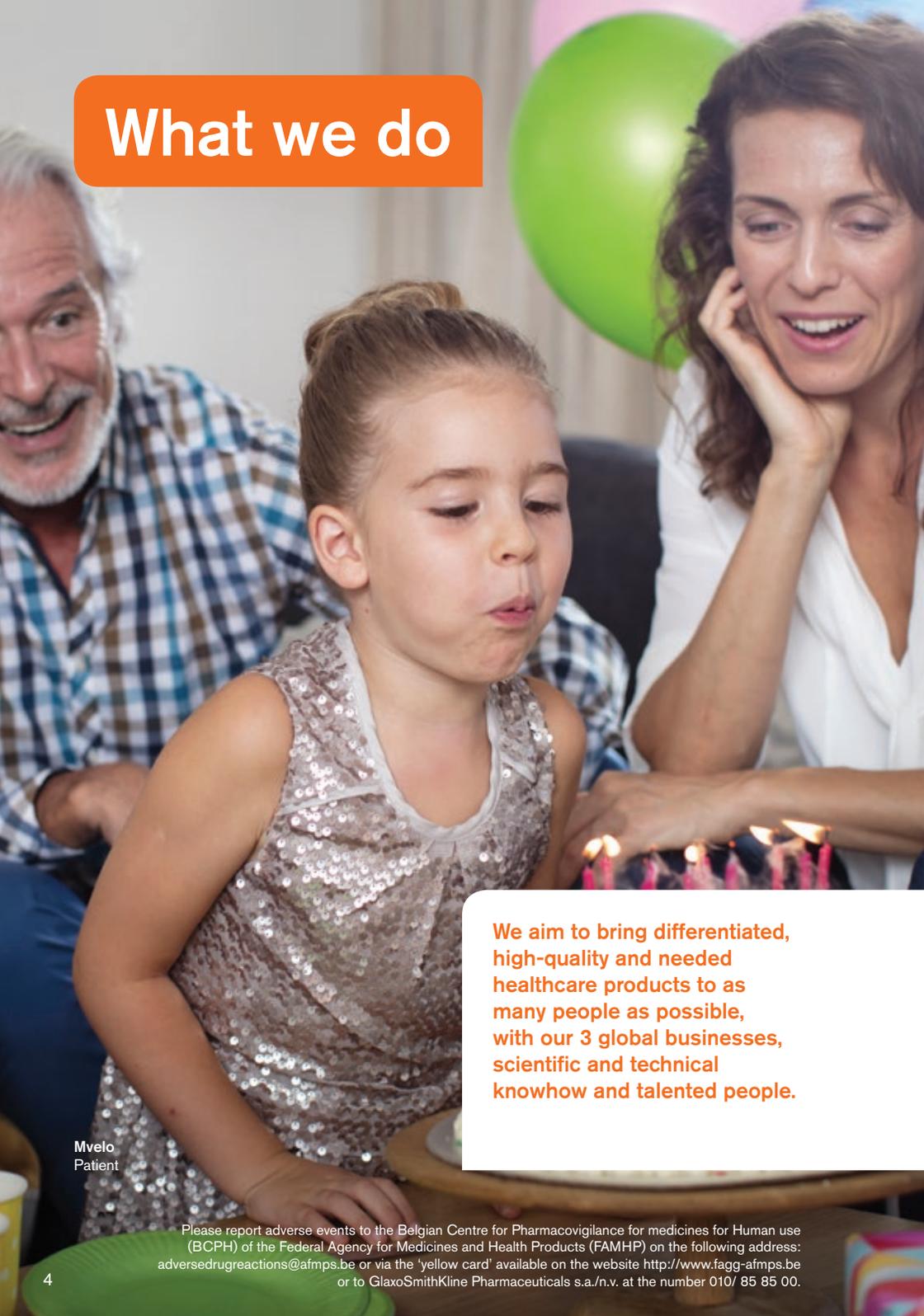
## Our strategy

Bring quality, needed healthcare products to as many people as possible, with our scientific and technical know-how and talented people.

## Our values and expectations

- Patient focus
- Transparency
- Respect
- Integrity
- Courage
- Accountability
- Development
- Teamwork

# What we do



We aim to bring differentiated, high-quality and needed healthcare products to as many people as possible, with our 3 global businesses, scientific and technical knowhow and talented people.

