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While AAI appreciates that the category of "immune-mediated diseases" covers a broad range of conditions, AAI recommends that NIAID specifically mention autoimmunity/autoimmune diseases and chronic inflammatory diseases in its stated research priorities, especially given the fact that autoimmune diseases are the fifth leading cause of death in women younger than 65.[7] In addition, AAI suggests adding "inborn errors of immunity" to this priority. NIAID may also consider prioritizing research aimed at understanding the common underlying mechanisms of autoimmunity and chronic inflammatory diseases and applying that knowledge to prevention and treatment. For all listed conditions in priority 4, AAI believes NIAID should include advancing the foundational knowledge of disease, rather than just the application of knowledge to develop and enhance intervention strategies.

In addition, AAI encourages NIH to increase research on alterations in the immune response in individuals with Down syndrome, including interferonopathies, autoimmune diseases, increased susceptibility to infections, and impaired responses to some vaccines, among other challenges. Further understanding the immune disease spectrum in Down syndrome is of the utmost importance to advancing the well-being of this vulnerable population and can also provide invaluable insight for other populations. To that end, AAI also encourages appropriate inclusivity in research and clinical trial design.

AAI supports NIAID's emphasis on applying cutting-edge technologies and engineering approaches like cell-based therapies for cancer to diseases affecting or affected by the immune system, including asthma and allergy. As an example, a recent NIAIDArcr NIAIDAitepti(dge)h the (A)-4(A)-4(A)-4te inc ity in r affected by the imn

affecting immune cells and patterns of vector-borne infectious diseases; and sustained pollution playing a significant role in exacerbation of allergy and asthma.

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