

# Owkin

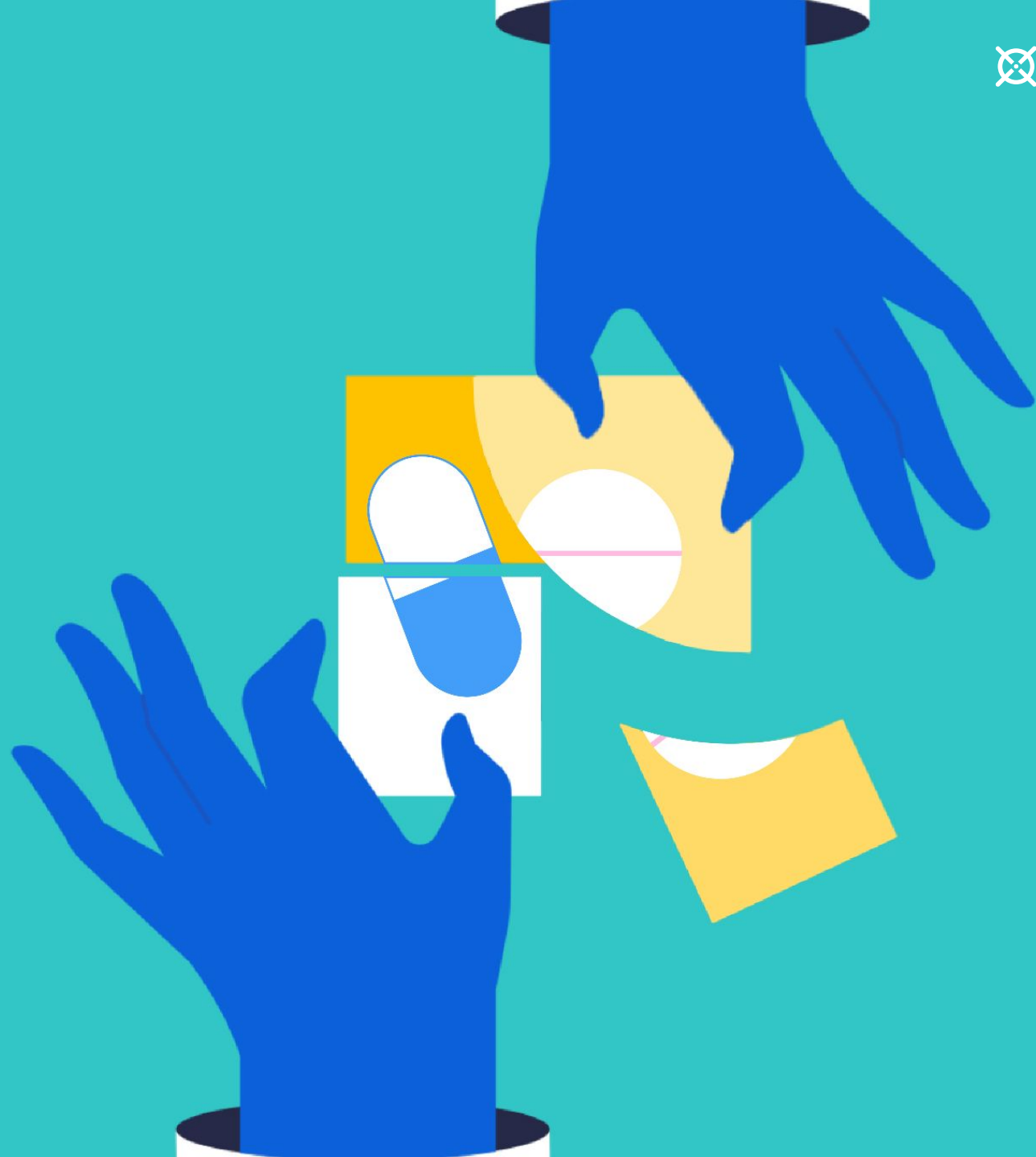
↳ *The next frontier in cancer research?  
Combining Multi-modal data, AI and  
Federated Learning*





