

Mr Khai S. Lam Obituary

Distinguished Pioneer and Visionary Orthopaedic Spinal Surgeon used his surgical skills and research to help advance the field of spinal surgery.

Mr. Lam Khai Sing, FRCS (Edin), FRCS (Orth), GCLR, GCCC, KGCSJ, KCNS, of Westminster, a leading orthopaedic and spinal surgeon who devised novel ways to operate on complex spinal conditions, died in London, on December 13, 2021. He was 55.

Mr. Lam, was born on August 31, 1966, in Selangor, Malaysia. His great-grandfather Lee Chok Kai, emigrated from Guangdong, China, in 1890, to Perak, Malaysia, to become a successful financier and rubber tycoon. He was notable as the owner of the first Rolls Royce motor car in Malaysia. His family home named Leeton House later became the Anglo-Chinese Methodist School for Girls. Mr Lam's grandfather Dr. Lam Hor Yin, was British trained in Hong Kong as a doctor of medicine. His father Dr. Lam Khuan Loon, was British trained in Bombay, India, as an Otolaryngologic surgeon. He was co-founder of the Pantai Hospital in Kuala Lumpur, the first private hospital in Malaysia. He was physician to HRH the Sultan of Selangor, then the Yang di-Pertuan Agong of Malaysia, who decorated him with the Federal award PJK for his special contributions to the nation. His mother was Mde. Alice Cheong Lye Fong, of Singapore, a surgical nurse.

His early education was at the St. John's Institute, one of the oldest schools in Kuala Lumpur, Malaysia, founded by the De La Salle Christian Brothers Order.

From age 11, he attended The Leys School in Cambridge. He enjoyed athletics, was outstanding at track and field, and bowling, was Captain of the Badminton team, and was Captain of the Rugby team. He was House Prefect, a recipient of the Duke of Edinburgh Award, and had the rank of Junior Corporal in the Royal Air Force. He then went on to study medicine at the University of Nottingham. After graduation from The University of Nottingham Medical School, Mr Lam completed his Orthopaedic and Spinal Training at the Centre for Spinal Surgery and Studies in Nottingham. He trained and developed his surgical skills under the auspices of Professor Robert Mulholland and Mr. John Webb. During his Spinal Fellowship, his research focus was on Signal Transduction in degenerative disc disease (Wishbone Trust) and Bio-molecular mechanisms in degenerative disc disease (Smith and Nephew Foundation). This pivotal step in clinical research would lead to a life-long dedication to medical science throughout his career. At Nottingham he is credited with introducing laparoscopic spine surgery in the late 1990s.

In 2004, Mr Lam was appointed as a Consultant orthopaedic and spinal Surgeon at Guy's and St Thomas's Hospitals NHS Trust. He transformed spinal surgery within the Department whilst treating paediatric and adult patients with complex spinal disorders and deformities. He served as the director of Guy's and St Thomas' AO Spinal Reference Centre. This centre became a dedicated global reference centre for all spinal surgery, especially minimal invasive/access, anterior access spinal surgery and disc replacements. After his 14-years of service to the NHS, Dr Lam took his expertise to HCA Healthcare UK (The London Bridge and The Portland Hospitals), The London Clinic, King Edward VII Hospital, and The Harley Street Hospitals. He

was a regular visiting Professor and advisor to Health Ministries of the Middle East (Egypt, Kuwait, Libya, Saudi Arabia and United Arab Emirates). He was internationally renowned as a pioneer in minimally invasive surgery (MISS), computer navigation and robotic spinal surgery. He treated over 13,000 patients during his career.

As an Innovator, he collaborated and was involved in the development for many key surgical products and equipments. He worked with Depuy-Synthes (Raynham, Massachusetts) to develop the Constellation Minimal Invasive Pedicle Screw System, Universal Reduction Screws (URS), Universal Reduction Screws Plus (URS+), Minimal Invasive USSII Fracture system, Matrix MIS (Minimal Invasive Spine) Pedicle Screw System, T-Pal cage (for interbody fusion), SynCage Evolution and SynFix Evolution Interbody Cage, Insight MIS Tubular Retractor Spine System and the Insight Tubular Retractor Spine System. As a product advisor to Nuvasive (San Diego, California) his focus was developing the BASE ALIF cage and their Anterior Access Frame. He collaborated with Medtronic (Minneapolis, Minnesota) on Rialto and the O-arm system. His recent collaboration with Globus Medical (Audubon, Pennsylvania) resulted in Mr Lam being the first surgeon to utilise the Excelsius GPS robot in the UK.

