Stanford

Adrienne H. Long, MD, PhD

- Affiliate, Dean's Office Operations - Dean Other
- Fellow in Pediatrics - Hematology & Oncology
- Curriculum Vitae available Online

Bio

BIO

Adrienne H. Long, MD, PhD is a fellow in the Division of Pediatric Hematology and Oncology at the Lucile Packard Children's Hospital at Stanford. Dr. Long attend Northwestern University, where she earned both her BS in biomedical engineering and her MD. Determined to help develop novel treatments for pediatric cancer patients, she took time during medical school to pursue a PhD at the National Institutes of Health (NIH), where she helped advance CAR T cell therapies with Dr. Crystal Mackall. Her influential thesis work was the first to identify T cell exhaustion as a critical factor limiting efficacy of CAR therapies (Long et al., Nature Medicine, 2015), and also identified novel methods to enhance CAR therapies for pediatric solid tumor patients (Long/Highfill et al., Cancer Immunology Research, 2016). Dr. Long went on to complete her pediatrics residency training at Boston Children’s Hospital, where she continued her research in cancer immunology with Dr. Nicholas Haining – this time focusing on strategies to enhance antigen presentation to augment checkpoint blockade (Long et al. Keystone Symposium on Cancer Immunotherapy, 2019). She remains dedicated to a career as a physician-scientist focused on developing novel immunotherapies for children with cancer.

CLINICAL FOCUS

- Fellow
- Pediatric Hematology and Oncology
- Cancer Immunology and Immunotherapy

HONORS AND AWARDS

- Fredrick H. Lovejoy, Jr. Award, Boston Children's Hospital (2019)
- Member, Alpha Omega Alpha Honor Medical Society (2015)
- Scholar-in-Training Award, American Association for Cancer Research (2015)
- Women in Cancer Research Award, American Association for Cancer Research (2014)
- Fellows Award for Research Excellence, National Institutes of Health (2013)
- Cloister Research Scholar, Howard Hughes Medical Institute - National Institutes of Health (2011)

PROFESSIONAL EDUCATION

- Residency, Pediatrics, Boston Children's Hospital (2019)
- MD, Northwestern University, The Feinberg School of Medicine (2016)
- PhD, Cancer Immunology, National Institutes of Health (2015)
- BS, Biomedical Engineering, Northwestern University (2008)

Publications

PUBLICATIONS

- **4-1BB costimulation ameliorates T cell exhaustion induced by tonic signaling of chimeric antigen receptors** *NATURE MEDICINE*
  Long, A. H., Haso, W. M., Shern, J. F., Wanhainen, K. M., Murgai, M., Ingaramo, M., Smith, J. P., Walker, A. J., Kohler, M. E., Venkateshwara, V. R., Kaplan, R. N., Patterson, G. H., Fry, et al
  2015; 21 (6): 581-590

- **Loss of ADAR1 in tumours overcomes resistance to immune checkpoint blockade.** *Nature*
  Ishizuka, J. J., Manguso, R. T., Cheruiyot, C. K., Bi, K., Panda, A., Iracheta-Vellve, A., Miller, B. C., Du, P. P., Yates, K. B., Dubrot, J., Buchumenski, I., Comstock, D. E., Brown, et al
  2019; 565 (7737): 43–48

- **Hypotonia and Lethargy in a Two-Day-Old Male Infant.** *Pediatrics*
  Long, A. H., Fiore, J. G., Gillani, R., Douglass, L. M., Fujii, A. M., Hoffman, J. D.
  2019; 144 (1)

- **Tumor Antigen and Receptor Densities Regulate Efficacy of a Chimeric Antigen Receptor Targeting Anaplastic Lymphoma Kinase.** *Molecular therapy : the journal of the American Society of Gene Therapy*
  Walker, A. J., Majzner, R. G., Zhang, L., Wanhainen, K., Long, A. H., Nguyen, S. M., Lopomo, P., Vigny, M., Fry, T. J., Orentas, R. J., Mackall, C. L.
  2017

