



POMEROY FAMILY ASSOCIATION

PROFILE of SCOTT LOREN POMEROY

By Chris Pomery, PFA Archivist

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Editor's note: I usually select someone to profile after noticing them on the web doing something interesting, and Scott Loren Pomery, a paediatric neurologist in Boston, certainly falls into that category. He joined the Children's Hospital in Boston back in 1990 and was named their Neurologist-in-Chief in 2005.

And while I was wrestling with the problem of describing Scott's 65 academic papers and the intellectual and emotional challenges of running a leading children's cancer clinic this profile grew a remarkable extra dimension and became a heart-warming story of how two Pomeroy Family Association members met, in rather difficult circumstances, three years ago and realised they had a wider family in common.

I'll let Deb Starr in Kansas City take up the story...

"On 13th November 2006, I took my 13 year-old daughter Miranda — everyone calls her Mimi — for an emergency MRI scan. She was suffering from persistent and debilitating headaches. Doctors had mentioned migraines, stress, and other vague possible causes, but it wasn't until I saw the large white mass the size of a large lemon in the digital image that the idea that she had a brain tumour emerged.

The size and placement of her tumour, which was exerting a huge amount of pressure in her skull and interfering with the flow of brain fluid, demanded an especially skilled team, and we quickly ended up on a four-hour flight to the east coast and the Children's Hospital in Boston, Massachusetts. My husband was out of the country flying to Singapore and I was on my own trying to work out how to deal with this. Having a sick child is difficult in any situation, but having to fly several thousand miles for treatment on top of having a frightening diagnosis is particularly traumatic. So imagine our surprise when one of the first doctors we met on the team in Boston was a paediatric neurologist called Dr. Scott Pomery!

"A week after her first MRI Mimi had a ten-hour operation. To our relief, the tumour did not require radiation or chemotherapy. Because of the amazing work of the surgery team, headed by Dr. Michael Scott, and the neurology team, led by Dr. Scott Pomery, she has completely recovered and has suffered no recurrence of the tumour. We've travelled back to Boston many times since, and each time Dr. Pomery and his colleague, Dr. Nicole Ulrich, have cared for our daughter and helped her heal fully and completely. Three years later, Miranda is beginning her junior year in high school. She spent a semester of her sophomore year studying in Zermatt, Switzerland, following a rigorous academic and physical curriculum that renewed her sense of health. Today she is a cheerleader, an honors student and considering studying psychology or medicine in college.

"Since Mimi's surgery, I have begun studying psychoanalysis — I am now in my second year at the Greater Kansas City Psychoanalytic Institute — in great part because of our experience dealing with a child with brain cancer. Initially we talked to doctors at the paediatric hospital in Kansas City, but the surgeon showed no compassion for my daughter's sorrow and fear as he explained that she had a high chance of dying on the operating table, and a low chance of surviving the post-op treatments which, even if she did, would most likely leave her with brain damage that would affect her daily life. You can imagine our relief arriving in Boston where the neurosurgeon we met calmly explained to Mimi that he was confident that his

team could re-sect the tumour, remove it all and leave her without any visible damage. I remember him saying that his team was astonished that Mimi was still conscious when they saw her MRI scan — the tumour was so large that they knew she had to be in a great deal of pain.

“After the surgery was over one of the first doctors we met was Dr Pomeroy. To get to the level of accomplishment that teaching and practicing at Harvard requires, implies that these are highly competitive individuals. Yet, the way these docs work as a team is profoundly comforting. Dr. Pomeroy is a quiet, thoughtful man. Mimi’s hospital stay was in the neuro wing, and many of the children had long, long stays here because of the difficulty of working with brain issues. Yet, Scott has a calm, reflective way of dealing with patients. Whatever anxiety he may have experienced, when dealing with the emotions that we as a patient’s family were experiencing, he kept it out of sight. And we did have emotions. Our teenaged daughter showed her fear by having a huge needle phobia, not the easiest issue to have in a hospital with IVs and needles abounding. Yet Scott and his team dealt compassionately with all of our fears. At one point, a poor nurse had to wrap our daughter in a sheet to get an IV into her. Mimi looked at every doctor and nurse as a potential source of pain and bad news, but Scott and his colleagues consistently approached her with love and patience, which eventually paid off.



