Testimony for Appropriations Committee  
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RE: UConn Health Budget  

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Members of the Appropriations Committee, my name is Patrick Murphy. I am an Assistant Professor at UConn Health in the Department of Cell Biology. I came to UConn Health two and a half years ago, in late 2016, and now live in the town of Simsbury.

During my post-doctoral work at MIT, I studied vascular inflammation underlying heart attack and stroke. I discovered a novel mechanism used by the endothelial cells lining arteries to regulate inflammation. Mutation and dysfunction of the proteins regulating this response has been observed in chronic inflammatory and neurodegenerative diseases, as well as cardiovascular disease, and we believe their dysfunction may predict disease progression and offer the possibility for treatment. I won a $1M research grant at MIT to study this, which I brought with me to UConn Health.

I believe in the vision the state has laid out for the development of a local biotech industry, and am excited to contribute to this through the ideas generated in my lab and training of personnel. I was a student in the outstanding California state school system, and I believe in the power of a strong state school to educate a local workforce and create jobs. I have also seen the interactions between schools and private institutes (e.g. Broad and Whitehead) in Cambridge, and how that has helped to fuel a local economy of biotechs. We are doing that in Farmington with UConn Health and the Jackson Laboratory. We regularly use resources (e.g. CyTOF) and expertise (e.g. single cell sequencing) at the JAX facility, and collaborate often with their renowned scientists. Two faculty at JAX are collaborators on my recent research grant, both world experts in their specific fields. Through the initiatives to expand Storrs services in proteomics and sequencing, I have been able to perform cutting edge research with these sites. In short, our resources and faculty are making us a world class research institute.

The fact that UConn Health integrates research and patient care is also critical, and benefits both. We have initiated collaborations with clinicians at UConn Health, to obtain human tissue samples which could be used to translate our work directly to patients. The ability to easily do this differentiates our research environment from many others. For example, this would have been very difficult at MIT, but because UConn Health has worked with the clinicians to develop our Tissue Core, we are able to do this work. Notably, I have attempted to obtain samples from Hartford Hospital, and was told very candidly that although the pathologist would love to help with this type of project, that they simply do not have the time. In contrast, I have met on many occasions with the clinician directly treating patients and isolating samples – in our lab and in his office, and have had many long conversations about the meaning of our work together in the future of patient care. We have discussed how these ideas might be developed into commercial ventures. This is my long-term goal.
The tremendous support that the State provides to UConn and UConn Health has transformed the flagship institutes and have enabled these successes. It is important – for science, patient care, and the state’ biotech industry – that the state continue with these investments.

One important point that I would like to bring to the Committee’s attention is the issue of the state’s high fringe benefit rates. This is a growing problem that I learned about after arriving here in Connecticut. Because of the high fringe benefit rates we are required to pay for employees, I pay \$16,000 more per year for a technician and would pay \$28,000 more per year for a post-doctoral researcher to work in my lab than lab mates who left MIT at the same time to go to Albany Medical and the University of Illinois. This has led to lost opportunities to hire additional staff. I had to turn down a very talented MD/PhD student in our program. Although he would have been a great benefit to my lab, I could not cover the costs for him. Both he and I were disappointed. The fact that our fringe rates are so much higher than our competitors also makes it more difficult to win external grant funding. These funds are already incredibly scarce (only 2 in 10 NIH grants are funded) and competition is fierce to begin with. While we cannot specifically measure the lost grant funds that result from high fringe rates, I believe it is significant – likely tens of millions of dollars a year.

I hope you share my enthusiasm for what the investment in research at UConn Health has enabled thus far, and the potential for the future. I thank you for your continued support, and ask you to please fund UConn Health at the levels it has requested; and to also do what you can to reduce the toll of increasing fringe rates on UConn and its researchers.