

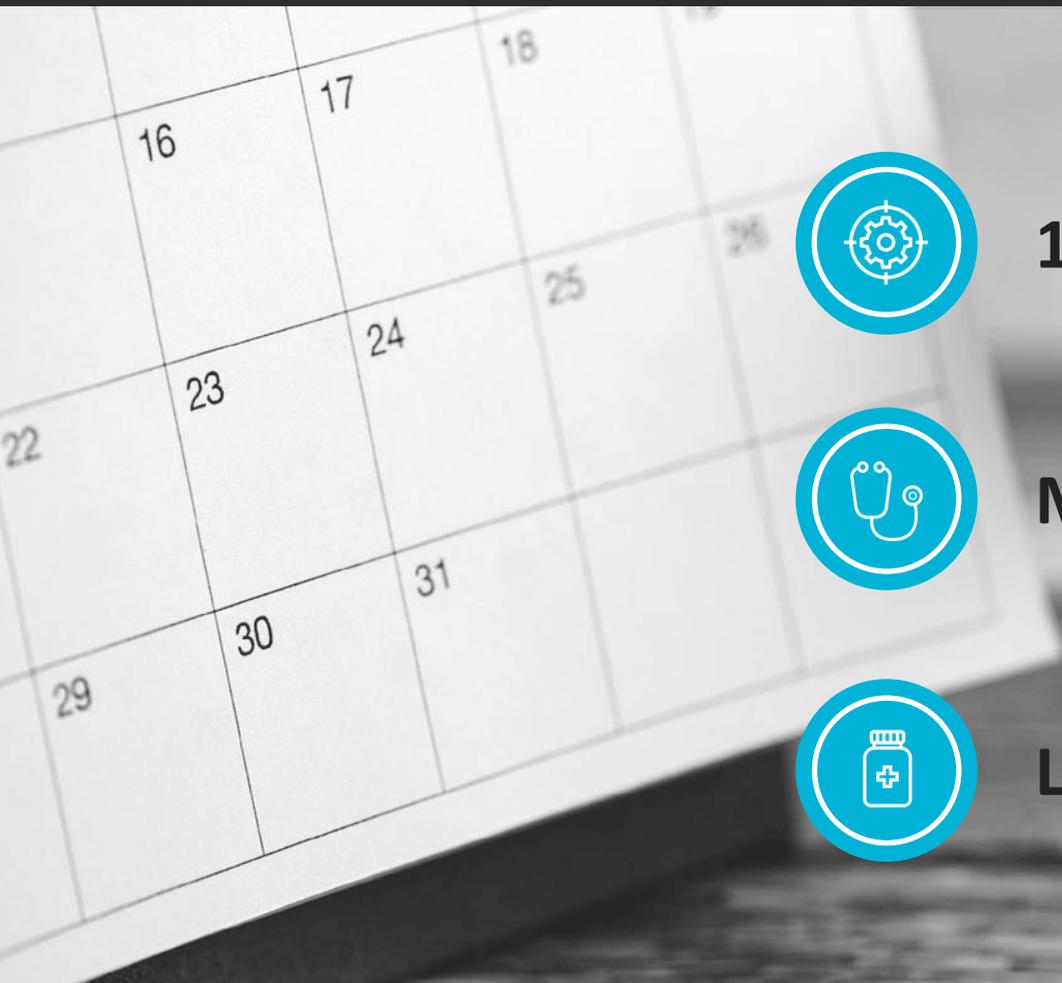


Prescribing AI.
Improving Lives.



