



INDUSTRY HIGHLIGHTS

GEOGRAPHICAL SPREAD ON CHEMPHARMA PATENTS

AUGUST 2022

INTRODUCTION

Chempharma originated in the early 19th century, and its development has played a vital role in human society. From the perspective of patents, there are many patents related to chempharma, and many large pharmaceutical companies have laid out a large number of patents in various countries. At present, there are more than two million patents related to chempharma. This report will briefly analyze the geographical distribution of chempharma.

GENERAL INFORMATION

In the past few decades, the annual application volume of global chempharma patents has been on the rise. Especially after 2016, the application volume has increased significantly (as shown in **Figure 1**).

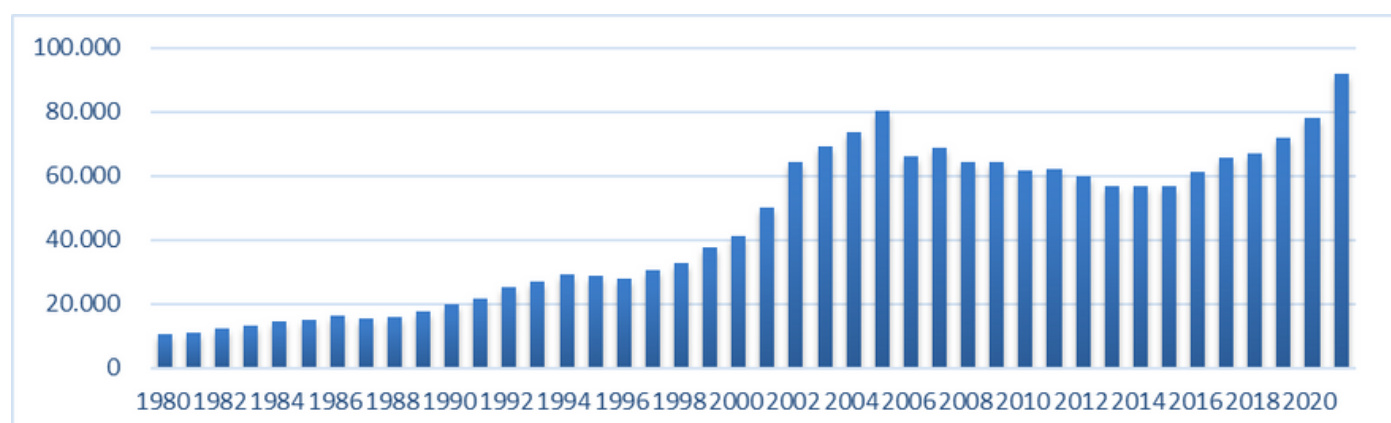


Figure 1 Patent publication trend of chempharma patents

GEOGRAPHIC TERRITORIES

In terms of technology origin, the United States is the country that applies for the most chempharma patents, accounting for 41.76%, far exceeding other countries. At the same time, Japan, China and Great Britain also have a large number of patent applications in the field of chempharma (as shown in **Figure 2**).

