

**Sync For Science (S4S) Pilot**  
February 26, 2016

Awardee: Harvard Medical School – Isaac Kohane (Supplement to BD2K Center)  
Project Period: March 1, 2016 through February 28, 2017

**Project Description:**

The Precision Medicine Initiative Cohort Program intends to recruit a significant proportion of participants from direct volunteers who have a variety of health provider systems with a wide range of EHR vendors. A key goal is to ensure that these direct volunteers can easily share their electronic health record (EHR) data with the PMI. One of the goals of the BD2K Center of Excellence is to encapsulate data sources relevant to individual health. Since the initial application for the BD2K center, SMART/FHIR interfaces have matured and multiple vendors have become much more interested in implementing these.

To ensure that direct volunteers can easily share their electronic health record (EHR) data for research purposes, the awardee will work with NIH, ONC, and a group of six committed EHR vendors to design, build, test, and pilot implementations of a platform based on open standards including FHIR, OAuth 2.0, and OpenID Connect, as profiled by SMART Health IT. The platform will allow a PMI participant using a PMI web or mobile app to indicate who holds their EHR, determine the provider's system parameters, connect to the system, authenticate a provider-hosted portal and approval to access and donate data for research using a FHIR interface with standardized data profiles.

The awardee will build and test an open source sample application to demonstrate authorization flow, set up an open-source reference implementation on the EHR side of the platform (working with committed vendors), and define and refine API expectations for search and retrieval and data standards. The awardee also proposes to develop principles for a common user experience, convene vendors to address implementation issues, iteratively test these implementations, and publish documentation for all APIs, user experience expectations, and reference tools.