- **Reduction of MDSCs with All-trans Retinoic Acid Improves CAR Therapy Efficacy for Sarcomas** *CANCER IMMUNOLOGY RESEARCH*
  Long, A. H., Highfill, S. L., Cui, Y., Smith, J. P., Walker, A. J., Ramakrishna, S., El-Etriby, R., Galli, S., Tsokos, M. G., Orentas, R. J., Mackall, C. L.
  2016; 4 (10): 869-880

- **Comparison against 186 canid whole-genome sequences reveals survival strategies of an ancient clonally transmissible canine tumor** *GENOME RESEARCH*
  Decker, B., Davis, B. W., Rimbault, M., Long, A. H., Karlins, E., Jagannathan, V., Reiman, R., Parker, H. G., Droegemueller, C., Corneveaux, J. J., Chapman, E. S., Trent, J. M., Leeb, et al
  2015; 25 (11): 1646–55

- **4-1BB costimulation ameliorates exhaustion and prolongs in vivo persistence of chimeric antigen receptor (CAR) expressing T cells**
  Long, A. H., Haso, W. M., Smith, J. P., Walker, A. J., Fry, T. J., Orentas, R. J., Mackall, C. L.
  AMER ASSOC CANCER RESEARCH.2015

- **14g2a-based GD2-specific chimeric antigen receptors (CARs) constitutively signal, leading to rapidly induced T-cell exhaustion and poor antitumor efficacy in vivo**
  Long, A., Orentas, R. J., Mackall, C. L.
  AMER ASSOC CANCER RESEARCH.2014

- **Synthetic Chimeric Antigen Receptors (CARs) Rapidly Induce Exhaustion and Augmented Glycolytic Metabolism In Human T Cells and Implicate Persistent CD28 Signaling As a Driver Of Exhaustion In Human T Cells**
  Long, A. H., Orentas, R. J., Mackall, C. L.
  AMER SOC HEMATOLOGY.2013

- **Evaluating the susceptibility of solid tumors to chimeric antigen receptor modified T cell therapies**
  Long, A. H., Highfill, S. L., Haso, W. M., Orentas, R. J., Mackall, C. L.
  AMER ASSOC CANCER RESEARCH.2013

- **Lessons learned from a highly-active CD22-specific chimeric antigen receptor.** *Oncoimmunology*
  Long, A. H., Haso, W. M., Orentas, R. J.
  2013; 2 (4): e23621

- **Evaluating the Susceptibility of Solid Tumors to Chimeric Antigen Receptor Modified T Cell Therapies**
  Long, A. H., Haso, W., Lee, D., Highfill, S., Orentas, R., Mackall, C.
  LIPPINCOTT WILLIAMS & WILKINS.2012: 726

- **Triggered release of therapeutic antibodies from nanodiamond complexes** *NANOSCALE*

Smith, A. H., Robinson, E. M., Zhang, X., Chow, E. K., Lin, Y., Osawa, E., Xi, J., Ho, D.
2011; 3 (7): 2844–48

- **Improved methods and standards for telomerase detection: quantitative histopathology using antibody staining** *BIOTECHNIC & HISTOCHEMISTRY*
  Jakupciak, J. P., Gallant, N. D., Smith, A. H., Becker, M. L., Tona, A., Atha, D. H.
  2009; 84 (5): 195–206

- **Properties of ceramics in the system ZrB2-Ta5Si3** *JOURNAL OF MATERIALS RESEARCH*
  Talmy, I. G., Zaykoski, J. A., Opeka, M. M., Smith, A. H.
  2006; 21 (10): 2593–99

PRESENTATIONS

- Inhibition of signal peptide peptidase triggers novel antigen presentation on non-classical MHC and sensitizes tumors to checkpoint blockade - Keystone Symposia - Cancer Immunotherapy: Mechanistic Insights to Improve Clinical Benefit (2019)