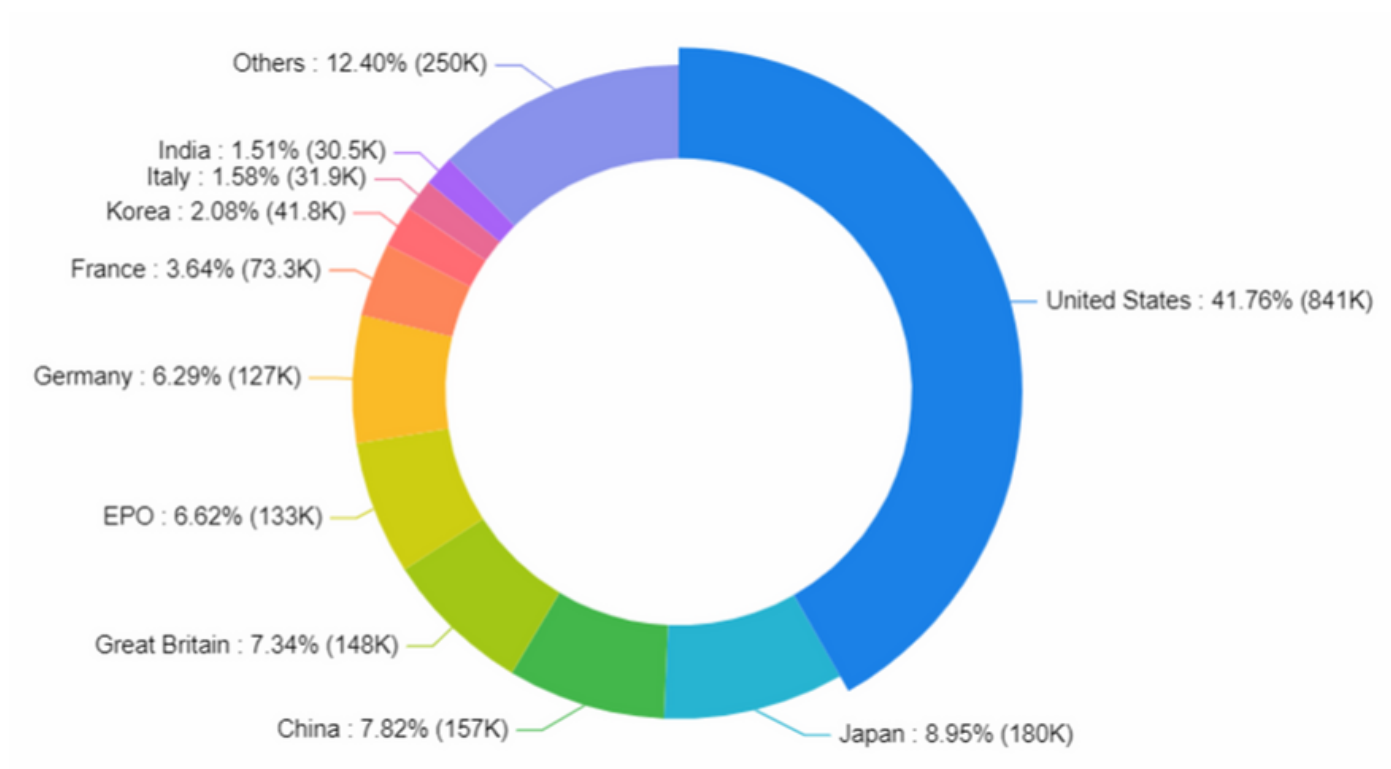


Figure 2 Top countries of origin

GEOGRAPHIC TERRITORIES

According to the statistics of the trend of patent application in the chempharma field in the above countries in recent years, it can be found that the patent application volume in the United States has been kept at a high level, the patent application volume in Japan and the United Kingdom has shown a downward trend, and the patent application volume in China has increased year by year (as shown in **Figure 3**).

