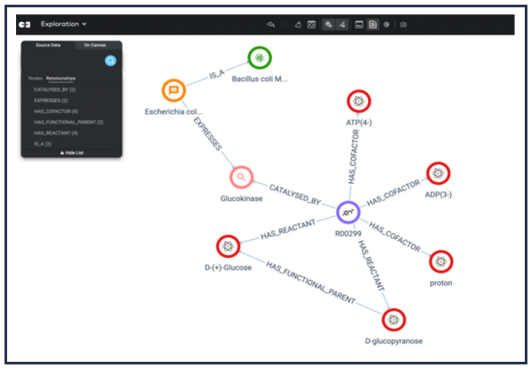
Gemini Explore for Life Sciences

Connect the dots and find your next breakthrough.

Life sciences and biotech companies generate massive amounts of data from research, clinical trials, and patient care. This data is often siloed and disconnected in separate systems and sit behind applications that are difficult to use. Uncovering the links between these data points is essential for forward momentum in areas of biotechnology like medication innovation, clinical trials, and public health.

Gemini Explore for Life Sciences uses graph technology to show biomedical data as a collection of nodes and relationships. By connecting diverse biomedical data sources, such as clinical trials, lab results, health records, genomic databases, and publications, researchers have a whole new way to find the connections between data points for extracting insights and decision-making.



Integrated and extensible biochemical knowledge through graph databases. (2017)

USE CASES

- DRUG DISCOVERY
- CLINICAL TRIALS
- DISEASE RESEARCH
- PERSONALIZED MEDICINE
- PUBLIC HEALTH

Precision Drug Discovery

Accelerating the process of drug discovery and development is more important than ever for organizations that want to survive in an ultra-competitive global marketplace. Gemini Explore provides an easy-to-use unified platform for data analysis and visualization to answer questions like:

- How can the structures, properties, and biological activities of existing compounds be used to design new drug candidates?
- Which genes, proteins, or pathways indicate drug resistance or sensitivity, and can they lead to better therapies or drug combinations?
- Can existing drugs be repurposed for new indications based on known targets, mechanisms of action, or pharmacological profiles?

By answering these questions, graph data can contribute to a better understanding of the complex factors affecting drug development and discovery, accelerate the identification and optimization of new drug candidates, and inform the design of more effective and safer therapies.

Clinical Trials in Context

Clinical trials can be expensive and time-consuming. Gemini Explore can help answer a wide range of questions about a clinical trial, providing valuable insights for researchers, sponsors, and other stakeholders. These insights can include:

- Which patients are eligible for a specific clinical trial based on demographics, medical history, and other criteria?
- What unexpected patterns or correlations suggest subgroups of patients could respond differently to a treatment?
- How does the trial's progress compare to projected timelines, and are there bottlenecks or issues that need to be addressed?

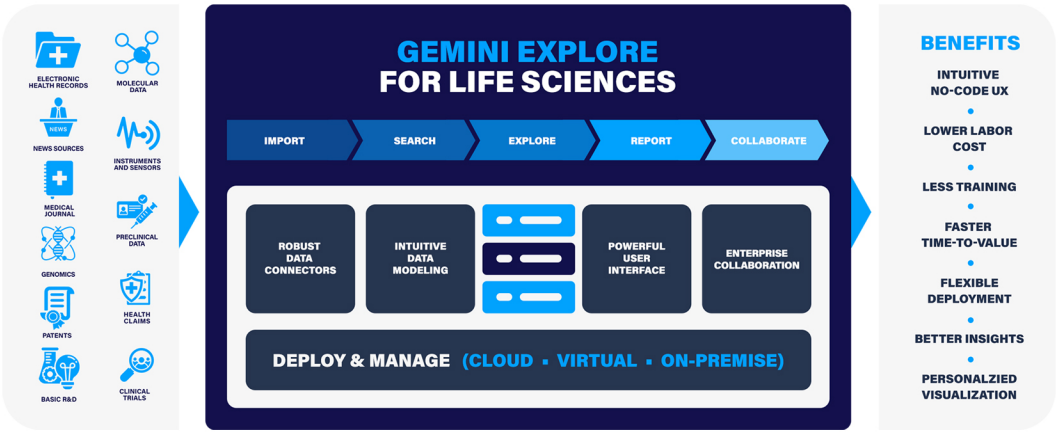
Gemini Explore helps to address these challenges, including innovations in trial design, data management, and patient engagement for increased collaboration between researchers, regulators, and industry partners.

Public Health Policy

Graph data can also be employed by public health organizations to model disease transmission, social networks, and other factors affecting public wellness. This enables researchers to track and predict the spread of diseases and evaluate the effectiveness of interventions. Gemini Explore can model these networks to help public health officials understand:

- What are the impacts of emerging technologies, such as genomic medicine or telehealth, on population health outcomes?
- How do the social determinants, such as socioeconomic status, education, and access to healthcare, affect wellness in a large population?
- How can healthcare systems and policies influence healthcare utilization and improve the efficiency and effectiveness of healthcare delivery?

By answering these questions, graph data can contribute to a better understanding of the complex factors affecting public health and inform the development of targeted, data-driven interventions to improve population health outcomes.



Let's Talk

Contact us today to learn more about how Gemini Explore for Life Sciences can help you connect the dots and find your next breakthrough. Start a trial or learn more at geminidata.com