

**Testimony of David D. Chaplin, M.D., 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 2020 Budget for the National Institutes of Health  
recommends an appropriation of at least ~~46~~ 49 billion for FY 2020 to enable**

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have pandemic potential. NIH is supporting the development of a universal flu vaccine, which has the potential to provide broad protection for all age groups against many flu strains.<sup>8</sup> NIH-sponsored clinical trials of universal flu vaccine candidates have been launched in 2018 and 2019.<sup>9</sup>

- *Discovery of immune cell infiltration into the brain:* Historically the brain has been described as an immunologically privileged site, in part because of the apparent lack of classical lymphatic vessels throughout the body that allow immune cells to circulate. However, meningeal lymphatic vessels were discovered in 2015, earning a “Breakthrough of the Year” nomination by *Science* (DOI: 10.1126/science.1267553).



NIH and other science agencies would bolster confidence among current and emerging American researchers who are unsure about the future of academic science.

### Conclusion

AAI greatly appreciates the subcommittee's strong, continuous bipartisan support for NIH and urges an appropriation of at least \$41.6 billion for FY 2020. Such a robust increase in regular appropriations, combined with funding the 21<sup>st</sup> Century Cures Act initiatives to their fully-authorized FY 2020 levels, will continue to strengthen NIH's ability to fund research that advances our fundamental knowledge of biology, support talented scientists and trainees pursuing research careers in the United States, and provide hope to all who are impacted by disease or disability.

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<sup>1</sup> <https://www.fda.gov/drugs/informationondrugs/approveddrugs/ucm279174.htm>

<sup>2</sup> <https://www.nobelprize.org/prizes/medicine/2018/press-release/>

<sup>3</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4896612/>; <https://www.ncbi.nlm.nih.gov/pubmed/28260183>; <https://www.ncbi.nlm.nih.gov/pubmed/29624476>

<sup>4</sup> <https://www.ncbi.nlm.nih.gov/pubmed/28159861>

<sup>5</sup> <https://jamanetwork.com/journals/jama/fullarticle/2719519>

<sup>6</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5391692/>

<sup>7</sup> <https://www.cdc.gov/flu/about/disease/burden.htm>

<sup>8</sup> <https://www.niaid.nih.gov/news-events/niaid-unveils-strategic-plan-developing-universal-influenza-vaccine>

<sup>9</sup> <https://www.niaid.nih.gov/news-events/niaid-sponsored-trial-universal-influenza-vaccine-begins>; <https://www.nih.gov/news-events/news-releases/nih-begins-first-human-trial-universal-influenza-vaccine-candidate>

<sup>10</sup> <https://www.nih.gov/news-events/nih-research-matters/lymphatic-vessels-discovered-central-nervous-system>; <http://science.sciencemag.org/content/350/6267/1458>

<sup>11</sup> <https://www.ninds.nih.gov/News-Events/News-and-Press-Releases/Press-Releases/Researchers-unearth-secret-tunnels-between-skull>

<sup>12</sup> <https://www.nih.gov/about-nih/what-we-do/budget>;