



HuBMAP Policies WG



From Data Sharing Policy: Recap

- External Data Sharing

- Data released under CC-BY 4.0 for open data.
- Software:
 - Open-source software (MIT/BSD license) development will be prioritized by HuBMAP
 - Disseminated in publications and other places through github or other similar sites.
 - We will likely need vendor closed-source methods for the lifetime of the program:
 - BUT, we will undertake concerted efforts to work towards using open source.
- “Rapid data release” to the community -> publish data release schedules
 - Publish schedule of releases with minimum frequency of every six months
 - Data released after “usability verification”
 - All public releases of HuBMAP data will be associated with working/white papers or publications
 - HuBMAP acknowledgement statement

Data Use Agreement Recap

- Internal to Consortium Data Sharing

There is no restriction on sharing non-sensitive, non-human identifiable, data among HuBMAP members

Strongly suggest establishing a pipeline for such data

- Common internal data portal

 - Version control

 - Minimize searching and confusion

Data Use Agreement Recap

- Internal to Consortium Data Sharing

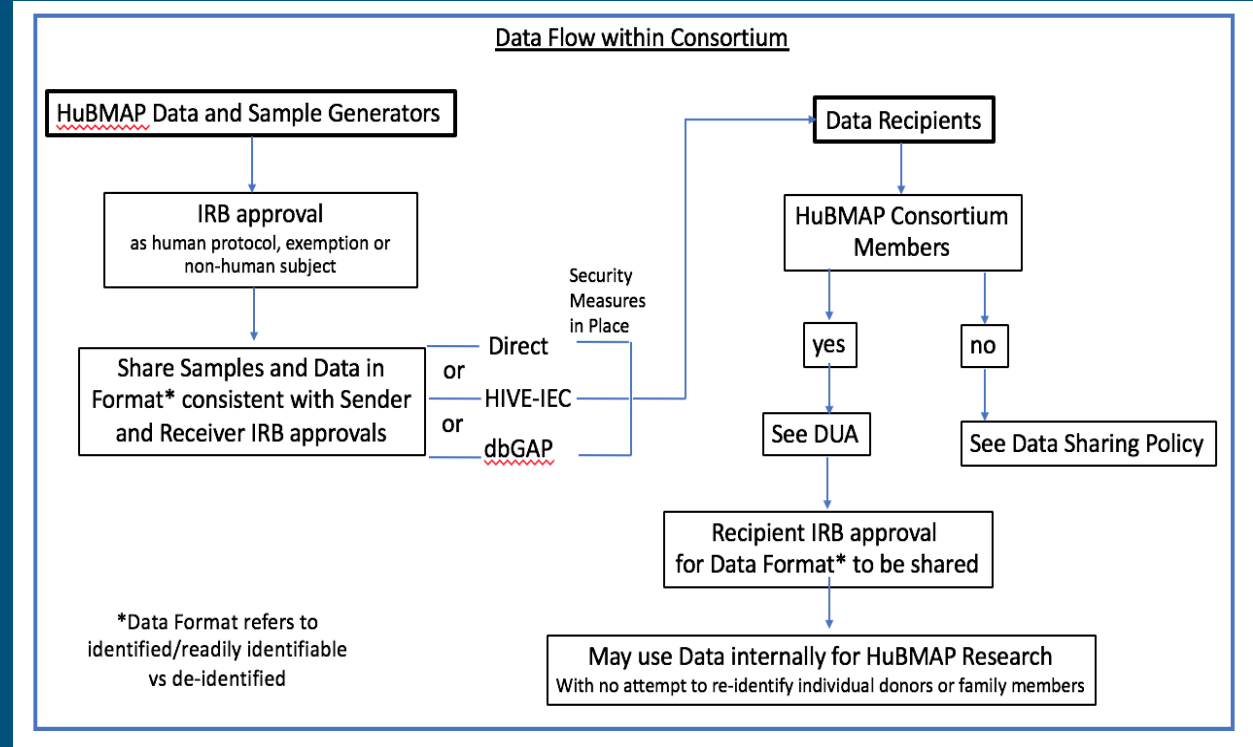
For “Sensitive Data”

PHI

18 identifiers

Raw nucleic acid seq

IRB Protocols and approval letters to be archived with the HIVE-IEC for easy look-up



Consent Policy Recap

Regarding sequence level data...

