



MICHELLE HABER

AUSTRALIA

Prof. Michelle Haber is Executive Director of Children's Cancer Institute, the largest children's cancer research facility in the southern hemisphere.

With colleagues Norris and Marshall, she developed PCR-based technology for detecting minimal residual disease in children with ALL, which led to a doubling of survival rates in children with high-risk disease. She worked with colleagues Norris and Ziegler, as well as Hogarty (Children's Hospital of Philadelphia), to translate her studies on polyamine inhibition into international neuroblastoma clinical trials.

Her studies on the chromatin modifier, FACT, and its inhibition by CBL0137, conducted with Norris, Ziegler, Marshall, as well as Gudkov (Roswell Park Cancer Institute), have also led to an international COG trial.

She established and has led the ZERO Childhood Cancer national precision medicine programme, which has enabled all Australian newly diagnosed and relapsed high-risk child cancer patients to have tailored therapy targeting the specific genetic and biological characteristics of their individual tumour and which, by end 2023, will be available to every Australian child with cancer.

She was appointed a Member of the Order of Australia (2007), an Inaugural Fellow of the Australian Academy of Health and Medical Sciences (2015) and a Fellow of the Australian Academy of Science (2022).

**"If a job is
worth doing,
it is worth
doing well."**

On Relationships that Influenced My Career

Dr. Susan Horwitz, Fellow of the US National Academy of Sciences and former President of the American Association for Cancer Research (AACR), has been a significant influence on my career. I first met Susan when I was a graduate student at my first local conference in 1982, where Susan was one of the international invited speakers. There were few women graduate students at the meeting, and Susan made a point of speaking with us all after dinner, which made a deep impression on me at the time. At my first international meeting, several years later, I met Susan again where she remembered me warmly and urged me to keep in contact. When I knew my husband would be doing post-doctoral studies in New York, I contacted Susan to see if I could work in her lab at the Albert Einstein College of Medicine (New York), and she supported me in attracting a UICC Training Fellowship to work with her. From my relatively short time in Susan's laboratory, I was able to publish an influential paper on identification of tubulin isotypes, an area of research subsequently expanded by my own graduate student, Maria Kavallaris, who undertook her post-doctoral studies with Susan. During our time in New York, Susan welcomed our family not only into her home but also to visit her holiday house in the Berkshires. Susan's style as a research leader and her close relationship with her husband, Marshall, also a Professor at Albert Einstein, greatly influenced my husband and me, and we aspired one day to be two Professors, as successful and happy as Susan and Marshall (which we have been fortunate to achieve). Susan and I have kept in frequent touch over the years and she has been a constant supporter and advocate for me, serving as a referee for most of my awards.

On Challenges and Overcoming Them

I experienced a significant challenge early in my career when my husband, then a Physician trainee, needed to undertake overseas post-doctoral studies in order to secure a teaching hospital appointment on his return. I had just established my own laboratory in Sydney, Australia, with new grants and graduate students, and it was not feasible for me to leave my group for 2 years. However, I was committed to supporting my husband's career and neither of us wanted to be separated for any length of time, so we needed to find a compromise plan. That was when I applied to Susan Horwitz's lab for a 3 month Fellowship, during which we enrolled our children, aged 5 and 7, in a New York school. For the remaining 2 years of Paul's postdoctoral studies, I travelled backwards and forwards 6 times between Australia and New York with our children, so I could continue supervising my lab group in Sydney whilst spending time as a family in New York, and continuing my work in Susan's lab. We managed not to be apart for more than 6 weeks at any time, by staying in New York across all the Australian school holidays, and bringing with us a different friend or relative each time who took the children on outings while I worked, in return for a free stay in New York. We turned a

challenging situation into an adventure, meeting each time we flew into the USA in a different city for a long weekend as our allowed stopover, which was always exciting. We went into debt for our travels but never regretted it. This taught me that challenges can be overcome with sufficient creativity and determination, and this strengthened our marriage and our relationship with our children through what was quite a remarkable time.

On Balancing Career and Other Life Responsibilities

My life has been a constant juggle of career and family, both of which have been extremely important to me. My husband is a clinician scientist, with a busy career as a Head of Department in Sydney's leading teaching hospital, as well as leading a substantial research group in addiction medicine, and so we have constantly had to juggle our commitments and share the care of our children. He was always willing to look after our children when I travelled interstate or overseas for work, and to feed and put them to bed if I was working late. I arranged for university students to collect our 2 older children from school and take them to their grandparents, after-school activities or after-school care, from where I would pick them up. When I was 41 and already Acting Director of our Institute, we decided to have a third child, and from there, we needed a nanny to help support the logistics of our growing family. I tried my best to attend as many school functions and special occasions for our children as possible, but I know we missed a number of them. Fortunately, I am blessed with wonderful relationships with our children.

My Words of Wisdom for the Next Generation of Female Leaders

When I was 25, I was undertaking my PhD studies in chemical carcinogenesis, having decided a couple of years previously to change careers from my undergraduate studies in clinical psychology because I increasingly wanted to have a career that could make a tangible difference. I had no idea where my career would take me but found my PhD studies fascinating, and they led to my appointment as the inaugural post-doc at Australia's first children's cancer research laboratory. That laboratory became Children's Cancer Institute where I have spent nearly 40 years of my career. So my advice to myself at age 25, and to a new generation of professionals embarking on a career in child cancer research would be to go where opportunities take you and where you have a passion, be brave and take chances if opportunities come your way, and seek out people who will mentor and support you on your career journey. Our field has moved incredibly rapidly, with new treatments and cures possible where they never were before, and it is such an exciting time to be part of an international community committed to improving outcomes for children and young people with cancer. By thinking outside the box, and bringing people together, there is a solution to every problem.