

# Biography



Julian Davies is Emeritus Professor of Microbiology and Immunology at U.B.C. Trained as an organic chemist; he switched to molecular microbiology in 1962 when he joined the Department of Bacteriology and Immunology at Harvard Medical School. Subsequently, he held academic positions at the University of Wisconsin, University of Geneva, and Institut Pasteur before joining the University of British Columbia in 1992. Davies was Research Director and President of Biogen (Geneva) from 1980-1985 and founded TerraGen Discovery (Vancouver) in 1996. He is a Fellow of the Royal Society (London) and the Royal Society of Canada and has served as President of the American Society for Microbiology and President of the International Union of Microbiological Societies.

Davies' research interests concern various aspects of medical-microbial ecology. He has studied the biochemical mechanisms of antibiotic mode of action and antibiotic resistance in bacteria; including the origins of resistance genes, their acquisition and horizontal gene transfer. He has worked on practical applications of antibiotic resistance genes as markers in inter-kingdom gene cloning and developed geneticin, hygromycin and streptothricin for this purpose. Recent work in his laboratory has led to new insights on antibiotic function and the potential role of antibiotics as bacterial cell-cell signaling molecules in nature. His laboratory participated in sequencing the genome of *Rhodococcus* RHA1, a potent biodegrader. This study demonstrated the complexity of biochemical processes involved in the survival and growth of bacteria in the environment, and provided indications on the mechanism by which *Mycobacterium tuberculosis* survives and grows in human macrophages.