

POSTDOCTORAL TRAINING PROGRAM



REGENERON[®]



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REGENERON POSTDOCTORAL PROGRAM RATIONALE AND MISSION

The Regeneron postdoctoral program seeks to:

- Nurture and support the growth of developing scientists
- Bolster the scientific pipeline, both internally and externally
- Increase visibility and engagement with developing scientists and academic institutions
- Excite current scientific staff by giving them an opportunity to pursue creative non-pipeline projects and mentor talented trainees
- Continue and enhance Regeneron's strong tradition of publishing innovations in basic science

Mission Statement

The Regeneron Postdoctoral Program was designed with the goal of being among the best postdoctoral training programs in the country. It is a multi-faceted program that integrates cutting edge science with didactic training, discussion groups, and focused, multi-tiered mentoring.



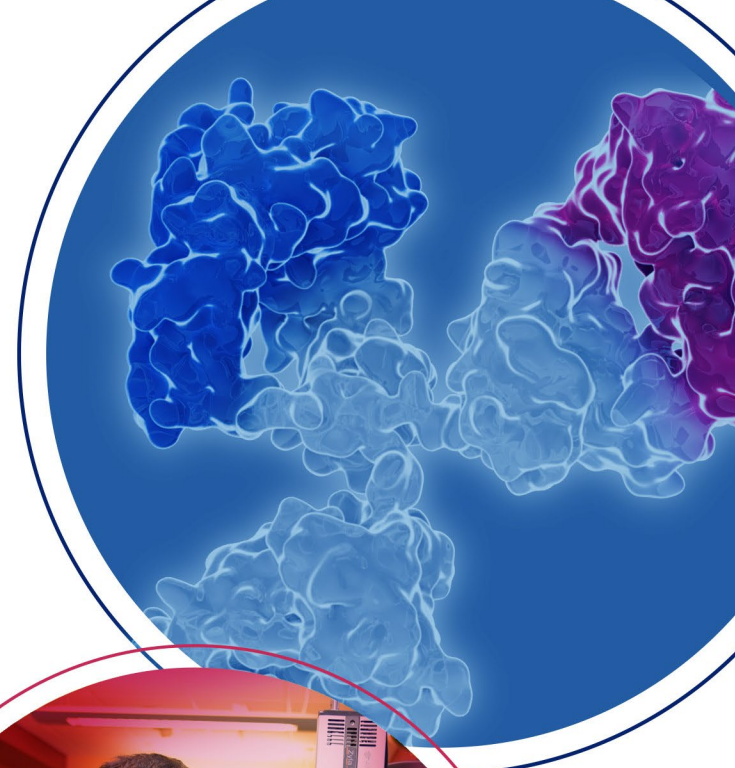
Postdoctoral Program Structure

- Up to 4 years of training in a program designed and run by award-winning educators
- Publishing, conference attendance, and external presentations required
- Small number of fellows selected each year to ensure individual attention and focused mentoring
- Focused, multi-tiered mentorship:
 - Research Mentor
 - Career Mentor
 - Peer Mentor (“Buddy”)
 - Program Directors/Program Staff

Qualifications for Postdoctoral Research Projects

- The project contains forward-looking questions with room for creativity and critical thinking
- The project does not lie in the critical path to a timeline-driven deliverable
- The project appears feasible and is projected to produce publishable results within the postdoctoral training period

NOTE: Fellows can select projects proposed by Regeneron scientists or can propose another project in collaboration with potential research mentors

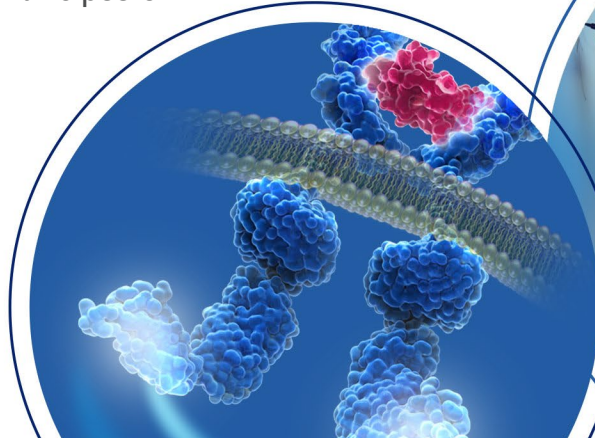


As part of the Postdoctoral Program you will:

