











Tools for Reproducible Research

Harvard Chan Bioinformatics Core

https://tinyurl.com/hbc-trr

Learning Objectives

- ✓ Describe methods for documenting computational analyses
- ✓ Generate reports for R-based analyses using RMarkdown
- ✓ Track changes using the Git version control system and the GitKraken tool
- ✓ Collaborate effectively, and disseminate code & other documents using Github

Exit survey

https://tinyurl.com/trr-exit

R3 at Harvard (HMS)

Research Rigor and Reproducibility

HMS R3 Effort

Research Design

Data Management

Analysis, Interpretation & Visualization

Scholarly Dissemination

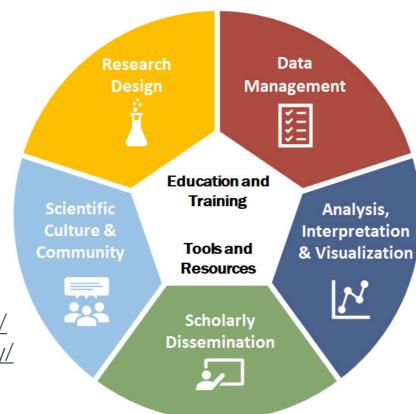
Scientific Culture & Community

R3 FAQs

Research Rigor and Reproducibility at HMS

Mission Statement

Advances in modern biomedical research require the continuous development of and support for a culture that advances research rigor and reproducibility (R3). HMS is committed to identifying, exploring, and supporting R3 principles relevant to our research community through cross-discipline conversations and collaborations. The HMS R3 Committee will be responsible for identifying opportunities to further support R3, with focus on organizational development, training and educational programs, and resources and tools for our students, trainees, faculty, and staff to support the continued advancement of research excellence at HMS.



https://ari.hms.harvard.edu/ research-rigor-reproducibility/ hms-r3-effort

Thanks!

- Julie Goldman, Countway Library
- John F. Obrycki, Boston Children's Hospital
- Bob Freeman, HBS
- Data Carpentry

These materials have been developed by members of the teaching team at the <u>Harvard Chan Bioinformatics Core (HBC)</u>. These are open access materials distributed under the terms of the <u>Creative Commons Attribution license (CC BY 4.0)</u>, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.



Contact us!

HBC training team: hbctraining@hsph.harvard.edu

HBC consulting: bioinformatics@hsph.harvard.edu

Twitter

HBC: @bioinfocore