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Championing Open Research: Lessons from the Lab

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Championing Open Research: Lessons from the Lab

Singapore Open Research Awards 2024 Winner Presentation

Guillaume Thibault
School of Biological Sciences
thibaultlab.com

12th November 2024



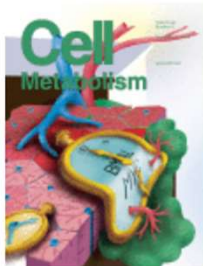
My Personal Motivation for Open Research

Whistleblower – alleged research misconduct was anonymously reported to NTU

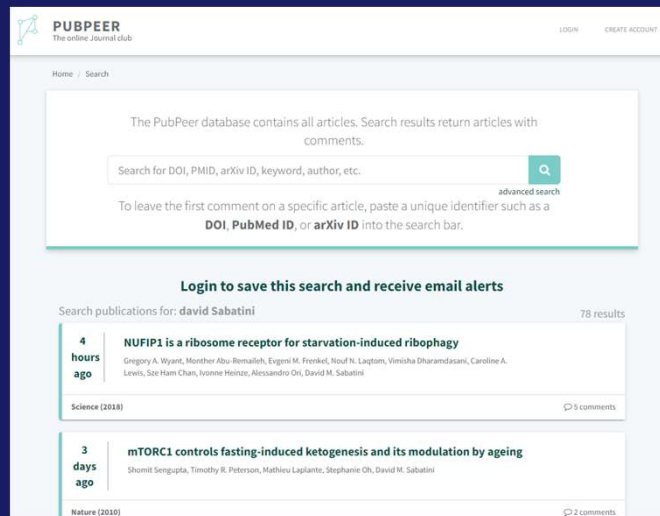
Singapore investigation leads to two retractions, two more on the way

Authors have retracted papers from *Cell Metabolism* and the *Journal of Biological Chemistry* after an investigation in Singapore found issues, including falsified data. The investigation is ongoing, and two additional retractions, along with two corrections, are on the horizon.

The investigation looked into papers by first authors Sudarsanareddy Lokireddy, now a



pubpeer.com



Declaration on Research Assessment



Open Research & Quality of Data Impact and Recognition

1. Building a reputation in your field



2. Increased visibility



3. Recognition by funding agencies and for promotions?



The Hidden Work Behind Transparent Research

1. Ready Access to Underlying Data

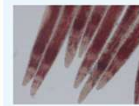
Data availability

The source data for this study are available at the Dataverse Project doi.org/10.21979/N9/GEPEAG and as a Source data file provided with this paper. All RNA sequencing data is available at the Gene Expression Omnibus accession number [GSE182981](https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE182981). [Source data](#) are provided with this paper.

2. Replication Data for Journal Paper

Replication Data for: The unfolded protein response reverses the effects of glucose on lifespan in chemically-sterilized *C. elegans*

Version 1.0



Thibault, Guillaume; Beaudoin-Chabot, Caroline; Wang, Lei; Celik, Cenk; Khalid, Aishah Abdul; Thalappilly, Subhash; Koh, Jhee Hong; Xu, Shiyi; Lim, Venus Wen Xuan; Low, Ann Don, 2022. "Replication Data for: The unfolded protein response reverses the effects of glucose on lifespan in chemically-sterilized *C. elegans*", <https://doi.org/10.21979/N9/GEPEAG>, DR-NTU (Data), V1, UNF:6:bDcV8UXFKGMeff3EFRkBYA== [fileUNF]

