

# Chan Zuckerberg Biohub launches Tabula Muris, an open-source database of mouse cells

October 4 2018, by Bob Yirka

---



Credit: CC0 Public Domain

A very large team of researchers from Stanford University, Chan Zuckerberg Biohub, VA Palo Alto Healthcare System and the University of California has put together an open-source database of mouse cell information it is calling [Tabula Muris](#). In their paper published in the

journal *Nature*, the group describes how information in the database was obtained and the ways in which it might be used.

As biological research has progressed, scientists have found that it is useful to gain a more animal-wide perspective when studying the [biology](#) of a given creature. In this new initiative, the team has sought to give researchers a more overall view of the biology of mice by creating a [database](#) of information about them on a cell-by-cell basis. To that end they used two methods to isolate over 100,000 [cells](#) from 20 mouse organs. The first method, called fluorescence-activated cell sorting (FACS) was used to isolate 44,949 cells, while the microfluidic droplet technique was used to isolate another 55,656 cells. The cells were isolated from several three-month-old mice, offering researchers a road map to the cell biology of a healthy mouse.

Isolating cells from all parts of an animal's body and putting the details into a database allow researcher to study the biology of an animal in a new way. Doing so for a [mouse model](#) of Alzheimer's disease reveals changes throughout the entire [mouse](#), for example, rather than just its brain or its blood. It offers the possibility of learning more about the disease and how it impacts mice, and by extension, people, in a more whole-body sense. It might also lead to better understanding of its cause, and perhaps lead to prevention or a cure. The database could be used to study a wide range of diseases including diabetes, heart [disease](#) and even cancer.

The group suggests their database could serve as a new tool for biomedical researchers around the world. The work has been sponsored by Chan Zuckerberg Biohub. The organization is also supporting the Human Cell Atlas—an international collaboration geared toward mapping what the group describes as "the basic units of life."

**More information:** Single-cell transcriptomics of 20 mouse organs

creates a Tabula Muris, *Nature* (2018). [DOI: 10.1038/s41586-018-0590-4](https://doi.org/10.1038/s41586-018-0590-4)

© 2018 Phys.org

Citation: Chan Zuckerberg Biohub launches Tabula Muris, an open-source database of mouse cells (2018, October 4) retrieved 11 July 2024 from <https://phys.org/news/2018-10-chan-zuckerberg-biohub-tabula-muris.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.