



Eidgenössisches Institut für Geistiges Eigentum  
Institut Fédéral de la Propriété Intellectuelle  
Istituto Federale della Proprietà Intellettuale  
Swiss Federal Institute of Intellectual Property

# IP outlook: Technology Landscape Ageing and Biotechnology



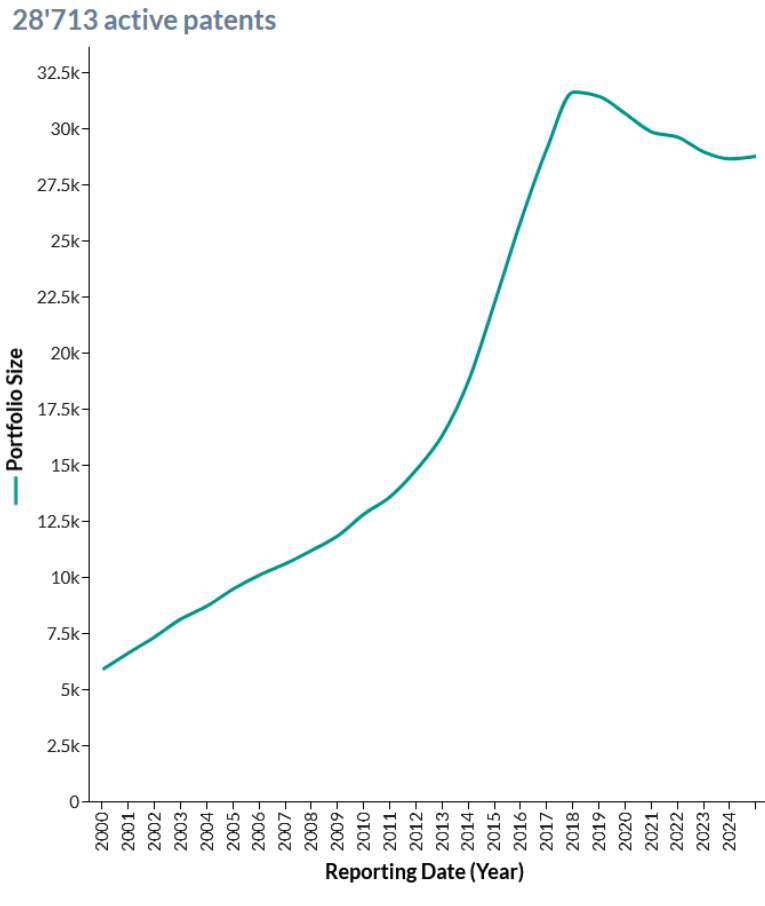
Biotechnet Meet-Up 2025, 28.01.2025

Christian Moser Nikles, Dr. med. vet, PhD

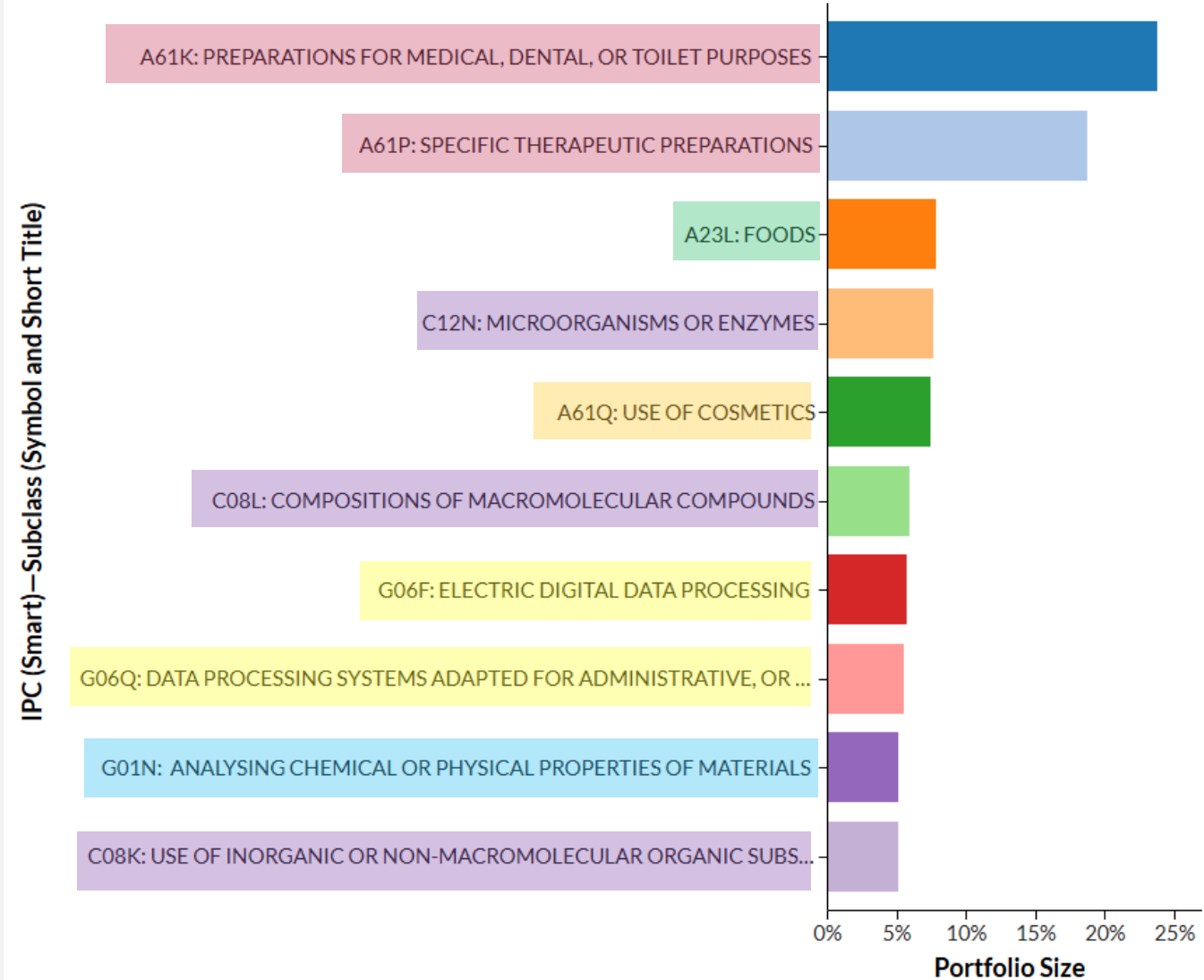
Patent expert, Swiss Federal Institute of Intellectual Property (IPI)