# BioPharma is broken

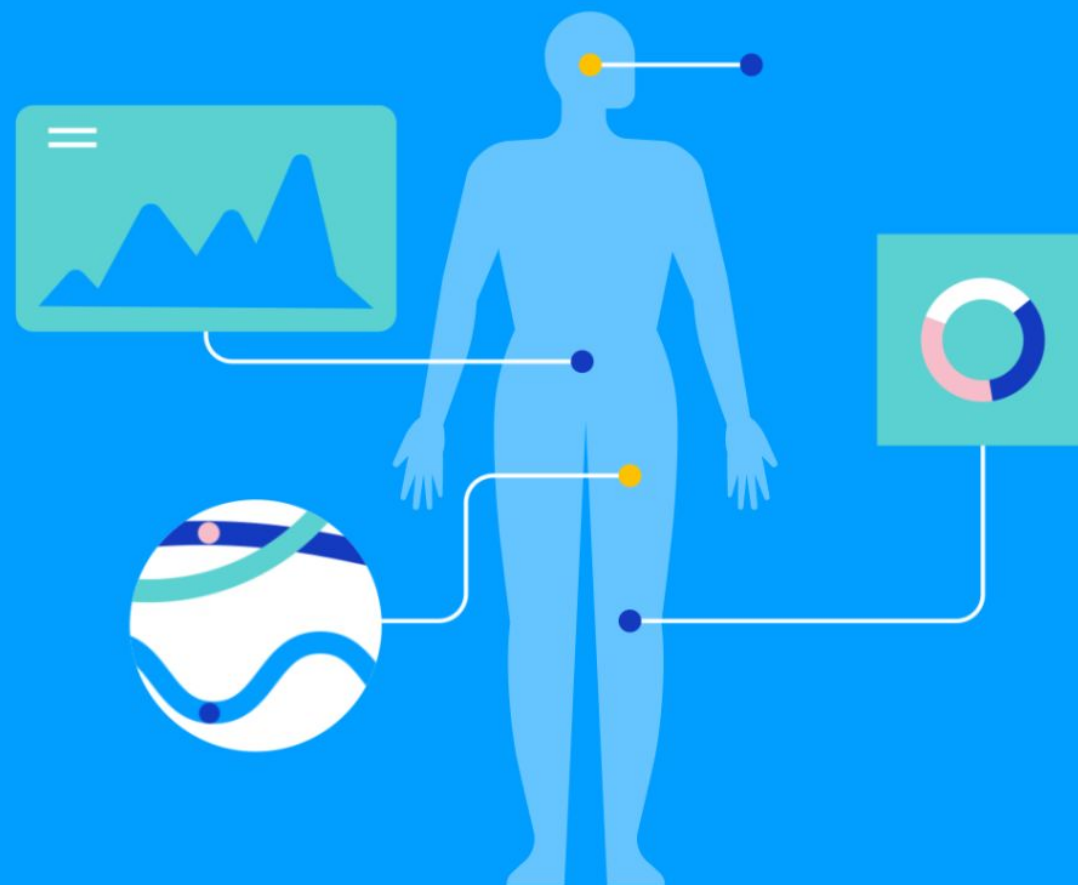
- Most diseases lack drugs
- Most trials fail on efficacy
- Trials are too expensive