Privacy Preserving Artificial Intelligence for Tx Selection

Alexandre Le Bouthillier, PhD, Co-Founder & CCO



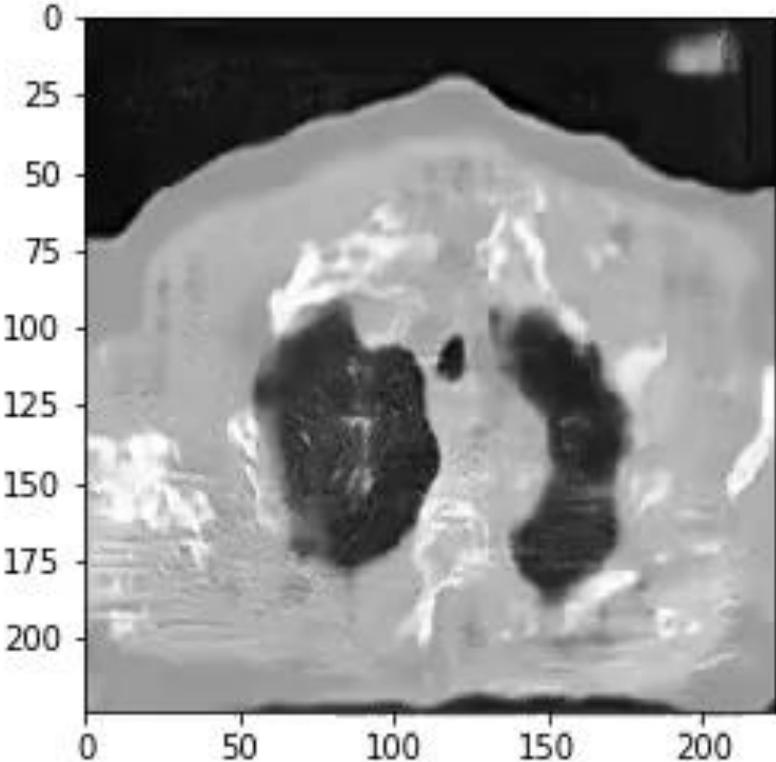
15x Data in 7 years

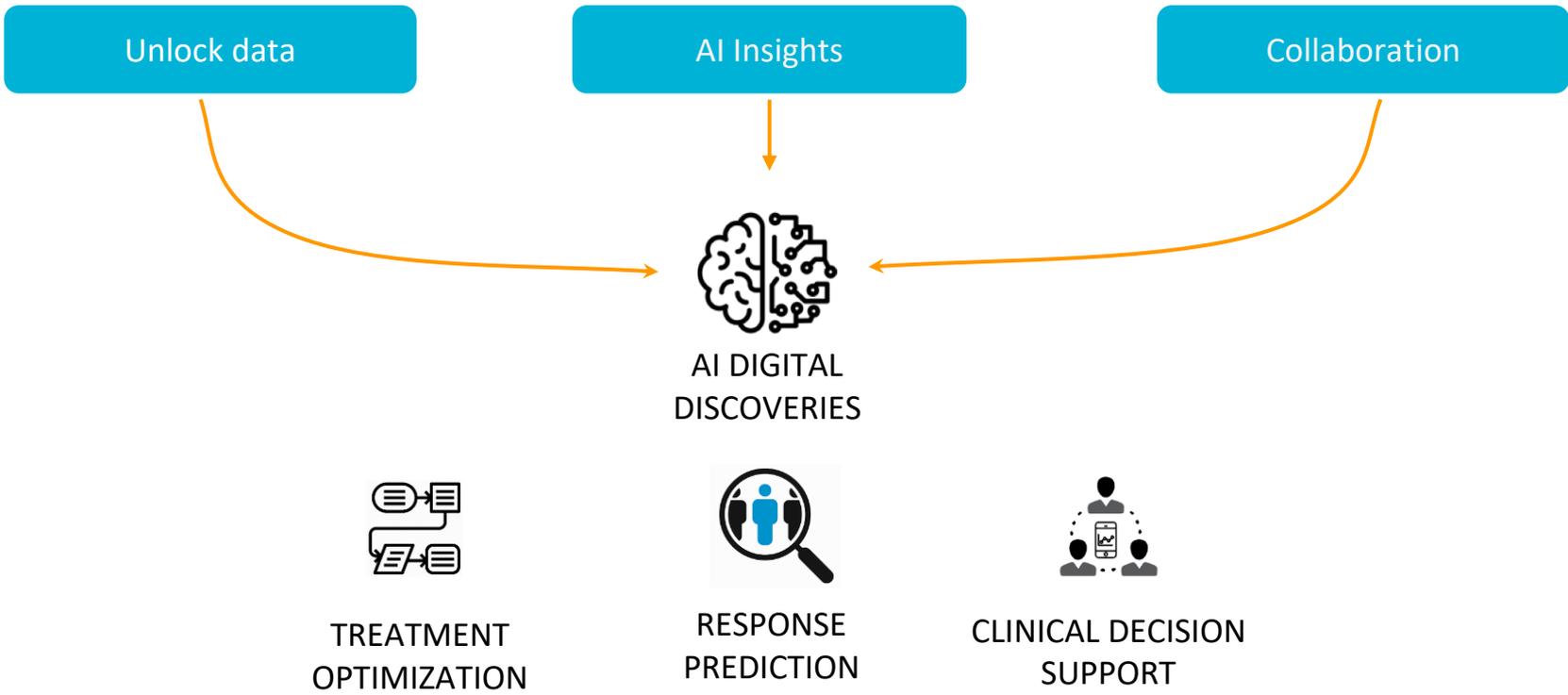


Misdiagnosed



Low Treatment Response





Transforming Data into Digital Discoveries for Industry leaders



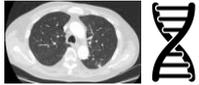


Autonomy
Privacy
Diversity

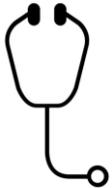
- Well-being ○
- Respect for **autonomy** ○
- Privacy** and intimacy ○
- Solidarity ○
- Democratic participation ○
- Equity ○
- Diversity** inclusion ○
- Prudence ○
- Responsability ○
- Sustainable development ○
- Glossary ○
- Credits ○



