

Using Large-Scale, Real-World Evidence To Improve Cancer Care

Jonathan Hirsch, MSc

Founder and President, Syapse



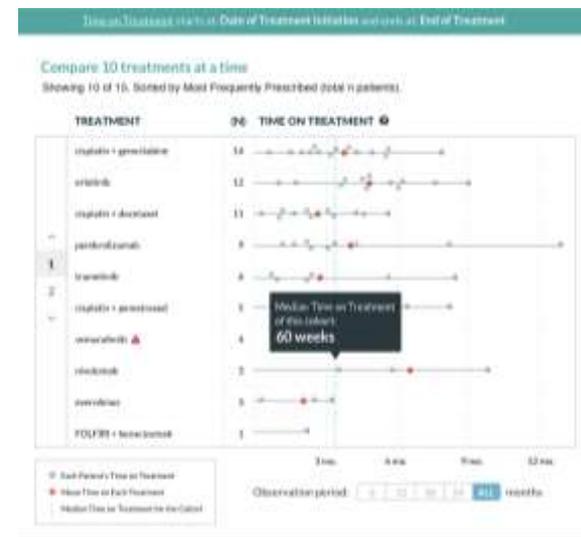
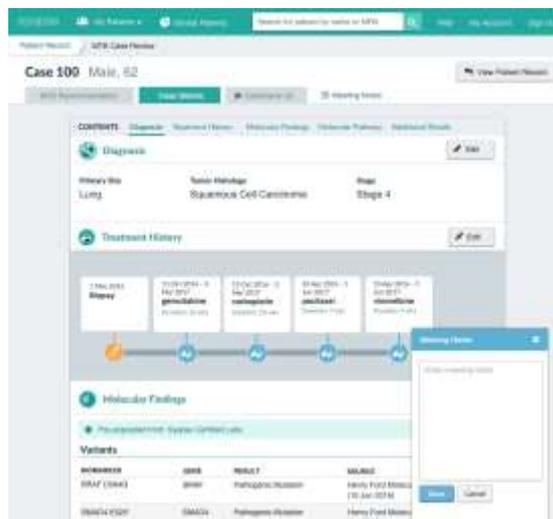
Henry Ford and Syapse Partner to Launch Precision Medicine Program

- In June 2016, Henry Ford partnered with Syapse to launch a new precision oncology program
- **Goal:** Increase access to precision cancer care for patients throughout Michigan
- Syapse solutions will support complex treatment decisions and new clinical workflows for precision oncology



What is Syapse Oncology?

Syapse Oncology is the leading point-of-care software solution for precision oncology programs.



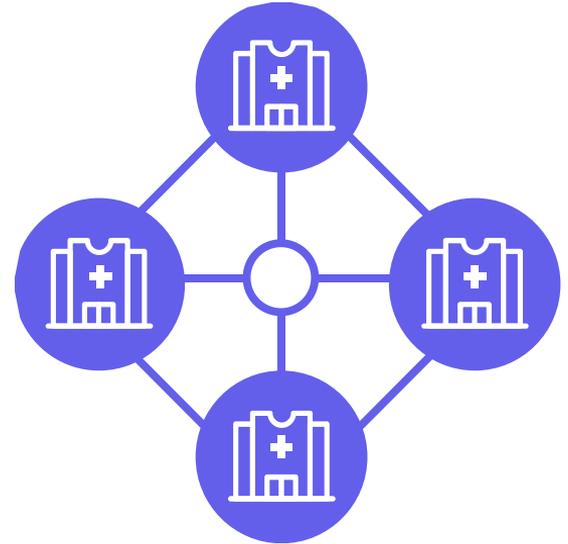
Access to Integrated Patient Data
Integrate clinical and molecular data to inform treatment decisions

Molecular Tumor Board Workflow
Provide a streamlined workflow for MTB case requests and reviews

Learn from Real-World Evidence
Compare patient cases to a large pool of real-world evidence

Data Sharing in the Syapse Network

- The Syapse Network is a national precision oncology data sharing network, enabling Syapse health system partners to share clinical, molecular, treatment, and outcomes data
- Henry Ford oncologists will have access to treatment insights shared among a network of leading health systems
- Oncologists can compare their patient cases to a large pool of real-world evidence at the point of care to support treatment decisions



The Syapse Network

Syapse health system partners actively manage nearly 1 million patients across 25 states.



