

Testimony of Beth A. Garvy, Ph.D., on behalf of The American Association of Immunologists (AAI), Submitted to the House Appropriations Subcommittee on Labor, Health and Human Services, Education, and Related Agencies, Regarding the Fiscal Year 2019 Budget for the National Institutes of Health April 24, 2018

The American Association of Immunologists (AAI), the nation's largest professional society of research scientists and physicians who study the immune system, respectfully submits this testimony regarding year (FY) 2019 appropriations for the National Institutes of Health (NIH). AAI recommends an appropriation for NIH of at least \$9.3 billion for FY 2019 to enable NIH to fund critically important new and ongoing biomedical research, support the next generation of biomedical researchers, ensure continued robust investment in this national priority area. As a result of generous support from this subcommittee and Congress in recent years, NIH has continued to make great strides in advancing urgently needed medical research, supporting talented scientists and trainees who want to pursue research careers in the United States, and providing hope to all who are afflicted by illness or disability.

Why the Immune System Matters – and Why Immunologists are Essential

Recent Immunological Discoveries and their Impact on Preventing and Fighting Disease

Cancer immunotherapy – Cancer immunotherapy, which harnesses the immune system to fight tumors, is revolutionizing cancer treatment. Because of this research, several new immuno-

over one month, in contrast to previously available vaccines which required three doses over six months, this new vaccine may be a valuable tool in the effort to improve vaccination rates and therefore prevent infection with, and death from, HBV.

Artificial pancreas for type 1 diabetes- Type 1 diabetes (T1D) is an autoimmune disease that affects over 1.25 million Americans, including 200,000 children. People with T1D are unable to produce insulin because their immune system has destroyed the insulin-producing (i.e., beta) cells, resulting in an

for NIH particularly through the timely passage of annual appropriations bills, to the nation's biomedical research enterprise and foster confidence within the scientific community

Conclusion

AAI greatly appreciates the committed, outstanding leadership and strong bipartisan support for NIH and biomedical research through appropriations and supplementary funds to support 21st Century Cures Act initiatives. AAI urges the subcommittee to continue to strengthen NIH's ability to support research that is critical to human health by appropriating at least \$3 billion for NIH for FY 2019.

¹ Maude, S. L. et al. 2014. Chimeric antigen receptor T cells for sustained remissions in leukemia. *N Engl. J. Med.* 371:1507-1517; Zhong, X. S. et al. 2010. Chimeric antigen receptors combining 4-1BB and CD28 signaling domains augment PI3kinase/AKT/Bcl-2 activation and CD8+ T-cell