*Dr Scott L. Pomeroy, Neurologist-in-Chief,
Children's Hospital, Boston MA*

“I still remember meeting Scott in the hospital room. He is a tall man, with a scientist’s shy gaze. Our experience of getting to Boston had been traumatic, and I was a nervous mother. Yet, when I saw Scott’s name — Pomeroy — I was so happy! I told him we were Pomroys, too, and we spoke for a moment about you, Chris, and the One Name project. What’s in a name? It can offer comfort, familiarity, connection and hope when little else does. To feel that familiarity in the midst of the greatest fear I have known was such a comfort.

“Dr. Pomeroy became a touchstone for us that difficult week in Boston. My new colleagues are primarily neurologists and psychiatrists who deal with intense reactions to fear on a daily basis. Scott and his team are the text-book for dealing with strong emotions in a calm way. First, the team works together seamlessly, which gave a strong sense of competence. Secondly, they were matter of fact and compassionate about our fears, which made us feel much more normal. And thirdly, they consistently gave us hope that all would be well, regardless of how difficult the circumstances were.

“Since then we’ve been able to help another Kansas child. Exactly a year to the day after Mimi’s diagnosis, a woman called me to ask for help. Her daughter Frances had just been found to have a brain tumour, and since Mimi had the best outcome of anyone she had heard about, she wanted the same team for her daughter. I put her in touch with Dr. Scott and Dr. Pomeroy and a week later, Mimi and I flew out with Frances and her mom to get them settled in Boston. It was initially thought that Frances had a less malignant form of brain cancer, but the team quickly discovered she had the most virulent form. After

surgery Frances is still cancer free two years later. Her follow-up treatments have been done in St. Louis, where a doctor who worked with Scott Pomeroy in Boston has began a programme.”

Mimi and Frances have clearly made excellent recoveries, and we all wish them well. When I asked Deb about the photos, Namibia and Oman being not among the easiest places to visit, she added:



Lily, Mimi and Adam in Oman, 2008

“We do travel a lot. In fact, I discovered I was pregnant with Miranda while in a yurt on the steppes of Central Asia. We own a company that builds food processing equipment; you name the continent and we’ve built factories there, save Antarctica. We built a reindeer processing facility in Kamchatka in northern Russia where the equipment had to be carried across the Bering Straits in Soviet military choppers, and my husband spent several years travelling back and forth between Kazakhstan and Kansas City. We’ve even built camel sausage factories in Saudi Arabia. As a family we travel overseas several times a year for fun, including recently the Grenadine Islands off Venezuela, the Okavango Delta in southern Africa, as well hiking on Mount Blanc and at the base of the Matterhorn.

“We’ve also explored Pomroy haunts in Devon and London. We went to Berry Pomeroy Castle and on the way had lunch at an old Inn in Rattery, which predates the Norman invasion, next to a church where my grandmother’s Pomroy family had been married in the early 18th century.”



Miranda Pomroy Starr, playing tag with a group of children in the eastern end of the Caprivi Strip in Namibia, July 2009.

Scott’s Work

Dr. Scott Pomeroy, Ph.D., M.D., is the Bronson Crothers Professor of Neurology at the Children’s Hospital, Boston, and since 2005 its Neurologist-in-Chief. He studied Chemistry and Zoology as an undergrad at Miami University, then took his Ph.D. and M.D. in his hometown University of Cincinnati.

Now in his mid-fifties, Scott's main research interest is understanding how a malignant brain tumour called a medulloblastoma grows in young children. These malignant brain tumours of childhood have a 40-50% overall mortality. Despite their significance, their pathogenesis is largely unknown, their cell of origin debated, and their outcome is difficult to predict.