- Conduct forward-looking, innovative, and creative research to address a novel scientific question under the auspices of a scientist mentor, many of whom are highly-published Regeneron scientists
- Publish and disseminate data via external conferences and peer-reviewed publications
- Assist with mentoring and teaching interns and other more junior trainees
- Participate in postdoctoral program activities such as weekly meetings and the annual research conference
- Present data internally, including at lab meetings, and company-wide seminars
- Provide ongoing reports of research progress to mentor and program staff

Experience and required skills:

- Doctoral degree in a relevant discipline
- Scientists looking for their first postdoctoral training (or those with less than one year of postdoctoral training)
- Superior scientific skills including critical and analytical thinking
- Demonstrated publication success as evidenced by peer-reviewed publications
- Ability to interact dynamically and constructively with scientific peers
- Note: Occasional travel
- A full academic CV and letters of recommendation are required (please find additional details in the application)



[Regeneron Postdoc Application](#)



RECRUITMENT PROCESS AND TIMELINE

- Applications accepted online from October 1st – December 1st
- Starting October 1st, the links will be provided to apply online

[Regeneron Postdoc Application](#)



- A full academic CV and letters of recommendation are required (please find additional details in the application)
- Applications received after December 1st may not be considered
- Following the close date, please allow 3-4 months for review and interviews
- Targeted Start Date: Summer 2023, but the start date is flexible

[Contact Us](#)



REGENERON POSTDOC PUBLICATIONS

2022

Zamolodchikov D., Duffield M, Macdonald LE, Alessandri-Haber N. (2022) Accumulation of high molecular weight kininogen in the brains of Alzheimer's disease patients may affect microglial function by altering phagocytosis and lysosomal cathepsin activity. *Alzheimer's Dement* Jan 3;1-11. →

Kerk SY, Bai Y, Smith J, Lalgudi P, Hunt C, Kuno J, Nuara J, Yang T, Lanza K, Chan N, Coppola A, Tang Q, Espert J, Jones H, Fannell C, Zambrowicz B, Chiao E. (2022) Homozygous ALS-linked FUS P525L mutations cell- autonomously perturb transcriptome profile and chemoreceptor signaling in human iPSC microglia. *Stem Cell Reports* Mar 8;17(3):678-692. →

2021

Horowitz JE, Warner N, Staples J, Crowley E, **Gosalia N**, Murchie R, Van Hout CV, Fiedler K, Welch G, King A, Reid JG, Overton JD, Baras A, Shuldiner AR, Griffiths A, Gottesman O, Muise AM, Gonzaga-Jauregui C. (2021) Mutation spectrum of NOD2 reveals recessive inheritance as a main driver of Early Onset Crohn's Disease. *Sci Rep* Mar 10;11(1):5595. →

Gao C, Marcketta A, **Backman J**, O'Dushlaine C, Staples J, Revez Ferreira M A, Lotta L, Overton J, Reid J, Mirshahi T, Baras A, Abecasis G, Shuldiner A, Van Hout C, McCarthy S. (2021) Genome-wide association analysis of serum alanine and aspartate aminotransferase, and the modifying effects of BMI in 388k European individuals. *Genetic Epidemiology* Sep;45(6):664-681. →

Panea C, Zhang R, VanValkenburgh J, Ni M, Adler C, Wei Y, Ochoa F, Schmahl J, Tang Y, Siao C, Poueymirou W, Espert J, Lim W, Atwal G, Murphy A, Sleeman M, Hovhannisyan Z, Haxhinasto S. (2021) Butyrophilin-like 2 regulates site-specific adaptations of intestinal $\gamma\delta$ intraepithelial lymphocytes. *Commun Biol.* Jul 26;4(1):913. →

Zhang W, Hawkins PG, He J, Gupta NT, Liu J, Choonoo G, Jeong SW, Chen CR, **Dhanik A**, Duillon M, Deering R, Macdonald LE, Thurston G, Atwal GS. (2021) A framework for highly multiplexed dextramer mapping and prediction of T cell receptor sequences to antigen specificity. *Sci Adv* May 14;7(20):eabf5835. →

Zhou Y, Adewale F, Kim S, Su Q, Glass D, Sleeman MW, Murphy AJ, Cheng X. (2021) Five-in-One: Simultaneous isolation of multiple major liver cell types from livers of normal and NASH mice. *J Cell Mol Med.* Oct;25(20):9878-9883. →

Su Q, Kim SY, Adewale F, **Zhou Y**, Aldler C, Ni M, Wei Y, Burczynski ME, Atwal GS, Sleeman MW, Murphy AJ, Xin Y, Cheng X. (2021) Single-cell RNA transcriptome landscape of hepatocytes and non-parenchymal cells in healthy and NAFLD mouse liver. *iScience.* 2021 Oct 6;24(11):103233. →