Mvelo  
Patient

Please report adverse events to the Belgian Centre for Pharmacovigilance for medicines for Human use (BCPH) of the Federal Agency for Medicines and Health Products (FAMHP) on the following address: [adversedrugreactions@afmps.be](mailto:adversedrugreactions@afmps.be) or via the 'yellow card' available on the website <http://www.fagg-afmps.be> or to GlaxoSmithKline Pharmaceuticals s.a./n.v. at the number 010/ 85 85 00.

# Vaccines

Our Vaccines business has a broad **portfolio** and innovative pipeline of vaccines to help protect people **throughout life**. These vaccines **help to protect** against many **infectious diseases** such as meningococcal, pneumococcal or rotavirus infections, as well as polio, flu, hepatitis, whooping cough or shingles infections.



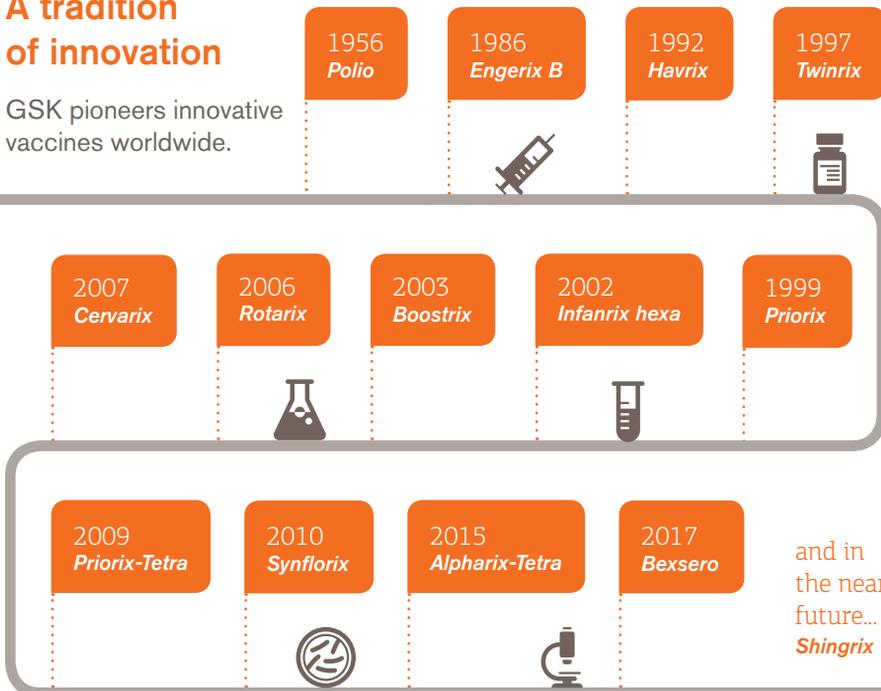
>40 vaccines

for children, adolescents, adults and travelers.



## A tradition of innovation

GSK pioneers innovative vaccines worldwide.



and in the near future... *Shingrix*

# Pharmaceuticals

Our Pharmaceuticals business has a broad portfolio of innovative and established medicines with commercial leadership in respiratory and HIV. Our R&D approach focuses on science related to the immune system, use of genetics and advanced technologies.

## Respiratory

>45 years

of research and development for innovative respiratory drugs.



1969  
*Ventolin*

1972  
*Beconase*

1973  
*Becotide*

1990  
*Flixonase*

1993  
*Flixotide*

1999  
*Seretide*

2018  
*Telegly Ellipta*

2016  
*Nucala*

2015  
*Anoro Ellipta &  
Incruse Ellipta*

2014  
*Relvar Ellipta*

2008  
*Avamys*

## HIV



A unique company fully dedicated to the fight against **HIV**, specialised in **treatment** with currently

>10 **specific medicines**

for people living with the virus.

# Consumer Healthcare

Our Consumer Healthcare business develops and markets an innovative portfolio of consumer preferred and expert recommended brands in the **Oral health**, **Pain relief**, **Respiratory**, and **Skin health** categories.

160 years  
of experience



## Parodontax



Depiction of Hydroxyapatite like crystals which *NovaMin* helps to form.



# How we do it



Everyone at GSK is focused on 3 priorities:

Innovation

Performance

Trust

Aliza  
Respiratory scientist

# Innovation

We invest in scientific and technical excellence to develop and launch a pipeline of new products that meet the needs of patients, payers and consumers.

€4.3bn

R&D investment  
in 2017



3

major launches in  
2017 – *Shingrix*,  
a vaccine for  
shingles, *Trelegy  
Ellipta* for COPD  
and *Juluca* for HIV

27

immunomodulatory  
new molecular  
entities in the  
pipeline for a range  
of diseases

11,000

people working  
in R&D around  
the world



In 2018 GSK announced a new collaboration with **23andMe**, to develop innovative new medicines and potential cures, using human genetics as the basis for discovery.



