



## Michael Smith, PhD

In the early days of the genetics revolution Dr. Smith developed a critical technique that has become central to the field of genetic engineering known as site directed mutagenesis, the deliberate and predictable altering of the coding sequence of genes. As a result, the structure of proteins (the translation products of genes) can now be experimentally altered to examine the functional role of each of the building blocks of proteins.

This technique of manipulating DNA has become a fundamental tool in biotechnology used to generate not only new knowledge but new products; for example, the production of human insulin by bacteria or yeast. Following completion of his PhD at The University of Manchester, Dr. Michael Smith immigrated to Canada as a research fellow and joined the Department of Biochemistry at the University of British Columbia in 1966. In 1993, Dr. Smith was awarded the Nobel Prize in Chemistry for this work. Dr. Smith served as Director of the University of British Columbia Biotechnology Laboratory and was the founding director of the Network of Centres of Excellence in Protein Engineering.