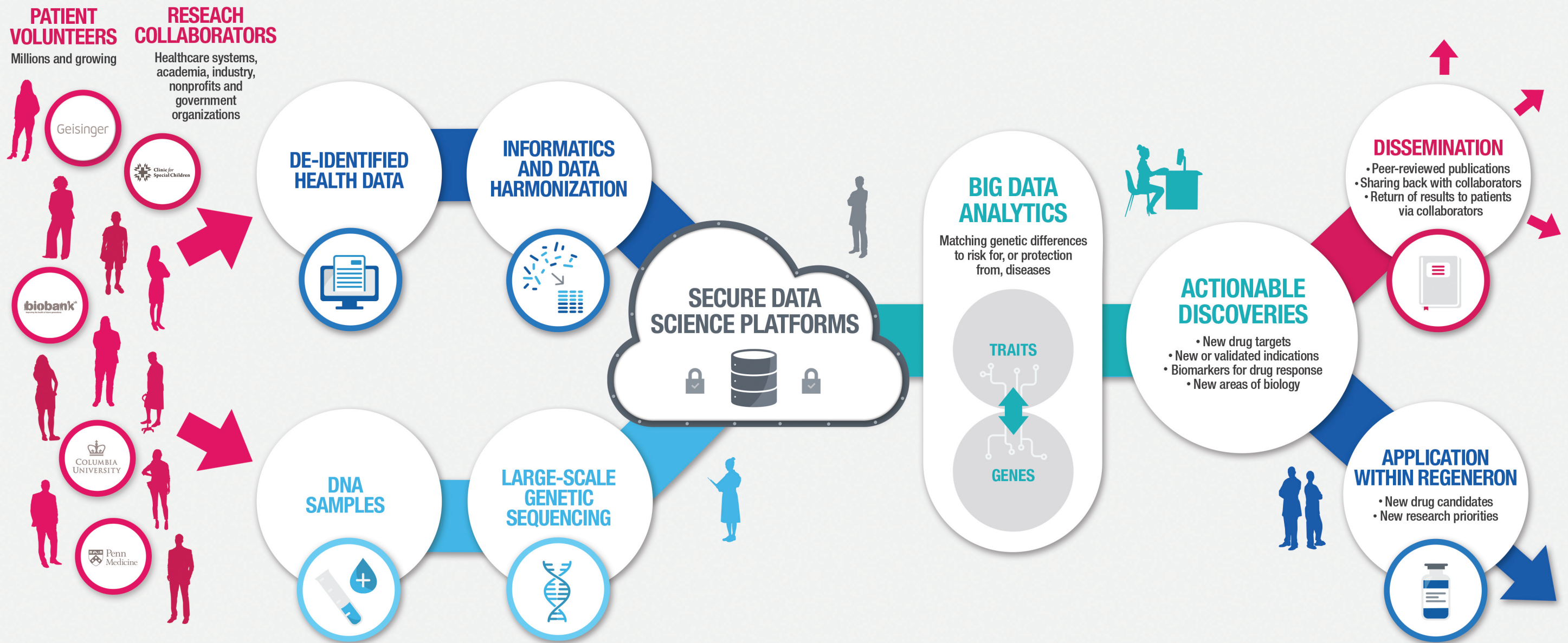


# DIVING DEEP INTO DATA FOR NEW MEDICAL BREAKTHROUGHS

The Regeneron Genetics Center (RGC) is accelerating drug discovery through one of the world's largest databases for genomic analysis of health and disease



A large network of collaborator institutions work closely with the RGC to gather and analyze data, exchange expert perspectives, and search for discoveries to transform patient care.

The RGC's DNA sequencing lab can currently process and sequence hundreds of thousands of exomes (the protein-coding portions of a person's genome) per year and continues to expand.

The RGC uses automated processing to organize and "harmonize" real-world electronic health records (EHRs) and clinical datasets to allow effective analysis of the data down the line.

To maintain one of the biggest genome centers in the cloud, the RGC utilizes fully automated analysis, innovative data science platforms, and integrated data security for secure storage and speedy health data retrieval.

Tapping into this vast data resource, the RGC team links phenotypes (health-related traits) and genotypes (genetic traits) to help uncover or validate therapeutic targets and make important discoveries in biology.

This approach leads to the RGC discoveries like the loss-of-function (LOF) mutation in the HSD17B13 gene that protects people from certain liver diseases; drugs that mimic this mutation are now under study.

Once a new drug or meaningful genetic finding is discovered, or a target validated, information is shared within Regeneron, with collaborators, and with the broader scientific community.