

Herman P. Spaink

Herman Spaink received his Msc degree in Biology at Leiden University in 1985 and in 1989 completed his PhD at the same university. In 1990 he was a PostDoc at Harvard University.

In 1998 he was appointed a full professor in Cell Biology at Leiden University. A position that he fulfils to date.

His research interest focuses on the question of how cells of multicellular organisms can recognize the presence of invading microbes? And how can they discriminate between microbes that are potentially beneficial or harmful for the organism? The mechanisms underlying these recognition processes must undoubtedly have been under the utmost selection pressure during evolution since the outcome of new defense mechanism or, alternatively, new symbiotic systems, is of crucial importance for survival. More recently he has become interested in finding parallels at the molecular level of innate immune recognition of microbes and cancer cells. Of great interest is the observation that the recognition mechanisms that are used by all multicellular eukaryotes, ranging from plants to animals, share many highly conserved principles indicating that these principles have developed very early in evolution and that these are highly successful. We still do not understand the molecular mechanisms underlying these principles of conserved recognition processes, especially concerning the recognition of glycans and glycolipids which is one of my specific research topics. In addition, part of his research has been directed at the development of better techniques for molecular biology, ranging from new applications of biophysical imaging, chemical manipulation tools, high throughput screening and contributions to molecular computing.

Herman Spaink is responsible for all first year cell biology teaching at the Leiden University Biology Institute (IBL). In addition, he teaches classes for other programs like Life Science and Technology and Biopharmaceutical sciences. He also teaches courses in the master phase of the biology Molecular Cell Biology track and in 2nd and 3rd year bachelor courses. He has the final responsibility for the thesis of several PhD students and over 35 students have obtained their PhD under his supervision. He has been a member of over two hundred PhD promotion committees in a wide range of natural science disciplines in the Netherlands and abroad.