

Yale University

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Open position: Post-graduate researcher

David Breslow's lab, part of the Dept. of Molecular, Cellular and Developmental Biology at Yale University, is seeking a full-time post-graduate researcher to support the development of a research program aimed at understanding the functions of the mammalian primary cilium.

The main focus of our research is the mammalian primary cilium, a micron-scale structure protruding from the surface of almost all cells in the human body. Using a combination of functional screening, microscopy and biochemistry, we are investigating the basic processes by which cilia are assembled, maintained, and disassembled. Areas of particular interest include understanding how the cilium serves as an organizing center for select signaling pathways (e.g. Hedgehog signaling) and dissecting the complex interplay between cilium assembly/disassembly and the cell cycle. Additionally, we have a strong interest in applying new technologies to study cilia, including genome-wide CRISPR-based screening and advanced imaging methods. Together, our studies aim to provide fundamental biological insights, to shed light on the pathogenic mechanisms of cilium-based diseases, and to reveal new strategies for targeting Hedgehog-driven cancers.

To support these efforts, the post-graduate researcher will learn and perform a variety of experimental procedures (e.g. CRISPR-based mutagenesis, molecular cloning, culture of mouse and human cell lines, fluorescence microscopy), help manage lab supplies and equipment, and work closely with the PI and other researchers to support projects as needed. Training in advanced techniques (e.g. live-cell and super-resolution microscopy, CRISPR-based gene editing, and various signaling assays), direct mentorship from the PI, and opportunities to pursue independent research will be provided.

Applicants should be motivated, dependable, and highly organized. Strong communication skills and the ability to work effectively within a research team are essential. This position is an excellent fit for researchers interested in gaining experience and skills before pursuing a Ph.D.

Minimum requirements: Bachelor's degree (completed within the last two years) in a biology-related field with significant laboratory coursework. Prior research experience, particularly in mammalian cell culture, molecular biology, light microscopy, or biochemistry, is highly desirable.

The position is available from May 1, 2021 and a start date before July 1, 2021 is strongly preferred. If interested, please send a cover letter briefly summarizing your research experience and goals, a CV, and contact information for 2-3 references to david.breslow@yale.edu

For more information, visit: <http://breslowlab.yale.edu>