

## Citation for James F Patrick

James Patrick obtained his BSc in 1970 and MSc (Communication Engineering) in 1972 from The University of Melbourne. Since 2001 he is an Honorary Principal Fellow in the Department of Otolaryngology, The University of Melbourne. He became a fellow of the Academy of Technological Sciences and Engineering in 2003 for his contributions to the bionic ear and its commercialisation.

Jim Patrick is one of the original engineers who pioneered the development of the multichannel cochlear implant with Professor Graeme Clark. He is recognised as a world authority on cochlear implants. He joined Professor Graeme Clark's research team at The University of Melbourne in 1975. In 1981, after the first successful human implants were concluded, Jim moved to Sydney as a key member of the original four man team, devoted to developing a 'clinically applicable' cochlear implant. Jim was responsible for systems engineering, and the digital aspects of the implantable stimulator, playing the key leadership role in the development of the commercial medical implant. Since then he has been a member of Cochlear Limited's senior management team, holding a number of technology management roles, including responsibility for R&D, Quality and Manufacturing. Today, Cochlear Limited is a global company, with annual sales of more than \$800 million, more than 2400 employees, direct sales in more than 20 countries and distributor sales in more than 100 countries, and research centres in all continents. Cochlear has a global share of the cochlear implant market of more than 70%. Currently, Jim has world-wide responsibility for Cochlear's global research programme.

Jim Patrick holds 32 patents (and/or patent families) that span every aspect of cochlear implants, including test systems, power supply, speech processors and improved electrode arrays.

His past and ongoing contribution to the research and development of the cochlear implant is underscored by a large number of quality scientific publications, and presentations at national and international forums. In particular, despite commercial pressures, Jim Patrick has 55 peer reviewed journal papers and book chapters.

Jim holds a wide range of appointments that reflect the breadth of his knowledge, his contribution and total commitment to engineering and biomedical science. Besides his substantive appointment in Cochlear Limited as Chief Scientist, he holds a Principal Research Fellow position with the Department of Otolaryngology (The University of Melbourne), an Honorary Special Research Fellow at the Bionics Institute, and he is an Adjunct Professor at La Trobe University. He also serves on the Scientific Advisory Committees (or Boards) at: the Bionics Institute; Wireless Integrated MicroSystems Engineering Research Centre (USA); Centre for Antimatter-Matter Studies (ARC Centre of Excellence); The Hearing Cooperative Research Centre; Monash Vision Group; The Shepherd Centre; and the Faculty of Science, Macquarie University.

He has been professionally recognised for his engineering expertise and his role in transforming the lives of deaf people. In 2002 the Royal Institute for Deaf and Blind Children opened the family-friendly Jim Patrick Audiology Centre. In 2003 Jim became FTSE. In 2009, The Warren Centre recognised the Bionic Ear and his contribution in particular as an Australian Engineering Icon (one of only four such "icons").