- Only fully consented samples will be open access (i.e. behind click off barrier) on HuBMAP portals
- Other samples will be behind dbGaP or equivalent
- Centers may disseminate data in accordance with their institutions' policies separately

Working with NDRI and IIAM to establish a HuBMAP specific Consent Addendum
Acceptable to a number of OPOs

Publication policy proposals: a bit more than guiding principles 1

- Standard Operating Procedures - Internal and External Sharing
 - *Need strong message* from SC for getting *all* our SOPs into protocols.io
- Internal Manuscript and Presentation tracking
 - HIVE to establish a (password protected) site to exchange “planned publications”.
 - For internal, confidential communication only
 - *Need strong message* from SC that “it is expected, in order to encourage collaboration and coordination, that all publications will show up well in advance here, preferably as the idea is generating”.
 - Will time stamp abstracts and manuscripts and provide timeline of development
- **Mandatory** submission of pre-prints biorxiv, arxiv, etc.
 - Prior to or concurrent with submission to journal

Publication policy proposals: a bit more than guiding principles 2

- Establish types and frequency for HuBMAP-wide publications :
 - White papers to announce data releases - experimental design, data collection, processing workflows and potential impact on the research community (re: Data sharing policy)
 - Joint/integrated data analysis
 - Individual centers (TMC, TTD, HIVE, RIT)
 - Joint projects (common donor, QA/QC handling/standardization)
- Three options: Publication is a significant contribution to the consortium
 - Require coordinated publications (once every 1-2 years) plus individual groups/projects to publish when they want: higher profile coordinated outcomes.
 - Groups publish when they are ready: scattered outcomes.
 - Hybrid approach: Think of incentives for getting to high profile coordinated publication without requirement.

Publication policy proposals: a bit more than guiding principles 2

	Pros	Cons
Option 1 Coordinated with Data releases	Publication(s) jointly from a consortium have typically much larger value than dribs and drabs from consortium members.	<ul style="list-style-type: none">-Long wait times; data become “stale.”-Teams closest to the data have best handle on the biological insights and impact-Bad to hold up a data release for a delay in publication
Option 2 At will ?Potential to use both released and pre-release data?	Would give flexibility to publish consortium papers when the data and accomplishments drives them.	<ul style="list-style-type: none">-Could go extended periods without publishing from the consortium unless someone(s) make it a mission to get papers written.-There could be a lot of unhappiness if we release multiple kidney data and someone else publishes a paper summarizing the biology from all of our data.-If not publishing a paper with each major data release, want to find another way to advertise the release.

Publication policy proposals - Option 3 - Hybrid

Plan	When	Executed By	Pros	Cons
Working / White Paper	With each major data release	HIVE and data suppliers / analyzers	Give community info and tools needed to optimally use the data	Coordination with release
Joint/integrated data analysis	Top tier major paper every 1-2 years	PIs	High Impact PIs Responsible	
Individual centers (TMC, TTD, HIVE, RIT)	When data / story ready	Individual center leaders		“Steal” from High Impact papers
Joint projects (ex. common donor, QA/QC handling /standardization)	When data / story ready as agreed by collaborative plan	Leaders of collaboration and/or experimental design		

Publication policy proposals: a bit more than guiding principles 3

Manuscript Tracking and Preprint Requirement

Facilitate collaboration

Identifying shared interests sooner helps form collaborations

Reduce overlap

Knowing what other people are doing prevents surprises.

