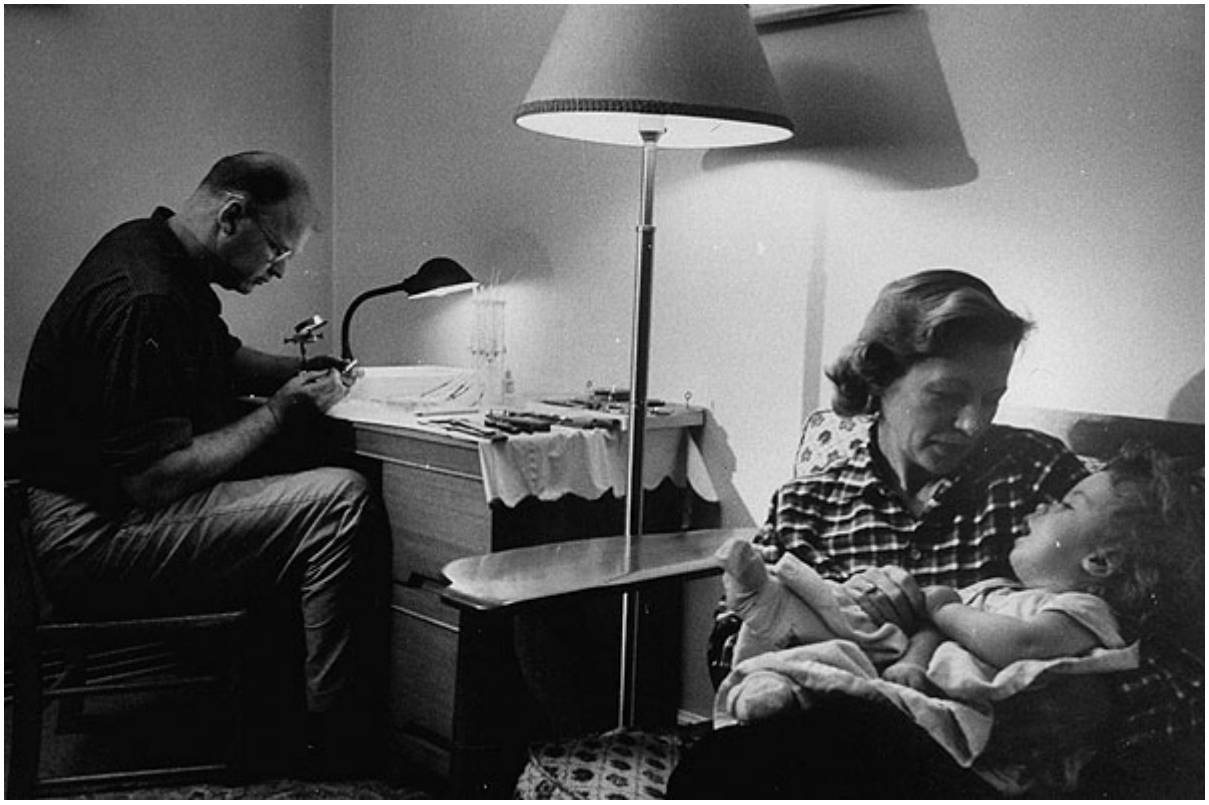
John Holter

American engineer, John Holter, seeking a treatment for his son, Casey, who had hydrocephalus, experimented with valved devices and developed the Holter valve, a silicone valve which could be sterilized and mass produced.



John Holter works on his shunt, while his wife holds Casey.

The introduction of the Holter valve was a vital boost to research into the treatment of hydrocephalus and spina bifida, raising prospects of reducing the major life-limiting element of the conditions. Hydrocephalus was the life - limiting condition associated with spina bifida, and a practical treatment for hydrocephalus meant that active treatment for spinal, orthopaedic, bowel and urological problems of spina bifida was now worth considering. In recognition of his invention, John Holter was made a member and later Honorary Member of Society for Research into Hydrocephalus and Spina Bifida (SRHSB). He went on to be awarded DSc by the University of Sheffield, UK and Hon CBE by the UK Government.

The Society was then founded by a small group of clinicians with Mr George MacNab, chief paediatric surgeon at Great Ormond Street Children's Hospital, London as first President. From then on the Society grew rapidly into the high - profile international body that it is today, including both scientific and clinical communities. Scientific meetings are held annually, and the 52nd has just been held Brown University, Providence. Though the Society is UK - based, over 20 of the 52 meetings have been held in centres outside UK. Members are drawn for approximately 30 different countries. Since the early days of the Society, John Holter was a member and friend, and his generous donation established the Casey Holter Memorial Essay Prize and Lectureship. Recent winning topics have included chiari malformation, basic research into causation of spina bifida, neuronal migration, tethered cord, intracranial pressure / volume relationships, social impact of childhood disablement and many more. This year the Casey Holter Lecturer was Professor Andy Copp of London whose topic was the developmental biology and genetics of neural tube defects, and the role of folate and inositol

in their prevention. The Society works with ASBAH, the UK organisation for people with spina bifida and / or hydrocephalus, to promote adoption of best practice throughout. We are currently lobbying government departments regarding flour fortification with folic acid.

Biographical Note

Peyman Pakzaban emigrated to the U.S. from Iran in 1978. He double-majored in chemical engineering and biology at MIT, received his M.D. degree from Baylor College of Medicine, and completed the neurosurgery residency program at the Massachusetts General Hospital – Harvard Medical School. He and his wife and daughters reside in Houston, where he is engaged in private practice of neurosurgery. Dr. Pakzaban has an interest in biomedical engineering and recently patented his first medical invention.