

Life Sciences/Health Care Working Groups

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Case Study:

Federal Funding For Biomedical Research and Its Impact on Innovation

Biography – Arthur Ullian

Arthur Ullian is founding partner of the Boston Land Company, which specializes in development and management of mixed-income housing and currently maintains properties in five states.

In 1991, Arthur became paralyzed following a bicycling accident, and has since used his exceptional business and entrepreneurial skills to advocate for increased federal funding of biomedical research. His long-term dedication to this cause helped result in the historic doubling of the NIH funding for biomedical research from 1998 to 2003 that has yielded unparalleled innovations in areas like heart disease, cancer, vaccines, and genomics.

Ullian is a life-long resident of Newton, MA. He received his B.A. with honors from Lawrence University, and did graduate work at the London School of Economics. He has been a guest lecturer at both the Harvard Business School and the Harvard Graduate School of Design. He is married and has one son.

Personal Challenge and Public Policy Leadership Role

Since his accident in 1991, Ullian has devoted his life to advancing neuroscience research and raising public awareness on the cost of neurological disease through a variety of organizations and committees. For the past 13 years, Ullian has served as president of the National Council on Spinal Cord Injury, becoming a fixture at congressional hearings where he passionately advocates for increased funding for research. During his NCSCI tenure, he has collaborated with the Christopher Reeve Foundation, the Laskar Foundation, and the Dana Alliance, among others.

In addition to his NCSCI presidency, Ullian served on the Advisory Committee to the Director of the National Institutes of Health (NIH). The committee advises the Secretary of Health and Human Services and the Director of the NIH on biomedical research, medical science, and biomedical communications. From 1996 to 1999, Ullian also served as a member of an advisory panel to the National Institute of Neurological Disorders and Stroke (NINDS), helping review scientific applications for financial support for biomedical research and training on disorders of the brain and nervous system.

In 2005, he was named to the Harvard Embryonic Stem Cell Research Oversight Committee (ESCRO) and served as Chairman of the Boston-based Task Force on Science, Health Care, and the Economy, which examines factors related to biotechnological innovation that will combine to alter medical knowledge and practice, outcomes, and costs in the coming decades.

The American Academy of Neurology Foundation recognized Ullian's efforts on behalf of neurological disorders in 1996 with its Public Leadership in Neurology Award. In 1999, Ullian became just the second recipient of the "CURE" Award, which honors exemplary service and dedication to the field of spinal cord injury research. The Boston-based mentoring organization Partners for Youth with Disabilities

honored him for his contributions to the disabilities community in 2004 and that same year, Rutgers University presented him an honorary Doctor of Humane Letters degree.

The Results: Increase in NIH Funding for Biomedical Research

Concerned that scientific opportunities were outpacing NIH funding, Ullian led an advocacy effort with Task Force on Science, Health Care and the Economy to increase NIH funding. The Task Force on Science, Health Care, and the Economy is comprised of prominent experts in the areas of health, health economics, and biomedical research. Its mission is to focus the attention of policy and opinion makers on the importance of medical research, technology transfer, and biotechnology as sources of health care savings and growth engines of the U.S. economy.

Congress doubled the NIH budget from 1998 through 2003. Ullian was one of the driving forces in advocating for increased NIH funding. The resulting long-term, large-scale building of research capacity across the United States led to a dramatic acceleration of discovery and a remarkable period of advancement. Insight at the molecular and cellular levels brought about new treatments for age-old diseases such as cancer and heart disease and facilitated responses to emerging crises such as HIV/AIDS and SARS.

As the result of a range of scientific advances, Americans are enjoying longer and healthier lives. Life expectancy continues to increase. The average life expectancy for Americans is now 78 years, and every five years, for the last 30 years, life expectancy for Americans has increased by one year. Moreover, the disability rate of older Americans has dropped by approximately 30% during the past 20 years. The U.S. biotechnology industry, with its massive potential for changing agriculture, health care, and environmental remediation, was also a product of this build-up of resources and the subsequent expansion of knowledge.

Ullian's research over the years has been instrumental to making the case for the economic and social value of investment in medical research. He has co-authored several papers with Dr. Ken Manton including, "*Effects of Medical Research on Health Care and the Economy*," published in *Science*, and "*Labor force participation and human capital increases in an aging population and implications for U.S. research investment*," published in the *Proceedings of the National Academy of Science*.

His research exemplifies why supporting biomedical research is important for both humanity and the economy. He demonstrates the economic value of medical research through its increase in active life expectancy which allows people to stay in the workforce longer. His research also shows that increases in NIH funding correlate very closely with major improvements in age-adjusted mortality and the declining rate of disability for people 65-years and older in the United States.

Ullian has been an inspiration to many, including Christopher Reeve. His longstanding dedication and commitment to advocacy for biomedical research has been instrumental in enabling many of the medical breakthroughs we benefit from today and laying the groundwork for those we will benefit from tomorrow.