His recent clinical research in cervical and lumbar degenerative diseases, genetics, surgical implants, spinal parameters and biomechanics, minimally invasive surgery, navigation and robotics allowed him to transform his clinical practice and provide patients with new technologies and treatments. His research work is covered in more than of 100 published scientific papers and presentations. He lectured extensively in the UK and around the world. He was a board member of several spine societies (namely SOLAS, IGASS and ISASS) and was on the editorial board of European Spine Journal and Spine. He was Surgeon-General of the International Emergency Management Organisation, an Intergovernmental Organisation of the United Nations

Mr Lam was appointed Director of Minimally Invasive Spinal Surgery (2008-2016) at Guy's and St Thomas' Hospitals and Director Fellowships for AO Spine Reference Centre at London Bridge Hospital (1998-2015). He was devoted to training spinal surgeons. It was common to find a trainee, clinical observer, fellow, visiting spinal surgeon by his side in his out-patient's clinics or in the operating room. He was training supervisor to over 100 Advanced Training Fellowships of Spine Surgery. His Fellows came from around the world, including Japan, China, India, Malaysia, Korea, Egypt, Kuwait, Saudi Arabia, Turkey, Greece, Ukraine, Russia, Brazil, Argentina, Mexico, and the US. He instilled the importance of application of the principles of medical science, with hardwork, determination, excellence, and surgical precision to train his Fellows and improve his patient's conditions and outcomes. He belonged to the AO Spine Teaching Faculty (International, European and United Kingdom) and the influential AO Expert Group for Lumbar Degenerative Disorders.

While Mr Lam was unassuming and modest by nature, his work brought him many distinctions and honours. In 2009, he was the first UK recipient of the Medaille d'Honneur (Gold), from Madame Chirac, Chairman of EEDCM, for his work treating NATO, UK, and US Air Force pilot ejectees. In 2016, the late HM King Kigeli V of Rwanda invested him the Knight Grand Cross of the Royal Order of the Lion, to

recognise his work training Spinal Fellows from across Africa. In 2017, HM King Yuhi VI of Rwanda invested him the Knight Grand Cross of the Royal Order of the Crested Crane for his services to the Royal Household. He was Physician-in-ordinary to several Imperial and Royal Households, including the Qing Imperial Household of Aisin-Gioro, from which he was honoured as Knight Commander of the Most Ancient and Noble Imperial Order of the Northern Star, the Imperial Household of Selassie of Ethiopia, from which he was decorated with Medal of the Order of Adwa, the Imperial Household of Romanoff of Russia, the Royal Households of Saudi Arabia, Qatar, Abu Dhabi, Ras al-Khaimah, and Kuwait. The Peking University Third Hospital (PUTH) accorded him the distinction of Honorary Visiting Professor. In recognizing his achievements, he was cited as “unusual as a leader in advancing medical science, in advancing medical practices, and in training spinal surgeons.”

He was an enthusiastic supporter of Liverpool FC, driving Ferrari rallies, passionate about classical opera, and especially enjoyed his swimming and mountaineering escapes to the great outdoors.

He is survived by his mother Mde. Alice Lam (Cheong) , his elder brother Mr. Terence Lam Chuen Sing, his younger brother Mr. Lam Yuen Sing , of Petaling Jaya, Selangor, Malaysia, his sister-in-law Mde. Anne Lam Yuk Har, his nephew Mr. Marcus Lam Weng Fei, his niece Ms. Ashlyn Lam Weng Yee, of Epsom, England, and his most dear and beloved friends, colleagues, and patients from around the world.

His funeral service will be held Tuesday, February 15, 2022, at 12:00, at the Queen’s Chapel of St John the Baptist in the Precinct of the Savoy, the Duchy of Lancaster, London, U.K. In lieu of flowers, the family requests that remembrances be made to _____ (to be Designated Charity).