Community-minded Data Publishing @ Dryad

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Dryad Product Manager
Make Data Count Lead
California Digital Library

Over the last 10 years, Dryad has **curated**, **published**, & **preserved** 32,000 datasets

Dryad's Approach

Best practice & standards based

Community building

Open, like-minded partnerships

Community standards based data publishing

Principles Governing Establishment versus Collapse of HIV-1 Cellular Spread

Hataye, Jason, National Institute of Allergy and Infectious Diseases, https://orcid.org/0000-0003-1986-5752
Casazza, Joseph, National Institute of Allergy and Infectious Diseases
Best, Katharine, Los Alamos National Laboratory
Liang, C. Jason, National Institute of Allergy and Infectious Diseases
Immonen, Taina, Frederick National Laboratory for Cancer Research
Ambrozak, David, National Institute of Allergy and Infectious Diseases
Darko, Samuel, National Institute of Allergy and Infectious Diseases
Henry, Amy, National Institute of Allergy and Infectious Diseases
Laboune, Farida, National Institute of Allergy and Infectious Diseases
Maldarelli, Frank, Frederick National Laboratory for Cancer Research
Douek, Daniel, National Institute of Allergy and Infectious Diseases
Hengartner, Nicolas, Los Alamos National Laboratory
Yamamoto, Takuya, National Institute of Biomedical Innovation, Health and Nutrition
Keele, Brandon, Frederick National Laboratory for Cancer Research, https://orcid.org/0000-0002-2381-1151
Perelson, Alan, Los Alamos National Laboratory, https://orcid.org/0000-0002-2455-0002

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Metrics

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Citation

Hataye, Jason et al. (2019), Principles Governing Establishment versus Collapse of HIV-1 Cellular Spread, v7, Dryad, Dataset, https://doi.org/10.5061/dryad.wdbrv15j3

Abstract

A population at low census might go extinct, or instead transition into exponential growth to become firmly established. Whether this pivotal event occurs for a within-host pathogen can be the difference between health and illness. Here we define the principles governing whether HIV-1 spread among cells fails or becomes established, by coupling stochastic modeling with laboratory experiments. Following ex vivo activation of latently-infected CD4 T cells without de novo infection, stochastic cell division and death contributes to high variability in the magnitude of initial virus release. Transition to exponential HIV-1 spread often fails due to release of an insufficient amount of replication-competent virus. Establishment of exponential growth occurs when virus produced from multiple infected cells exceeds a critical population size. We quantitatively define the crucial transition to exponential viral spread. Thwarting this process would prevent HIV transmission or rebound from the latent reservoir.

Methods

The file "code-data-HatayeJ.zip" contains two experimental data tables and script code in R, details are in the file "README.txt".

These files were generated for this research publication:

Principles Governing Establishment versus Collapse of HIV-1 Cellular Spread

Hataye JM et al. Cell Host & Microbe, 2019

https://doi.org/10.1016/j.chom.2019.10.006

See this publication for details. It has an extensive methods section. The HIV env sequencing for this study was deposited at Genbank (https://www.ncbi.nlm.nih.gov/genbank/) with accession numbers MN515491-MN516420.

rebound

critical threshold

viral dynamics

exponential growth

tipping point

License

DC1 Data Citation Principles

DataCite

Usage Notes

To verify the integrity (verify intact download) of the "code-data-HatayeJ.zip" file, one can check the SHA-256 hash of this file. On Mac OS X, this can be done by opening a terminal, typing "cd Desktop" to change to the Desktop directory (if you put the file there), and typing "shasum -a 256 code-data-HatayeJ.zip". Note that you may need to first unzip the direct download from Dryad to do the SHA-256 for "code-data-HatayeJ.zip".

The SHA-256 for "code-data-HatayeJ.zip" is

92fff454a014518690deb0c2f29592b17993cdc1566db6ef5cf019d3552c99e9

Funding

Division of Intramural Research, National Institute of Allergy and Infectious Diseases (USA),

National Institutes of Health (USA), Award: R01-AI028433

Department of Energy (USA), Award: Contract 89233218CNA000001

National Cancer Institute (USA), Award: Contract HHSN261200800001E

National Institutes of Health (USA), Award: R01-OD011095

National Institutes of Health (USA), Award: R01-OD011095

National Institutes of Health (USA), Award: P01-AI131365

Community Building

"Data Preservation, Sharing, and Discovery: Challenges for Small Science in the Digital Era"

A report of a workshop held May 16 -17th 2007 at NESCent, Durham, NC

Sponsors: The National Evolutionary Synthesis Center (NESCent) and the University of North Carolina at Chapel Hill, School of Information and Library Science, Metadata Research Center (<MRC>)

Organizers: Jane Greenberg (MRC), Hilmar Lapp (NESCent) and Todd Vision (NESCent).