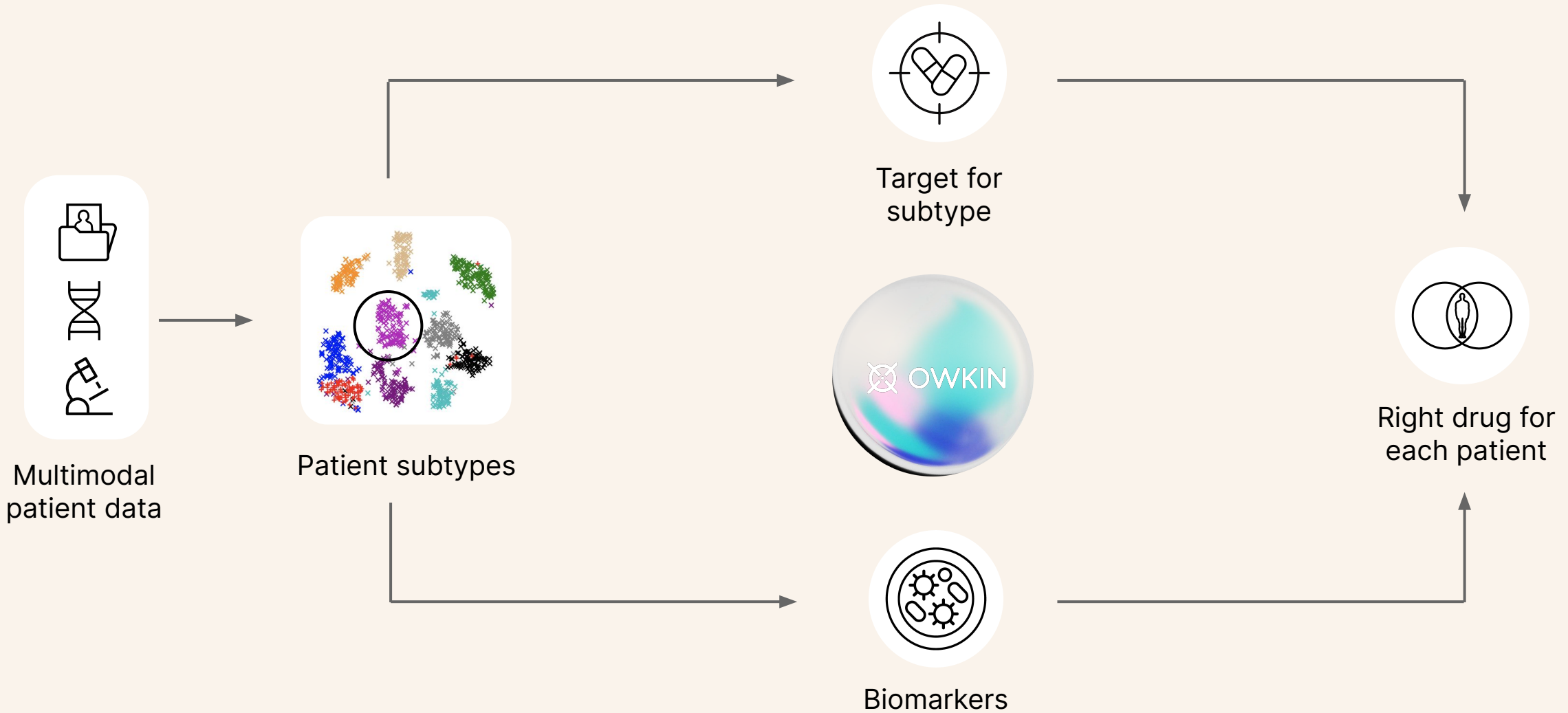
# The solution is Precision Medicine

- Disentangle confused biology
- Find drugs for each subtype
- Use best drug for each patient





# How Owkin enables precision medicine from patient data





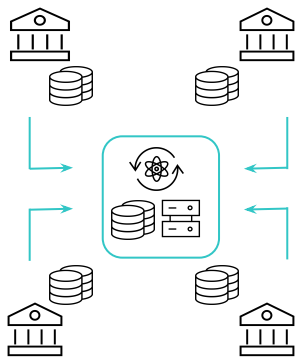
# Federated learning to break data silos and access global datasets

Owkin Connect: **one software** to link the actors of the future of AI for medical research



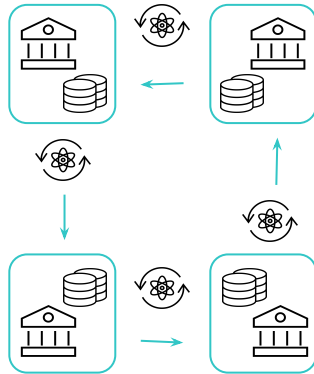
## Owkin Connect

**Standard:**  
Bring data to the model



All data in one place

**Federated:**  
Bring the model to the data



Data stays local and secure

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## MELLODDY

€16M IMI-funded consortium  
of  
10 pharma for drug discovery



## HealthChain

€10M-funded consortium  
of 4 French research  
centers



## OPTIMA

GDPR-compliant RWE for  
prostate, breast, lung cancers.  
With 16 health centers,  
5 pharmas, 6 foundations.