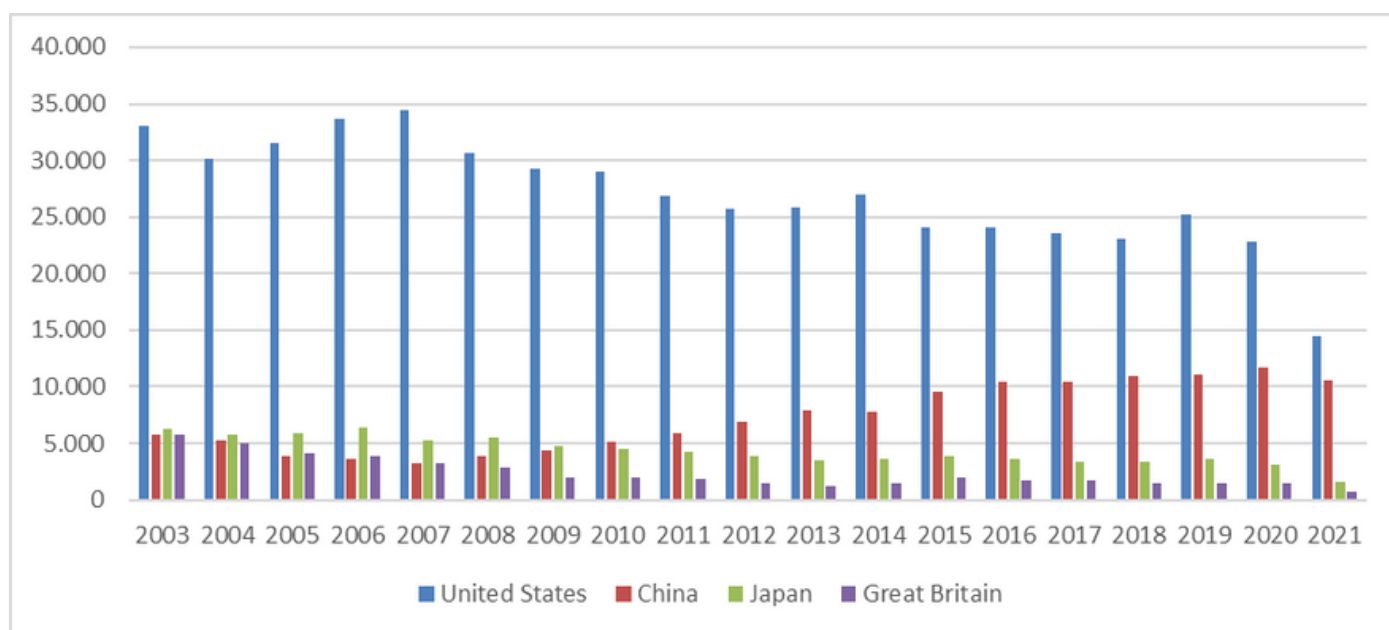


Figure 3 Top countries of origin trend

GEOGRAPHIC TERRITORIES

By analyzing the target countries of patents in the field of chempharma, it can be found that the United States, China, WIPO and Japan all accept the largest number of patents, while other countries also have a large number of patent applications. This is in sharp contrast to the patent origin in this field (as shown in **Figure 4**). Further analysis shows that China's market attention has increased significantly in recent years. After 2013, the number of patent applications accepted by China exceeded that of the United States (as shown in **Figure 5**).

