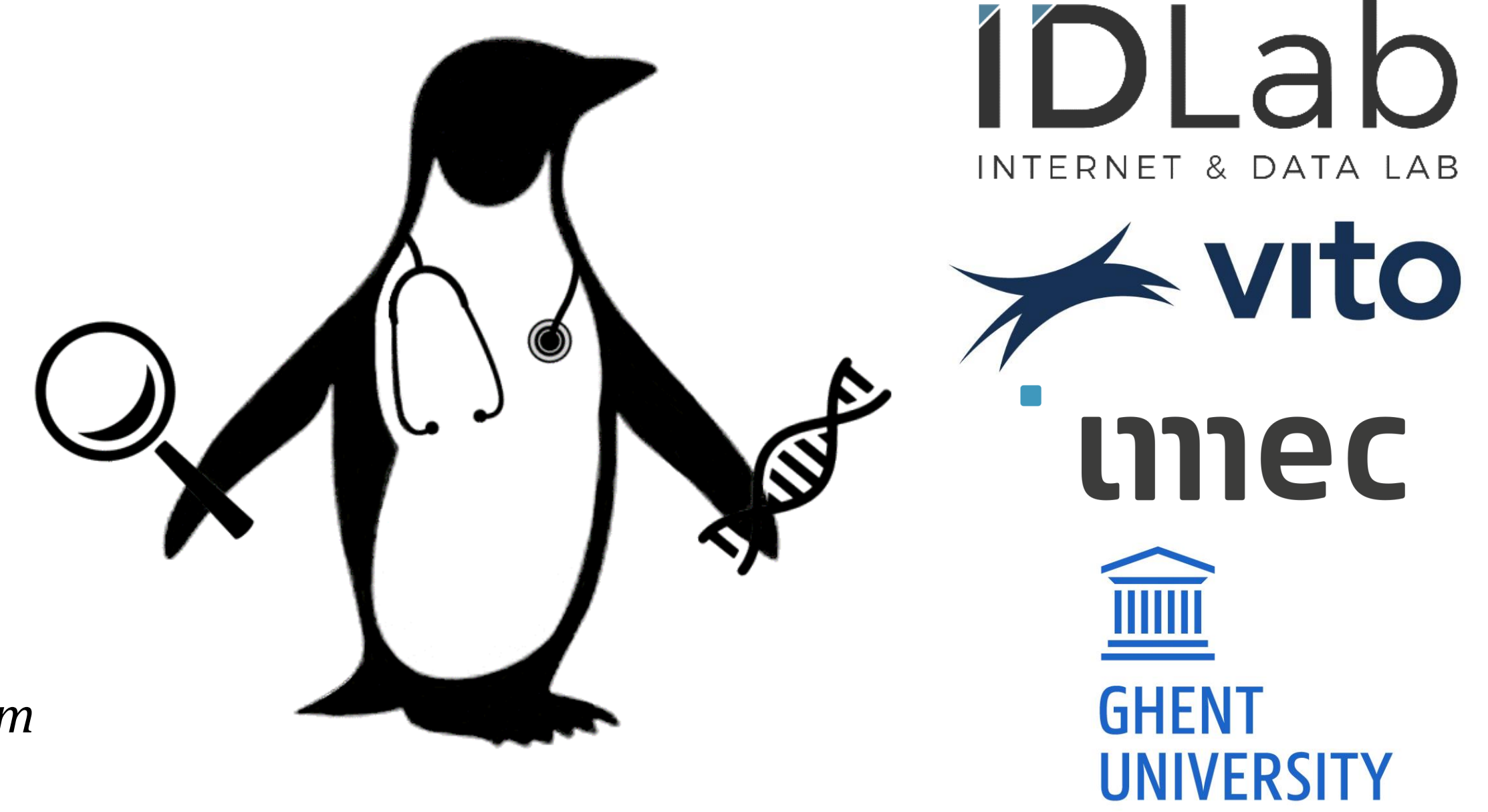


PENGQUIN: PErsoNal Genome QUery IN Healthcare and Clinical Practice

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Genome Data for Clinical Care?

