

GENEVA PHARMA FORUM

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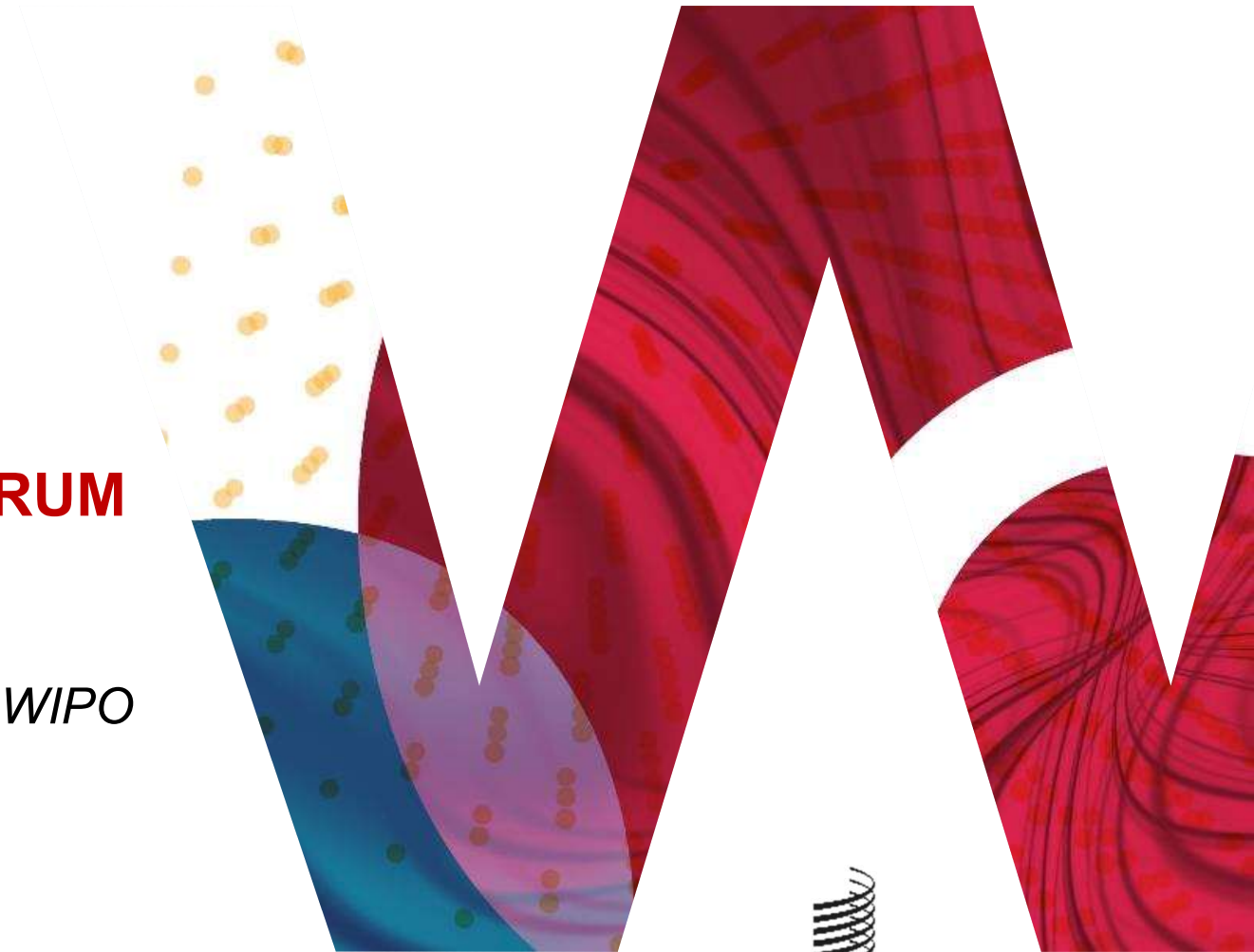
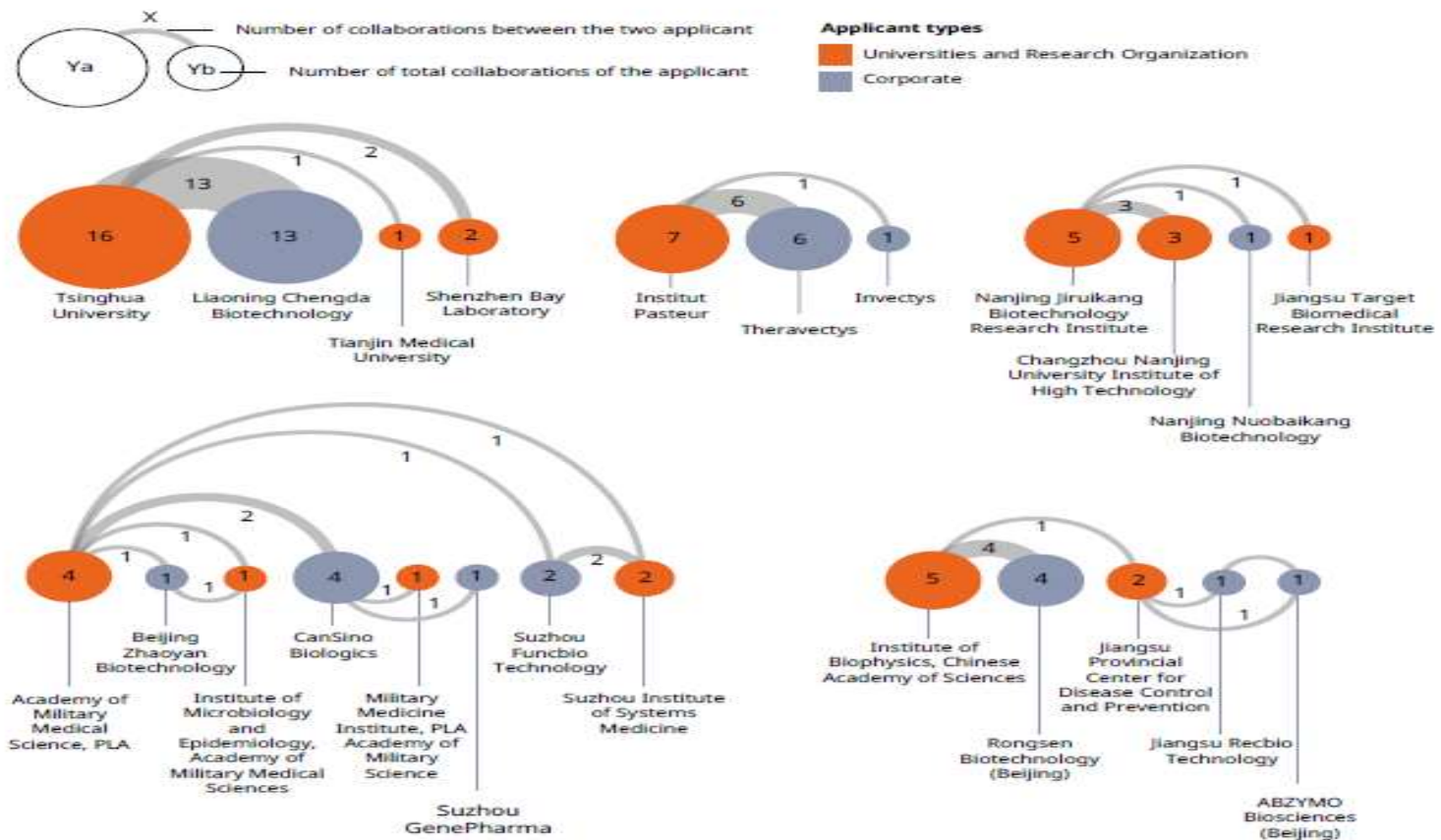