Accelerate pace of science

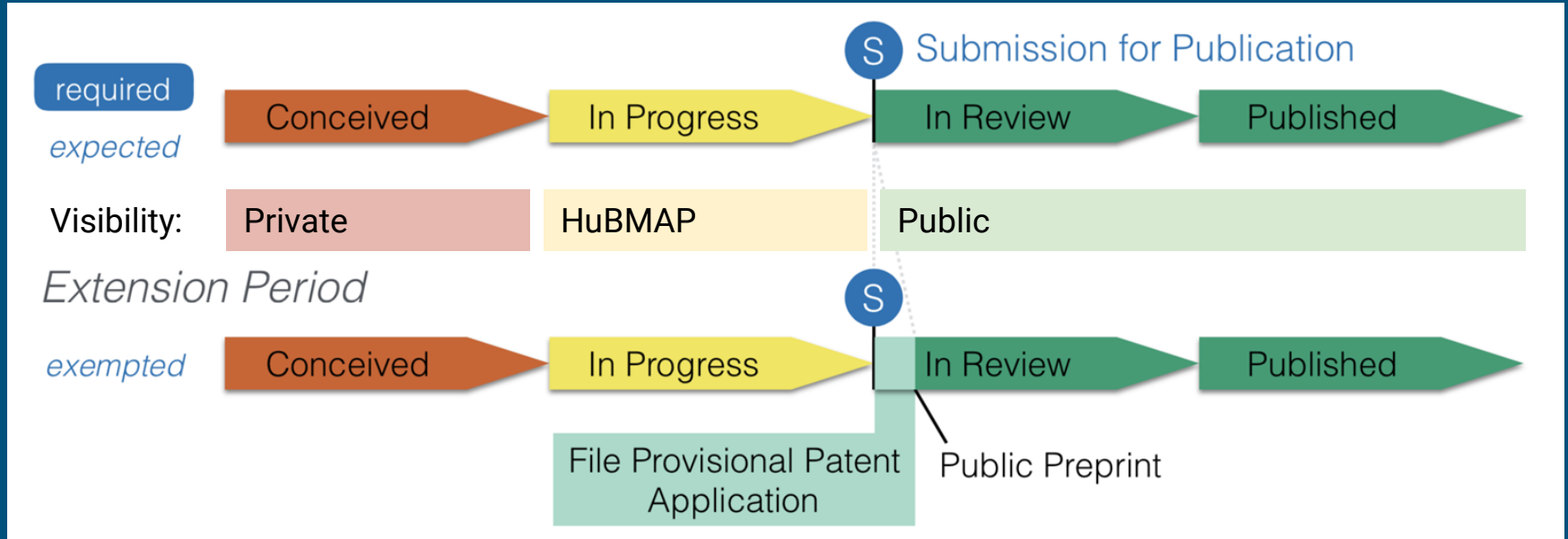
Rapid sharing of 4DN findings helps the field progress faster

Establish precedence

In case issues *do* arise, everyone knows who went first.
(Note: issues *will* arise)

Publication policy proposals: a bit more than guiding principles 3 (cont'd)

Manuscript Tracking and Preprint Requirement Timelines



Publication policy proposals: a bit more than guiding principles 3 (cont'd)

4D Nucleome Success Story: 168 preprints on bioRxiv since 2016 and counting ...



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Big biology projects warm up to preprints

Consortium backed by US National Institutes of Health is first major biology programme to mandate online publication of results ahead of peer review.

Elie Dolgin


30 November 2016

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Biologists [have been slow to embrace preprints](#), but for some it's no longer a choice.

The 4D Nucleome, a major research consortium funded by the US National Institutes of Health (NIH), is now requiring that all manuscripts related to its US\$120-million, five-year programme are posted to an online preprint server ahead of peer review. And a privately funded, US\$600-million biomedical research initiative in California is considering whether to demand its investigators do the same.

Proponents of these mandates say that they will help to foster wider acceptance of pre-publication in the life sciences, a practice that is gaining popularity among biologists but still remains the exception



CSH Cold Spring Harbor Laboratory

bioRxiv beta
THE PREPRINT SERVER FOR BIOLOGY

HOM

Channel : 4D Nucleome

The 3D genome organization of *Drosophila melanogaster* through data integration
Li, Q., Tjong, H., Li, X., Gong, K., Zhou, X. J., Chiolo, I., Alber, F.
10.1101/099911 — Posted: 2017-01-15

Targeted degradation of CTCF decouples local insulation of chromosome domains from genomic compartmentalization
Nora, E. P., Goloborodko, A., Valtou, A.-L., Gibcus, J. H., Uebersohn, A., Abdennur, N., Dekker, J., Mirny, L., Brackley, A. J., et al.
10.1101/095802 — Posted: 2017-01-09

Cohesin dependent compaction of mitotic chromosomes
Schalbetter, S. A., Goloborodko, A., Fudenberg, G., Belton, J. M., Miles, C., Yu, M., Dekker, J., Mirny, L., Baxter, J., et al.
10.1101/094946 — Posted: 2016-12-17

Two independent modes of chromosome organization are revealed by cohesin removal
Schwarzer, W., Abdennur, N., Goloborodko, A., Pekowska, A., Fudenberg, G., Loe-Mie, Y., Fonseca, N. A., Hub, C., Mirny, L., Spitz, F.
10.1101/094185 — Posted: 2016-12-15

CTCF and Cohesin Regulate Chromatin Loop Stability with Distinct Dynamics
Hansen, A. S., Pustova, I., Cattoglio, C., Tjian, R., Darzacq, X.
10.1101/093476 — Posted: 2016-12-13

Hi-C 2.0: AN OPTIMIZED HI-C PROCEDURE FOR HIGH-RESOLUTION GENOME-WIDE MAPPING OF CHROMOSOME CONFORMATION
Belaghzal, H., Dekker, J., Gibcus, J. H.
10.1101/090001 — Posted: 2016-11-27