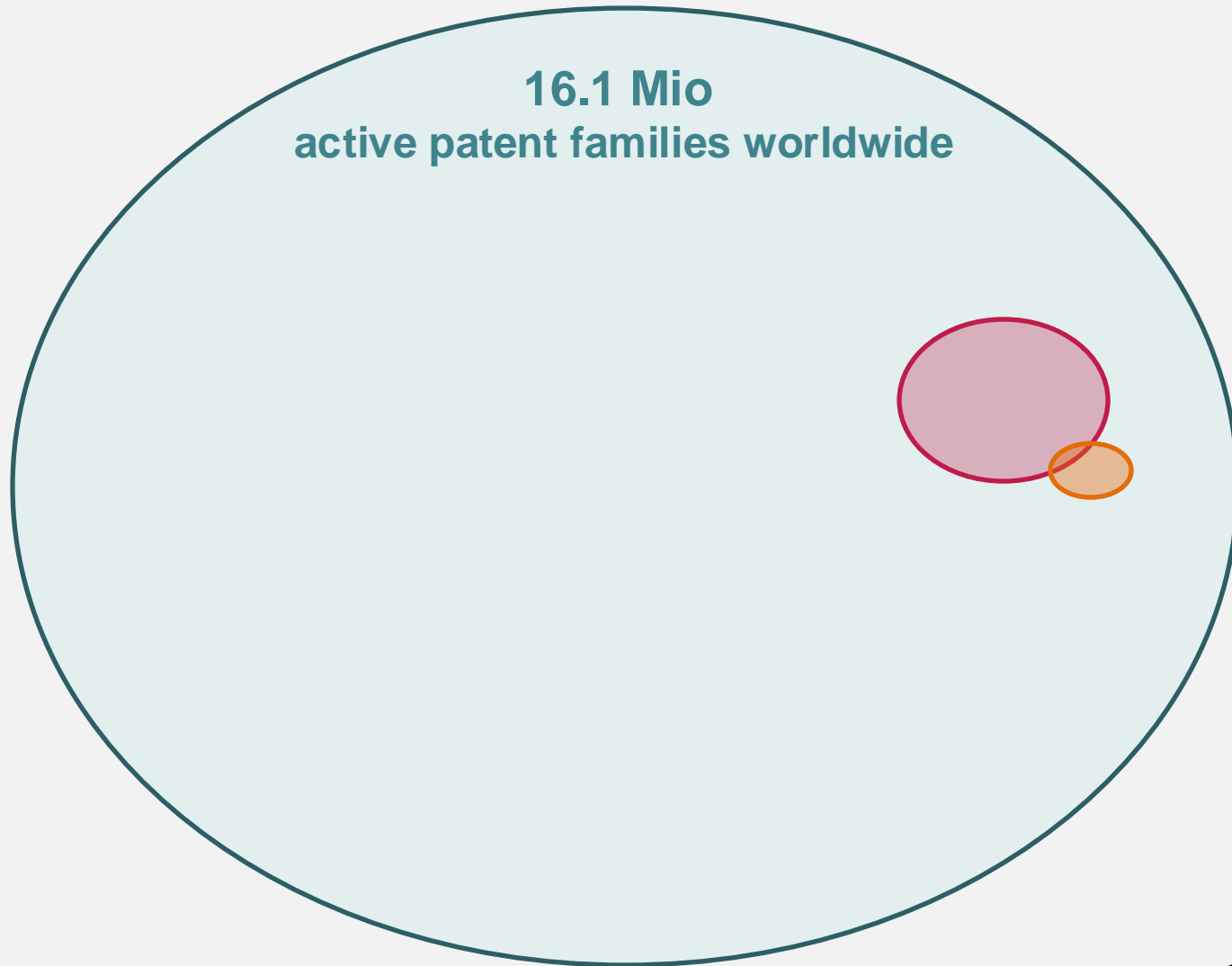
ageing OR elderly OR elderlies OR senescen\* OR immunosenescen\* OR geriatr\* OR gerontol\*