Patient Data **Privacy &** Utility of the Discovery on the Data



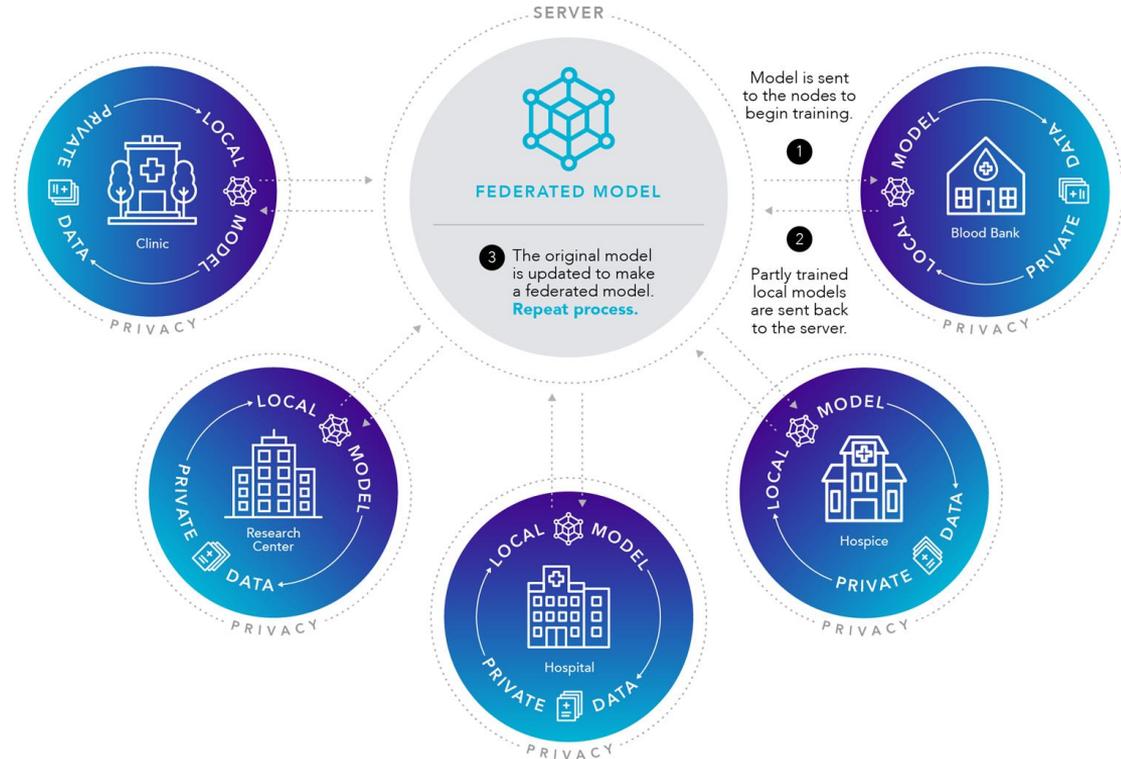
Diversity: Not enough data in a single hospital for a robust discovery



Autonomy: Not enough AI Scientists to help every clinicians

- Clinicians should be autonomous in their discovery
- Standard exchange mechanisms of insights

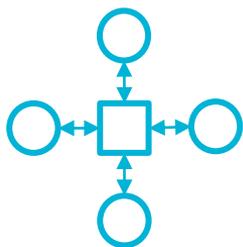
- First training **separate models at each hospital** with the **local data** available and then **sending those models to a central server** to be combined into a master model
- When a hospital acquires more data, it can download the latest master model from the server, update it with the new data, and send it back to the server.
- Throughout the process, **raw data is never exchanged**—only the models, which cannot be reverse-engineered to reveal that data



