



## Theodore Terence Ho

Basic Life Research Scientist, Bioengineering

### Bio

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#### BIO

##### Honors & Awards

1. Cum Laude Society, National Cum Laude Society 2008
2. Harvard College Research Program Fellowship, Harvard University 2009-2011
3. 1st Place, Therapeutics Category, University Research and Entrepreneurship Symposium 2011
4. Quantitative Biosciences Consortium Fellowship, University of California San Francisco 2012
5. Honorable Mention, National Science Foundation Graduate Research Fellowship Program 2013
6. Honorable Mention, Ford Foundation Fellowship 2014
7. American Heart Association Fellowship, American Heart Association 2015
8. Best Poster, Bay Area Aging Meeting 2015
9. Hillblom Center for the Biology of Aging Fellowship, Hillblom Center for the Biology of Aging 2016
10. Travel Award Winner, ASCB, Else Kröner-Fresenius, Keystone Symposium NIA Scholarship, ISSCR, Seahorse Bioscience, UCSF 2013-2017
11. Merit Award Winner, International Society for Stem Cell Research 2017
12. Forbes 30 Under 30, Forbes 2019
13. Jane Coffin Childs Fellowship, Jane Coffin Childs Memorial Fund and Howard Hughes Medical Institute 2019
14. Invited speaker, Tedx Middlebury 2019

##### Professional Education

Bachelor of Arts, Harvard University (2012)

Masters of Science, Harvard University (2012)

Doctor of Philosophy, University of California San Francisco (2017)

##### Stanford Advisors

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Karl Deisseroth, Postdoctoral Faculty Sponsor

## Publications

1. Autophagy maintains the metabolism and function of young and old stem cells, *Nature* 2017 (PubMed ID – 28241143)
2. Aged hematopoietic stem cells are refractory to bloodborne systemic rejuvenation interventions, *J Exp Med* 2021 (PubMed ID – 34032859)
3. Metabolic regulation of stem cell function in tissue homeostasis and organismal ageing, *Nature Cell Biology* 2016 (PubMed ID – 27428307)
4. siRNA Delivery Impedes the Temporal Expression of Cytokine-Activated VCAM1 on Endothelial Cells, *Annals of biomedical engineering* 2016 (PubMed ID – 26101035)
5. Functional evidence implicating chromosome 7q22 haploinsufficiency in myelodysplastic syndrome pathogenesis, *Elife* 2015 (PubMed ID – 26193121)
6. Lysosome activation clears aggregates and enhances quiescent neural stem cell activation during aging, *Science* 2018 (PubMed ID – 29590078)

## ACADEMIC APPOINTMENTS

- Basic Life Research Scientist, Bioengineering

## HONORS AND AWARDS

- Jane Coffin Childs Fellowship, Jane Coffin Childs Memorial Fund and HHMI (2019)
- Forbes 30 Under 30, *Forbes* (2019)
- Merit Award Winner, International Society for Stem Cell Research (2017)
- Hillblom Center for the Biology of Aging Fellowship, Hillblom Center for the Biology of Aging (2016)
- American Heart Association Fellowship, American Heart Association (2015)
- Travel Award Winner, ASCB, Else Kröner-Fresenius, Keystone Symposium NIA Scholarship, ISSCR, Seahorse Bioscience, UCSF (2013-2017)
- Best Poster, Bay Area Aging Meeting (2015)
- Honorable Mention, Ford Foundation Fellowship (2014)
- Honorable Mention, National Science Foundation Graduate Research Fellowship Program (2013)
- Quantitative Biosciences Consortium Fellowship, University of California San Francisco (2012)
- 1st Place, Therapeutics Category, University Research and Entrepreneurship Symposium (2011)
- Harvard College Research Program Fellowship, Harvard University (2009-2011)
- Cum Laude Society, National Cum Laude Society (2008)

## BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Manuscript Reviewer, *Journal of Experimental Medicine*, *Aging Cell* (2018 - present)
- Member, Finance & Audit Committee, American Society for Cell Biology (2014 - 2017)
- Co-Chair, Bernfield/Gilula Awards Joint Selection Committee, American Society for Cell Biology (2013 - 2016)
- Founder and Co-Chair, Committee for Postdocs and Students, American Society for Cell Biology (2013 - 2016)
- President and Founder, Harvard Undergraduate Biotechnology Association (2010 - 2012)

## PROFESSIONAL EDUCATION

- Bachelor of Arts, Harvard University , Human Developmental and Regenerative Biology (2012)

## COMMUNITY AND INTERNATIONAL WORK

- Committee for Postdocs and Students

## Publications

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### PUBLICATIONS

- **Autophagy maintains the metabolism and function of young and old stem cells** *NATURE*  
Ho, T. T., Warr, M. R., Adelman, E. R., Lansinger, O. M., Flach, J., Verovskaya, E. V., Figueroa, M. E., Passegue, E.  
2017; 543 (7644): 205-+
- **Autophagy counters inflammation-driven glycolytic impairment in aging hematopoietic stem cells.** *Cell stem cell*  
Dellorusso, P. V., Proven, M. A., Calero-Nieto, F. J., Wang, X., Mitchell, C. A., Hartmann, F., Amouzgar, M., Favaro, P., DeVilbiss, A., Swann, J. W., Ho, T. T., Zhao, Z., Bendall, et al  
2024
- **Cardiogenic control of affective behavioural state.** *Nature*  
Hsueh, B., Chen, R., Jo, Y., Tang, D., Raffiee, M., Kim, Y. S., Inoue, M., Randles, S., Ramakrishnan, C., Patel, S., Kim, D. K., Liu, T. X., Kim, et al  
2023
- **Aged hematopoietic stem cells are refractory to bloodborne systemic rejuvenation interventions** *JOURNAL OF EXPERIMENTAL MEDICINE*  
Ho, T. T., Dellorusso, P., Verovskaya, E. V., Bakker, S. T., Flach, J., Smith, L. K., Ventura, P. B., Lansinger, O. M., Herault, A., Zhang, S., Kang, Y., Mitchell, C. A., Villeda, et al  
2021; 218 (7)
- **Lysosome activation clears aggregates and enhances quiescent neural stem cell activation during aging** *SCIENCE*  
Leeman, D. S., Hebestreit, K., Ruetz, T., Webb, A. E., McKay, A., Pollina, E. A., Dulken, B. W., Zhao, X., Yeo, R. W., Ho, T. T., Mahmoudi, S., Devarajan, K., Passegue, et al  
2018; 359 (6381): 1277-82
- **Metabolic regulation of stem cell function in tissue homeostasis and organismal ageing** *NATURE CELL BIOLOGY*  
Chandel, N. S., Jasper, H., Ho, T. T., Passegue, E.  
2016; 18 (8): 823-32
- **siRNA Delivery Impedes the Temporal Expression of Cytokine-Activated VCAM1 on Endothelial Cells** *ANNALS OF BIOMEDICAL ENGINEERING*  
Ho, T. T., You, J., Auguste, D. T.  
2016; 44 (4): 895-902
- **Functional evidence implicating chromosome 7q22 haploinsufficiency in myelodysplastic syndrome pathogenesis** *ELIFE*  
Wong, J. C., Weinfurter, K. M., Alzamora, M., Kogan, S. C., Burgess, M. R., Zhang, Y., Nakitandwe, J., Ma, J., Cheng, J., Chen, S., Ho, T. T., Flach, J., Reynaud, et al  
2015; 4

### PRESENTATIONS

- Invited Talks