Leopoldina
Nationale Akademie
der Wissenschaften

Curriculum Vitae Professor Dr Mohamed A. Marahiel

Name: **Mohamed A. Marahiel**
Date of birth: **25 April 1949**

Research Priorities: Gene regulation, structural and functional relationship between modular multi-enzymes, structural and functional relationship between main cold shock proteins

Mohamed Marahiel is a German biochemist. He uses fungi and bacteria to research how such microbes continually adapt to their environment. The aim of his work is to gain a better understanding of the complex life and flexible adaptation of such microorganisms to their natural habitat.

Academic and Professional Career

2016	Professor Emeritus, Philipps-University Marburg, Marburg, Germany
2012	Honorary Professor, Wuhan University, Wuhan, China
1990 - 2016	Professor of Biochemistry, Philipps-University Marburg, Marburg, Germany
1987	Habilitation, Technische Universität (TU) Berlin, Berlin, Germany
1977 - 1982	Research Assistant and Team Leader, Institute of Biochemistry and Molecular Biology, TU Berlin, Berlin, Germany
1974 - 1977	Doctorate, Max Planck Institute of Experimental Medicine, Göttingen, Germany
1971 - 1973	Degree in Chemistry, Gottfried Wilhelm Leibniz University, Hanover, Germany and Georg August University of Göttingen, Göttingen, Germany
1966 - 1970	Degree in Chemistry, Cairo University, Gizeh, Egypt

Functions in Scientific Societies and Committees

2001 - 2003	Dean, Department of Chemistry, Philipps-University Marburg, Marburg, Germany

Member, Editorial Board, Chemistry and Biology

Project Coordination, Membership in Collaborative Research Projects

2012 - 2015 Spokesperson, Collaborative Research Centre (SFB) 987 "Microbial Diversity in Environment-dependent Signal Response", German Research Foundation (DFG)

2003 - 2009 Spokesperson, Research Unit (FOR) 495 "Synthesis of Functional Chemical-Biological Hybrid Compounds", DFG

1996 - 2007 Head, Subproject "Molecular Analysis of the Cold Shock Response in Soil Bacteria of the Bacillus Genus", SFB 395, DFG

Honours and Awarded Memberships

2014 David Gottlieb Memorial Lecture, University of Illinois Urbana-Champaign, Champaign, USA

2009 Member, Royal Society of Chemistry, London, UK

2008 Max Bergmann Medal, Max Bergmann Kreis, Bielefeld University, Bielefeld, Germany

since 2004 Member, German National Academy of Sciences Leopoldina, Germany

Member, German Chemical Society (GDCh), Germany

Member, American Association for the Advancement of Science (AAAS), USA

Member, American Chemical Society (ACS), USA

Member, American Society for Microbiology (ASM), USA

Member, Association for General and Applied Microbiology and Biochemistry (VAAM), Frankfurt am Main, Germany

1986 Fellowship, Harvard University, Cambridge, USA and German Research Foundation (DFG), Germany

1978 Fellowship, John Innes Centre (JIC), Norwich, UK and DFG, Germany

Research Priorities

Mohamed Marahiel is a German biochemist. He uses fungi and bacteria to research how such microbes continually adapt to their environment. The aim of his work is to gain a better understanding of the complex life and flexible adaptation of such microorganisms to their natural habitat.

In general, the search for new drugs with an antibacterial effect is of great importance. The reason

is that bacterial strains are becoming increasingly resistant to conventional antibiotics. Therefore, researchers such as Mohamed Marahiel are trying to isolate new antibiotics from microorganisms, mostly from fungi or bacteria.

Another way of finding new antibiotics is to manufacture them directly. In order to do this it is first necessary to know their molecular structure and how they function, as well as how their molecular structure can be changed. Mohamed Marahiel is also involved with this as part of his basic research.

The results of this research can be used in practice to assist with the search for new drugs. Pharmacologically relevant peptides and polyketides of bacteria and fungi have a broad spectrum of activity. This ranges from drugs used as antibiotics, to drugs for the treatment of tumours (cytostatics) and further to those that suppress the immune system (immunosuppressants).