

*Citation read on the occasion of the granting of the degree of
Honorary Doctor of Science to
George Whitesides
by the Senate of the University of Victoria*

November 13, 2013

Mr. Chancellor, I have the honour to introduce George Whitesides, one of the world's most distinguished chemists, whose work transcends the borders of individual sciences and finds diverse and far-reaching practical applications.

Dr. Whitesides was born in Louisville, Kentucky, and attended Phillips Academy Andover, near Boston. The seal of the school, designed and forged by silversmith and American patriot, Paul Revere, bears the motto, "Non sibi" (Not for Self). There is compelling evidence that non sibi is a key motivator for Dr. Whitesides.

After receiving the Artium Baccalaureus degree from Harvard College, and a PhD in chemistry from the California Institute of Technology, he began his independent career at the Massachusetts Institute of Technology before returning to Harvard to serve as the Woodford L. and Ann A. Flowers University Professor.

Dr. Whiteside's career is fuelled by an insatiable curiosity and a passion for integrating fundamental research and applied science. He has made extraordinary intellectual contributions in the fields of physical and organic chemistry, materials science, biophysics, surface science, polyvalency, microfluidics, optics, self-assembly, microfabrication, nano-technology, and cell surface biochemistry. His research is characterized by an astute choice of problems, a deep appreciation of technological ramifications, extraordinary scientific breadth, elegant application of theories and masterful expositions of his findings and their significance. His breakthrough research sets universal standards for creativity and unorthodox thinking. In 1981 he co-founded the biotechnology company Genzyme that holds, as a goal, helping children with rare and neglected diseases; developing tests and treatments for cystic fibrosis is only one example among many.

George Whitesides co-founded a number of other biotechnical companies whose benefits for humanity include the products RenaGel, which treats elevated phosphorus levels in patients with chronic kidney failure; CholestaGel, which is used to lower blood cholesterol levels; Vibativ, an antibiotic for skin infections caused by bacteria such as MRSA superbugs; Relvar, a treatment for asthma; and a novel polymer foam product that can be injected to control intra-abdominal haemorrhages resulting from physical trauma.

In 2007 Dr. Whitesides co-founded the not-for-profit enterprise “Diagnostics-for-All,” whose mission is to save lives and improve health in the developing world through pioneering technological innovation. Imagine a laboratory embedded in a piece of paper the size of a postage stamp. This elegantly simple and inexpensive device requires minimal training to use, practically no sample preparation, and no electricity or additional equipment to process the sample. When blood, urine, saliva, sweat or other biological samples are applied to the device, the paper changes color and results are easily read by comparing the color change with a reference scale printed on the device.

George Whitesides has mentored and encouraged hundreds of scientists at every stage in their careers to reach their highest potential. He has been deeply engaged in public service and public policy. He advises governments around the world on science, technology, research, education, and economic development, and serves on the editorial boards of a number of scientific publications. He understands the need to communicate the importance of science to the public and frequently lectures to general audiences on science and its applications.

Among the dozens of honours and awards, both national and international, held by George Whitesides, are the U.S. National Medal of Science, the Kyoto Prize for Advanced Technology, and the International Kyoto Conference on New Aspects of Organic Chemistry Prize. He has received honorary doctorates from the Universities of Twente in The Netherlands, Aarhus in Denmark and, in our own country, the Universities of Windsor and McGill. We are delighted that he has accepted our invitation to join the University of Victoria.

Mr. Chancellor, it is my privilege to present George Whitesides, the complete scientific citizen and one of the chemistry giants of this century, for the degree of Doctor of Science, honoris causa.

*Written and presented by
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