Figure 11. Network analysis of the top collaborating entities in COVID-19 vaccine patent applications

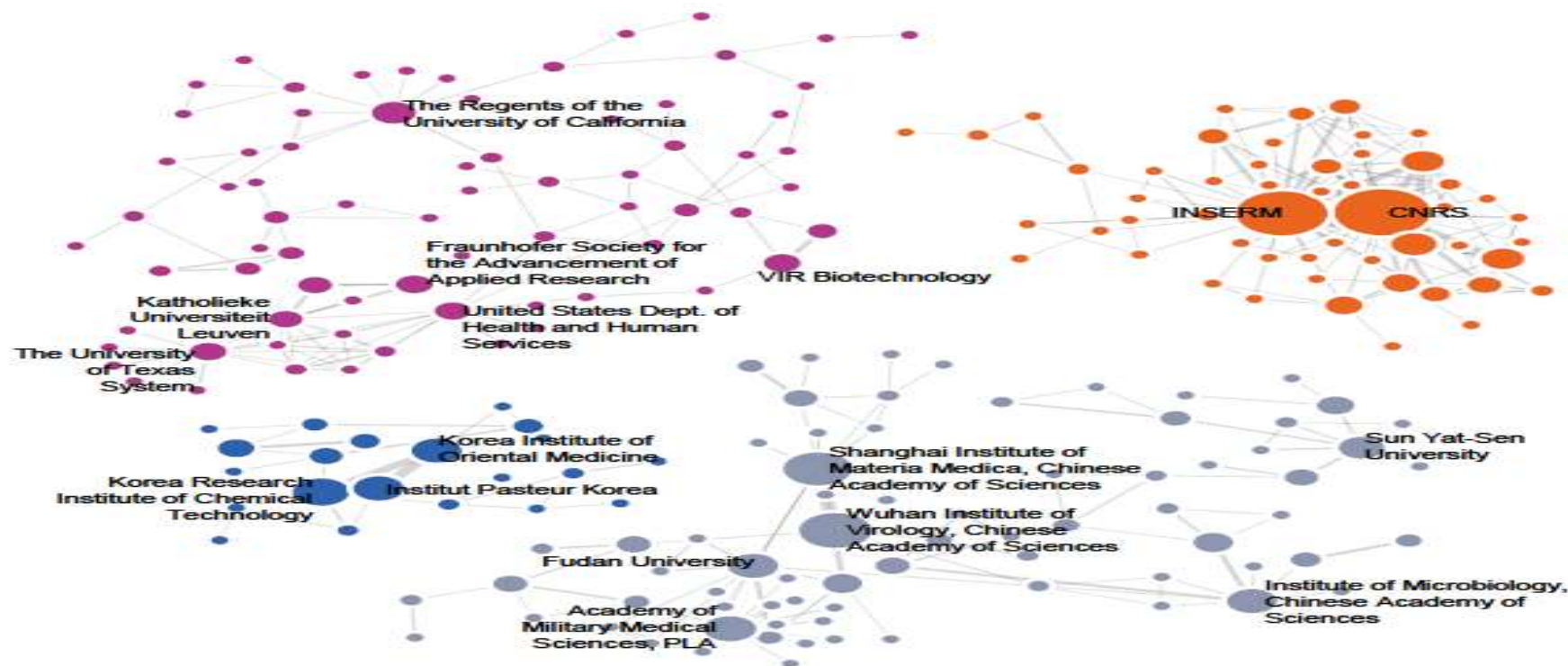
Among COVID-19 vaccine patents, Chinese companies and research institutions show greatest cooperation, followed by French corporates and research institutions.



Note: The chart illustrates the relationships between collaborators and their frequency as shown by the size of the circles. Source: WIPO, based on patent data from the CAS Content Collection, September 2022.

Figure 15. Network analysis of top collaborating entities in COVID-19 therapeutic patent applications

