

Cover Story: *Dr. Robin Humphreys*

Over 30 Years of Learning, Teaching and Helping Others

by Steve C. Kean



Dr. Robin Humphreys

Dr. Robin P. Humphreys is a rare man. Along with Dr. Harold Hoffman and the late Dr. Bruce Hendrick he is a pioneer in the field of paediatric neurosurgery, a relatively new specialty that was born out of the realization that you can't simply assume that a child's brain is a miniature version of an

adult's. According to Dr. Humphreys, "If you think that you can take a dose of an adult drug and ratchet it down to match the weight of a small patient...you can buy yourself a lot of trouble. You can also mis-diagnose things if you're using an adult yardstick. I think by now we've made that message clear."

Dr. Humphreys is leaving his career at the pinnacle of success and with the admiration and thanks of thousands of families. His heart defies the laws of physics - it is clearly much larger on the inside than what you might see on any x-ray, CAT scan or MRI.

Looking back, Humphreys realized that solving the mysteries of the developing nervous system in

children held a special fascination. Every time the phone would ring in the middle of the night there would be some new "little twist on something that you thought you'd seen many times before." As I watched and listened to Dr. Humphreys, it was clear that even after more than 30 years of practice, his excitement for the challenges in paediatric neurosurgery still remained.

The Hospital for Sick Children (HSC), a teaching hospital in Toronto, was the training ground that began Dr. Humphreys' illustrious career. His work and learning was guided by Dr. Bruce Hendrick, Canada's first full-time paediatric neurosurgeon and founding Head of the HSC Division of Paediatric Neurosurgery. As Humphreys' training was coming to a close, Dr. Hendrick asked him if he might want a career in children's neurosurgery. Then, Hendrick set about to organize a fellowship for Dr. Humphreys in Boston with Dr. Donald Matson (Dr. Hendrick's mentor) and then with Mr. Kenneth Till from the Hospital for Sick Children in London, England. However, the extra training was not to be, since Dr. Matson suddenly became very ill and almost simultaneously, Mr. Till had announced his retirement. So, over the Christmas holiday in 1970, Dr. Robin P. Humphreys joined Bruce Hendrick and Harold Hoffman and began his career at HSC in Toronto. Soon after and forever more, the three of them became known around the world as "the 3-H's in Toronto".

Over the next 18 years the 3-H's were instrumental in the international development of paediatric neurosurgery recognizing the value of collaboration to "congeal thought on the situations which the paediatric neurosurgeon encountered in his/her daily life." The International Society of Paediatric Neurosurgery was formed in 1972. Both Dr. Hoffman and Dr. Humphreys served as the society's President at different times. In 1978 the American Society of Pediatric Neurosurgery was formed and again, Drs. Hoffman and Humphreys served as Presidents.

Dr. Humphreys has witnessed a renaissance in neurosurgery. He was one of those intrepid souls that he calls "B.C. surgeons", that is "before CAT" scans. They lived and worked for much of their career without the benefits of CAT scans and MRI's to discover what was happening and arrive at a diagnosis. The introduction of CT scans to HSC in 1975, and later MRI, have greatly improved physicians' ability to see inside the human body, thus, enabling earlier more accurate diagnosis of many conditions. The operating microscope has revolutionized surgical technique. As Dr. Humphreys puts it, "The microscope has taken something that is minimal and made it maximal, so patients are the better for it."

Throughout his career Dr. Humphreys has relied on an accurate history and keen observation to make diagnoses and proceed with treatment. For him the technology is but one tool and it will never replace a good clinical examination. This is a lesson that he continually works to instill in students, "before you lay hands on, stand there and observe the child." In his opinion people have become seduced by the technology. This presents a conundrum. Residents will ask him if he wants to see the scans first or the patient. Dr. Humphreys, being who he is, will almost always see the patient first only to be confronted with the parents asking, "Well, what did the scan show?"

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After learning about some of the development of paediatric neurosurgery and the early history of Dr. Humphreys' career I had the opportunity to ask him some questions:

Q We spent the first part of this interview talking about the beginning of your career and the early years of paediatric neurosurgery. Is there just one case that stands out from your 30+ years of practice?

A In the summer of 1981...this 9 month old infant presented to us. She was born here in Toronto. She had lost interest in feeding, developed a fever and then had a seizure. The infectious disease paediatrician with whom I'd worked closely in the past was so convinced that something infectious was going on that he ordered a CT scan. It showed collections of infection on the surface of the brain. I found it strange that he was asking me if we should operate since the results of the scan clearly showed that surgery was necessary. Then he said, "If I told you that the patient was a gorilla would you operate on it?" Tabitha the gorilla had her surgery to remove the infection including a piece of her skull. She grew up at the Metro Zoo, then was loaned to the Calgary Zoo and subsequently became a grandmother.

Q How many surgeries do you think you've performed?

A I know how many I've performed. At the end of last year, I'd done 6,400. Now, for surgery that goes on at HSC - general surgeons, in the course of a day might do three, five, six operations - whereas our cases, so many of them take a whole day to do just one case...As of last year, I've done 3,241 shunt operations, so just under half of the total operations have been shunts.

