

tranSMART Foundation

 consortiapedia.fastercures.org/consortia/transmart/

Research Areas



Tool Development

Data Sharing



Data-Sharing Enabler

At a Glance

- Status: **Active Consortium**
- Year Launched: **2007**
- Initiating Organization: **tranSMART foundation**
- Initiator Type: **Third-party organization**
- Location: **International**

Abstract

The tranSMART Foundation is a global nonprofit organization devoted to realizing the promise of translational biomedical research through development of the tranSMART knowledge management platform.

Mission

The tranSMART Foundation enables effective sharing, integration, standardization, and analysis of heterogeneous data from collaborative translational research by mobilizing the tranSMART open-source and open-data community. Its goals are as follows:

Consortium History

The initial version of tranSMART's data management system was developed in 2009 by scientists at Johnson & Johnson and Recombinant Data Corporation. It was used initially by pharmaceutical

researchers in Johnson & Johnson's Centocor research and development (R&D) division. Since then, more than 20 other corporate, nonprofit, academic, patient advocacy, and government organizations have joined the tranSMART community.

Established in 2013, the tranSMART Foundation is a public-private partnership — the result of collaborations between scientists in the United States and the European Union. Founding partners include the University of Michigan, the Pistoia Alliance, and Imperial College London.

The tranSMART Foundation will coordinate development of the next generation of tranSMART, which is being developed in collaboration with developers and users of eTRIKS and TraIT — two informatics/analytics knowledge management systems currently under development and supported by major European translational research initiatives. TraIT and eTRIKS are based on the tranSMART platform. The result will be one global informatics-based analysis and precompetitive data-sharing platform for clinical and translational research.

Structure & Governance

tranSMART is governed by several bodies: Board Committees, Member Committees and Working Groups (3C committees), and a 15-member Board of Directors. The Board Committees include Executive, Finance/Audit, and Governance/Nominating committees.

The 3C committees are Code, Content, and Community. Each committee is co-chaired by a member of the Foundation's management team as well as someone from a member organization. The committees report to the Board of Directors and provide status updates at each board meeting. Each can create Working Groups on topics of issue to the committee. Member companies may have membership on the committees according to the bylaws, and nonmembers may participate but not vote on the committees. Committee meetings are open to all, and participation is welcome. At each meeting of the Board of Directors, the 3C committee chairs are given time to present the progress of their Working Groups and to bring matters of importance from both the members and the tranSMART Community.

Intellectual Property

tranSMART is free software. It can be redistributed and/or modified under the terms of the GNU General Public License as published by the Free Software Foundation, either version 3 of the License, or (at the user's option) any later version.

tranSMART is licensed through GPL 3.

Impact/Accomplishment

The tranSMART platform is an open-source, community-driven, knowledge management platform for translational medicine. The project is being collaboratively developed by more than 100 computer scientists and physician scientists from more than 20 organizations from around the world. The tranSMART platform provides tools for loading a variety of high-content data types, chemical, biological and “omic” research and clinical data, from a range of sources. The platform enables scientists to discover and refine hypotheses by investigating the relationships between genetic and phenotypic data for cohorts of patients, and to assess their analytic results in the context of published literature and their internal work.

It was designed to meet the needs of basic scientists, clinician-scientists, pharmacologists, toxicologists, and others involved in therapeutics and diagnostics discovery and development of new therapies for patients. The tranSMART platform implements a set of data models, shared datasets, data transformation utilities, and analytical web applications, all centered on the patient, to accelerate discoveries by creating a standardized and semantically integrated data warehouse of research results linked to reusable and scalable self-service analytics.

An application program interface (API) has been added to the tranSMART platform that allows connection to external packages for extended data viewing (Genome Browser, etc.), statistical analysis (R), and visualization and analytics (Spotfire). These may be part of the distributed open-source platform or distributed privately by vendors who are using the open API.

Links/Social Media Feed

Twitter

https://twitter.com/tranSMART_org

LinkedIn

<https://www.linkedin.com/groups?home=&gid=421873>

4

Other social media

<https://www.youtube.com/channel/UC3hy0Az4VYs6TZgN79-w8TA>

Facebook

<https://www.facebook.com/tranSMARTfoundation>

Points of Contact

contact@transmartfoundation.org

Sponsors & Partners

AbbVie

ARLION

AssureRx

BT-Global Services

ConvergeHEALTH by Deloitte

DExStR

Elevada

F. Hoffmann-La Roche

Harvard University

IDBS

Institute for Systems Biology

IO Informatics

Johns Hopkins University

One Mind

Oracle

PerkinElmer

Pfizer

Philips

Rancho Biosciences

Sanofi

Takeda

The Hyve

Thomson Reuters

University of Michigan

Updated: **04/08/2016**