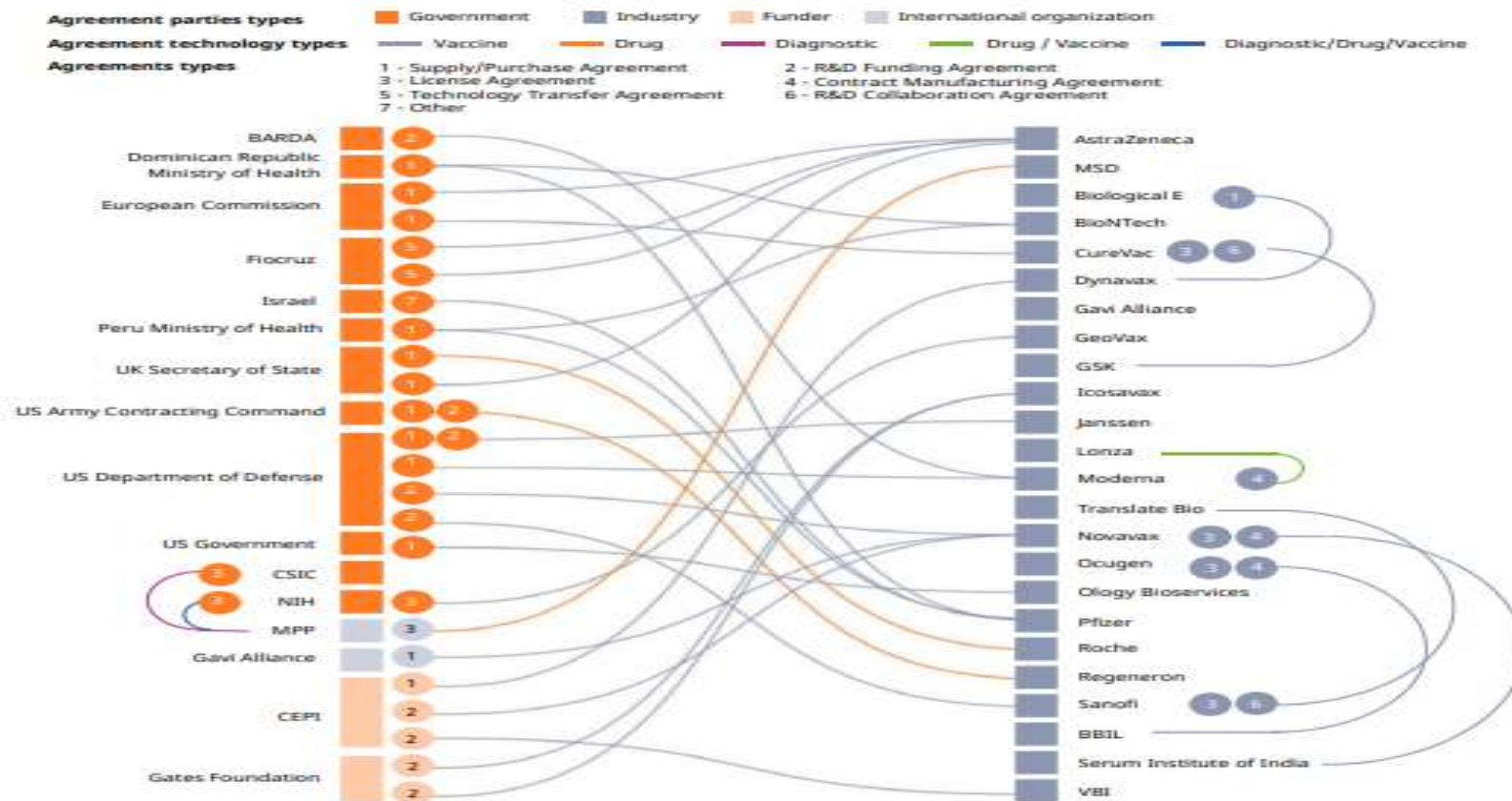
Analysis shows four main collaborating communities: a community primarily composed of United States and European universities and research institutions (purple), a group centered around two French research institutions, CNRS and INSERM (orange), a group centered around research institutions from the Republic of Korean (blue) and a group primarily composed of Chinese corporate entities and research institutions (gray).



Note: the chart illustrates the relationship between collaborators and their frequency as shown by the size of the circles. CNRS, Centre National de la Recherche Scientifique; INSERM, Institut National de la Santé et de la Recherche Médicale. Organizations were identified using patent applicant names and the number of times a pair was found together in the therapeutic dataset. In this approach, a single patent in the dataset may be counted more than once, depending on the number of patent applicants.

Source: WIPO, based on patent data from the CAS Content Collection, September 2022.

Figure 8. Agreements for COVID-19-related technology
Funding, purchasing, licensing and R&D collaboration agreements for COVID-19-related vaccines, diagnostics and drugs among global government entities, industries and organizations.



Note: BARDA is the Biomedical Advanced Research and Development Authority; CEPI is the Coalition for Epidemic Preparedness Innovations; CSIC is the Consejo Superior de Investigaciones Científicas (Spanish National Research Council); NIH is the National Institutes of Health.
 Source: WIPO, based on information from the GHIAA.