# IHI Call Days | Call 9

## Safely collaborate on distributed data

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Link to the IHI brokerage platform:

- Proposal sharing tool
- Participant profile

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# Challenges and objectives

- We provide secure, privacy-preserving computational access to distributed real-world and molecular healthcare data, enabling AI-driven research and innovation.
- Apheris supports **SO1** by building a secure, federated digital infrastructure connecting healthcare and life sciences data to better understand health determinants and disease areas.
- This approach addresses public health needs in disease prediction, prevention, and management through collaborative access to decentralized healthcare data, empowering cross-sector development of AI tools and technologies.



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# Your approach to solve the problem

- We enable cross-industry, cross-organizational data collaboration in healthcare and life sciences through federated learning.
- Organizations (e.g., healthcare sites, pharmaceutical companies, academic researchers) can work together by training machine learning models or conducting statistical analyses across decentralized datasets.
- Data does not move – only the algorithm does.
- Built-in privacy and governance controls support collaboration by protecting data privacy (e.g., for patients' real-world data) and intellectual property (e.g., of models or proprietary datasets).
- This approach benefits patients by enabling use cases from early-stage drug discovery to real-world evidence and public health research.



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# Is your project suitable for IHI?

- Our approach leverages public-private collaboration, aligning public data assets with private innovation to drive AI-driven insights that advance medical research and public health while upholding strict privacy and compliance standards.
- Two essential inputs are required from the industry to enable this collaboration:
  - **Data**: Healthcare data is highly fragmented and distributed across various sources, with a few containing all the information needed to build advanced models. Thus, we focus on bringing together key organizations (e.g., MedTech companies, pharmaceutical firms, university hospitals).
  - **Models**: Developing algorithmic assets, particularly training foundational models, is highly compute- and cost-intensive. These models are valuable and often specialized in life sciences. Leading models from select academic institutions and private companies must be paired with the right data to fully benefit patients.



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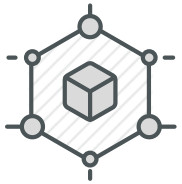
# Outcomes and Impact



- Our proposal will enable transformative research collaborations by securely expanding access to diverse, distributed datasets while safeguarding data privacy and intellectual property, resulting in more robust AI models and valuable insights across healthcare and life sciences.
- Through secure, privacy-preserving data collaboration, our infrastructure enables real-world applications of research, such as improving algorithmic accuracy in drug discovery or enhancing backend algorithms for digital health companion apps, accelerating the path from research to healthcare innovation.
- Our project strengthens the EU's health industry by serving as an enabler of AI advancements in life sciences and healthcare, enhancing cross-border, data-driven research, and fostering innovation under strict data governance and security standards aligned with evolving regulations.
- Our proposal benefits patients indirectly by supporting drug discovery, facilitating real-world evidence generation, and enhancing AI-driven healthcare tools, which collectively contribute to better diagnostic tools, innovative treatment options, and improved health outcomes over time.



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# Expertise and resources

- We have:
  - Our product, the Apheris Compute Gateway, is a federated computing infrastructure with governance, security and privacy controls. Data custodians can add their data to networks while staying in full control. Data scientists can access a larger data cohort and build better models.
- We are looking for:
  - Data + AI models = Use cases



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# Additional information


- Read more about us and our work with collaboration research consortia on our webpage:

  https://www.apheris.com/industries/consortia



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