

Curriculum Vitae

Name: Yu-Hua Tseng

Degree: PhD

Affiliation: Joslin Diabetes Center, Harvard Medical School

Position Title: Senior Investigator; Professor of Medicine

Education/Training

INSTITUTION AND LOCATION	DEGREE	Complete Date MM/YYYY	FIELD OF STUDY
National Taiwan University, Taipei, Taiwan	B.S.	06/89	Med Tech
National Taiwan University, Taipei, Taiwan	M.S.	06/91	Microbio.Immunol
University of Wisconsin-Madison, Madison, WI	Ph.D.	08/97	Cell. & Mol. Biology
Joslin Diabetes Center/Harvard Medical School	Postdoc.	06/04	Diabetes & Obesity

Positions and Scientific Appointments

2020-present Professor of Medicine, Harvard Medical School

2016-present Senior Investigator, Joslin Diabetes Center

2011-present Principal Faculty, Harvard Stem Cell Institute, Cambridge, MA

Honors

2022 The Everfront Award, Pan Pacific Symposium on Stem Cells and Cancer Research, Taiwan

2021 The J Denis McGarry Prize, Montreal Diabetes Center, Montreal, Canada

2017 Armen Tashjian Award for Excellence in Endocrine Research, Harvard T.H. Chan School of Public Health, Boston, MA, USA

2015 Keynote Lecture, Conference of Biomedical Science, Chinese Physiology Association, Taipei, Taiwan

2014 Hazel K. Stiebeling Lectureship, Nutrition Department, Florida State University, Tallahassee, FL

2011 Keynote Lecture, Celebration of 60th Anniversary of Southern Medical University, Guangzhou, China

2009 Keynote Lecture, Adiposcience Symposium, Osaka, Japan

Selected Publication

- Schulz TJ, Huang P, Huang TL, Xue R, McDougall LE, Townsend KL, Cypess AM, Mishina Y, Gussoni E, **Tseng YH**. Brown fat paucity due to impaired BMP signaling induces compensatory browning of white fat. *Nature* 2013; 495(7441):379-83. *PMCID: PMC3623555*.
- Xue R, Lynes MD, Dreyfuss JM, Shamsi F, Schulz TJ, Zhang H, Huang TL, Townsend KL, Li Y, Takahashi H, Weiner LS, White AP, Lynes MS, Rubin LL, Goodyear LJ, Cypess AM **Tseng YH**. Clonal analyses and gene profiling identify genetic biomarkers of human brown and white preadipocyte thermogenic potential. *Nat Med* 2015; 21(7):760-768. *PMCID: PMC4496292*
- Lynes M, Leiria L, Lundh M, Bartelt A, Shamsi F, Huang TL, Takahashi H, Hirshman MF, Schlein C, Lee A, Baer LA, May FJ, Gao F, Narain NR, Chen EY, Kiebish MA, Cypess AM, Blüher M, Goodyear LJ, Hotamisligil GS, Stanford KI, **Tseng YH**. The

- cold-induced lipokine 12,13-diHOME promotes fatty acid transport into brown adipose tissue. *Nat Med* 2017; May;23(5):631-637. *PMCID: PMC5699924*.
4. Leiria LO, Wang CH, Lynes MD, Yang K, Shamsi F, Sato M, Sugimoto S, Chen EY, Bussberg V, Narain NR, Sansbury BE, Darcy J, Huang TL, Kodani SD, Sakaguchi M, Rocha AL, Schulz TJ, Bartelt A, Hotamisligil GS, Hirshman MF, Leyen KV, Goodyear LJ, Bluher M, Cypess AM, Kiebish MA, Spite M, **Tseng YH**. 12-lipoxygenase regulates cold adaptation and glucose metabolism by producing the omega-3 lipid 12-HEPE from brown fat. *Cell Metab* 2019;30(4):768-783.e7. *PMCID: PMC6774888*.
 5. Wang, CH, Lundh M, Fu A, Kriszt R, Huang TL, Lynes MD, Leiria LO, Shamsi F, Darcy J, Greenwood BP, Narain NR, Tolstikov V, Smith KL, Emanuelli B, Chang YT, Hagen S, Danial NN, Kiebish MA, **Tseng YH**. CRISPR-engineered human brown-like adipocytes prevent diet-induced obesity and ameliorate metabolic syndrome in mice. *Sci Transl Med* 2020;12(558):1-14. *PMCID: PMC7704293*.
 6. Shamsi F, Piper M, Ho L-L, Huang TL, Gupta A, Streets A, Lynes MD, **Tseng YH**. Vascular smooth muscle-derived TRPV1-positive progenitors are a source of cold-induced thermogenic adipocytes. *Nat Metab* 2021 Apr 12. DOI: 10.1038/s42255-021-00373-z. *PMCID: PMC8076094*.
 7. Sugimoto S, Mena HA, Sansbury BE, Kobayashi S, Tsuji T, Wang CH, Yin X, Huang TL, Kusuyama J, Kodani SD, Darcy J, Profeta G, Pereira N, Tanzi RE, Zhang C, Serwold T, Kokkotou E, Goodyear LJ, Cypess AM, Leiria LO, Spite M, Tseng YH. Brown adipose tissue-derived Mar2 contributes to cold-induced resolution of inflammation. *Nat Metab*. 2022 Jun;4(6):775-790. doi: 10.1038/s42255-022-00590-0. Epub 2022 Jun 27. *PMID: 35760872*