

Michael Sohlman  
Executive Director, Nobel Foundation  
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Dear Mr Sohlman,

We are a group of ten scientists and engineers. During the past month, at the request of *New Scientist* magazine, members of the group have discussed how we would like to see the science prizes administered by the Nobel Foundation evolve. We would like to present the results of our discussion, in the hope that our conclusions will stimulate debate amongst members of the foundation.

The prizes are an extraordinary institution. They have been used to recognise many of the most notable scientific achievements of the past century. We feel that no other science prize does more to reward and promote brilliance, or attracts more attention from the public.

The prizes will no doubt continue to be influential. Science has, however, changed significantly since the first prizes were awarded. When Alfred Nobel signed his will in 1895, he could not have anticipated threats such as climate change and HIV/AIDS. Nor could he have known of the new scientific disciplines that are generating results that will transform our world for the better.

Many of these fields, as well as these challenges, do not fit well into the remit of the prizes that he created. If the World Health Organization were to eradicate malaria, for example, the achievement might not qualify for any of the existing prizes. Fundamental breakthroughs in areas such as neuroscience and ecology, some of which will eventually help tackle the threats mentioned above, are also going unrecognized.

We appreciate that the foundation is bound by Nobel's will. But we also note that the foundation has shown flexibility in the past, the creation of the economics prize in 1968 being one example. With that in mind, we would like to recommend two changes that we feel would align the prizes with current challenges:

**1. The creation of Nobel prizes for the *Global Environment and Public Health*.** The

new prizes would focus on applications of science rather than basic research. As with the existing peace prize, organisations would be eligible. The environment prize would recognise successes in promoting sustainability, mitigating climate change or reducing biodiversity losses. The public health prize would recognise improvements in global health, such as the reduction or eradication of disease. (We present these lists as examples; they are not intended to be complete).

**2. The expansion of, or an addition to, the prize for physiology or medicine to recognise contributions from across the life sciences.** Fields that are currently excluded, such as ecology, would become eligible. More emphasis would be placed on the rapidly expanding field of neuroscience. This could be achieved by expanding the existing prize for medicine or physiology or by the addition of new prizes for fundamental biology (including ecology, genetics and cellular, molecular and evolutionary biology) and behavioral science (including psychology and neuroscience).

Over the past century, progress in the basic sciences has transformed our world and our understanding of it. By recognizing the men and women that drove that progress, the Nobel prizes have made the public aware of the enormous contribution that science has made. Different forms of science and technology will transform our world during this century. We feel that these suggestions will enable the prizes to appropriately recognise future achievements, and to remain influential for another hundred years.

Yours Sincerely,

Larry Brilliant  
President, Skoll Urgent Threats Fund and advisor, Google.org.

Rodney Brooks  
Panasonic Professor of Robotics, Massachusetts Institute of Technology, and founder of iRobot Corp and Heartland Robotics.

Peter Diamandis  
Chairman and CEO, X PRIZE Foundation.

Tim Hunt  
Cell Cycle Control Laboratory, Cancer Research UK.

David King  
Director, Smith School of Enterprise and the Environment, University of Oxford.

Lynn Margulis  
Distinguished University Professor, University of Massachusetts, Amherst.

Steven Pinker  
Harvard College Professor and Johnstone Family Professor, Harvard University

Peter Raven  
Director, Missouri Botanical Garden.

Frans de Waal  
Director, Living Links Center and C.H Candler Professor of Psychology, Emory  
University

E.O. Wilson  
Pellegrino University Professor, Emeritus, Harvard University

cc: The Board of Directors of the Nobel Foundation