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685 Views

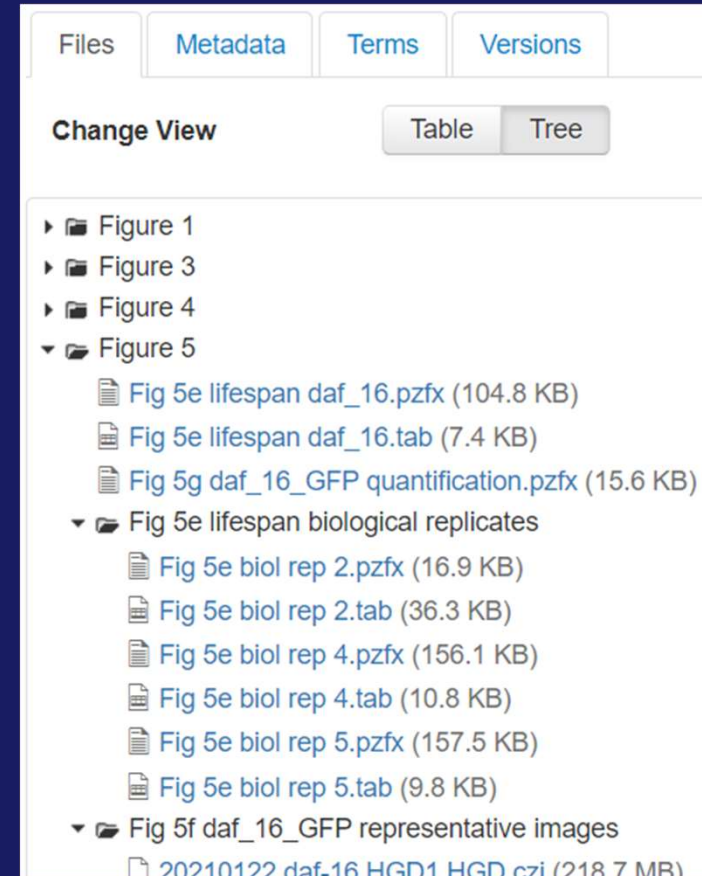
Beaudoin-Chabot *et al.*, Nat. Commun (2022)



The Hidden Work Behind Transparent Research

1. Ready Access to Underlying Data

2. Replication Data for Lab Publications



Beaudoin-Chabot *et al.*, Nat. Commun (2022)