Rodrigo  
Cell Transduction Scientist

# Performance

We aim to achieve industry-leading growth by investing effectively in our business, developing our people and delivering flawlessly.

**€33.4bn**

total turnover in 2017

**No.1**

dolutegravir is the most prescribed core agent for HIV treatments worldwide

**>€1bn**

*Sensodyne* sales - world's number one dentist recommended toothpaste for sensitive teeth

**>100m**

*Ellipta* inhalers produced to treat asthma and COPD



**Around 40%** of the world's children are protected with at least one GSK vaccine.

**2 millions doses**

of our vaccines are delivered to 160 countries per day.



Our long-term priorities

# Trust

We are a responsible company and commit to use our science and technology to address health needs, make our products affordable and available and to be a modern employer.

**119,000**

of our people and their families in 93 countries have access to healthcare with our Partnership for Prevention programme

**1<sup>st</sup>**

candidate vaccine showing efficacy against malaria and 1st single dose medicine to treat relapsing malaria

**1<sup>st</sup>**

in class medicines in the pipeline and a much needed candidate vaccine to help fight tuberculosis

**84%**

of employees are proud to work for GSK



Our approach to global health focuses our science on three of the biggest health challenges affecting children and young people in the developing world – HIV, TB and malaria.

Each year **6 million children** under the age of five die, most from preventable causes in developing countries.

Eva  
Scientist



# GSK in Belgium



Christian de Duve  
Nobel price winner



Our vaccine heritage can be traced back to Piet De Somer (who became the first rector of the KUL). Christian de Duve (future Nobel price winner) was also working as a scientific researcher. These two Belgians were responsible for the first research involving penicillin and antiviral vaccines in 1945.

Piet De Somer  
Rector of the KUL

GSK is one of the few pharmaceutical companies that has integrated **all operations: from research to development, to production** and finally commercialisation of **vaccines**:



**R&D**  
(research  
and clinical  
development)



**manufacturing  
and packaging**  
(primary and  
secondary)



**distribution in  
Belgium and  
export all around  
the world**

But also the **commercialisation of medicines** against respiratory disease and HIV (the virus responsible for AIDS), as well as many consumer healthcare products.

## Belgium: the heart of GSK Vaccines

### 3 major vaccine sites

of GSK in Belgium (in Wavre, Rixensart and Gembloux), including the **global headquarters** from the **vaccines division** of the group.

We represent the **largest industrial network** for vaccines worldwide.



## Rixensart

- Founded in 1958, this was the **foundational vaccines site** in Belgium. Many of our vaccines were discovered and produced here.
- The site is unique and is home to **the largest vaccines R&D unit**. Our other R&D sites are in Italy and the USA.
- There are specific **laboratories** dedicated to research and **development of vaccines** as well as **vaccine manufacturing**.
- Our R&D team brings together a **vast and unique international expertise** across the **fields of adjuvants** as well as **viral and bacterial infections**.



The names of our vaccines developed in Belgium always end with **-RIX**.





Surface as big as

**70 football fields**

## 📍 Wavre

- Inaugurated in 1995, this site is **the largest vaccines manufacturing site in the world** with a total surface of 550.000m<sup>2</sup>. It is equipped with a large manufacturing infrastructure (producing antigens, formulation, filling, packaging, and infrastructure for quality assurance and control).
- The vast majority of GSK Vaccines distributed worldwide are produced in Wavre.

## 📍 Gembloux

- Created in 1997, this site is dedicated to upscaling **vaccine manufacturing techniques** before their implementation in our Belgian and international manufacturing centers.
- This site is also important for the storage of our vaccines (commissioned since 2010).



# GSK in Belgium, in numbers

**14 candidate vaccines**



currently in development, representing the **largest pipeline** compared to other vaccine producers\*.



**65 years of innovation**

in vaccines, with currently

**~2,000 researchers** working in R&D.

**>90% of the vaccines**

in our pipeline were developed through Belgian and international partnerships. In 2018, we had



**13 scientific collaborations**

with Belgian academic institutions.

## Investments are key to anticipate the future in a complex domain

**~1 billion € invested in R&D**

as from Belgium in 2017. On top of that, **3 billion € were invested in Belgian infrastructure** the last 10 years.



The launch of a new vaccine is a long process and requires massive investments in R&D (including clinical trials) as well as in development and building state-of-the-art facilities.



