### we are PACK

### We live in a world of possibilities.

A world where exploration and discovery are celebrated. Our meticulous and research-driven businesses deliver diverse, high-quality products that enrich lives and enable us to share business success with our customers.

Founded in Darmstadt, Germany, in **1668** by Friedrich Jacob Merck, we are the world's oldest pharmaceutical and chemical company.







**€15.327 bn** sales in 2017



~**53,000** employees



**1668** founded



€2.098 bn invested in R&D in 2017



**66** countries



publicly listed & majority family-owned



VIbranT Sclence & TecHnoLogy



# Therapeutic Areas of Focus Our Expertise



#### **IMMUNO-ONCOLOGY & ONCOLOGY**

Helping patients fight cancer, with innovation that makes a meaningful difference to lives around the world.



#### **NEUROLOGY & IMMUNOLOGY**

Changing the treatment paradigm for those with chronic progressive diseases, including multiple sclerosis.



#### **FERTILITY**

Helping create life for over two million families around the world.



#### **GENERAL MEDICINE & ENDOCRINOLOGY**

Providing access to healthcare solutions that can help to improve the lives of our patients.



# Introduction to Connected Health & Devices



### What is a medical device?

### 'Medical device' is defined in Regulation (EU) 2017/745 as:1



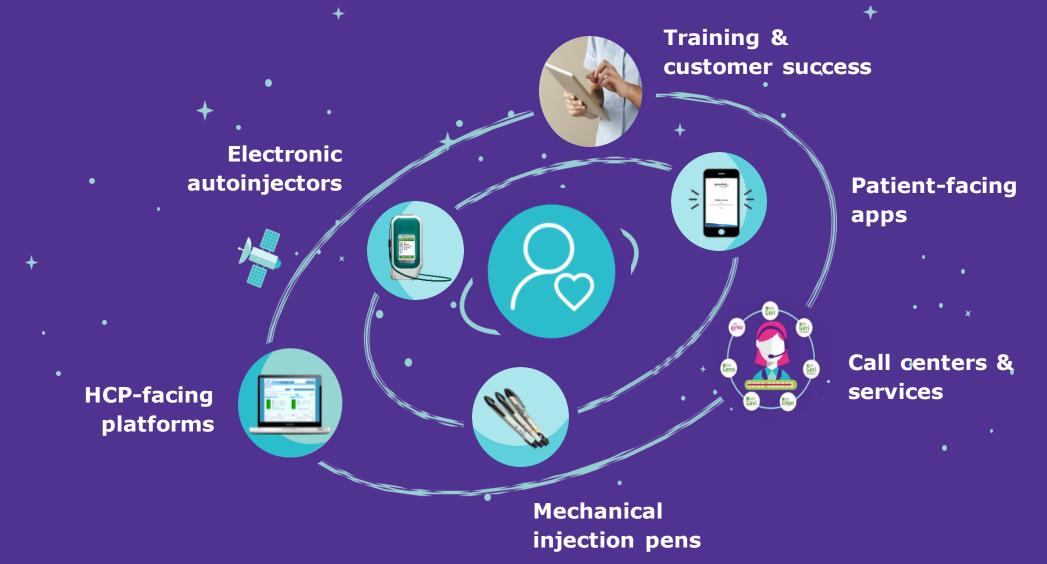
Any instrument, apparatus, appliance, software, implant, reagent, material or other article that is intended for:

- diagnosis, prevention, monitoring, prediction, prognosis, treatment or alleviation of disease
- diagnosis, monitoring, treatment, alleviation of, or compensation for, an injury or disability
- investigation, replacement or modification of the anatomy or of a physiological or pathological process or state
- providing information by means of in vitro examination of specimens derived from the human body, including organ, blood and tissue donations

... and which does not achieve its principal intended action by **pharmacological, immunological or metabolic** means in or on the human body, but which may be assisted by such means



### Our devices enable Merck Healthcare to differentiate and create value in the market





# CHD brings competitive advantage through innovative technologies and solutions (1/2)

### **Fertility**

### **Currently on offer from CHD**

## Pergeveris (900 III + 450 III/I.44 III.

150 IU/75 IU follitropin alfa/lutropin alfa powder and solvent for solution for injection, for the stimulation of follicular development in adult women with severe LH and FSH deficiency



GONAL-f 75 IU (5.5 micrograms) follitropin alfa powder and solvent for solution for injection. Follitropin alfa is a gonadotropin that is involved in reproduction and fertility in both men and women



### **Future plans**

Work in progress

### **Neurology & Immunology**

### **Currently on offer from CHD**

### RebiSmart<sup>®</sup>

Electronic injection device that delivers 22 micrograms/0.5 mL Rebif® (interferon beta-1a) solution. It was developed by CHD to address the needs of patients with relapsing multiple sclerosis





Digital application that connects with RebiSmart® so that nurses or physicians can view details of Rebif® administration



Patient support programme for patients with multiple sclerosis prescribed Rebif®

### **Future plans**

Work in progress



### CHD brings competitive advantage through innovative technologies and solutions (2/2)

### **Endocrinology**

### **Currently on offer from CHD**





easypod® is an automated drug delivery device for Saizen® [somatropin) for injection. Saizen® is a human growth hormone produced by recombinant DNA technology





Software designed to display patients' adherence information from easypod<sup>TM</sup> electronic autoinjector used with Saizen® on a secure online database



Application available on iPhone and Android devices that enhances the benefits of the easypod<sup>TM</sup> system



### **Future plans**

Work in progress

#### **Biosimilars**

### **Currently on offer from CHD**





IDACIO® (adalimumab 40 mg biosimilar) pre-filled pen offers built-in simplicity for administration

### **Future plans**

Work in progress



Our history at Merck with connected health & devices



12 years of experience

500 000 devices produced

20 000 connected patients

50 countries