"This is the most common malignant brain tumour in children. Because it is quite malignant, treatment consists of radiation to the entire brain and spine as well as intensive chemotherapy. Needless to say, the survivors of this disease have long-term and life-changing disabilities, so our goal is to develop therapies that more specifically target the tumour. I'm glad to say that we have moved a lot closer to meeting this goal over the past two decades.

"As a scientist and physician, my goal is to see the day when we replace radiation and chemotherapy with targeted and less toxic therapies for brain tumours in children. And as a chair of a Neurology department, my goal is to create an environment where physicians and scientists can thrive and work toward their own goals of scientifically based therapies for diseases of the nervous system.

"Brain tumours are the most common cause of cancer death in children, and a major cause of neurological disabilities for those who survive them. The clinical and laboratory programs I run focus on the basic biology of childhood brain tumors and their impact on the developing brain. Since I started the Brain Tumor Clinic in 1992 in Boston it has become one of the largest in the United States. We provide multidisciplinary clinical care to children with tumors of the nervous system and have put together a substantial infrastructure for clinical, translational and basic research in Pediatric Neuro-oncology for the Dana Farber/Harvard Cancer Center. I've also contributed to the development of national research programmes as the chair of brain tumour biology committees for all the major collaborative cancer treatment groups in the US.

"I remember three years ago, Miranda came to us with a brain tumour after several months of headaches. It was removed by Drs. Michael Scott and Liliana Goumnerova of our Neurosurgery faculty, and she has not needed any further therapy. I have seen her since and she has done very well since the tumour was removed. We have a follow up clinic with no age limit to monitor our patients after therapy. I have some who were treated as many as 30 years ago. While there are a number of survivors who lead independent and productive lives, all too many have disabilities to the degree that they cannot achieve independence. The emotional adjustment of working with children and families confronting life-threatening illness on a daily basis can be quite challenging. I've found that this requires considerable introspection as well as research and guidance by others to manage.

"Our ultimate goal is to change the way that embryonal tumors are treated, moving from traditional radiation and chemotherapy to biological approaches based on targeted molecular therapies. So my lab has focused on understanding the molecular basis of embryonal tumor oncogenesis within the context of the developing central nervous system. To provide a practical means to implement this change, we have created research infrastructure within national cooperative therapy groups to provide access to research materials for investigators throughout the world and that will enable the rapid incorporation of new therapies into clinical trials. The genomic databases of embryonal tumors that we've created are freely accessible on the internet to investigators throughout the world via websites at the MIT/Harvard Broad Institute and the National Cancer Institute. The arrival of the web means that the dissemination of information and communication with others now occurs at lightening speed. It is hard to remember what life was like before these innovations, even though I spent a longer part of my career in the pre-internet era. It has also become true that one can rarely fully escape work. I find that answering emails on a daily basis is almost mandatory, even when I am on vacation or on weekends.

"We have shown in experiments with mice that embryonal tumors arise from cerebellar progenitor cells in multiple steps involving the dysregulation of developmental genes. Using genomic and standard molecular biological methods to analyze developmentally regulated molecules, we have identified the potentially critical elements in the genesis and progression of medulloblastomas.

“In the lab we have a particular focus on determining how genes that regulate cerebellar development become disrupted to promote medulloblastoma growth, and we’ve been able to resolve a decades-long dispute on their origin. We’ve developed algorithms to ‘learn’ the gene expression distinction between patients who survive their treatment compared to those who succumb to their disease, and the outcome prediction models based on these gene expression profiles are by far the most accurate predictors of medulloblastoma outcome currently available. These have proven to be outstanding markers of clinical prognosis, predicting outcome with greater accuracy and independent of clinical criteria currently in use for risk stratification, and the models we developed have been incorporated into therapeutic protocols conducted by the national cancer cooperative, the Children’s Oncology Group.”

End Note:

Both Deb and Scott have greatly helped the PFA to advance the Pomeroy research project. Scott, a member of the Eltweed family, has taken part in the DNA testing programme, while Deb kindly donated US\$500 towards the cost of our DNA tests in memory of her grandmother, Emily Louisa Pomroy, 1892-1986.