Then, there's the historical case that was done here on a Tuesday one year, in which there were 14 shunt surgeries done over the course of a day. Case #14 happened to be a redo of Case #1...this was before CT scans. Whereas now, when somebody with a shunt is in a little bit of trouble, we get a CT scan and, especially during flu season (between November and March) we have a little more confidence in saying that symptoms of fever and vomiting are the result of a viral infection, and not a shunt malfunction. As a consequence the number of shunt surgeries has gone down.

Q How many students have you taught?

A Directly here, resident and fellows, I've had exposure to about 450 of them. The medical students, many hundreds because for a number of years I had an appointment in the anatomy department at the University of Toronto.

We are so blessed at HSC because many of the fellows who have completed their training as neurosurgeons here have decided to restrict their careers to children's neurosurgery. So, they are seeking an extra year as a clinical fellow to upgrade their knowledge and skills. They are always excited by what they see here, and we are equally excited to have them. We learn from them, I hope as much as they learn from us.

Q What lessons do you want your students to have learned?

A Listen to the patient, don't become seduced by the technology.

Q You're teaching medical students, residents and fellows to work with children, obviously. What is the most important thing that you think is needed and involved in working with children?

A We'll often ask them if they are comfortable in the presence of children...most of them will say 'yes I'm comfortable'. The tendency is to bring out all the little hammers, and test this, and do that - we'll tell them, 'don't do anything'. Stand there and observe the baby, just watch the baby of whatever age in their crib or infant seat - do they focus on you when you walk into the room? Are they focusing on their parents? smiling at their parents?...In other words, before you lay hands on, stand there and observe the child.

Q What are your recollections of SBHAO?

A I can remember the opening night, as it were, at a dinner at The Inn on the Park. Various government officials and families of children with spina bifida and/or hydrocephalus came to celebrate the creation of the Spina Bifida and Hydrocephalus Association of Ontario. It has become a knowledgeable group from which other provincial equivalent organizations developed. But, certainly this one has the longest history and has been very sustainable over the years.

What one piece of advice can you leave with parents of children with hydrocephalus or spina bifida and hydrocephalus?

Keep loving them. It comes back to an editorial that Bruce Hendrick wrote "Whatever Mother Says". The parents, especially the mother's instinctive knowledge about this child - when they are well, when they are acting up, when they're unwell - is terribly important.

What about young adults, the ones that you are sending off to the adult care system. What advice do you have for them?

Have confidence in your abilities. You know yourself well. You will become your best advocate to transfer your case, as it were, to the new personnel who are going to be looking after you...these teenagers - most of them know themselves pretty well and can articulate exactly where their discomfort may be or how it matches such and such that they had five years ago.

Have you seen any changes over the years in the trends or tendencies for the complications around spina bifida and/or hydrocephalus?

The commonest thing that brings a child under two years of age back to the hospital for assessment with symptoms that allegedly are due to shunt, turn out to be urinary tract infections (UTIs). It can be pretty hard to distinguish between those characteristics... One must never diminish the importance of clean catheterization techniques, and so on. We continue to alert families and patients that the urinary tract deserves a huge amount of respect forever. It's so easy to diagnose and deal with UTI's.

What do you want to be your legacy here at HSC?

I think as an educator - to families and staff. I've had great joy and I think success at pre-empting families' questions on their child. Education of our allied staff - nursing in particular... Of course, then the teaching of undergraduate medical students and so on. Holding a ranking of full professor at the University of Toronto and having won a few teaching prizes in that respect - that's probably given me as much excitement as seeing a successful operation on a brain tumour or spina bifida or whatever else.

Lastly, our readers want to know what you're going to do with your retirement.

Well, I've got more than 40 things on my list and if I get through half of them, then I'll be delighted. When I was asked that at a banquet in the fall I said I'm going to take my grandsons to Austria, which is their heritage, and climb mountains. I didn't do this with my own children, but the grandchildren are going to be part of the picture.

Is your wife looking forward to your retirement?

Oh yeah. And she's been a wonderful collaborator over the years, so I have no doubt that retirement is going to mean that every day is Saturday.

SBHAO extends a warm thank-you to Dr. Robin Humphreys for taking the time to share his experience, insight and expertise with our readers. Over the last 33 years he has touched many of our lives and made many of the personal triumphs of our members and their families possible.

Anyone who has spent time with Dr. Humphreys can attest to the respect that he has for the children he has treated and their families. He expertly balances being straightforward with a gift for putting people at ease when they are facing devastating crises. Parents and children come away from meetings with Dr. Humphreys armed with information and the confidence that the course of action they are choosing is best.

He has a way of making children with sb/h and their families the sole focus of his attention. Something that is all the more impressive when you learn that on top of his duties as Neurosurgeon-in-Chief at HSC, Dr. Humphreys has had many other responsibilities. He has been teaching at the University of Toronto since 1970, has contributed to well over 300 research projects and publications over more than 30 years, and delivered over 100 presentations around the world. The list goes on.

We wish Dr. Humphreys well as he embarks on the adventures of retirement and we hope that he will keep us posted on his progress with his retirement "to-do list".