



# Dr. Glen Barber Elected a Fellow of the Royal Society

Glen N. Barber, Ph.D., Eugenia J. Dodson Chair in Cancer Research at Sylvester Comprehensive Cancer Center and professor and chair of the University of Miami Miller School of Medicine Department of Cell Biology, has been elected a Fellow of the Royal Society, the national academy of science in the United Kingdom.

The Royal Society, which consists of eminent scientists, engineers, and technologists, selected 52 Fellows and 10 Foreign Members out of 700 eligible candidates for the 2021 elections, which also coincided with the first year of Sir Adrian Smith's presidency of the Royal Society.



Dr. Glen N. Barber in his lab.



“The global pandemic has demonstrated the continuing importance of scientific thinking and collaboration across borders,” Smith said. “Each Fellow and Foreign Member bring their area of scientific expertise to the Royal Society and when combined, this expertise supports the use of science for the benefit of humanity. Our new Fellows and Foreign Members are all at the forefronts of their fields from molecular genetics and cancer research to tropical open ecosystems and radar technology. It is an absolute pleasure and honor to have them join us.”

In the same way, Dr. Barber says he is honored to be a part of such a historic scientific community.

“It was with very great pleasure and sense of privilege that I received notification from the Royal Society that I was elected as a Fellow,” Dr. Barber said. “The Society originated in 1660 and has been awarded to many eminent scientists in history, including Newton, Darwin, Rutherford, Einstein, Fleming, Watson, and Crick.”

As part of the selection process, the candidate must be nominated by two Fellows of the Royal Society. Dr. Barber credits William Whelan, Ph.D., D.Sc., FRS, a former professor and department chair at the Miller School of Medicine, and George Stark, Ph.D., from the Cleveland Clinic Department of Cancer Biology, for their immense support in the process.

“Dr. Whelan was familiar with my work and was additionally inspired by Dr. Jerry Goodwin, of Sylvester Comprehensive Cancer Center, to nominate me. Dr. Goodwin recruited me to UM back in 2000,” Dr. Barber recalled. “Dr. Stark of the Cleveland Clinic is a legend in the interferon field and was familiar with our research since we studied similar areas.



They were instrumental in sponsoring me, a privilege which requires two notable Fellows of the Royal Academy.”

As to what helped set him apart from the other candidates, Dr. Barber credits that to the discovery of STING, the stimulator of interferon genes. The 2008 discovery triggers host defense immune responses following infection by DNA microbes, such as certain viruses, bacteria, and even parasites. Many research groups were working in this area, but Dr. Barber and his team found the key regulatory molecules and pathway first. It later became clear that STING signaling is also extremely important for activating anti-tumor immunity.

Dr. Barber’s work further shows that STING sheds insight into causes of inflammatory disease. These significant research discoveries have spawned efforts to design novel drugs that target the STING pathway for new treatment of a variety of diseases such as severe systemic lupus erythematosus.

Dr. Barber will be formally admitted as a Fellow of the Royal Academy in July, when he and the other new Fellows will sign the Charter Book and the Obligation of the Fellows of the Royal Society.

“I would like to thank a number of key individuals, past and present, who have been significantly involved with this work,” he said, including Hiroki Ishikawa, Ph.D., Okinawa Institute for Science and Technology, and Jeonghyun Ahn, Ph.D., research assistant professor at the Miller School of Medicine Department of Cell Biology.