Federated Learning Balances Machine Learning with Patient Privacy



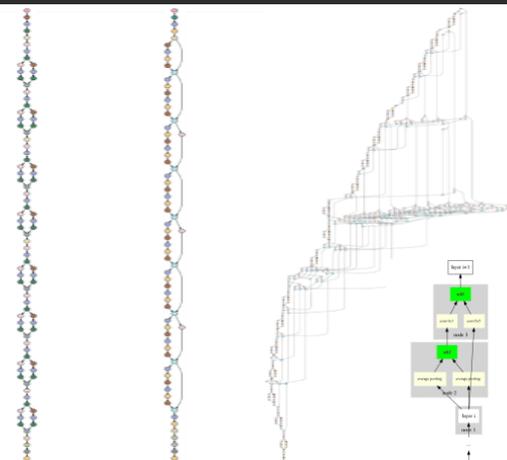
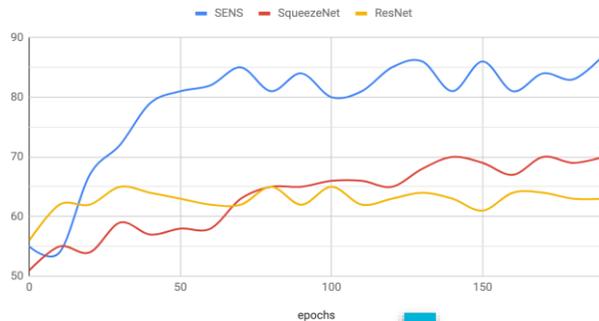
1-click
AI SELF-CREATING
NEW AI MODELS



AI SELF-CREATING
NEW AI MODELS

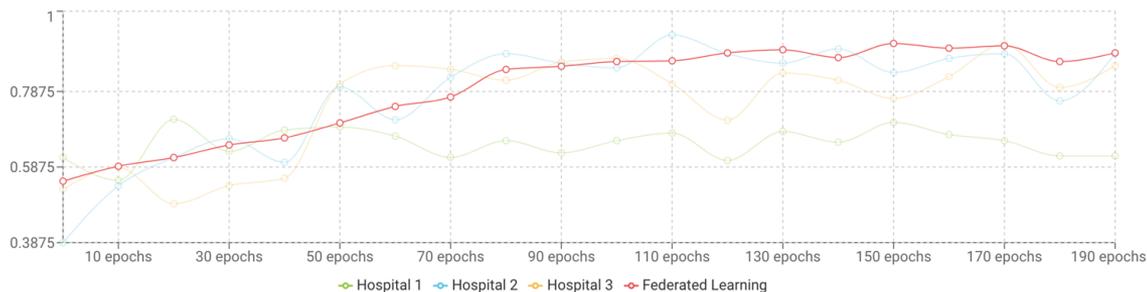
1- Automatic model architecture discovery

SELF, SqueezeNet and ResNet Comparison, n=200

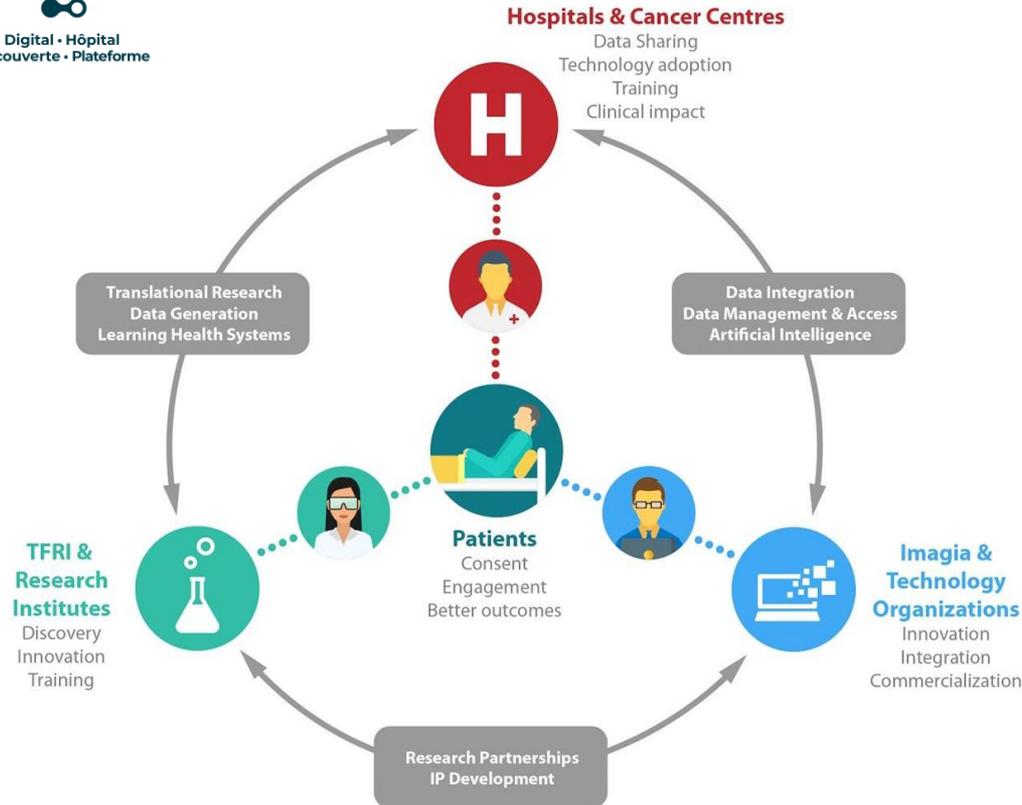


2- Federate self created models

Accuracy / Epoch



Provide Clinician with **autonomy**, while ensuring **privacy** and enabling **diversity**