Our investments in R&D have continuously increased over the last decade.



**99% of our vaccines**  
are exported to  
**>160 countries**  
of which at least  
**70%**  
are developing countries with  
low and middle incomes.

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**>2 million doses**  
of vaccines are produced every day  
**800 million doses**  
of vaccines distributed in 2017, or  
**25 doses/second**

# An attractive and modern employer

In the last 10 years, GSK has created more than 3.000 jobs, which corresponds to almost

**1 job created/day.**



In 2017, GSK hired about 1,000 employees.

**>9,000**

**employees in Belgium**

without counting about 16.000 indirect jobs created. GSK is by far the largest pharmaceutical company in Belgium.

A **Top 10**

company in Belgium

**45% women and  
55% men**



**>80 nationalities**

across our workforce in Belgium.

**25% operators**

**35% administrative &  
technical functions**

**40% managers**



**Future Leaders Programme\***

Every year through this programme young talent has the opportunity to experience different parts of our business.



In 2017, close to 2,000 of our GSK employees dedicated their time to

**137 charity projects.**

Consistently recognized as an **attractive employer** over several years.



# The impact of our vaccines on public health



Next to clear water, **nothing has a bigger impact than vaccination in its ability to save lives\***.

The WHO estimates **2-3 million** of deaths are prevented each year thanks to vaccination\*\*.

**>40 vaccines**

on the market which help protect against infectious diseases at **all stages of life** - from infants to elderly, as well as pregnant women and travelers.

The majority of Belgians will receive **at least 1 GSK vaccine during their lifetime**.



GSK has a vaccine for each infectious disease mentioned in the Belgian vaccination calendar.



**40% of children**

worldwide are protected with at least one GSK vaccine.



\*WHO, UNICEF, World Bank. State of the world's vaccines and immunization, 3rd ed. Geneva, World Health Organization, 2010

\*\*[www.who.int/mediacentre/factsheets/fs378/fr/](http://www.who.int/mediacentre/factsheets/fs378/fr/)

WHO – World Health Organization

Debora, Elomvi, Imaculé, Koké, Kodjo, Essenam  
Patients





# The impact of our vaccines on global health

We focus our science on three of the biggest health challenges affecting children and young people in the developing world - HIV, TB and malaria. After more than 30 years of research by our scientists in Belgium in collaboration with international partners, the **first vaccine, Mosquirix, indicated for malaria prevention** is finally available for children living in Sub-Saharan Africa.

GSK will distribute this vaccine at **access pricing** and has committed to **donate the first 10 million doses** to WHO.

## Making our vaccines available for as many people as possible

In order to increase access of our vaccines and medicines to patients, independently of their financial situation, we collaborate with partners (UNICEF, GAVI...) to set up different **help programmes**. GSK is the main vaccine supplier to these organisations.

GSK has ranked top of the **Access to Medicines Index** for the past ten years as the company contributing most to improve the access of medicines throughout the world.



7/10  
of our vaccines

are distributed to developing countries where we apply a differentiated pricing policy.



400,000  
people

die every year from malaria, mostly children and pregnant women... **that's one child every 2 minutes.**



# Producing a vaccine: a long and complex process

Vaccines are **complex biological products** where the manufacturing is based on living organisms.  
The **reproducibility** of the manufacturing process is technically complex.

## The different steps of vaccine manufacturing

### R&D

10-30 years



### Receipt of raw materials

2 weeks



### Cold chain ± 18-26 months



### Packaging, batch release and transport

6-18 weeks



## Manufacturing of the vaccine antigens

10-12 months



### Quality checks all through the process

**70%**  
of the manufacturing  
process is dedicated to  
quality control.

**>100**  
quality controls are needed  
for producing and before  
releasing a vaccine batch.



## Formulation, filling and quality control

6-10 months

### Quality checks:



from the  
producer



from the  
exporting country



from the  
importing country

# GSK, a unique company in Belgium!

## Unique...

... historical R&D site in **Rixensart**, explaining why most of our vaccines end with “-RIX”.

... **broadest portfolio of vaccines** that help protect **people throughout life** against infectious disease.



... not only do we have the **largest “pipeline”** of vaccines, but we are also the **largest vaccine manufacturer** worldwide.

... GSK has **massively invested in R&D** and infrastructure during the last decade.

... Wavre is the **largest vaccine production facility** in the world.



... our pharmaceutical business has integrated all **biopharmaceutical activities** in one location (from R&D to commercialisation).

... **>3,000 direct jobs** created in 10 years.



For more information, please consult our website <http://be.gsk.com>

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