## IPC subclasses







16.1 Mio  
active patent families worldwide

**~500'000 Biotech\* patents (3%)**

**~29'000 patents relating to  
Ageing (0.2%)**

## Overlap

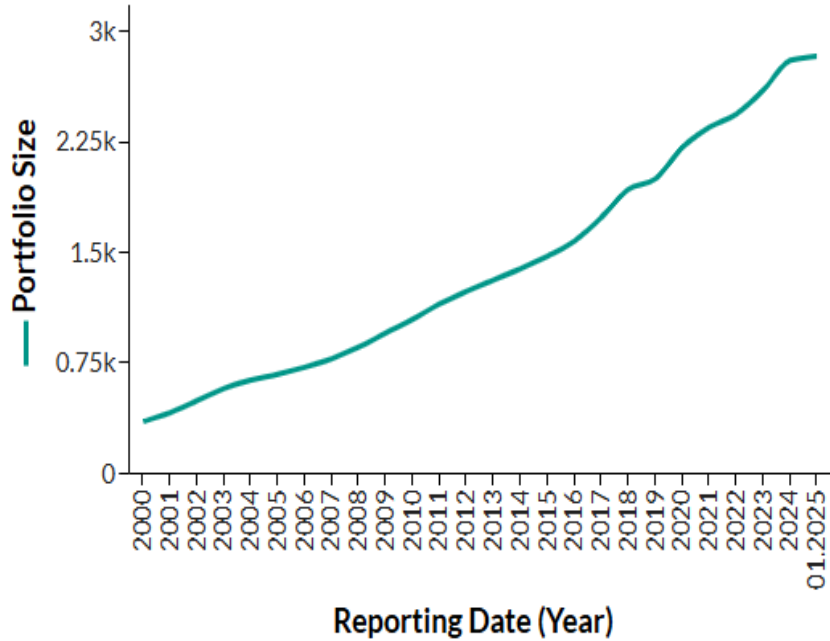
**Ageing AND Biotech:**

**~2'800 (<10% of Ageing)**

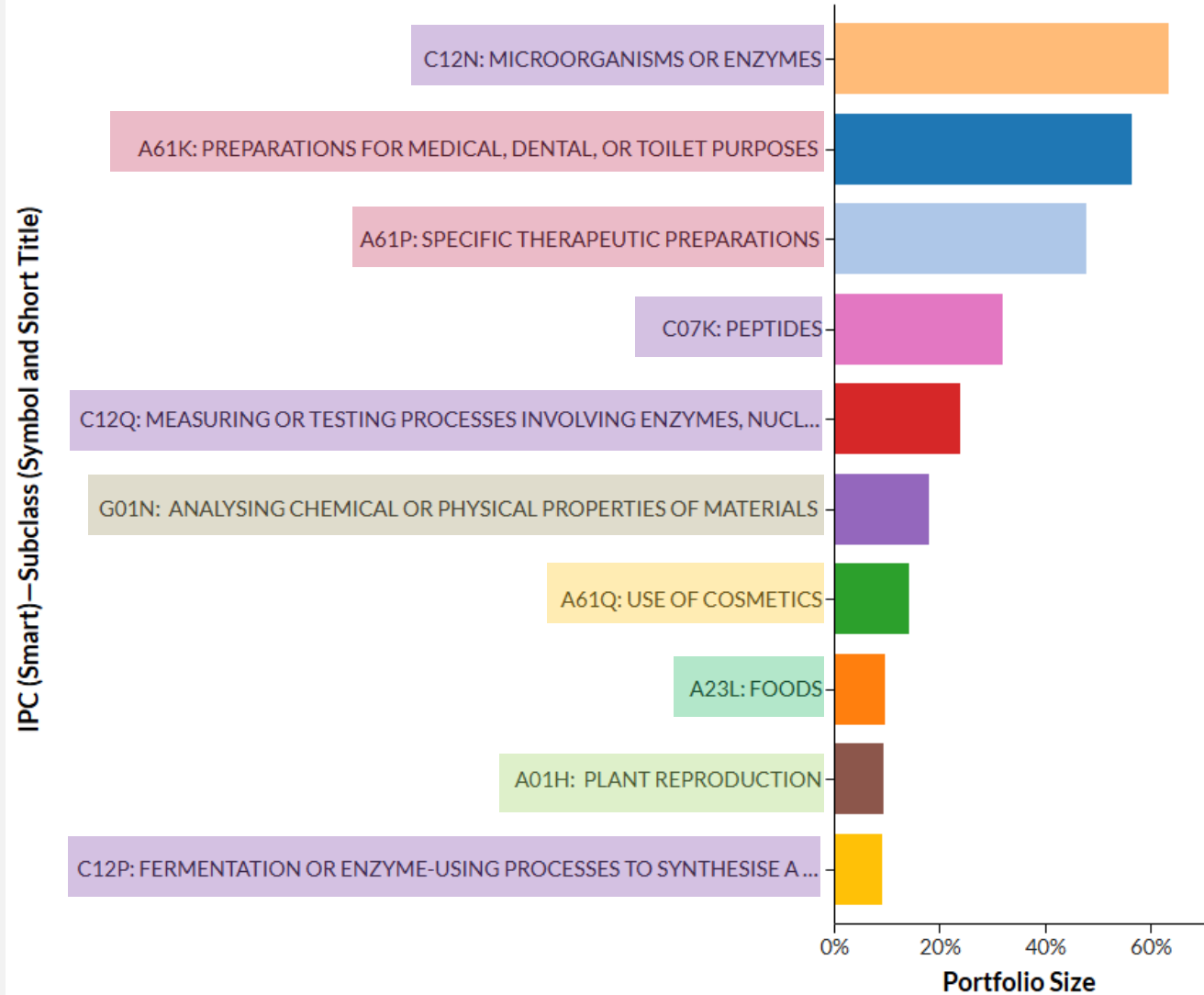


# Ageing AND Biotech patents

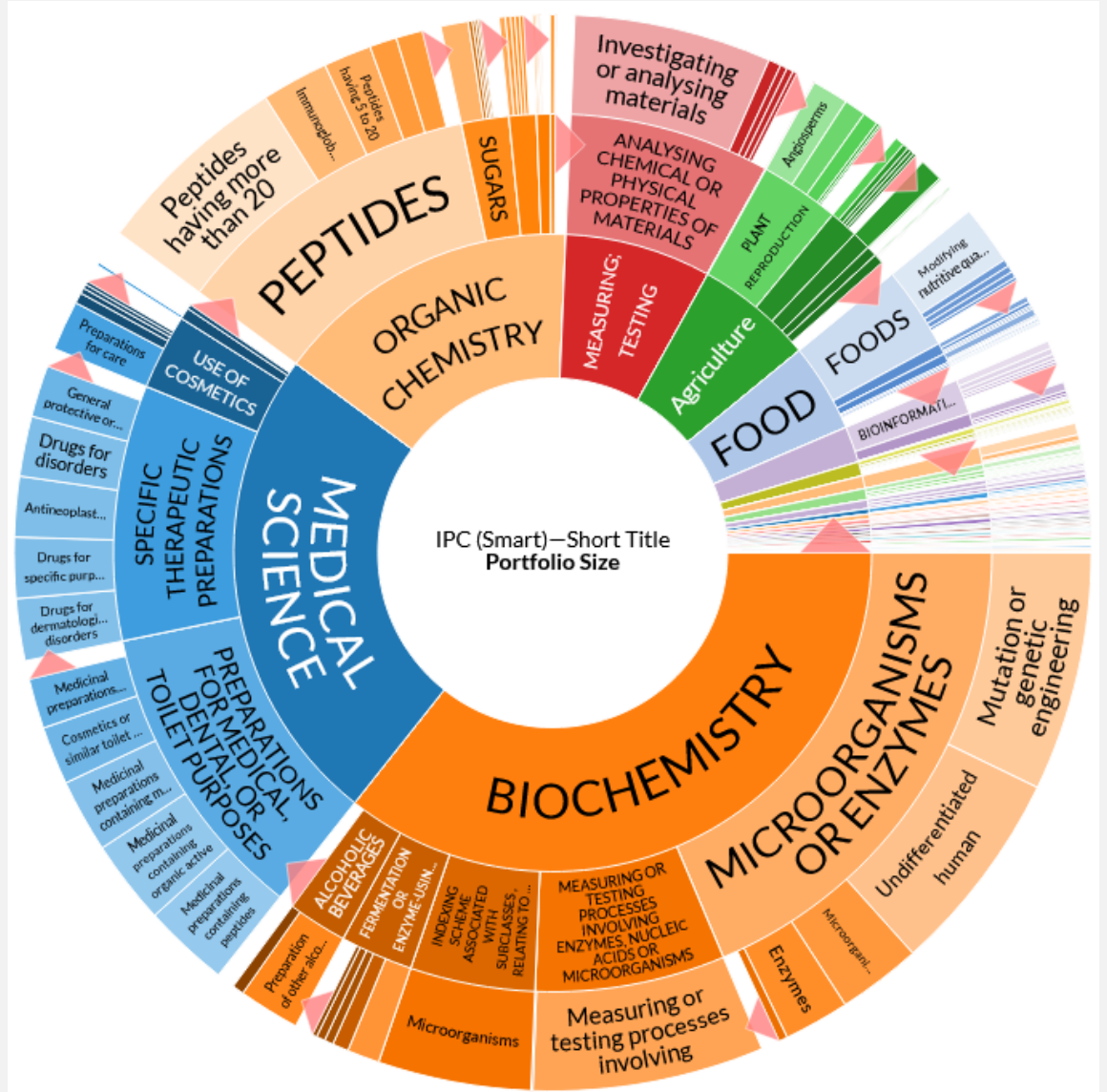
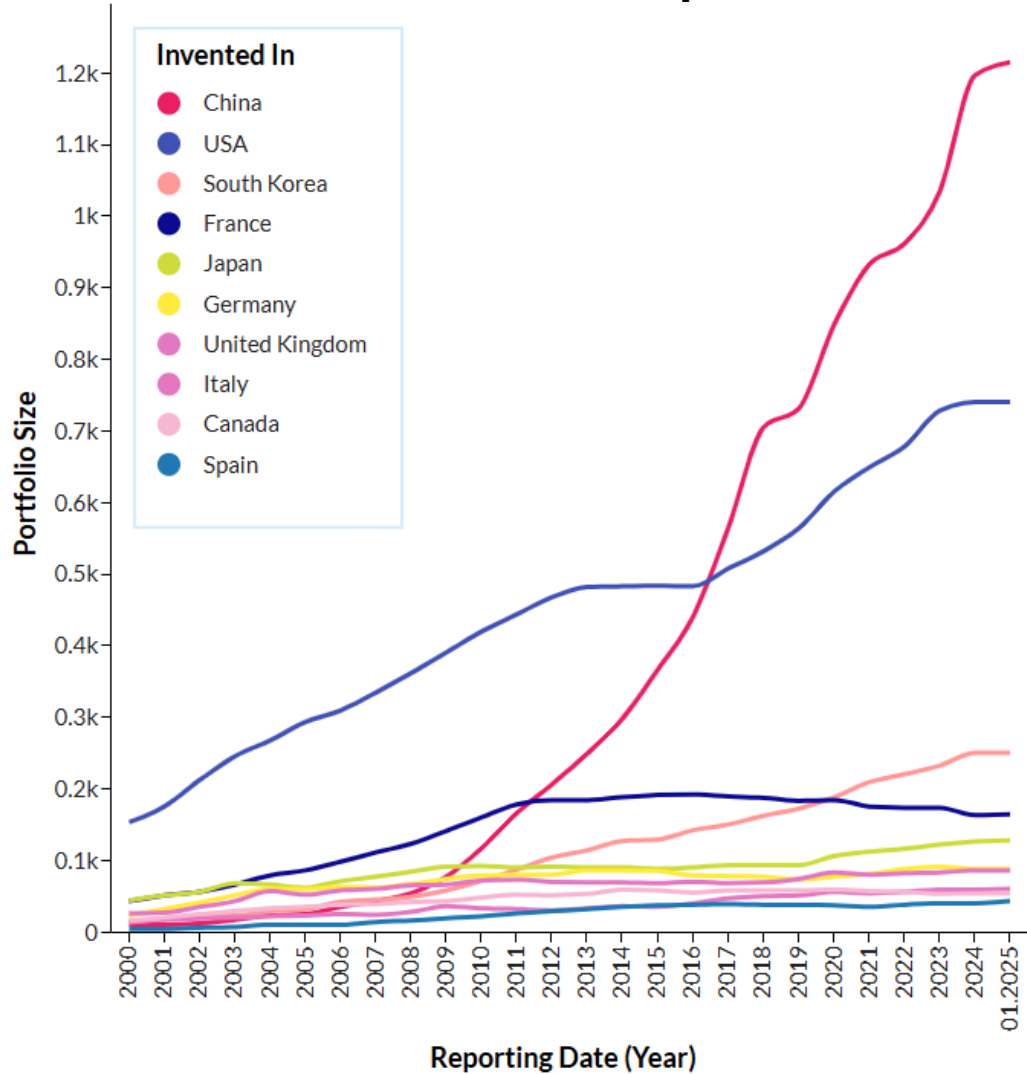
## 2'800 active patent families



## IPC subclasses



## Origin of inventors 2'800 active patent families





# Ageing AND Biotech patents

IGE | IPI

[EP3843756A2](#)

**METHODS OF TREATING AGING-RELATED DISORDERS**

[WO2023249078A1](#) **SENESCENCE INHIBITOR**

[WO2014027864A1](#) **LACTIC ACID BACTERIA CAPABLE OF PREVENTING AND/OR TREATING SENESCENCE AND DEMENTIA**

[EP4301843A1](#) **NOVEL DEPOLYMERIZED EXOPOLYSACCHARIDES, DERIVED FROM MICROALGAE,  
...AND USES THEREOF IN COSMETICS FOR DELAYING THE EFFECTS OF SKIN AGEING**

[WO2023147605A2](#) **SENESCENT CELL SURFACE MARKERS**

[CN119265127A](#) **A METHOD FOR PREPARING A BIONIC BRAIN ORGAN FOR SIMULATING THE BRAIN OF AN ELDERLY PERSON**



## [EP3500798A1](#) ESTABLISHING A DEGREE OF BROWNING OF FOOD TO BE COOKED

The invention relates to a method for establishing a degree of browning of food to be cooked (G1-G3) in a cooking chamber (2) of a **household cooking device** (1), which household cooking device (1) has a **camera** (7) directed into the cooking chamber (2) and a **light source** (8) for illuminating the cooking chamber (2)

12. Method according to one of the preceding claims, wherein a **reduction in the brightness of the light source (8) due to ageing is compensated.**

## [EP1751278A2](#) NICOTIANA NUCLEIC ACID MOLECULES AND USES THEREOF

The present invention features Nicotiana nucleic acid sequences such as sequences encoding constitutive, or ethylene or **senescence induced polypeptides**, in particular cytochrome p450 enzymes, in Nicotiana plants and methods for using these nucleic acid sequences and plants to alter desirable traits, for example by using breeding protocols.

