

## CHAPTER 1

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## Tributes to Robert Turner

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### Tribute by Professor Rury R. Holman

Robert Turner was born on 26 November 1938 and died peacefully on 1 August 1999 in Atlanta, Georgia, following a major stroke four days earlier (Fig. 1.1). While his untimely death came as a great shock, we celebrate the fact that he achieved so much more than most during his lifetime. His many colleagues and friends around the world were privileged to share in his work and aspirations. He is sorely missed.

Robert followed in the family tradition by electing to study medicine. He obtained an Exhibition in 1957 to Downing College, Cambridge, and subsequently completed his training at the Middlesex Hospital Medical School. His major interest in diabetes first developed while working for Dr John Nabarro as a Leverhulme Research Fellow. At this time he undertook a number of physiological studies and co-developed the charcoal separation phase insulin assay that was used subsequently to analyse UKPDS samples.



**Figure 1.1** Professor Robert Turner, MA, MD, FRCP. Professor of Medicine, University of Oxford.

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In 1970 Robert was awarded a named fellowship to study at the Massachusetts General Hospital, in Boston. He moved to Oxford in 1972, having been appointed as a clinical lecturer to Professor Paul Beeson in the Nuffield Department of Medicine. Robert was given two small laboratories in the Sir Hans Krebs Metabolic Research Laboratories. Here he started what was to become the Diabetes Research Laboratories, or DRL as it became known, with one nurse and one technician and myself as his first research fellow. This fledgling department was to grow inexorably over the years, gradually acquiring additional space and laboratories, and evolving into one of the largest and most successful clinical research units in Europe.

Above all, Robert was a visionary, an innovator and a fierce supporter of scientific method in clinical practice. Many projects which he undertook were only practicable because of his extraordinary ability to embrace and work creatively with different scientific disciplines to mutual benefit. Robert believed that the main metabolic problem in type 2 diabetes was insulin insufficiency, a view that proved controversial as many scientists thought a reduced sensitivity to insulin was the primary lesion. In the face of considerable uncertainty, Robert stuck to his guns and now, many years later, it is accepted that diminished insulin secretion, secondary to progressive beta cell failure, is indeed a central mechanism in the development of type 2 diabetes.

Robert was quick to acknowledge the help and inspiration of those with whom he worked. He regarded John Nabarro and Arnold Bloom as role models and was greatly influenced in his clinical trial work by Professor Sir Richard Doll and Professor Sir Richard Peto. Equally, Robert trained an entire generation of clinicians and scientists who came from many different countries to work with him in the DRL, many of whom have gone on to become the modern-day leaders in the field of type 2 diabetes. Robert was aided and abetted in his aspirations by a loyal band of dedicated co-workers including Irene Stratton, Dr Carole Cull and Dr Susan Manley. Professor David Matthews, Dr Anne Clark, Dr Jonathan Levy and I were privileged to have him as a mentor and confidante, and primarily as a friend.

Robert's research interests were diverse, and it is intriguing to note that several different scientific disciplines have claimed him as an expert in their own field, often unaware of his other talents. As well as physiological studies aimed at identifying the lesions that cause type 2 diabetes, he undertook studies of patients and their relatives to identify the heritability of different features of the disease. He then turned his attention to identifying both the genes that contribute to the initiation of type 2 diabetes, and those that may influence its subsequent complications. Robert worked extensively on the development and assessment of new pharmacological therapies and medical devices. Following the introduction of home blood glucose testing Robert co-developed the Autolet finger pricker, basing the mechanism on a toy cash register. He also undertook epidemiological studies and produced mathematical models for diabetes including the HOMA model for assessing beta cell function and insulin sensitivity, and a risk assessment simulation model based on UKPDS data.

Robert pioneered the early use of insulin therapy in type 2 diabetes and was an acknowledged expert on the diagnosis and treatment of insulinomas. He was quick to realize that long-term prospective studies were required in order to explore the causes and the most effective treatment of type 2 diabetes. His greatest achievement was the unveiling of the results of the 20-year United Kingdom Prospective Diabetes Study at the EASD meeting in Barcelona in 1998, following which he received many awards. It was characteristic of Robert that, even as the UKPDS was being presented, he was already planning an equally ambitious project to help implement and evaluate its findings.

Above all, Robert was a caring physician and leader. Patients, departmental staff, colleagues around the world and the many physicians and scientists he has helped to train can testify to his charisma, thoughtfulness and unstinting support. Numerous colleagues have expressed their profound sadness on hearing the news of Robert's demise, and each one has their own tale to tell of how he had assisted them in some venture, provided them with timely advice, or helped them personally.

Robert's interests, however, were not limited to medicine. He played golf, had a passionate interest in music, and took enormous pleasure from his garden. He enjoyed travelling and took an avid interest in the geography, history and culture of the places he visited. In 1970 Robert married Jennie, to whom he was devoted. At that time she was completing her PhD at the Brompton Hospital and worked subsequently on allergic lung diseases. The home they made together was to become a centre of hospitality for an international circle of students and colleagues.

The premature demise of such an important leader in the field of diabetes has been felt throughout the world and no more so than by the diabetes community in Oxford.

### **Tribute by Dr Jennie Turner**

It was a great adventure to be married to Robert for 30 years. We had only been married for three months when we embarked on the *QE2* liner for a sabbatical at Harvard Medical School in Boston, USA.

We returned to Oxford in 1972, living first in Great Milton, a quintessentially English village just 12 miles from Oxford. While there we had our two sons who enjoyed the freedom of village life that would have been impossible in a city. We lived in a stone cottage with a large garden and it was here that Robert would relax, growing fruit and vegetables for the family. This would be a lifelong passion for him and one that was an essential 'bolt hole' from the pressures of the life he had chosen. A combination of teaching, devotion to his clinical work and of course the UKPDS would be the focus of his life, but always his family would come first if we needed him.

For me he was the perfect husband. He encouraged me to pursue my career as an immunologist in the field of allergic lung disease which I did, but I realized very early on that I enjoyed being with my sons and supporting Robert in

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his very exciting research. It was such fun to travel with Robert and I met so many doctors and researchers as a result from all over the world (Fig. 1.2).

We moved to our present house in 1981 and it is one of the few times that I gave Robert a lecture. I said that if he wanted to know his sons then he should try and be home for supper with them at 6.30 pm. As so many of the Fellows in the department will know, he did do this. In many ways he was very hungry by then as lunch would so often have been just a couple of chocolate bars. The telephone would ring at around 6.15 pm and this would mean that he was leaving work, but on many occasions it would go on ringing and when I would eventually pick it up Robert would tell me that he was bringing home this young doctor for dinner too. I soon realized that I was so lucky to be meeting these young doctors from all over the world, who have gone on to be leaders in the field of diabetes.

The UKPDS took up so much of Robert's time and energy that on the many trips to the opera and visiting friends, I would be the driver while Robert would work alongside me. However, the last few years of his life after the publication of the UKPDS were quite fantastic. He received the just recognition of this landmark study from colleagues all over the world. I know that Robert would be delighted that the UKPDS is to celebrate 30 years this year. I would like to take this opportunity to pay tribute to the many people who have ensured that this has happened. In particular I would like to thank Professor Rury Holman, who as you all know was a close colleague and the person who has ensured that the UKPDS continued after Robert's death.



**Figure 1.2** Jennie and Robert Turner, Bermuda 1997.