Angelika Bierhaus, 1962–2012

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Professor Angelika Bierhaus passed away on 15 April 2012, after a long and courageous battle with cancer. Angelika had a great love of life, she was generous, kind and warm hearted. She was always full of plans for future scientific endeavours, even when her disease began to take its toll. She remained steadfast that she would not be defeated, but even as she celebrated her 50th birthday recently, she was aware that the time remaining to her might be short. She dedicated herself to research, but despite her incredible strength she was not able to overcome the disease which tragically took her life.

Angelika started her career in the Department of Internal Medicine 1 at the University of Heidelberg, Germany, in 1988. When she applied for the position of research fellow, she had already decided to devote her whole life to research. From the very first day she worked incredibly hard and started a research group that consisted of only one postgraduate and one technician. At the time of her death, this had grown to the size of a small department.

Angelika will always remain in our memories as an extremely engaged scientist full of passion for her profession. Understanding the molecular mechanisms of chronic diseases was her entire life, and she worked on projects as diverse as diabetes, thrombosis, atherosclerosis and pain [1, 2]. Her insights into the receptor for advanced glycation endproducts (RAGE) and the transcription factor nuclear factor κB (NFκB) [3] will remain forever as a memorial to her life. Her most important discovery, although not widely accepted at first, was that the sustained and prolonged activation of NFκB following ligation of AGEs to RAGE, leading to increased NFκB-p65 synthesis, perpetuated proinflammatory responses and cellular dysfunction. This finding had important implications for many other researchers in the field. NFκB as a redox sensor and important control of transcription remained a strong focus of Angelika’s interest, not only in inflammatory disease and diabetes, but also with respect to psychosocial stress [4]. Even in her last weeks, she succeeded in developing new insights in diabetic neuropathy—a testament to her dedication to the very end. Her last paper [5], which was accepted just before her death, focused on methylglyoxal, a small endogenously formed metabolite, the levels of which are increased in diabetes. She described how this metabolite modifies the structure of sodium...
channel 1.8, thereby changing it biologically, leading to sustained firing and ultimately neuropathic pain. This was a deeply personal issue for Angelika, for throughout her disease she would often speak of the neuropathic pain that she suffered as a consequence of her treatment. In several of her last presentations she referred to the fact that her research was also influenced by her personal circumstances. High mobility group box 1 protein (HMGB1) was also a great interest of Angelika’s [6], not only with respect to its involvement in RAGE, but also with respect to the researchers within the field, many of whom she counted as her closest friends. Angelika was awarded the honour of organising an international meeting on HMGB1 this year; however, given the tragic toll that the disease took upon her, she was unable to fulfil this beloved commitment.

Angelika’s passion for her work was clear to anyone who was lucky enough to see her present her research. At national and international meetings and congresses she was able to fascinate and enthrall scientists and physicians alike. After teaching lectures given at the University of Heidelberg, she would frequently have students coming to her, wanting to discuss and, more often than not, asking whether she would supervise their studies. She would be more than happy to accept, feeling that the education of new scientists was of fundamental importance. She was a mentor to a great number of students and was a strong supporter of many national and international scientists. She will always be a great source of inspiration for future generations of scientists.

Angelika not only achieved international acknowledgement but also gained a great many friends all over the world. She was engaged in numerous scientific societies such as the European Association for the Study of Diabetes, the German Diabetes Society, the Society for Thrombosis and Haemostasis, and the Juvenile Diabetes Research Foundation. Angelika also worked on the editorial boards of a number of internationally recognised journals, including Diabetologia and Experimental and Clinical Endocrinology & Diabetes. In 2011, she achieved the ultimate validation for her dedication to diabetes research when she was awarded the Camillo Golgi prize by the EASD. The joy that this honour, and the applause that followed her lecture that day, brought to Angelika was visible for all to see.

We will always keep Angelika in our memories as a strong and loving person who dedicated herself to her research and fostered the career of many young scientists. Despite her life being tragically cut short, she was able to achieve some major scientific accomplishments that have helped to reveal the underlying secrets of diabetes and its associated complications.

References