## Filter «ageing» by patent classifications defining the main specific fields of application

Full-Text Search  Title  Abstract  Claims  Description

ageing OR elderly OR elderlies OR senescen\* OR immunosenescen\* OR geriatr\* OR gerontol\* 187838 documents

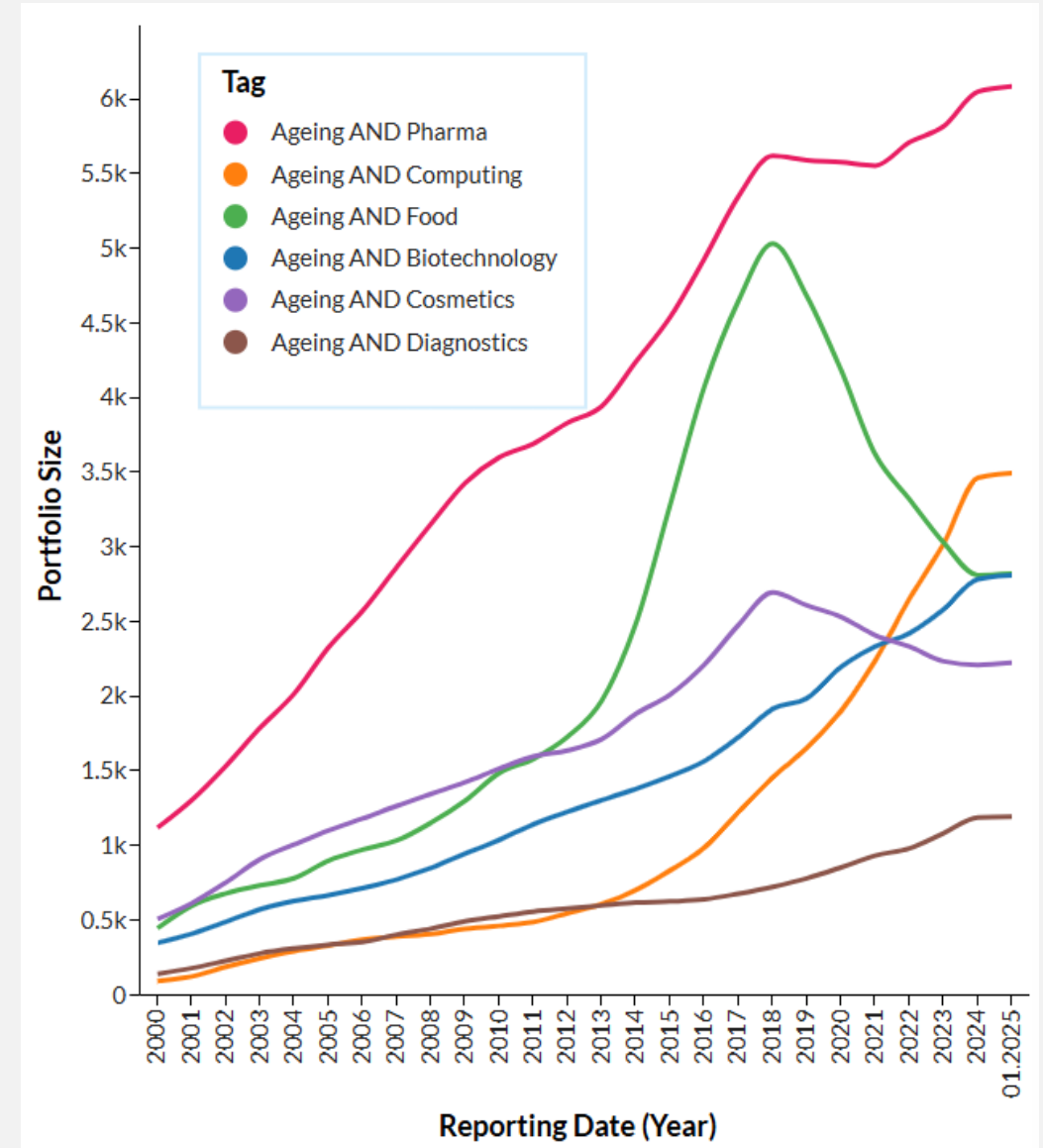
AND (

IPC (Smart)  A61K 31  A61K 35  A61K 36  A61K 38  A61K 39  A61K 47  A61K 48  A61P  Add

