Call for Abstract: PSB 2017 Workshop on Open Data for Discovery Science

The modern healthcare and life sciences ecosystem is moving towards an increasingly open and data-centric approach to discovery science. This evolving paradigm is predicated on a complex set of information needs related to our collective ability to share, discover, reuse, integrate, and analyze open biological, clinical, and population level data resources of varying composition, granularity, and syntactic or semantic consistency. Such an evolution is further impacted by a concomitant growth in the size of data sets that can and should be employed for both hypothesis discovery and testing. When such open data can be accessed and employed for discovery purposes, a broad spectrum of high impact end-points is made possible. These span the spectrum from identification of *de novo* biomarker complexes that can inform precision medicine, to the repositioning or repurposing of extant agents for new and cost-effective therapies, to the assessment of population level influences on disease and wellness. Given these opportunities and the current state of knowledge concerning the use of open data across and between types and scales for the purposes of discovery science, we invite researchers from different fields to present high impact research work in this field including the following topics (but not limited to):

1) *The state-of-the-art in terms of tools and methods targeting the use of open data for discovery science, including but not limited to syntactic and semantic standards, platforms for data sharing and discovery, and computational workflow orchestration technologies that enable the creation of data analytics "pipelines";*
2) *Practical approaches for the automated and/or semi-automated harmonization, integration, analysis, and presentation of "data products" to enable hypothesis discovery or testing;*
3) *Frameworks for the application of open data to support or enable hypothesis generation and testing in projects spanning the basic, translational, clinical, and population health research and practice domains (e.g., from molecules to populations);*
4) *The creation, verification and validation of tools and methods that can assist in the sharing, discovery, and analysis of open data in a primary or secondary manner, including the development of databases, algorithms, and modeling techniques therein;*
5) *The conduct of discovery science in data-intensive experimental contexts that leverage such open data resources; and*
6) *The interaction of multidisciplinary computational, biology, clinical, and population health science teams to conduct research that serves to translate such discovery into patient-level or broader intervention strategies to improve human health and wellness.*

Interested researchers please submit a one-page abstract of your presentation to kun.huang@osumc.edu by September 15, 2016. Invitations for presentation will be sent out by September 30, 2016.

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