



Letter to the Editor

# Following the footprints of pioneers on neurosurgery in Iraq: Abdul Hadi Al-Khalili

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*“I am proud of God’s Blessing in enabling me to serve others”*

Abdul Hadi Al-Khalili

Prof. Al-Khalili, [Figure 1], was born in Al-Kufa, Holy City of Al-Najaf, Iraq, on 11 May 1943. He comes from a family well versed in medicine, science, jurisprudence, literature, law, and commerce. It was in his father’s clinic that Prof. Al-Khalili spent his early years and became fascinated by the doctor-patient relationship, in which he described as “a spiritual relationship that no other relationship could have reached except that of a man with his creator.”

After receiving a degree in medicine from the University of Baghdad in 1966, Prof. Al-Khalili specialized in ophthalmology in the United Kingdom before switching professions as a neurosurgeon. He trained at Pinderfields Hospital in Yorkshire in 1972, followed by The General Infirmary in Leeds, UK, during which time he became a fellow of the Royal College of Surgeons and obtained a masters degree in the philosophy of science from the University of Bradford. He completed his neurosurgery training in 1976 and returned to Iraq, where he served as one of the Nation’s most influential neurosurgeons and as a nucleus for academic leadership and international collaborations. The versatility of this journey equipped him with the personal, technical, and leadership skills to be one of the most prominent neurosurgeons in the Middle East.<sup>[2]</sup>

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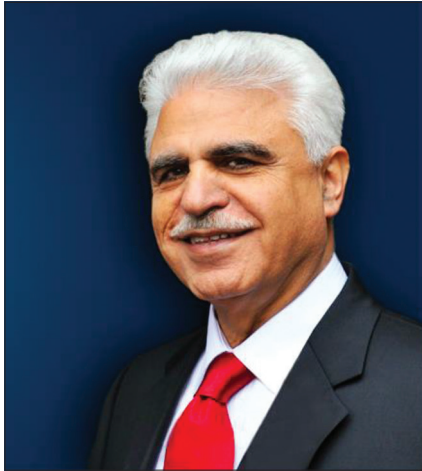
## THE ENCYCLOPEDIA APPROACH TO NEUROSURGERY

Prof. Al-Khalili took the extra mile in neurosurgery; he had a vision of enriching the field not only by linking it to other surgical and medical specialties, but also to an impressive list of other branches, including medical engineering, electrical engineering, marketing, economics, computer science, community science, nursing, mathematics, veterinary medicine, dentistry, translation, and library management. His participation in these areas involved supervising Ph.D. students, delivering presentations, and supporting collaborative research projects.

An example of the application of these ventures in neurosurgery is the invention of the “Baghdadi Cerebral Hydatid Cyst Evacuation Instrument,” [Figure 2], for which he was patented in 1987.

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**Figure 1:** Prof. Abdul Hadi Al-Khalili.



**Figure 2:** The Baghdad Cerebral Hydatid Cyst Evacuation Instrument is designed to follow the mechanism of plastic throwing toy guns. The system applies a negative pressure to extricate the contents of the cyst with a lower risk of intraoperative spillage.

This device was a revolutionary invention that provided a creative technical option to the surgical treatment of cerebral hydatidosis; an endemic disease that, at the time, eroded the population to the point that it was known colloquially as “The Cancer of Iraq.”<sup>[1]</sup>

### LIGHTING THE DARK CORNERS: THE ORBITAL SURGERY CENTER

Prof. Al-Khalili, a strong advocate for the speciality, has cultivated his previous training in ophthalmology to advance neurosurgery in the region. Not only did he manage to merge his skills and expertise in the treatment of orbital lesions but he also sat up the nation’s first advanced Orbital Surgery Center in 2002, located in Baghdad. The center has grown over the years and continues to be the primary referral center

for cases of orbital tumors. The World Health Organization has recognized the unit as a collaboration center and ranked it among the best in the Middle East. In 2003, the center was approved for accreditation by the American Academy of Ophthalmology. This innovative approach to incorporating neurosurgery into other specialties could be replicated to revive other less advantaged areas in neurosurgery.

### IMPORTING INTERNATIONAL STANDARDS

Prof. Al-Kahlili has revolutionized the standards of neurosurgical care in many respects. His outstanding leadership and interpersonal skills enabled him to challenge conventional societal norms and to transform the existing third-world level hospital management systems to those that match international standards. For examples, he was the first to introduce computerized patient data systems, disease codes, and procedure-specific charts while also valuing the need to incorporate these into a long-standing culture of poor-documentation. He was also a strong advocate for patient-centered care and the first to use and analyze patient feedback through the use of “How did we do forms,” a culturally unfamiliar practice at the time.

### PRACTICING THROUGH THREE CONSECUTIVE WARS

Prof. Al-Khalili practiced neurosurgery in Iraq between 1976 and 2004, witnessing the Iran-Iraq war in 1980, the Gulf War in 1990 and, the “2003” war, when he served at the frontlines. These were the times that tested the limits of the health-care system in the country and demonstrated the robust nature of the system he established. He also shone at this time with his resourcefulness and ingenuity, which helped him to circumvent existing obstacles to push boundaries in the number of publications, quality of surgeries, and excellence in education and training. After 2004, Prof. A-khalili was appointed as the Iraqi cultural attaché in the US and continued his pioneering efforts in re-building the healthcare system and advocating for neurosurgery in the country.<sup>[3]</sup> He also founded a number of scientific and cultural societies to revive the rich cultural heritage of the country through liaison with international bodies.

The footprints of Prof. Abdul Hadi Al-Khalili effectively demonstrate how one man’s vision has re-shaped the history of neurosurgery in a war-ridden country. This journey is, therefore, a lesson to be taught, a story to be told, and an experiment to be replicated.

### Declaration of patient consent

Patient’s consent not required as patients identity is not disclosed or compromised.

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Nil.

### Conflicts of interest

There are no conflicts of interest.

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