REGENERON POSTDOC PUBLICATIONS

2021 (continued)

Day SE, Muller YL, Koroglu C, Kobes S, Wiedrich K, Mahkee D, **Kim HI**, Van Hout C, **Gosalia N**, Ye B, Regeneron Genetics Center, Shuldiner AR, Knowler WC, Hanson RL, Bogardus C, Baier LJ. (2021) Exome Sequencing of 21 Bardet-Biedl Syndrome (BBS) Genes to Identify Obesity Variants in 6,851 American Indians. *Obesity* (Silver Spring). 2021 Apr;29(4):748-754. →

Wei J, Motalvo-Ortiz W, Yu L, Krasco A, **Ebstein S**, Cortez C, Lowy I, Murphy AJ, Sleeman MA, Skokos D. (2021) Sequence of αPD-1 relative to local tumor irradiation determines the induction of abscopal antitumor immune responses. *Sci Immunol*. 2021 Apr 9;6(58):eabg0117. →

2020

Adam RC, Mintah IJ, Alexa-Braun CA, Shihanian LM, Lee JS, Banerjee P, Hamon SC, **Kim HI**, Cohen JC, Hobbs HH, Van Hout C, Gromada J, Murphy AJ, Yancopoulos GD, Sleeman MW, Gusarova V. (2020) Angiopoietin-like protein 3 governs LDL-cholesterol levels through endothelial lipase-dependent VLDL clearance. *J Lipid Res*. 2020 Sep;61(9):1271-1286. →

Kim HI, Ye B, **Gosalia N**, Regeneron Genetics Center, Köroğlu Ç, Hanson RL, Hsueh WC, Knowler WC, Baier LJ, Bogardus C, Shuldiner AR, Van Hout C. (2020) Characterization of Exome Variants and Their Metabolic Impact in 6,716 American Indians from the Southwest US. *Am J Hum Genet*. 2020 Aug 6;107(2):251-264. →

Piaggi P, Köroğlu Ç, Nair AK, Sutherland J, Muller YL, Kumar P, Hsueh WC, Kobes S, Shuldiner AR, **Kim HI**, **Gosalia N**, Van Hout C, Jones M, Knowler WC, Krakoff J, Hanson R, Bogardus C, Baier LJ. (2020) Exome Sequencing Identifies A Nonsense Variant in DAO Associated With Reduced Energy Expenditure in American Indians. *J Clin Endocrinol Metab*. 2020 Nov 1;105(11):e3989- e4000. →

Gutman D, Lidzbarsky G, Milman S, Gao T, **Sin-Chan P**, Gonzaga-Jauregui C, Regeneron Genetics Center, Deelen J, Shuldiner AR, Barzilai N, Atzmon G. (2020) Similar burden of pathogenic coding variants in exceptionally long-lived individuals and individuals without exceptional longevity. *Aging Cell*. 2020 Oct;19(10):e13216. →

Benitez A, Khalil-Agüero S, Nandakumar A, Gupta N, Zhang W, Atwal G, Murphy A, Sleeman M, Haxhinasto S. (2020) Absence of central tolerance in Aire-deficient mice synergizes with immune-checkpoint inhibition to enhance antitumor responses. *Commun Biol*. Jul 8;3(1):355. →

Chiu D, Tavaré R, Haber L, Aina OH, Vazzana K, Ram P, Danton M, Finney J, Jalal S, Krueger P, Giurleo JT, Ma D, Smith E, Thurston G, Kirshner JR, Crawford A. (2020) A PSMA-Targeting CD3 Bispecific Antibody Induces Antitumor Responses That Are Enhanced by 4-1BB Costimulation. *Cancer Immunol Res*. 8(5):596-608. →

REGENERON POSTDOC PUBLICATIONS

2019

Kim J, Gutierrez GD, Xin Y, Cavino K, Sung B, Sipos B, Kloeppel G, Gromada J, Okamoto H. (2019) Increased SLC38A4 Amino Acid Transporter Expression in Human Pancreatic α -Cells After Glucagon Receptor Inhibition. *Endocrinology* 160(5):979–988. [↗](#)

Zamolodchikov D, Bai Y, Tang Y, McWhirter JR, Macdonald LE, Alessandri-Haber N. (2019) A Short Isoform of Coagulation Factor XII mRNA Is Expressed by Neurons in the Human Brain. *Neuroscience* Aug 10;413:294-307. [↗](#)