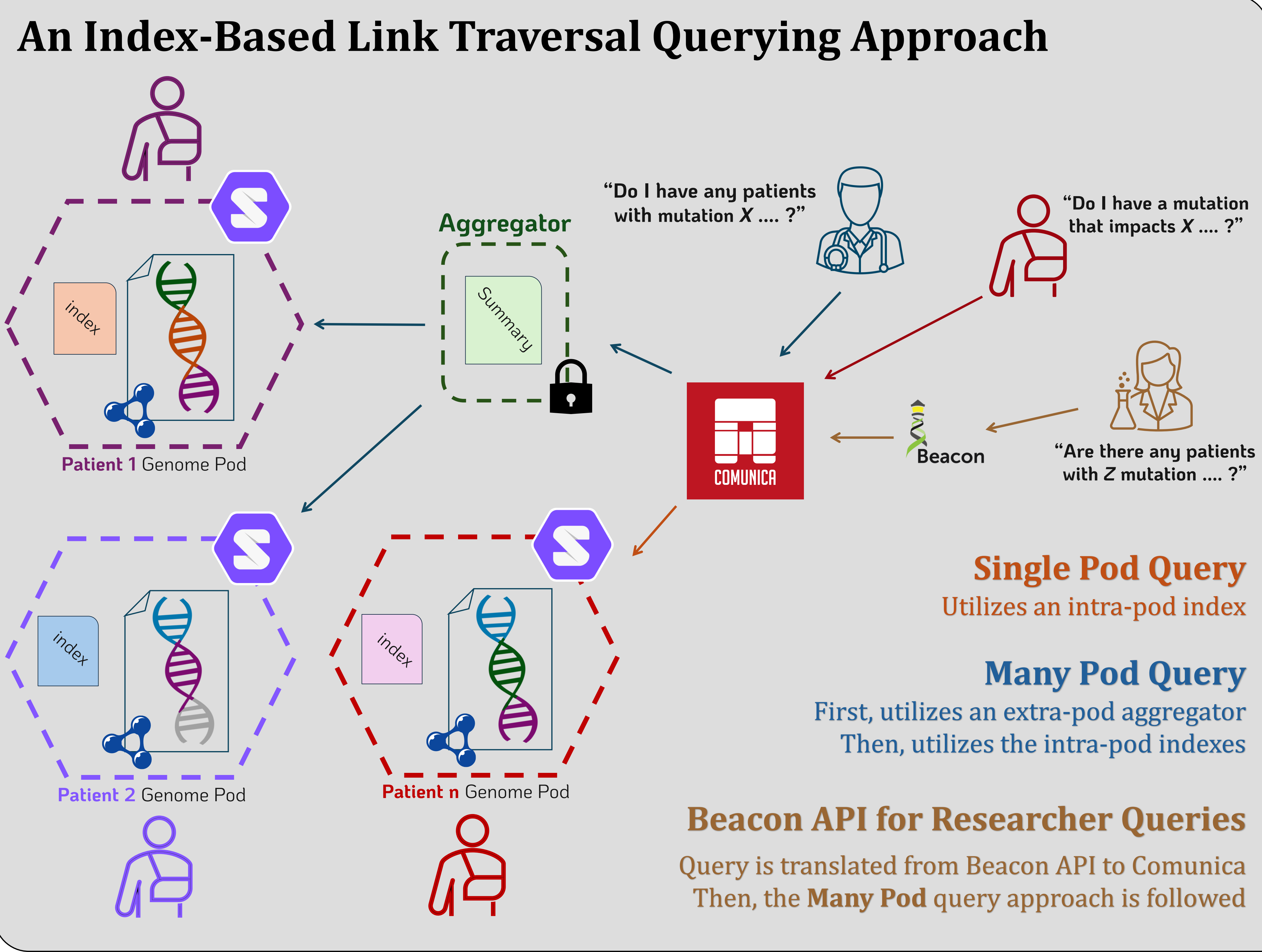
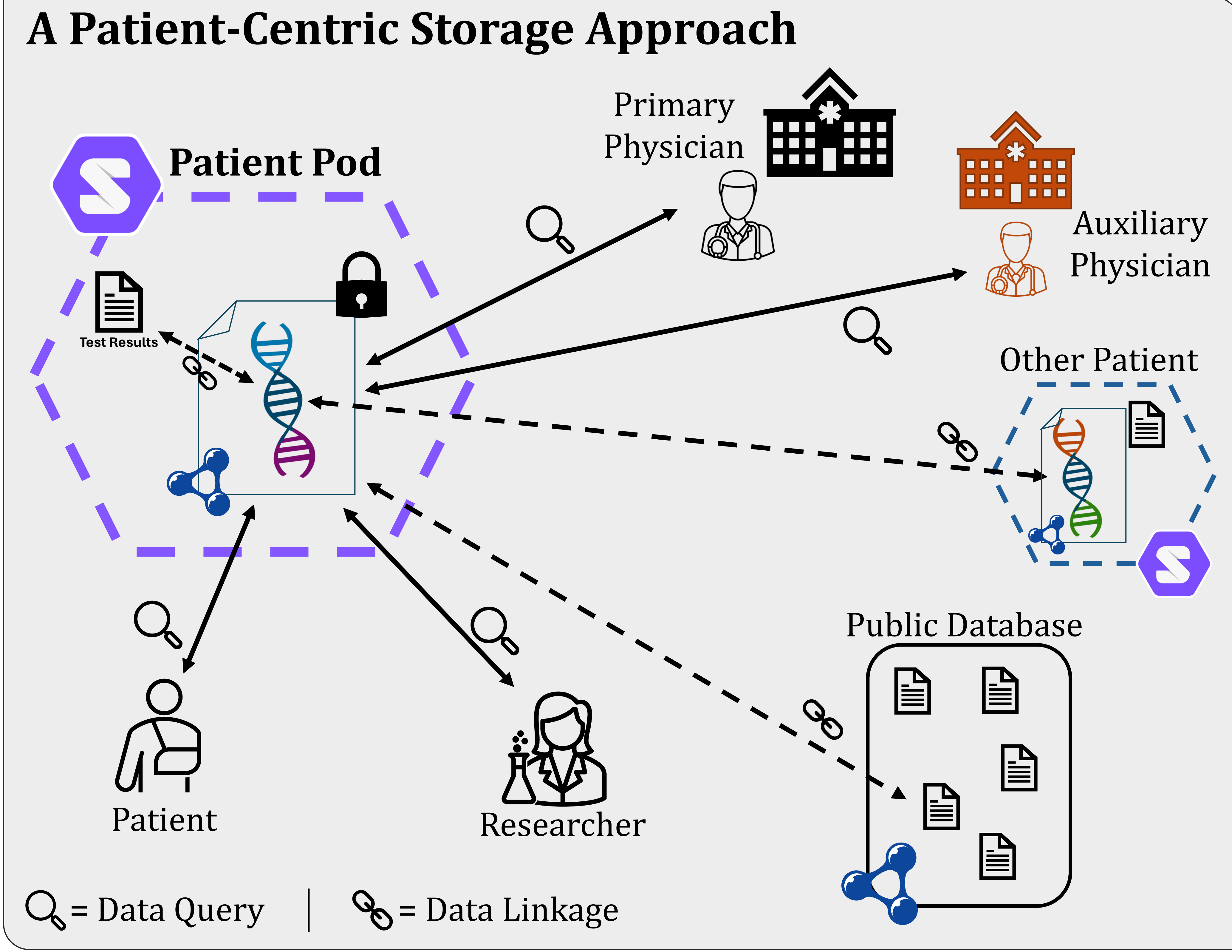
Still Many challenges:

- Storage
- Privacy
- Governance
- Formatting

Could Semantic Web technology help?

Personal Genome Sequences

- Variant Call Format (VCF)
- Very large (~GBs for one individual)
- Strict privacy protections



- ### Research Challenges
- Privacy granularity
 - ↳ Index privacy concerns?
 - ↳ How granular is adequate?
 - RDF Conversion + Data Linkages
 - ↳ VCF to RDF Conversion?
 - ↳ What data should be linked?
 - ↳ Automation of data linking?
 - Querying performance
 - ↳ Many, large data sources
 - ↳ Algorithms that use indexes?

Engineering Tasks

- Genomic data storage in Solid pods
- Data privacy management
- Data access via the web

Research Pursuits

- Represent genomic data as RDF?
- Linking genomic and health data?
- Single and Many pod Querying?

Read More

Contact