Reach of the Syapse Network



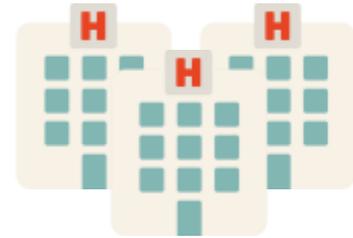
159,000

New Cancer Cases Per Year



1,100

Oncology Providers



295

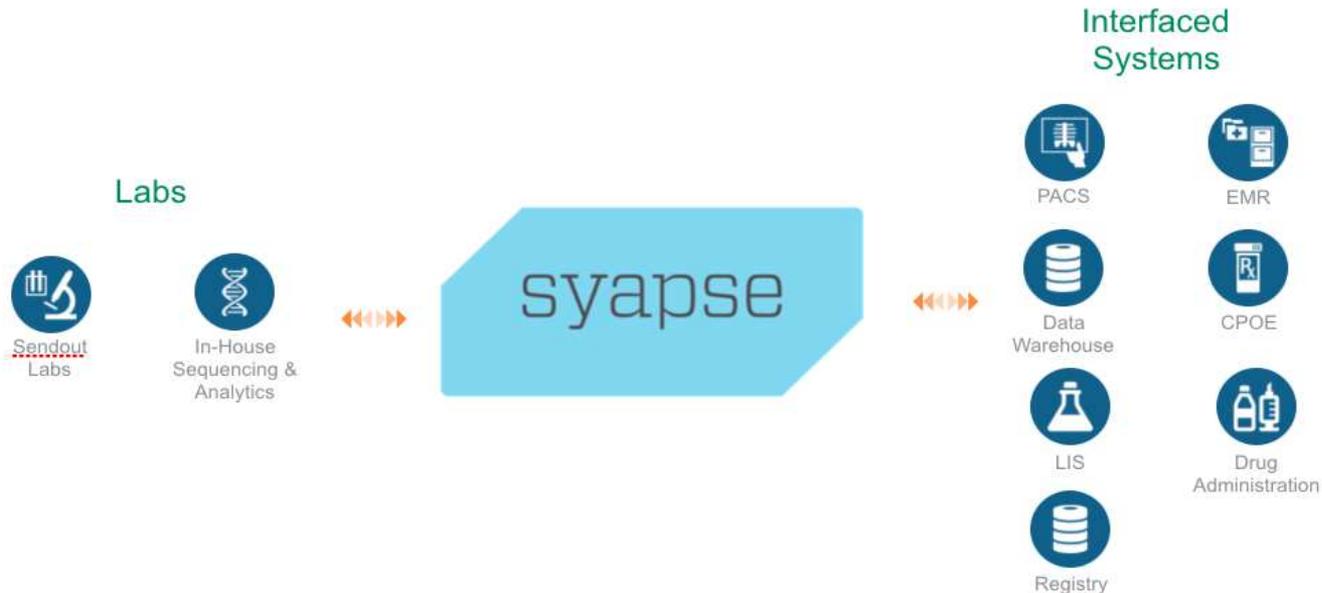
Hospitals

How does Syapse enable data sharing at Henry Ford?

- Integrate and aggregate data from individual health systems
- Standardize and normalize data for comparisons across multiple health systems
- Maintain data privacy and security to build a trusted network
- Provide a point-of-care application so health systems providing data can learn and improve

Source System Integration

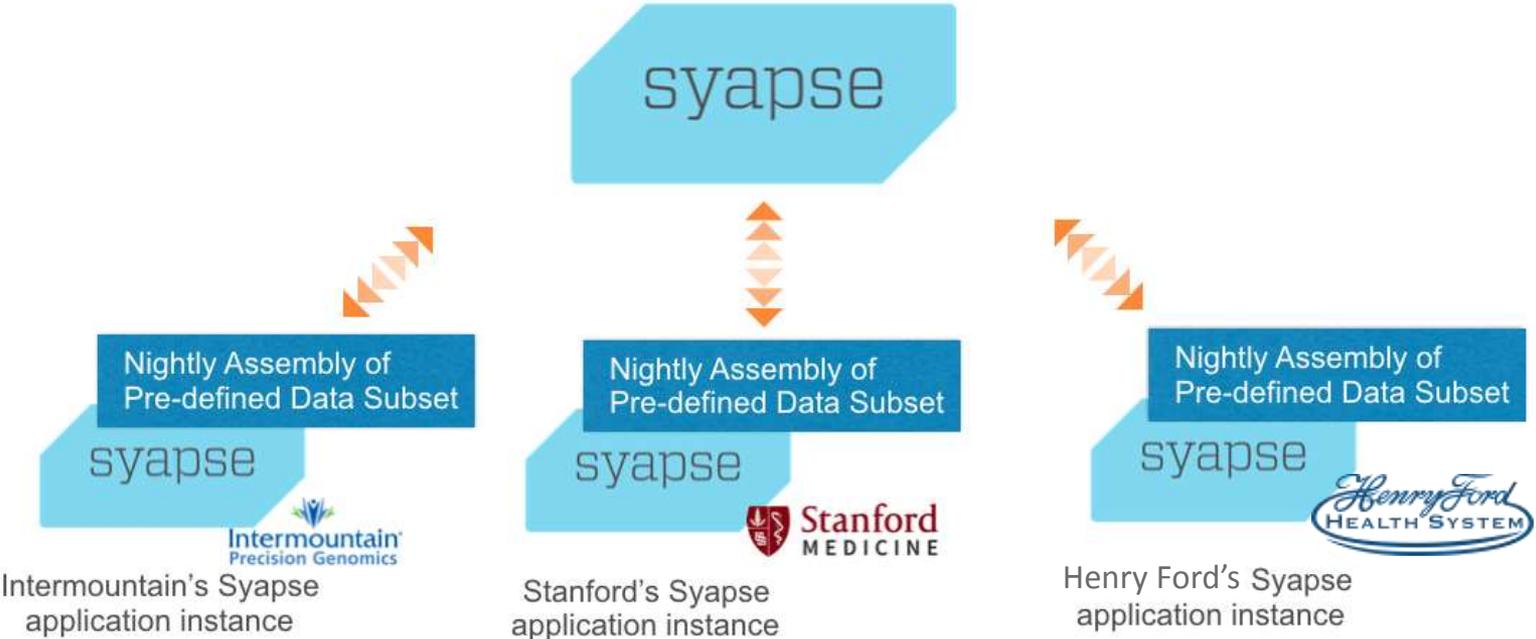
- Health systems use the IT platform to integrate data across multiple systems and labs