OR

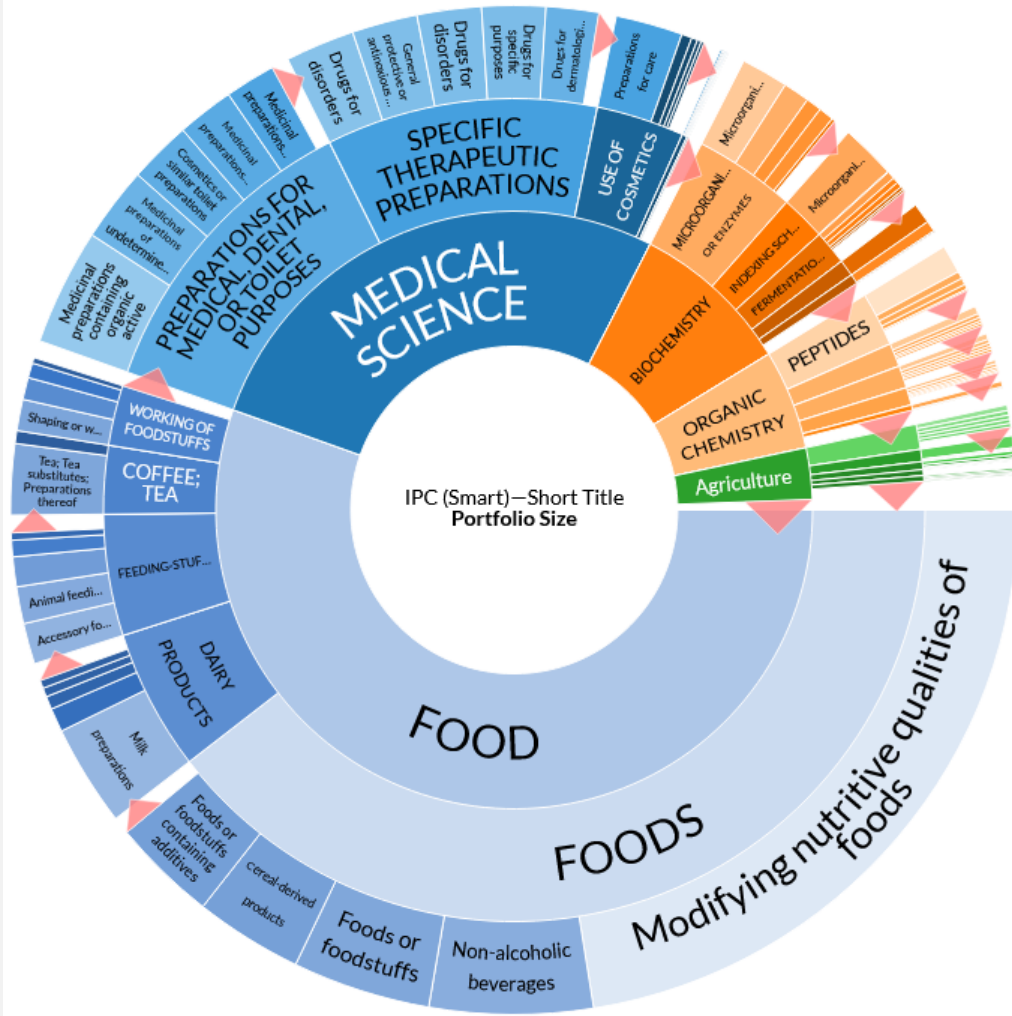
### Pharmaceuticals

CPC (Smart)  A61K 31  A61K 35  A61K 36  A61K 38  A61K 39  A61K 47  A61K 48  A61K2039  A61P  Add

