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Hans Günter Schlegel 80 years old

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Hans Günter Schlegel originated from a school teacher's family close to Leipzig in Saxony, where he was born on 24 October 1924. Overshadowed by the national socialist dictatorship, his high school years were terminated early for 3 years of service in the air force. After the war, he studied sciences in Leipzig and Halle, aiming at a career as a high-school teacher. His scientific ambition was awakened through his work on his doctoral thesis (1950) with Johannes Buder in Halle with studies on light reactions in purple sulfur bacteria. An assistantship in the laboratory of Kurt Mothes in Gatersleben, near Halle, extended his experience in plant physiology and general microbiology; and he completed his second doctoral degree to obtain the *venia legendi* in microbiology and plant biochemistry in 1954. Study fellowships brought him from the German Democratic Republic to Munich (F. Lynen) and to Cleveland, Ohio (L.O. Krampitz, H.G. Wood), where he completed his research in the biochemical and physiological assessments of microbial metabolism.

After accepting the chair of microbiology in Göttingen in 1958, Hans Günter Schlegel became editor of *Archiv für Mikrobiologie* in 1959 and took over the function of Chief Editor from his predecessor August Rippel-Baldes in 1969 (vol. 66). He maintained this function for 24 years until 1993 (vol. 160), supported over many years by Gerhart Drews (Freiburg) and several co-Chief Editors in the United States and Canada. The 24 years of his chief-editorship represented another "Golden Age" of microbiology and many exciting new types of microorganisms were described and characterized in this journal. Among these

were the first pure cultures of phototrophic bacteria, new types of sulfur- and sulfate-reducing bacteria, the first extremely thermophilic bacteria and archaeobacteria, homo-acetogenic and syntrophically fermenting bacteria, and methanogenic archaeobacteria. The studies published included ground-breaking studies on their physiology and biochemistry. Needless to say, the pet organisms of Hans Schlegel's laboratory – the aerobic hydrogen-oxidizing "Knallgas" bacteria – and numerous aspects of their metabolism and its regulation were also documented in this journal. The journal was never a "German" journal; from its very beginning, the list of editors included names such as A.L. Jensen (Lyngby), C.B. van Niel (Pacific Grove), R. Stanier (Berkeley), S. Rittenberg (Los Angeles), and many others. The Editorial Board listed the stars in microbiology of those years! Through Hans Schlegel's editorship, the journal developed into a central platform for the communication of the essential findings in the microbiology, physiology, ecology, and biochemistry of microorganisms. The journal changed its name to *Archives of Microbiology* in 1974 (vol. 95).

Hans Schlegel remained a gifted teacher and several thousand students of biology, chemistry, agriculture, and forestry enjoyed his lectures in Göttingen. With his Saxonian background, he taught in an atmosphere of Prussian virtues in their best sense and instilled a love for nature. With his charisma, he encouraged an impressive number of talented students to take microbiology as their main subject, guiding many of them into successful careers in science. Just as impressive was his never-ending assiduity and energy in keeping a huge institute running smoothly and in securing financial support at an amazingly high level.

Last, but not least, Hans Schlegel made a great impact on non-medical microbiology in Germany through his textbook, *Allgemeine Mikrobiologie*, which set the stage in this field for many generations of students. The idea behind this inexpensive, compact textbook was to have students use it everywhere, even at the swimming pool, and to replace it easily when a new edition appeared. Thus, the "Schlegel" textbook became the "Bible" of microbiology

This special issue is dedicated to Prof. Dr. Dr. h. c. mult. Hans Günter Schlegel on the occasion of his 80th birthday by his friends and former students who wish him all the best for the future.

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in West Germany; and it has been translated into Russian, Spanish, Polish, English, Persian, Indonesian, and Italian. He edited another textbook together with W. Lengeler and G. Drews in 1998, *Biology of the Prokaryotes*, a multi-author major textbook covering the current knowledge on prokaryotes at a more demanding level for advanced students and specialists. He also treated the history of microbiology recently in an amazing and exciting book, *Geschichte der Mikrobiologie*, in which he placed his enormous, detailed knowledge on the development of this science into the context of science history over the past four centuries.

Hans Günter Schlegel played a major role in the formation of the field of microbiology in the post-war era through his outstanding scientific achievements, his talented teaching skills, and the impact of his textbook. With his special Saxonian charm, he was a modest and convincing ambassador of German science during the very difficult period after the war; and his diplomatic and organizational skills made an essential contribution to the rise of general microbiology in Germany after its deepest depression. The microbiology community in Germany and beyond owes much to him and to his specific achievements.