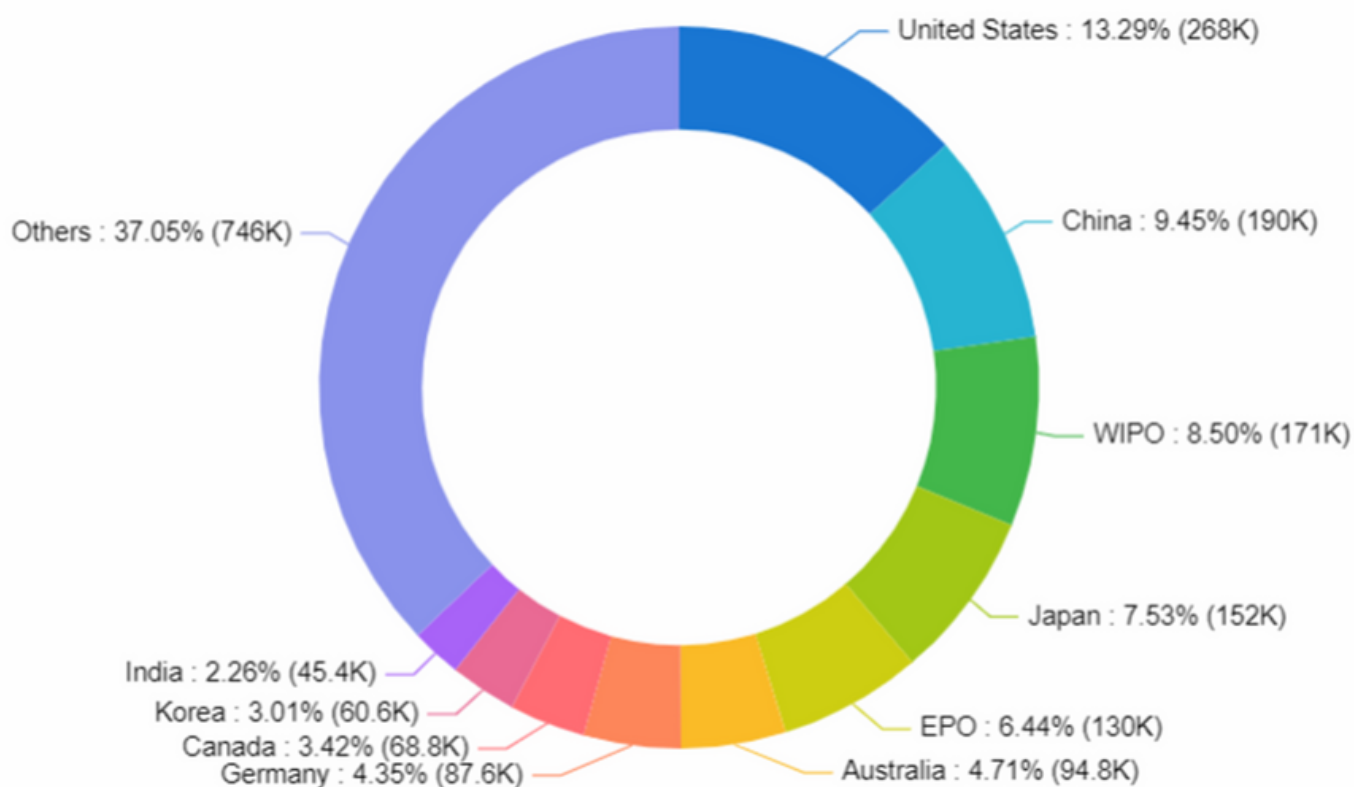


Figure 4 Top countries of target

GEOGRAPHIC TERRITORIES

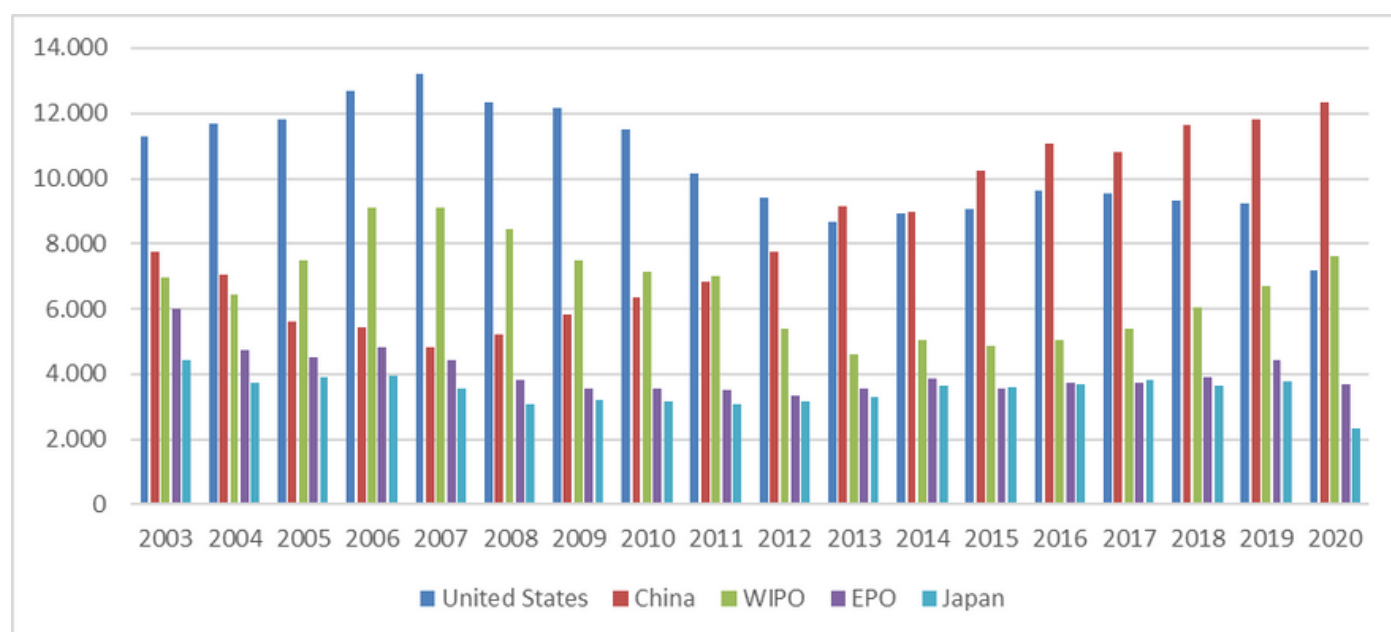


Figure 5 Top countries of target trend

Through further statistical analysis of the territory distribution of IP5 patents, it can be found that the United States has also applied for a large number of patents in other countries, in addition to more patents in its own country. This may also be the reason for the large difference in the distribution of patents in the chempharma field between the source countries and the target countries (as shown in **Figure 6**).

