

# Enabling Collaborative Analytics for Real World Data Partnerships

Patrick M Loerch, Andrea Kirby, Andrew Porter, Terry Bauman, Kiran Jinna, Devin Katz-Sawyer

Information Technology, Merck & Co

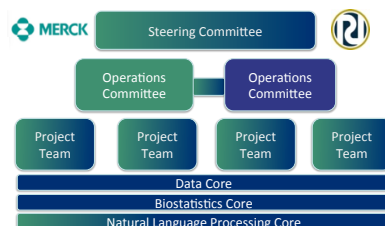


## Key Components to a Real World Health Data Research Ecosystem

### "Data-on-Demand" Partnership Structures

#### Merck – Regenstrief Partnership

With the Merck-Regenstrief partnership we have developed a pay-per-use data and analytics partnership model. This partnership structure provides flexible access to slices of data needed for specific research studies, as opposed to the large annual licenses for bulk access to current databases

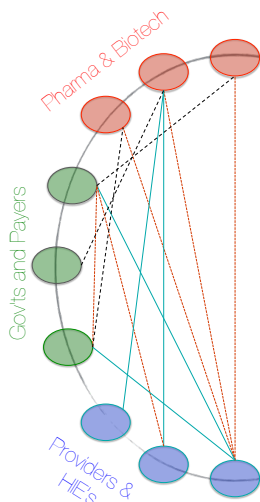


#### Regenstrief Health Data Statistics

- 11M unique patients
- 3B discrete results (1.7 B clinical obs, 840M encounters, 580M claim obs)
- 2M new transactions per day

1000 BC - 2014

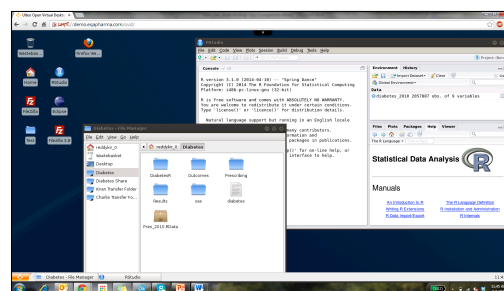
There are as many ways of sharing data as there are collaborations



### Secure Collaborative Analytics Platform

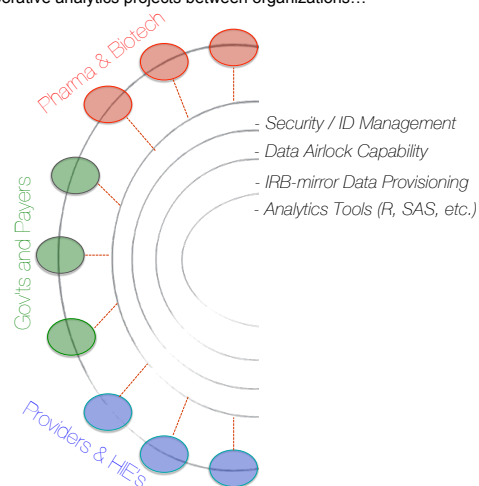
#### Health Data Exchange (HDex) Platform

A cloud-based, collaborative analytics platform that mirrors an IRB, where a slice of real world data is associated with a project to which researchers from across organizations are granted access for a period of time. The data owner retains the provisioning. When the project is complete, the "airlock" capability allows researchers to remove files approved by the data owner.



2015+

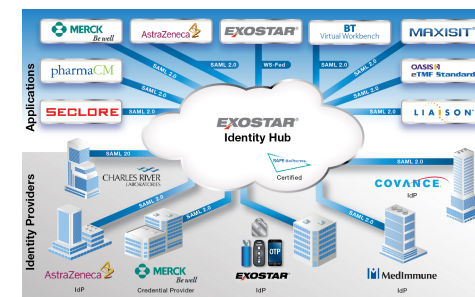
Opening up HDex to other pharma and data providers will provide a secure, cloud-based analytics environment to support multiple, independent collaborative analytics projects between organizations...



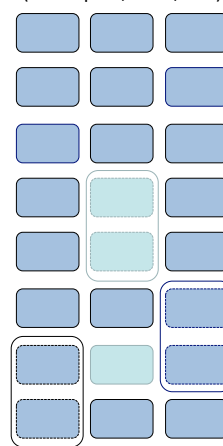
### Cross-Organizational Identity Access Management

#### Life Sciences Identity Access Management Hub

The Life Science Identity Access Management Hub (SAM – Secure Access Manager) provides streamlined SSO user provisioning between Pharma, their partners and providers without compromising (but improving) security and risk management due diligence. SAM currently has 10K+ active users and over 650 partners.



#### Data Owners (ex hospital, HIE's, etc.)



#### Data Exchanges

HDex

IMS

Humedica

Data Resellers

#### Data Consumers (pharma)



... and in doing so we propose it will lower the technical and regulatory hurdles that have created a bottleneck in the 2-sided data owner/consumer market and limited the sharing of health data for research