

Big picture science

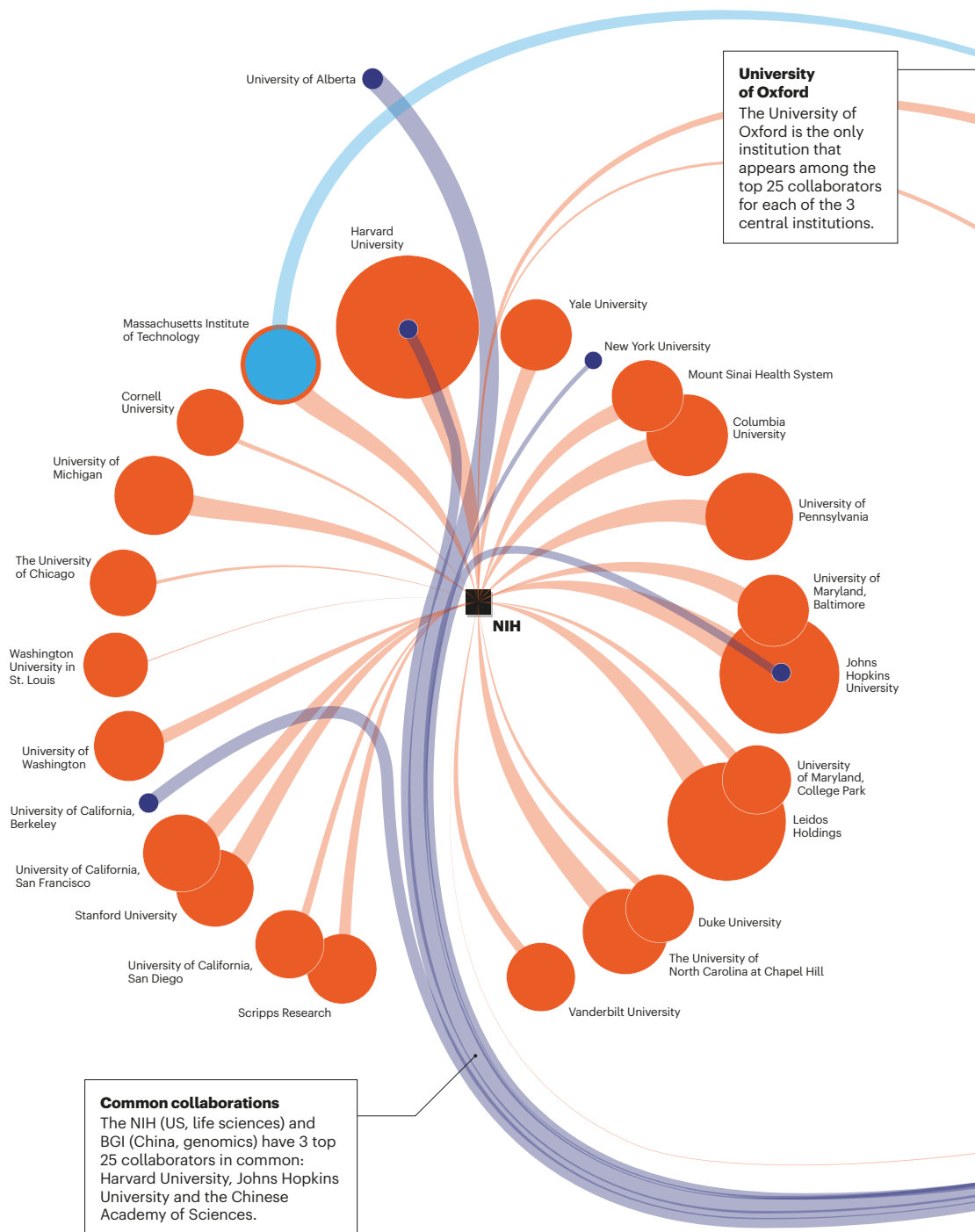
Across continents and research fields, big science is a global enterprise, yet even for leading collaborators, the strongest partnerships are mainly local. **Data analysis by Bo Wu; infographic by Alisdair MacDonald**

COLLABORATIVE CLUSTERS

The infographic shows the top 25 research partners of big science leading collaborators in 3 fields: high-energy physics, life sciences and genomics.

The Nature Index ranks institutions in the big science fields by their fractional counts (FC), referring to the share of their affiliated authors' contributions, and article counts (AC) in 82 high-quality journals. The table rankings (pages S39–S42) are for high affiliation articles only, meaning those with authors from 10 or more separate principal institutions.

The partner relationships shown are for the US National Institutes of Health (NIH), which ranks 2nd among the world's top institutions for producing big science research articles in the field of oncology and immunology (see page S42) and 3rd in the field of genetics (see page S39); the European Organization for Nuclear Research (CERN), in Switzerland, which is the 3rd biggest contributor to big science articles in physics and astronomy in the Nature Index (see page S40–S41); and BGI, a genome sequencing company that is China's biggest contributor to big science in genetics (see pS39). This infographic is based on all collaborative articles from the three institutions identified, regardless of the number of affiliations.



SOURCE: NATURE INDEX/DIMENSIONS FROM DIGITAL SCIENCE

LEGEND

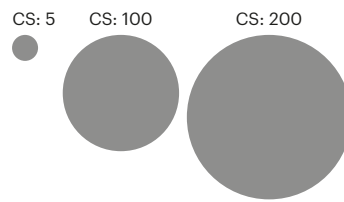
The top 25 collaborators of the three central institutions are shown according to their joint collaboration score (CS) with the central institution, derived by summing the FCs* from articles with authors from both institutions. CS determines the size of the partner institutions' bubbles. The rank from 1 to 25 of their CS with the central institution is indicated by their line weight.

* For a definition of FC, see Collaborative clusters.

Institution



Collaboration score (CS) by bubble size



Top CS ranking by line weight