Participants: Participants included project participants from the NESCent-MRC digital data sharing initiative, representatives from major evolutionary biology journals and societies, and experts from the information, library and computer science communities.

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MSU Library joins new service to support researchers

A report of a workshop hel
NESCent, Du

Sponsors: The National Evolutionary Synthesi

Susan Ivey
@susivey

We're excited to announce our new @datadryad institutional membership today!

DRYAD

Libraries makes Dryad data repository available to NC St
The Libraries is excited to announce a new institutional r
a nonprofit, community-governed research data reposit
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Yale Library
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We're providing a new open access data repository for researchers @Yale via @datadryad. #datalibrarian #researchdata #datamanagement web.library.yale.edu/news/2019/10/l...

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British Ecological Society

AAAS

ASSOCIATION FOR TROPICAL BIOLOGY AND CONSERVATION

WILEY

CAMBRIDGE

Bringing Nordic ecologists together

SOCIETY

NEWS / SEPTEMBER 26, 2019

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MSU Library joins new service to support researchers

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Welcoming the Chan Zuckerberg Initiative to Our Member C...
We are proud to welcome our first philanthropy to join the Dryad member community: Chan Zuckerberg Initiative (CZI)...
blog.datadryad.org

Susan Ivey
@susivey

We're excited to announce
institutional membership t

Libraries makes Dryad data repository available to NC St
The Libraries is excited to announce a new institutional r
a nonprofit, community-governed research data reposito
lib.ncsu.edu

AAAS

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Dryad—a data repository for UC Davis researchers

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- Taylor & Francis
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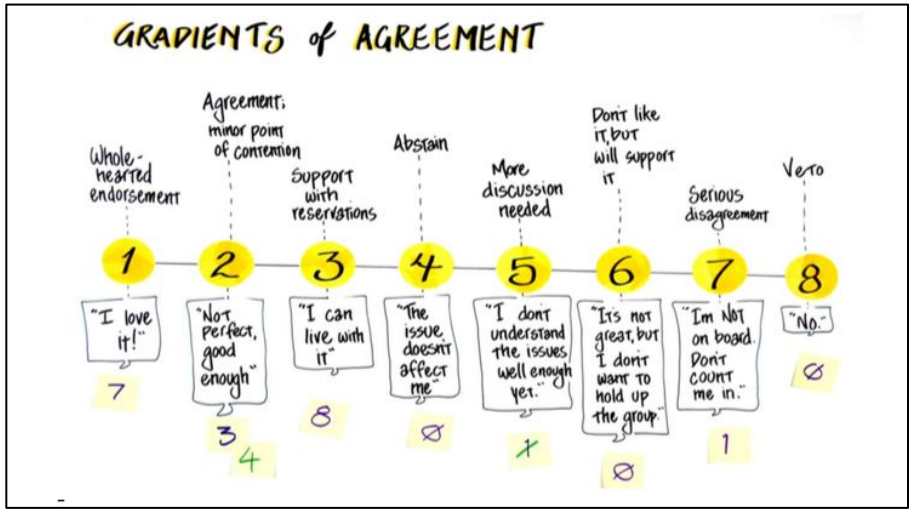
IMLS Funded Institutional Workshops



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Community-led Data Publishing

Banding together

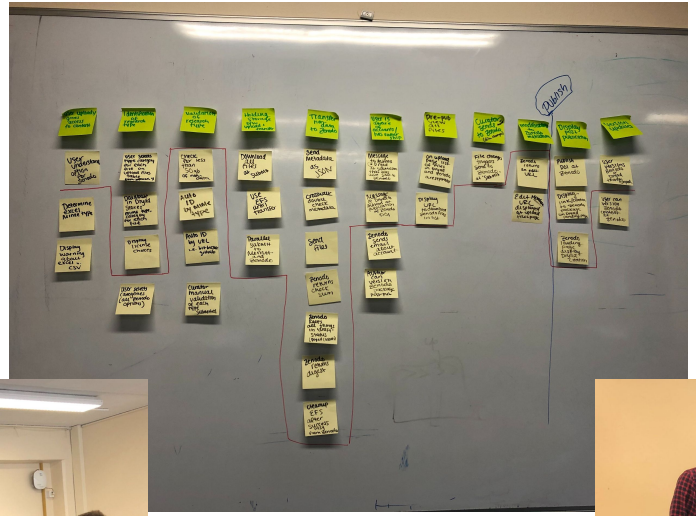
Reproducibility, transparency, re-use, **better science** rely on more than data

July, 2019

zenodo | Blog

Funded Partnership Brings Dryad and Zenodo Closer

CERN - February, 2020



Further together -- Join our community

https://blog.datadryad.org

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