Semantic Normalization Across Systems

- Choose a set of data elements that are clinically actionable and meaningful
- Emphasize data elements that can be automatically captured from existing systems, except for data elements that require re-engineering data capture workflows
 - i.e. tumor histology
- Use vocabulary standards
- Automate the normalization process after the schema and standards have been established

Federated Architecture Allows for Secure, Trusted Network

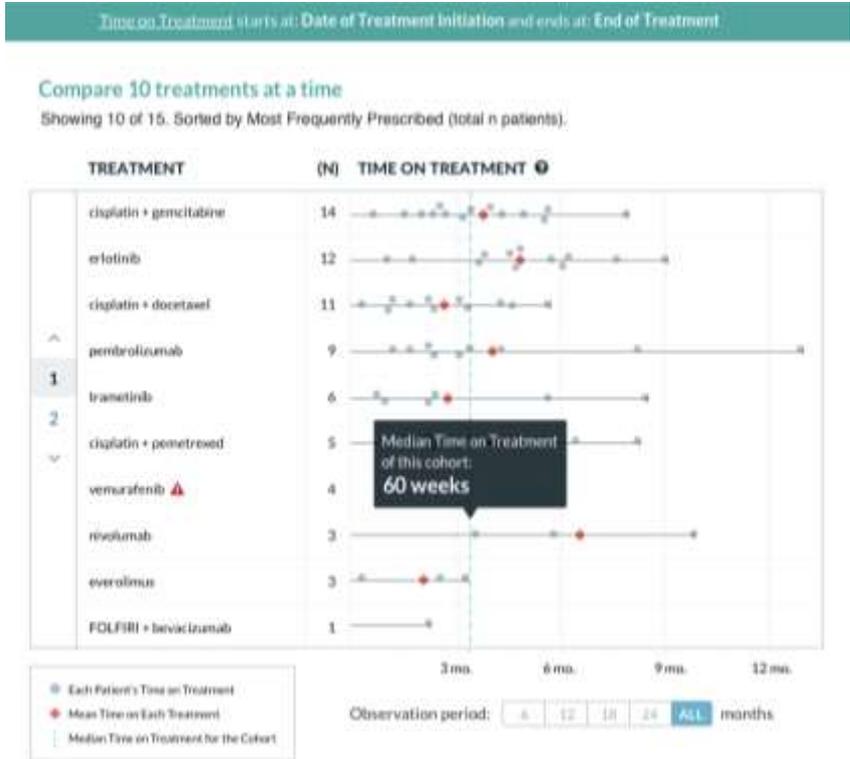


Shared Data Scope

- **Demographics:** age, sex, gender, race, ethnicity
- **Cancer diagnosis:** primary site, histological diagnosis, stage
- **Tumor genomics:** gene, alteration
- **Tumor markers:** biomarker tests
- **Treatments:** next line of treatment after tumor genomic profile (chemo, targeted therapies)
- **Outcomes:** duration of therapy, survival, quality of life

Access to Shared Insights at the Point-of-Care

- Henry Ford oncologists can view treatment and outcomes data for clinically and molecularly similar patients
- Physicians are proactively prompted in Syapse to view shared insights, becoming part of the core clinical workflow
- Molecular tumor boards can also use shared insights when making treatment recommendations



Value of Data Sharing

1. Provide clinicians with real-world, aggregated patient data to support treatment decisions and quality improvement
2. Use real-world evidence to inform internal best practices
3. Develop real-world evidence for existing therapies in new indications
4. Support payer reimbursement efforts by referencing a multi-institutional database of treatment and outcomes data

Thank You



jon@syapse.com
www.syapse.com
@syapse