GEOGRAPHIC TERRITORIES

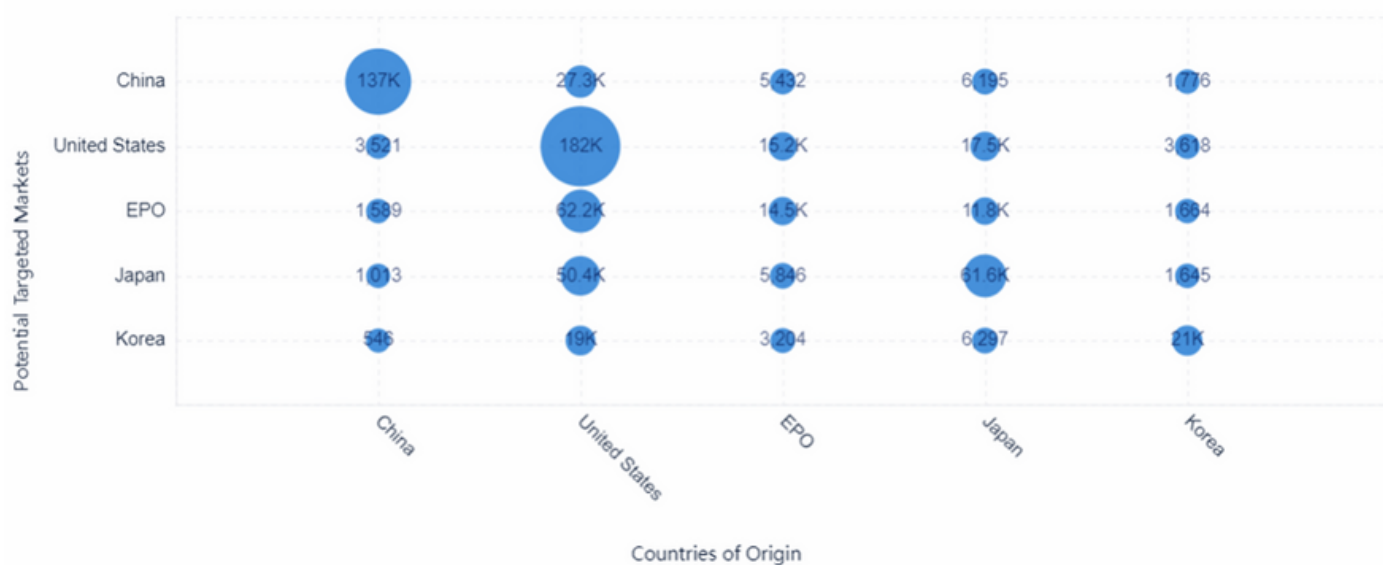


Figure 6 IP5 territory distribution

KEY TECHNOLOGIES



Figure 7 The top 10 IPC classification numbers

According to the statistics of the top ten IPC in the current chempharma field, it can be found that the number of patent applications corresponding to A61K31 (Medicinal preparations containing organic active ingredients) is the largest (as shown in **Figure 7**). The United States, Japan and China also have the largest number of patent applications in this field. It shows that organic chempharma in the field of chempharma are the most concerned (as shown in **Figure 8**).