The Hidden Work Behind Transparent Research

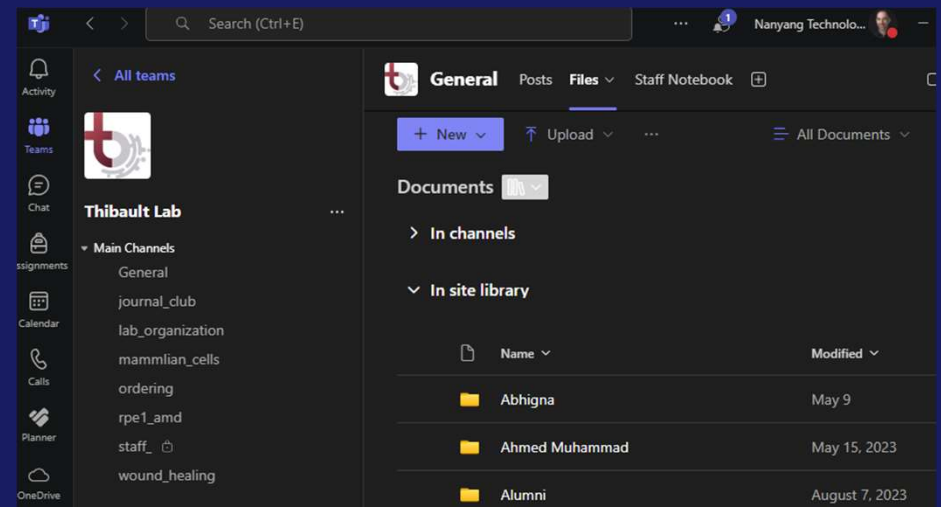
1. Ready Access to Underlying Data

2. Replication Data for Lab Publications

3. Storage of Data Must be Well Organized

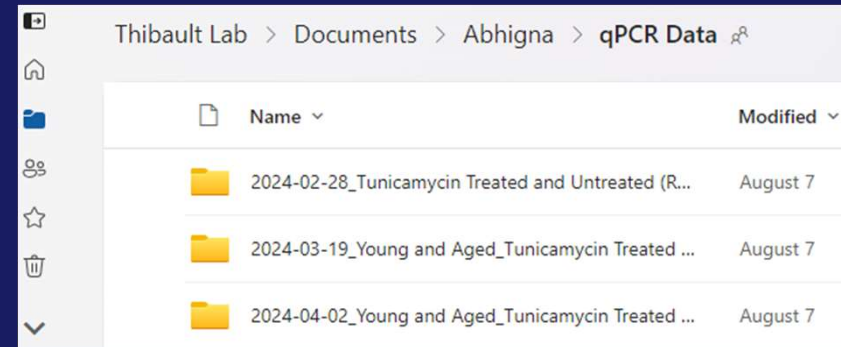
a. Lab Guidelines

b. Microsoft Teams – Thibault Lab Teams
- SharePoint

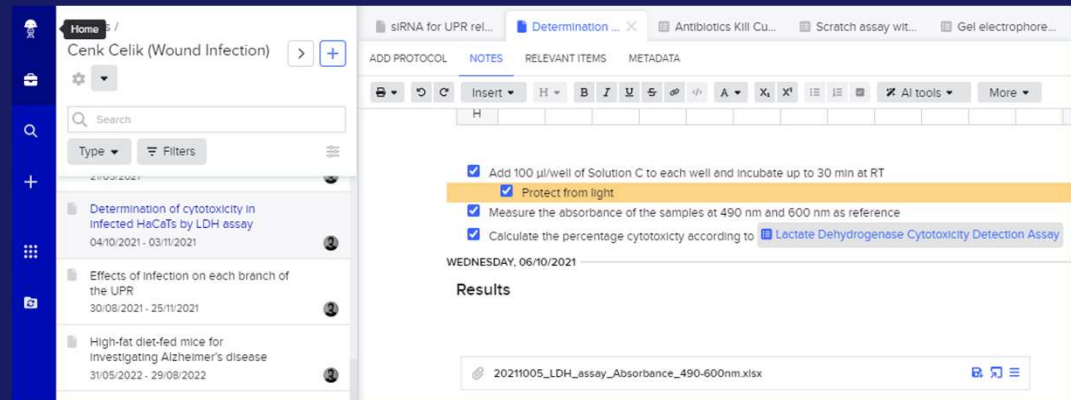


Building a Culture of Openness and Quality in My Lab

1. Data Management on SharePoint with standardized naming and storage



2. Use of Benchling for detailed experiment records



3. Lab-wide policies that all members follow, creating a cohesive, transparent workflow

Challenges and the Case for Recognizing Open Research Efforts

- How can open research practices be better recognized in journal quality metrics, like impact factor?
- Should tenure and promotion criteria place greater emphasis on transparency and reproducibility?
- Can we develop a list of Tier 1 journals that actively encourage and implement open research policies?

Acknowledgement



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Librarian, Open Science and Research Services
Nanyang Technological University



Yasmin Ally

Librarian, Open Science and Research Services
Nanyang Technological University

Jury Panel – Singapore Open Research Awards 2024



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Singapore Management University Libraries



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Aaron Tan

ALUMNI

Caroline Beaudoin-Chabot

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Kimberly Kline • University of Geneva

Rong Li • Mechanobiology Institute SG

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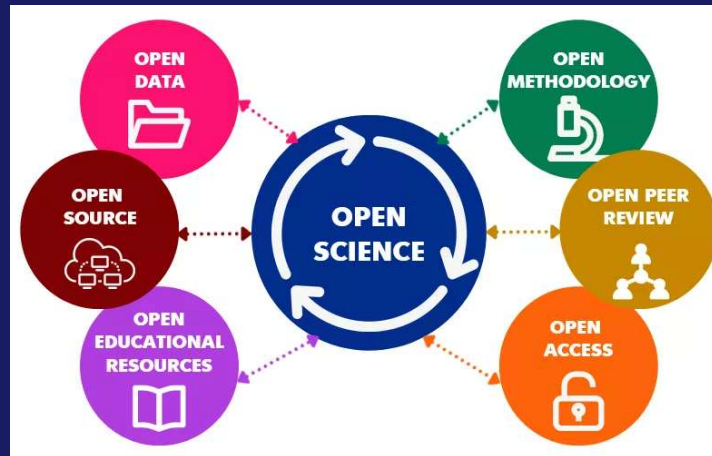
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SINGAPORE

NRF MSG 2023



Open Research is a Choice for Quality and Impact

Transparent science is the foundation of **trust** within the research community and society as a whole



knihovna.upce.cz/en/uk/open-science