OBITUARY

Prof. Thomas Büchner (22 September 1934–5 August 2016)— A leading European hematologist and AML trialist

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Dr med. Thomas Büchner, Professor Emeritus of the Westfalian Wilhelms-University in Muenster, Germany, died suddenly gardening in his home in Muenster on 5 August 2016. Until his last day Thomas was active as a scientist and teacher in Muenster's University and in the international leukemia community.

Thomas was born on 22 September 1934 in Berlin. He moved with his family to Freiburg and grew up in this university town in the south-west of Germany. In 1955 Thomas began to study Medicine at the University of Freiburg and completed his exams and his MD degree in 1961. The title of his experimental MD thesis was: 'Autoradiographic studies concerning cell kinetics in the mouse'. This was the basis of his life-long interest in experimental and clinical research in hematology. In 1962 Thomas Büchner moved to the University of Muenster and was active in the Faculty of Medicine until recently. He joined the Department of Medicine, fulfilled the requirements for a university professor (Habilitation) in 1970 and became consultant physician and Professor of Medicine in 1972. His thesis for obtaining the professorship was again a study on cell kinetics, this time blood cell kinetics in humans. His work was honored with the Theodor-Frerichs Award of the

German Society of Internal Medicine in 1971. In 1997 Thomas Büchner was one of the founding members of the competence network 'Acute and Chronic Leukemias', which he supported for the rest of his life. His saying was: This call is for us. If we don't win, it is our own fault. In 2002 he became also one of the key promoters of the European LeukemiaNet (ELN). His last contribution to the spread of excellence of this competence network was a lecture at the German Cancer Congress in Berlin in February of this year. When Thomas became Professor Emeritus in 1999, he continued his active work as a highly engaged scientist, teacher and clinician. He remained active in the department and beyond. For his ongoing enormous scientific and clinical contribution to the field of leukemia, Thomas Büchner was elected Honorary Member of the German Society of Hematology and Oncology (DGHO) in 2008.

The focus of Thomas Büchner's clinical and scientific interest was acute myeloid leukemia (AML). When he started working in this field in the 1960s, median survival of persons with AML was < 5 months and the disease killed almost everyone. At that time hematologists had only few drugs in their hands such as thioguanine and cytarabine and supportive care was unavailable. In 1978 the Federal Government in Germany launched a program to support nation-wide multicenter trials for persons with several cancers and Thomas Büchner took over the task of coordinating the German national AML trials. This led to the foundation of the 'German AML Cooperative Group' (AMLCG) and to a successful series of multicenter trials throughout Germany. In the first of this series of AMLCG trials under the charismatic leadership of Thomas, the TAD-9 protocol for remission induction was established consisting of cytarabine, daunorubicin and thioguanine. This concept was based on Thomas' extensive preclinical research and took advantage of the so-called synchronization effect of cytarabine. In parallel, systematic supportive care was optimized by platelet transfusions, effective antibiotics and treatment in a protected environment. Under this regimen the AMLCG observed the first long-term survivors. Thomas was very serious, but he had also a deep sense for humor. In his first AML trial after few patients were accrued the survival curve dropped sharply and Thomas declared it as a 'plateau destroyer we have to avoid in the future!'. Study generations followed, in which the AMLCG concentrated on adding maintenance therapy for up to 3 years and on intensifying remission induction by introducing double induction and dose intensification of single components such as high-dose cytarabine and mitoxantrone (HAM). The AMLCG 1999 randomized trial addressed several open questions for induction and post-remission therapy in > 3000 subjects. This trial showed the limits of further dose escalation of chemotherapy in induction and consolidation/maintenance. It also showed the enormous prognostic impact of age. Whereas with the intensive treatment approach of double induction, consolidation plus maintenance and modern supportive care approximately half of patients < 60 years survived, progress in older patients was substantially worse with < 30% long-term survivors. From the beginning the AMLCG trials were complemented by highly sophisticated central diagnostics allowing identification of biologic and prognostic subgroups, which paved the way for translational research

projects. However, as Thomas kept teaching us: we still are not able to really understand and explain the molecular basis of the 'age factor'—as he named it. He hypothesized the 'age factor' as a result of accumulating genetic changes with increasing age. Besides novel anti-leukemia treatment strategies Thomas with his group improved systematic supportive care in cooperation with the Paul-Ehrlich Society within the AMLCG studies. This approach resulted in a close cooperation of hematologists and microbiologists and the establishment of a DGHO working group that developed national and international guidelines for to manage infections in hematology and oncology. For the statistical design of the AMLCG 1999 trial Thomas introduced the principle of 'up-front' randomization into different treatment algorithms, a principle widely discussed in the leukemia community. Some felt it not so helpful in guiding care in distinct situations where specified randomization might give a more precise answer. However, in the Intergroup trial of the German Network for Leukemia Thomas and many others used the powerful instrument of up-front randomization to compare the different therapies specifically designed by the five multicenter trial groups for AML, which evolved in Germany in the meantime—and found no significant differences in outcome. Thomas always explained this to us—with his typical deep but subtle sense of humor—and by this gave further impulse to many of us to seek completely new ways of AML treatment.

Science needs communication and also in this field Thomas Büchner was a driving force. Together with the pediatrician Günther Schellong from Muenster, who was one of the pioneers of the BFM group for studies on children's leukemia and lymphoma, Thomas Büchner and others founded the series of symposia on 'Acute Leukemias', which is

attracting international scientists and clinicians every 2 years and is an important forum for the exchange of ideas and results in the field. All this made Thomas Büchner an internationally respected leukemia specialist, which also led to the request by Michael Gorbachev to treat his wife Raissa Gorbacheva in Muenster.

Thomas Büchner had a major impact on the international progress in AML therapy and gained substantial honors and awards. His sudden death leaves us with the challenge and obligation to continue his work and to follow his outstanding example as a highly engaged researcher and clinician.

Thomas is survived by his three sons and grandchildren. His beloved wife Edith pre-deceased him in 2013. The field of hematology and leukemia research has lost a pioneer, a wonderful person, a good friend, a mentor, an eminent colleague and first of all an intellectual human who will smile forever with friendly humor about what we do and what we try.

Thomas Büchner's favored song was 'Imagine' by John Lennon; there is nothing to add.

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