



## JANAKI PURUSHE, PH.D.

### TECHNICAL ADVISOR

#### BACKGROUND

Janaki focuses her practice on patent preparation and prosecution of biotechnology and pharmaceutical matters. She received her Ph.D. in Microbiology and Immunology from Temple University School of Medicine in 2018 and a B.S. in Cell Biology and Molecular Genetics from University of Maryland in 2007.

#### EXPERIENCE

Prior to joining Seed IP, Janaki's research focused on T cell biology and epigenetics with a special focus on cell-based immunotherapies. During her post-doctoral work she developed a series of functional assays to characterize CAR-T cell potency in clinical samples and utilized CUT&RUN to map chromatin landscapes in CAR-T immunotherapy products. During her doctoral training and time as a research assistant at the J. Craig Venter Institute, Janaki gained experience across a spectrum of scientific disciplines, including molecular biology, genomics, microbiology, and immunology.

Janaki has co-authored a large number of peer-reviewed articles that have published in variety of scientific journals.

#### AWARDS

- Lewis Katz School of Medicine Microbiology and Immunology Research Grant | Microbiology and Immunology Annual Symposium – December 15, 2017, Philadelphia, PA
- American Society of Hematology Abstract Achievement Award | American Society of Hematology (ASH) Annual Meeting – December 3-6, 2016, San Diego, CA

#### AFFILIATIONS

Janaki is a member of the Washington State Patent Law Association (WSPLA) and Life Science Washington.

#### EDUCATION

Temple University  
School of Medicine  
Microbiology and Immunology  
Ph.D. 2018

University of Maryland  
Cell Biology and  
Molecular Genetics  
B.S. 2007

#### INDUSTRY GROUPS

Biotechnology  
Pharmaceuticals

#### SERVICES

Patent

## PUBLICATIONS

Gauthier J, Hirayama AV, Purushe J, Hay KA, Lymp J, Li D, Yeung C, Sheih A, Pender BS, Hawkins RM, Vakili A, Phi T, Steinmetz RN, Shadman M, Riddell SR, Maloney DJ, and Turtle CJ. "Feasibility and efficacy of CD19-targeted CAR-T cells with concurrent ibrutinib for CLL after ibrutinib failure." *Blood*. 2020.

He S, Liu Y, Meng L, Sun H, Wang Y, Ji Y, Purushe J, Chen P, Li C, Madzo J, Issa JP, Soboloff J, Reshef R, Moore B, Gattinoni, and Zhang Y. "The Phosphorylation State of Ezh2 Determines its Capacity to Maintain CD8+ Memory T Cells for Antitumor Immunity." *Nat Commun*. 2017;8(1):2125.

Purushe J and Zhang Y. "Histone Methyltransferases and T Cell Heterogeneity." *Signaling Mechanisms Regulating T Cell Diversity and Function*. Soboloff J. and Kappes DJ. ed. CRC Press, 203-230, 2017. Book chapter.

Purushe J, Sun H, He S, Zhang Y. "Transcriptional Regulation of T Cell Heterogeneity and Tumor Immunity." *J Immunol Res Ther*. 2016;1(1): 49-62. Review article.

Mochizuki K, Meng L, Mochizuki I, Tong Q, He S, Liu Y, Purushe J, Fung H, Zaidi MR, Zhang Y, Reshef R, Blazar BR, Yagita H, Mineishi S, Zhang Y. "Programming of donor T cells using allogeneic  $\alpha$ -like ligand 4-positive dendritic cells to reduce GVHD in mice." *Blood*. 2016; 127(25):3270-80.

Meng L, Bai Z, He S, Mochizuki K, Liu Y, Purushe J, Sun H, Wang J, Yagita H, Mineishi S, Fung H, Yanik GA, Caricchio R, Fan X, Crisalli LM, Hexner EO, Reshef R, Zhang Y, Zhang Y. "The Notch Ligand DLL4 Defines a Capability of Human Dendritic Cells in Regulating Th1 and Th17 Differentiation." *J Immunol*. 2016; 96(3):1070-80.

Depew J, Zhou B, McCarrison JM, Wentworth DE, Purushe J, Koroleva G, Fouts DE. "Sequencing viral genomes from a single isolated plaque." *Virology*. 2013; 10:181.

Fouts DE, Szpakowski S, Purushe J, Torralba M, Waterman RC, MacNeil MD, Alexander LJ, Nelson KE. "Next generation sequencing to define prokaryotic and fungal diversity in the bovine rumen." *PLoS ONE*. 2012; 7(11): e48289.

Ricaldi JN, Fouts DE, Selengut JD, Harkins DM, Patra KP, Moreno A, Lehmann JS, Purushe J, Sanka R, Torres M, Webster NJ, Vinetz JM, Matthias MA. "Whole genome analysis of *Leptospira licerasiae* provides insight into leptospiral evolution and pathogenicity." *PLoS Negl Trop Dis*. 2012; 6(10):e1853.

Purushe J, Fouts DE, Morrison M, White BA, Mackie RJ; North American Consortium for Rumen Bacteria, Coutinho PM, Henrissat B, Nelson KE. "Comparative genome analysis of *Prevotella ruminicola* and *Prevotella bryantii*: insights into their environmental niche." *Microb Ecol*. 2010; 60(4):721-9.

## PRESENTATIONS

Purushe J, Sun H, He S, Dou Y and Zhang Y. MLL Histone Methyltransferase Restrains Effector Differentiation and PD-1 Expression in Human CD8+ T Cells While Promoting Their Proliferation. *The American Society of Hematology (ASH) Annual Meeting*. Dec 3-6, 2016. San Diego, CA. Oral presentation.

Purushe J, Sun H, He S, and Zhang Y. MLL4-Menin Complex Inhibition Promotes the Generation of TCM-like CD8+ CAR-T cells. *Microbiology and Immunology Annual Symposium*. Dec 15, 2017. Philadelphia, PA. Oral presentation.

Purushe J, Sun H, He S, and Zhang Y. MLL Regulation of Differentiation in CD8+ T cells. *The Fels Institute Research Symposium*. Philadelphia, PA. May 20, 2016. Oral presentation.

Tasovski I, Purushe J and Chin MPS. A Targeted Transcriptomic Approach Reveals HIV-1 Associated Cellular Factors Modulated by Substances of Abuse. *Conference on Retroviruses and Opportunistic Infections (CROI)*, Atlanta, GA, March 3-6 2013. Poster presentation.