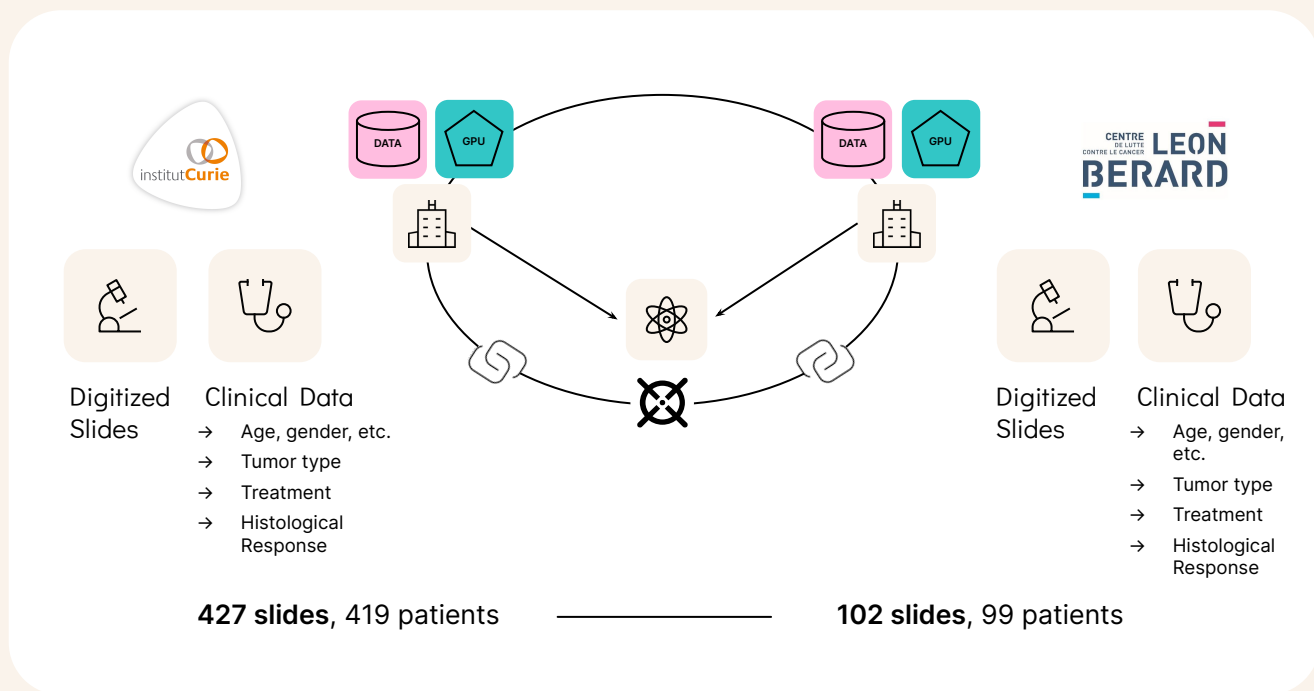




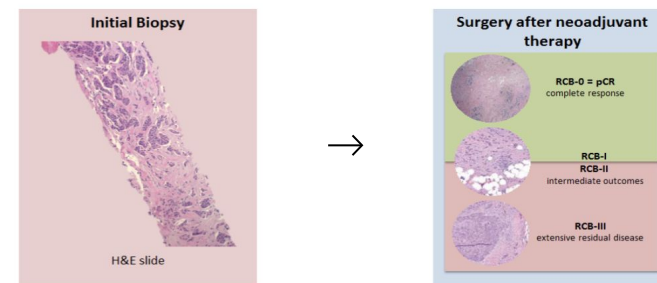
# Our federated research in action

↳ Case Study: HealthChain Project

- **Medical Question:** Can we predict **rate of pathologic complete response (pCR)** to **neoadjuvant chemotherapy** from slides at diagnostic for **early triple negative breast cancer** patients?
- **Implications:** if **AI can predict pCR** lighter chemotherapies can be considered (less cardiac toxicity) if not patients can be included in clinical trials for **PARP inhibitors or immunotherapies**



