Postdoctoral position in lymphocyte development, function and oncogenesis at Washington University School of Medicine

We are recruiting 1-2 postdoctoral fellows to study lymphocyte development, adaptive immune responses, and leukemogenesis/lymphomagenesis at the molecular levels. The goal is to understand cellular, genetic and epigenetic regulatory networks governing physiological and pathogenic hematopoiesis, adaptive immune responses to chronic viral infection and cancers and suppression of tumorigenesis in lymphocytes. Our major focus is to elucidate molecular mechanisms by which lymphocytes retain or lose their stemness in response to signaling through antigen- and cytokine receptors and apply these findings to enhanced memory responses and CAR-T efficacy.

Candidates must be within 3 yrs after completion of a doctoral degree and are expected to have experience in molecular immunology and in vivo studies using mouse models or human large data analyses. Additional expertise in flow cytometry, epigenetic analyses, pathogen infection experiments and analysis of public human sequence databases is highly appreciated.

The position is in Department of Pathology and Immunology at Washington University School of Medicine, and supported primarily by NIH funds in accordance with the university policy, including salary, medical and dental coverage and other benefits. The lab is located in scientifically rich environment with close interaction with leading immunologists, including Ken Murphy, Marco Colonna, Wayne Yokoyama and Chyi-Song Hsieh. This is a great place to build a successful research career.

Please refer to our research summary at
https://pathology.wustl.edu/people/takeshi-egawa-md-phd/.

Please send CV, a brief statement of your past accomplishment and prospective goal (1-2 pages each), and email addresses of two or more references to:

Takeshi Egawa
Department of Pathology and Immunology
Washington University School of Medicine
Email: egawat@wustl.edu

Selected Publications

Xia Y, Sandor K, Pai JA, Daniel B, Raju S, Wu R, Hsiung S, Qi Y, Yangdon T, Okamoto M, Schreiber RD, Murphy KM, Satpathy AT*, **Egawa T*** (*co-corresponding authors). BCL6-dependent TCF-1+ progenitor cells maintain effector and helper CD4 T cell responses to persistent antigen. bioRxiv 2021; doi: https://doi.org/10.1101/2021.08.06.455141

Daniel B, Yost KE, Sandor K, Xia Y, Qi Y, Hiam-Galvez KJ, Meier SL, Belk JA, Giles JR, Wherry EJ, Chang HY, **Egawa T***, Satpathy AT* (*co-corresponding authors). Divergent clonal differentiation trajectories of T cell exhaustion. bioRxiv 2021; doi: https://doi.org/10.1101/2021.12.16.472900

Tonc E, Takeuchi Y, Chou C, Xia Y, Holmgren M, Fujii C, Raju S, Chang GS, Iwamoto M, **Egawa T**. Unexpected suppression of tumorigenesis by c-MYC via TFAP4-dependent restriction of stemness in B lymphocytes. Blood, 2021, 138 (24): 2526-2538. doi: 10.1182/blood.2021011711. PMID: 34283887. PMCID: PMC8678995.

Raju S, Xia Y, Daniel B, Yost KE, Bradshaw E, Tonc E, Verbaro DJ, Kometani K, Yokoyama WM, Kurosaki T, Satpathy AT, **Egawa T**. Identification of a T-bethi quiescent exhausted CD8 T cell subpopulation that can differentiate into TIM3+ CX3CR1+ effectors and memory-like cells. J Immunol. 2021, 206(12): 2924-2936. doi: 10.4049/jimmunol.2001348. PMID: 34088768. PMCID: PMC8642473.

Raju S, Verbaro DJ, **Egawa T**. PD-1 Signaling Promotes Control of Chronic Viral Infection by Restricting Type-I-Interferon-Mediated Tissue Damage. Cell Rep. 2019;29(9):2556-2564.e3. PMID: 31775026. PMCID: PMC6894421.

Raju S, Kometani K, Kurosaki T, Shaw AS, **Egawa T**. The adaptor molecule CD2AP in CD4 T cells modulates differentiation of follicular helper T cells during chronic LCMV infection. PLoS Pathogen. 2018;14(5):e1007053.doi:10.1371/journal.ppat.1007053. eCollection 2018 May. PMID: 29734372. PMCID: PMC5957453.

Chou C, Verbaro DJ, Tonc E, Holmgren M, Cella M, Colonna M, Bhattacharya D, **Egawa T**. The Transcription Factor AP4 Mediates Resolution of Chronic Viral Infection through Amplification of Germinal Center B Cell Responses. Immunity. 2016;20;45(3):570-582. PMID: 27566940. PMCID: PMC5037962.