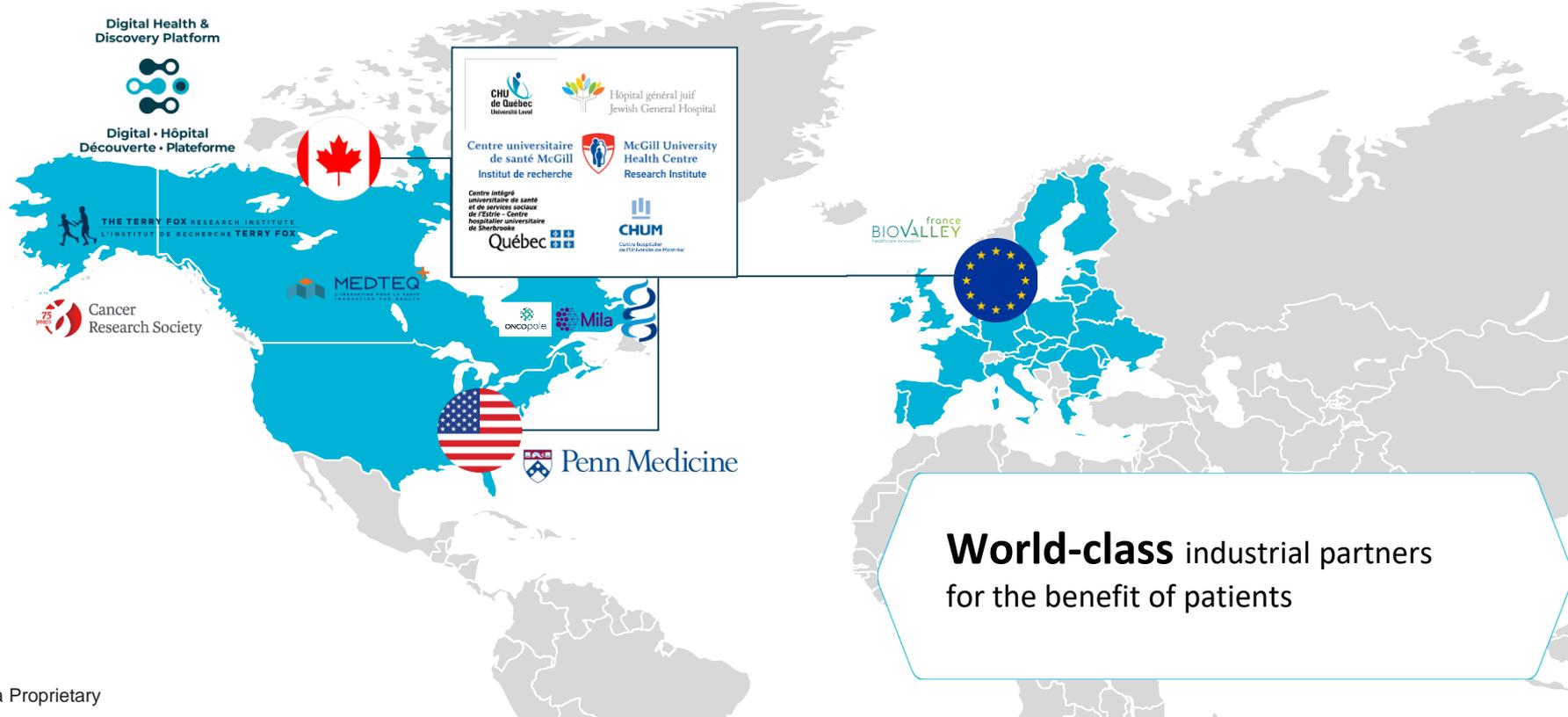


A \$200M Initiative

A fusion of the cancer & AI communities.

A collaboration model with research & commercialization partners for cancer and neuro

A distributed data trust with federated learning for non AI-experts



World-class industrial partners for the benefit of patients



imagia

Prescribing AI. Saving Lives.