**OwkinConnect** powered by Federated Learning allowed us to answer this question **positively**, we currently have a **submission under review**



Challenge:  
Predicting who will benefit from NACT



# The unmet need

↳ We focus on 7 key therapeutic areas



Breast\*  
Cancer



Lung\*  
Cancer



Ovarian  
Cancer



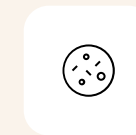
Bladder  
Cancer



Mesothelioma\*



B Cell  
Lymphomas



Multiple  
Myeloma\*



CVD



# Why Collaborate with Owkin

### Funding

- Owkin funds partners to accelerate their research and publication process

### Federated Learning

- Owkin supports the implementation of a federated learning infrastructure
- Simplify collaboration between institutions and industry

### Machine learning expertise

- Owkin supports the expansion and enhancement of partner data modalities
- provide support to build "AI-ready" Data

### Compliance and privacy

- ISO 27001 certified
- GDPR and HIPAA compliant
- Regular security risk assessments
- Expertise in FAIR principles

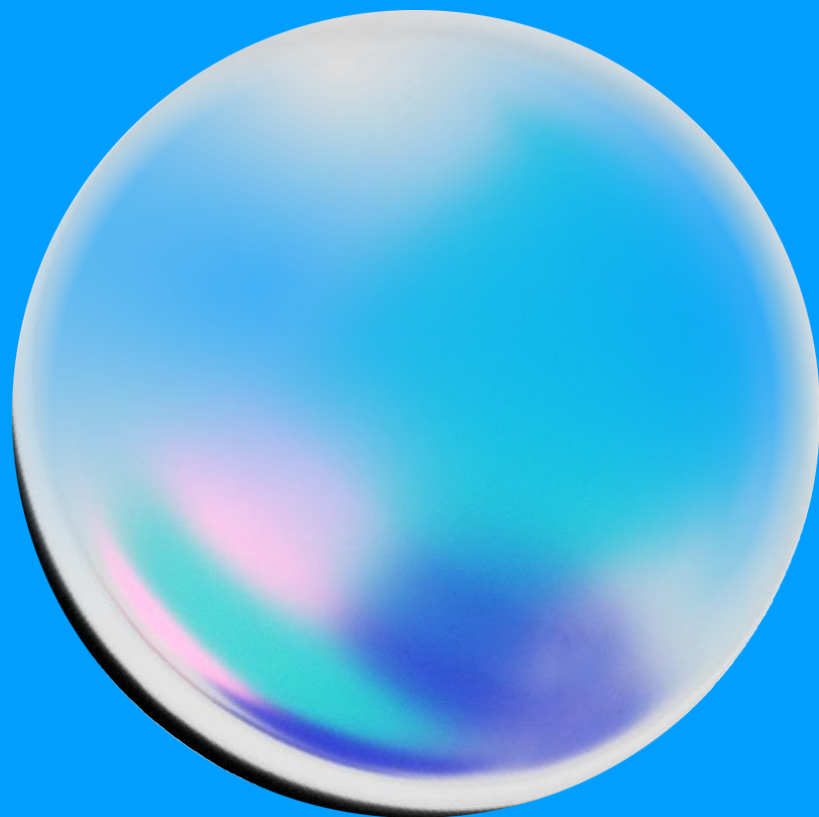
### Publications

- Owkin is a research driven company at the forefront of federated learning, AI and multimodal healthcare data

### Trusted environment

- Owkin's high security standards and certifications assure patient data privacy and partner data integrity






# Contact Us

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