KEY TECHNOLOGIES

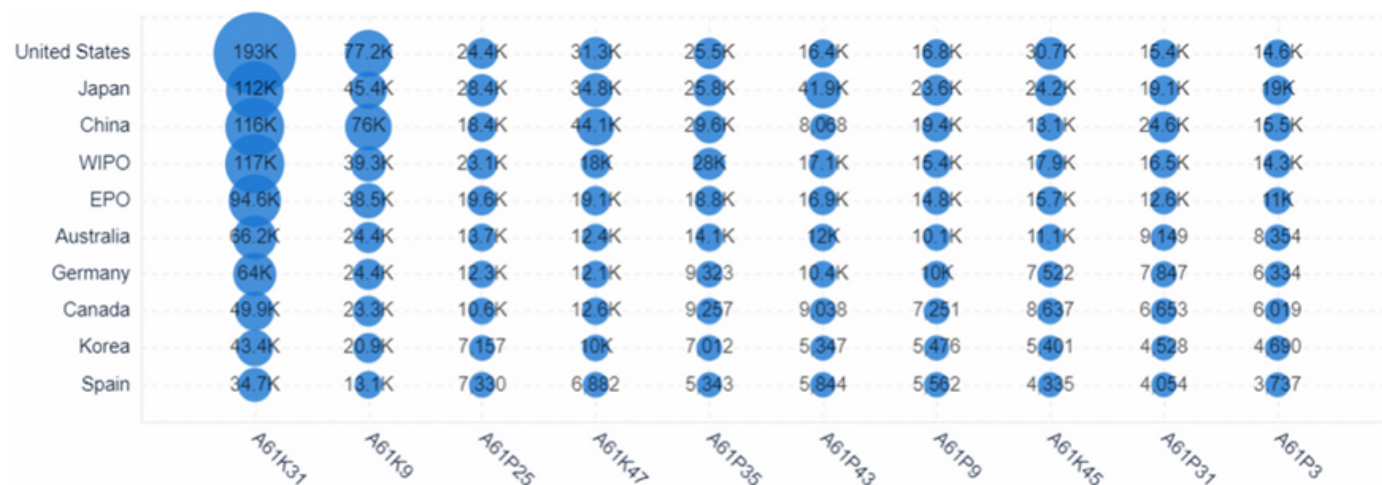


Figure 8 Geographic distribution of key technologies

STANDARDIZED CURRENT ASSIGNEES

Through the analysis of patent applicants in the chempharma field, it can be found that NOVARTIS AG has the largest number of patent applications in this field, followed by F HOFFMANN LA ROCHE & CO AG and PFIZER INC. It can be seen that the main applicants in the chempharma field are concentrated in the United States and Europe (as shown in **Figure 9**).

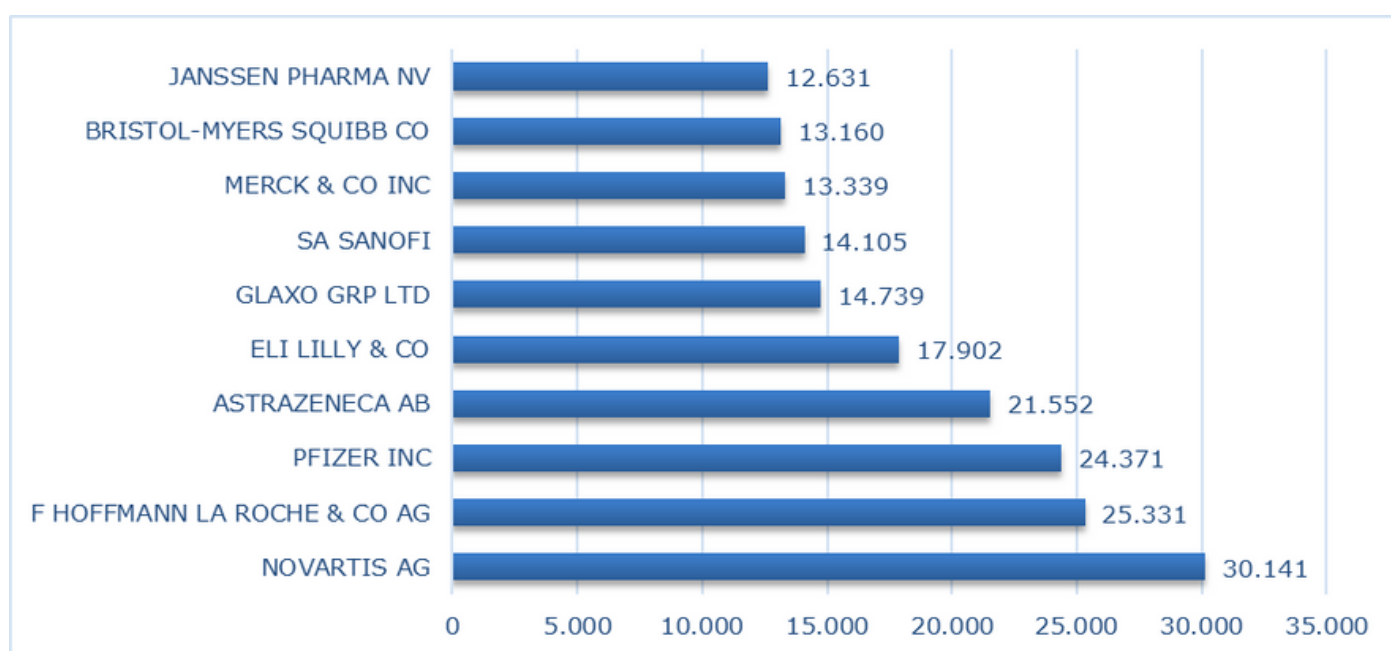


Figure 9 The top 10 standardized current assignees

CONCLUSION

There are many chempharma patents, and the United States, Europe, China and Japan are the most important technology origin countries in this field. With the passage of time, the chempharma companies in the above countries not only applied for a large number of patents in their own countries, but also gradually increased their attention to the foreign market, thus making the distribution of chempharma patents more dispersed in the geography.

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