Gao J, **Van Meter M**, Hernandez Lopez S, Chen G, Huang Y, Ren S, Zhao Q, Rojas J, Gurer C, Thurston G, Kuhnert F. (2019) Therapeutic targeting of Notch signaling and immune checkpoint blockade in a spontaneous, genetically heterogenous mouse model of T-cell acute lymphoblastic leukemia. *Dis Model Mech* 12(9). [↗](#)

Decker CE, Young T, Pasnikowski E, Chiu J, Song H, Wei Y, Thurston G, Daly C. (2019) Genome-scale CRISPR activation screen uncovers tumor-intrinsic modulators of CD3 bispecific antibody efficacy. *Sci Rep* 9(1):20068. [↗](#)

Cruz JW,.. Kyratsous CA, Prasad BC. (2019) A novel bispecific antibody platform to direct complement activity for efficient lysis of target cells. *Sci Rep* Aug 19;9(1):12031. doi: 10.1038/s41598-019-48461-1. [↗](#)

2018

Wolken DMA, Idone V, Hatsell, SH, Yu PB, Economides A. (2018) The obligatory role of Activin A in the formation of heterotopic bone in Fibrodysplasia Ossificans Progressiva. *Bone* Apr;109:210-217. [↗](#)

Bai Y, Wang D, Li W, Huang Y, **Ye X**, Waite J, Barry T, Edelman KH, Levinkova N, Guo C, Skokos D, Wei Y, Macdonald LE, Fury W (2018) Evaluation of the capacities of mouse TCR profiling from short read RNAseq data. *PLOS One* 13, E0207020. [↗](#)

Nielsen JB, Thorolfsdottir RB...**Chung JH, Backman JD**...Teslovich TM, Carey DJ, Gudbjartsson DF, Stefansson K, Abecasis GR, Hveem K, Willer CJ. (2018) Biobank-driven genomic discovery yields new insight into atrial fibrillation biology. *Nature Genetics* 50(9), 1234. [↗](#)

Gutierrez GD, Xin Y, Okamoto H, **Kim J**, Lee AH, Ni M, Adler C, Yancopoulos GD, Murphy AJ, Gromada J (2018). Gene signature of proliferating human pancreatic α -cells. *Endocrinology* Sep 1;159(9):3177-3186. [↗](#)

REGENERON POSTDOC PUBLICATIONS

2018 (continued)

Xin Y, **Gutierrez GD**, Okamoto H, **Kim J**, Lee AH, Adler C, Ni M, Yancopoulos GD, Murphy AJ, Gromada J (2018). Pseudotime ordering of single human β -cells reveals states of insulin production and unfolded protein response. *Diabetes Sep*;67(9):1783-1794. [↗](#)

Kleiner SD, Gomez B, Megra E, Na R, Bhavsar K, Cavino Y, Xin J, Rojas G. **Gutierrez GD**, Zambrowicz B, Carrat G, Chabosseau P, Hu M, Murphy AJ, Yancopoulos GD, Rutter GA, Gromada J. (2018). Mice harboring the human SLC30A8 R138X loss-of-function mutation have increased insulin secretory capacity, *Proc Natl Acad Sci* 115: E7642-E49 [↗](#)

2017

Wang L, Sui L, Panigrahi SK, Meece K, Xin Y, **Kim J**, Gromada J, Doege CA, Wardlaw SL, Egli D, Leibel RL (2017). PC1/3 deficiency impacts POMC processing in human embryonic stem cell-derived hypothalamic neurons. *Stem Cell Rep* 8(2):264-277. [↗](#)

Kim J, Okamoto H, Huang Z, Anguiano G, Chen A, Liu Q, Cavino K, Xin Y, Na E, Hamid R, Lee J, Zambrowicz B, Unger R, Murphy AJ, Xu Y, Yancopoulos GD, Li W-H, Gromada J (2017). Amino acid transporter Slc38a5 controls glucagon receptor inhibition-induced pancreatic α -cell hyperplasia in mice. *Cell Metabol* 25(6):1348-1361. [↗](#)

Gosalia N, Economides AE, Dewey FE, Balasubramanian S (2017) MAPPIN: A method for annotating, predicting pathogenicity, and mode of inheritance for nonsynonymous variants, *Nucleic Acids Research* 45(18), 10393. [↗](#)

Gutierrez GD, Gromada J, Sussel L (2017). Heterogeneity of the Pancreatic Beta Cell. *Front Genet* 8: 22. [↗](#)

Guinney J, Wang TD, Laajal...**Dhanik A...** (2017). The prostate cancer challenge DREAM community. Prediction of overall survival for patients with metastatic castration-resistant prostate cancer: development of a prognostic model through a crowdsourcing challenge with open clinical trial data, *Lancet Oncology* Jan;18(1):132-142. [↗](#)