

*Discurso de investidura del Excmo. Sr. D. Joseph Wang
como Doctor “Honoris Causa”*

19 de junio de 2007

HOW AND WHY I GOT HERE?

Excelentísimo Sr. Rector, Autoridades Universitarias, Profesores, señoras, señores, y amigos.

Your excellence the rector, the administration of the Universidad Complutense de Madrid, honorees, Faculty, ladies and gentlemen and friends.

I am deeply honored to receive an honorary doctorate from this famous and historic institute, a university with a long tradition of academic excellence, located in the center of one of the most cultural and vibrant cities in Europe. I accept this honor with utmost gratitude and I am very delighted to be here on this wonderful occasion.

I am very proud of my close collaboration and warm friendship with Universidad Complutense, and with Spain, in general. Such close international collaboration with your university has played an important role in our scientific success. I visited Spain for the first time in 1988 and returned periodically every 2-3 years, always enjoying stimulating scientific discussions, a very warm hospitality and the spirit and culture of Spain.

I first met my dear friend Prof. Jose Pingarron during an European electrochemistry conference in Oviedo (Asturia). Over the past 20 years I had the great privilege to host in my laboratory several talented young researchers from Pingarron's group here at Universidad Complutense, as well as young scientists from other Spanish universities in Madrid, Alcala or Barcelona. Our cooperation with Spain has been very successful and productive, as indicated from numerous joint scientific publications in leading journals.

I came to America from Israel in 1978 to pursue a post-doc training and accepted an academic position in New Mexico in 1980. In 2004 I moved to the new Biodesign Institute at Arizona State University which provides a unique approach for innovative interdisciplinary research in biosciences.

Our research over the years has been driven by the use of fundamental basic research for solving complex real-life problems and for improving the quality of life. Our goal has been to design new interfaces and advanced nanomaterials for developing effective and yet simple tools for the management of diabetes, for early detection of diseases, for protecting our environment or security, or improving our food safety.

The resulting electrochemical devices offer tremendous potential for obtaining the analytical information in a faster, simpler, and cheaper manner compared to traditional laboratory-based instruments. Leading Spanish electrochemists, such as Professor Pingarron, have made key contributions to the development and success of electrochemical devices. Like personal computers, such electrochemical devices have greatly benefited from breakthroughs in microelectronics and miniaturization and become more sophisticated and versatile while dramatically shrunk in size and weight.

The key to our success has been the coupling of creativity, vision, passion and fun, and using the resulting innovations for making a difference by improving the quality of life. By creativity, I mean, to use our imagination and vision for doing the unpredictable. Having fun and good time greatly helps to our creativity in designing novel systems such as 'Lab-on-a-Gondola' for monitoring pollution in Venice, 'artificial dolphins' for detecting explosives in seawater, or our current work on nanorobots or nanotrains for nanomedicine.

This has been a wonderful long journey, climbing various mountains, crossing many bridges, overcoming different challenges, fulfilling many dreams, and above all meeting and mentoring so many wonderful young talented people from across the world, and following their own growth and success as independent scientists.

I have spent nearly three decades doing what I love to do and working with numerous gifted young scientists. I have been blessed by 40 highly dedicated graduate students, and 60 skilled post-docs and visiting scientists from 50 different countries around the globe. These included a dozen of very talented and friendly Spanish students, who made very important contributions to our scientific success. Above all, I have been blessed by a wonderful loving wife, Ruth, who supported me enormously during this beautiful journey.

I accept this honorary doctorate with great proud and deeply hope to continue our strong partnership and friendship for many more years.

Allow me to end by thanking you again for this special honor. Many many thanks.