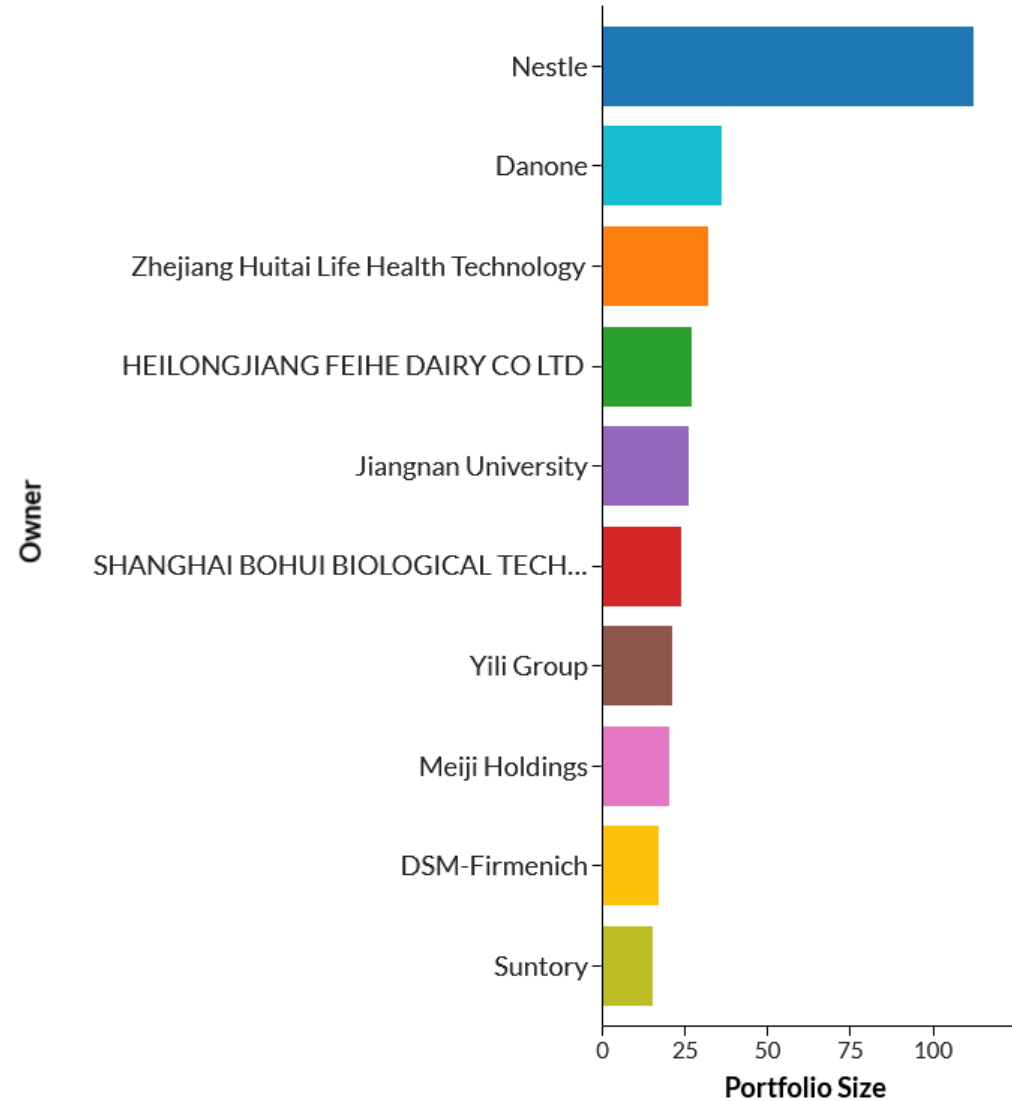




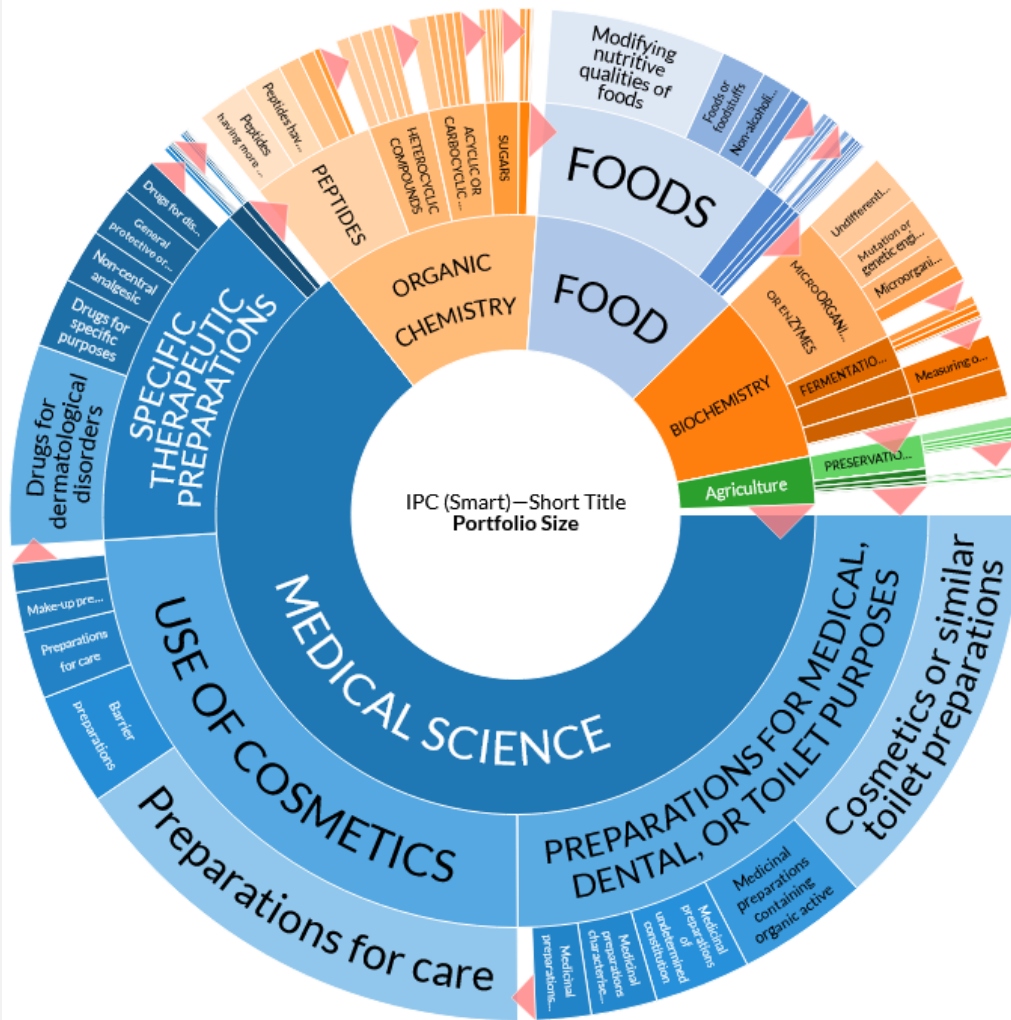
## 2'809 active patent families



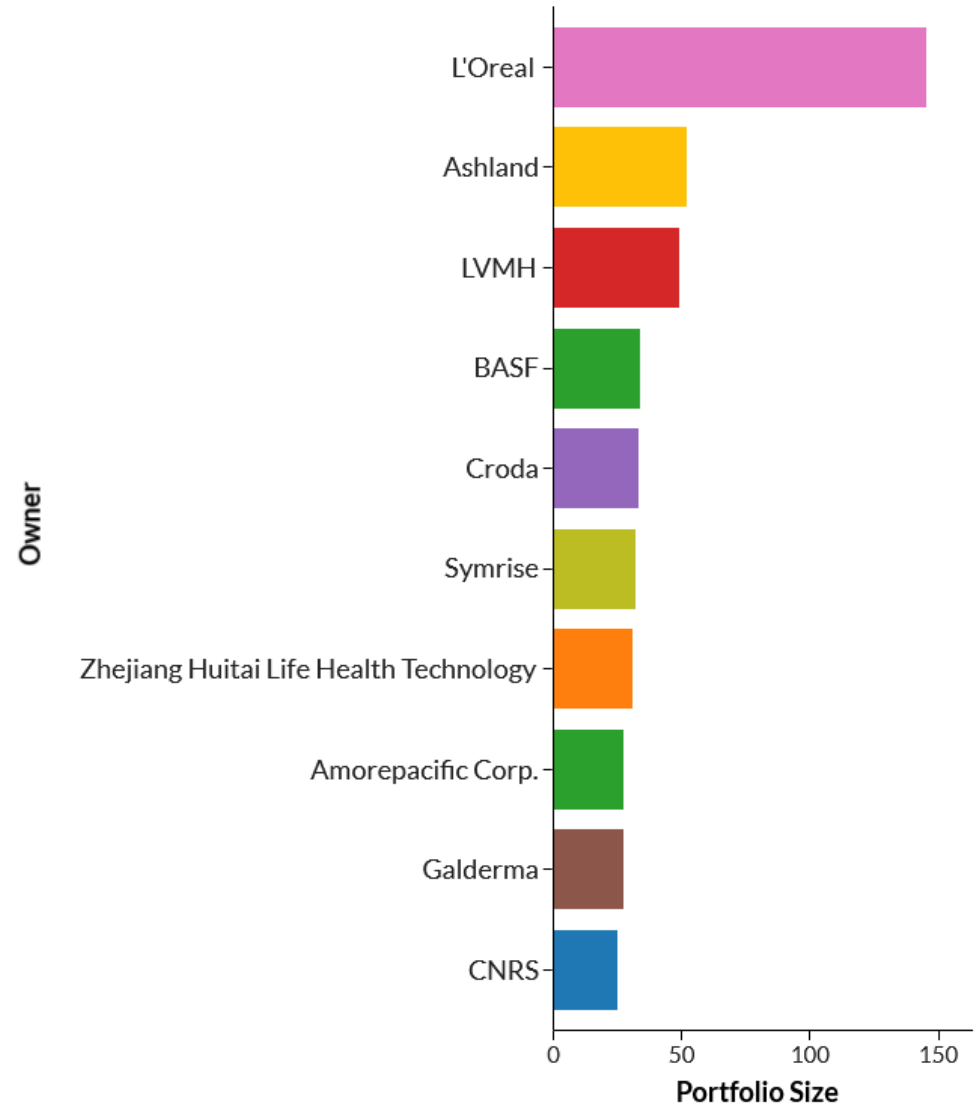
## Top 10 owners



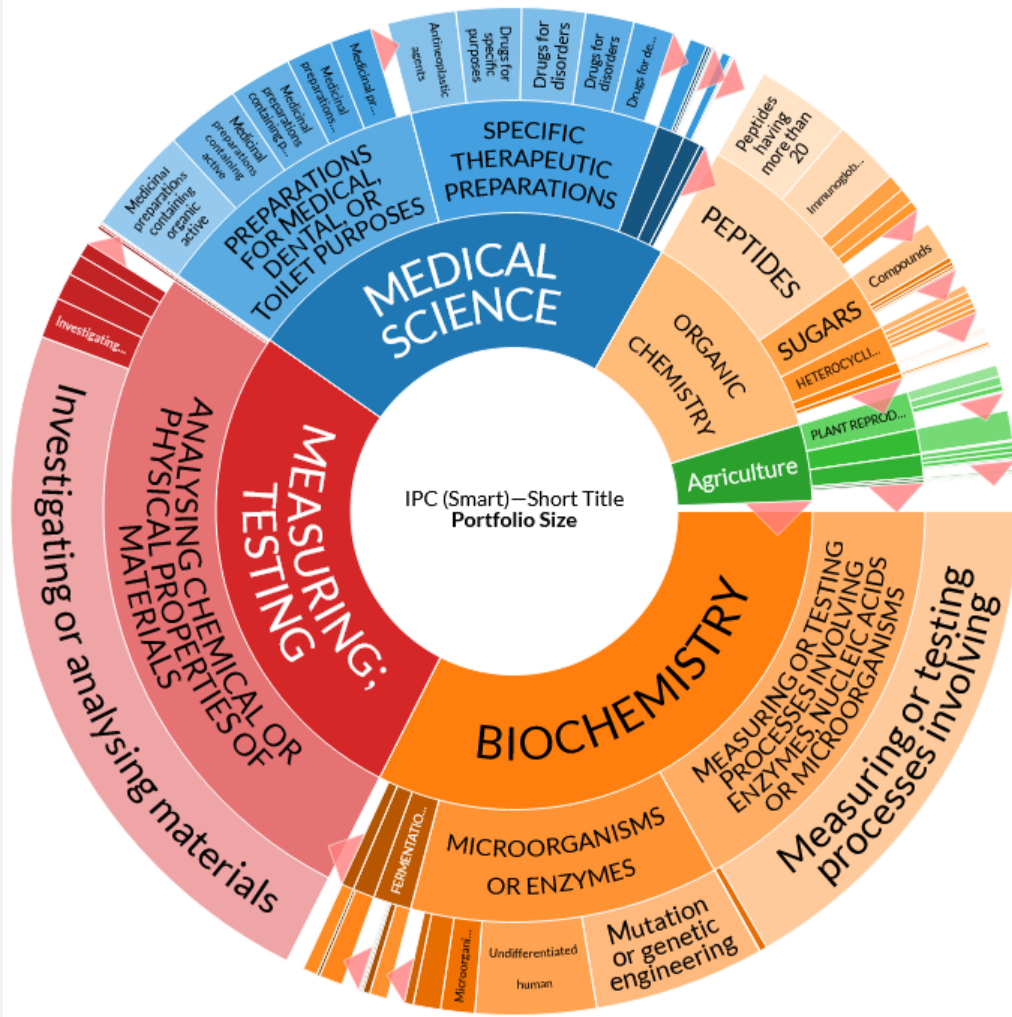
## 2'214 active patent families



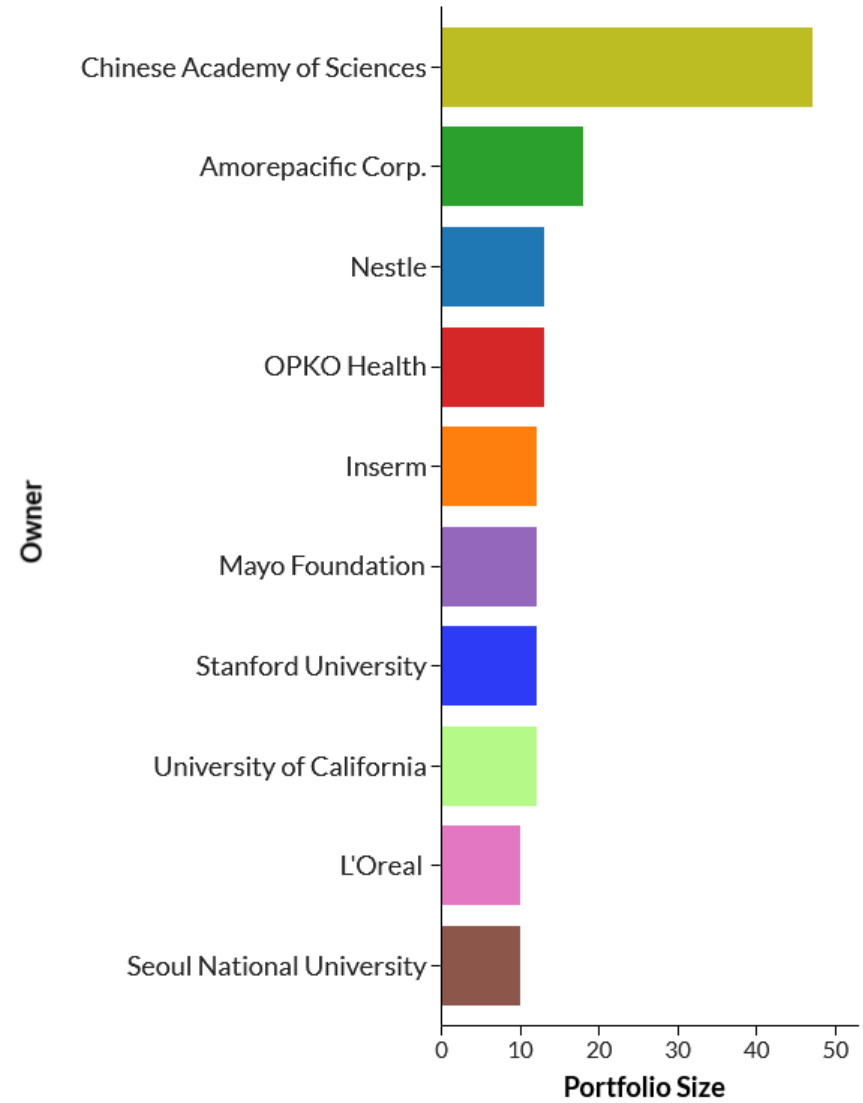
## Top 10 owners



## 1'185 active patent families



## Top 10 owners





- The keywords retrieve around 0.2% of all patents
- Still, these patents are highly diverse: **ageing is not limited to biology**
- Overlapping «ageing» with the established biotechnology filter yields the tip of the iceberg
- «Ageing» combined with more specific classifications yields conciser collections: Pharma, Food, Cosmetics, Diagnostics, Computing



# Curious to learn more about patents and searches? Check out the IP Academy

<https://www.ige.ch/en/services/ip-academy>

## Ad hoc information

Discuss your initial questions about patents, trade marks and designs **directly with an expert.**

## Workshops

Learn the basics or cover specific topics in short **Workshops** in small groups.

## Courses

Take a closer look at IP rights and consolidate your knowledge with practical exercises in our one-day and multi-day **courses.**

# Thank you



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