Obituary

Callum G. Fraser and Sverre Sandberg*

Dr Per Hyltoft Petersen: an appreciation

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Sadly, Dr Per Hyltoft Petersen from Odense in Denmark, passed away on 15 January 2022. Ever since the early 1980s, Dr Petersen was involved in investigations on how the analytical quality achieved affected clinical outcomes, and this continued throughout this professional life. In the 1990s, along with many others interested in this particular aspect of laboratory medicine, including Mogens Horder, Callum Fraser, Jim Westgard, Rainer Haeckel, Carmen Ricos, Sverre Sandberg, and many other internationally well-known collaborators, Dr Petersen continued his work on setting analytical goals and generating and applying data on the components of biological variation. Throughout this period, definition of what was then generally termed analytical goals was addressed by a number of professional groups including the European Group on Evaluation of Laboratory Tests (EGE-Lab) and the European External Quality Assessment (EQA) Organisers Working Groups, of which Dr Petersen was a very active member. Much controversy grew about the appropriate means to set analytical goals and he, along with Drs Callum Fraser, Anders Kallner and Desmond Kenny organised the 1999 Stockholm Consensus Conference on Setting Global Analytical Quality Specifications in Laboratory Medicine, inviting all colleagues who had published on this topic to present (and

publish) their views. The consensus achieved was a hierarchy of the known strategies for setting analytical quality specifications with the effect of performance on clinical decision-making as the best and the state-of-the-art achieved as the least advantageous. This hierarchy was based on the proposal advocated in an Editorial by Fraser and Petersen in *Clinical Chemistry*. The hierarchy was widely adopted throughout laboratory medicine. However, by the 2010s, it became clear that the hierarchy warranted review. In consequence the European Federation for Clinical Chemistry and Laboratory Medicine (EFLM) held the 1st Strategic Conference of the European Federation of Clinical Chemistry and Laboratory Medicine in 2014. Dr Petersen was a member of the organizing group, presented a summary of his work on analysis of the effect of analytical performance on clinical decision-making using his well-known and highly regarded graphical approaches, and participated in the preparation of the consensus statement, a simplification of the hierarchy established by the Stockholm Conference, a paper which has been cited more than 350 times already. Much interest was generated at the Strategic Conference on the assessment and uses of data on biological variation, a subject to which Dr Petersen had contributed much over his career. His inspiration has contributed to the impressive body of work done in the last decade by the EFLM groups concerned with biological variation, which have contributed so much to contemporary laboratory medicine. Since the Strategic Conference, Dr Petersen and colleagues from Scandinavia and Scotland have published a series of papers up to 2019 on the assessment of means to develop reference change values, another long-held interest of Dr Petersen to which he contributed significant insights. Although Dr Petersen was situated in Odense, for more than 20 years he was engaged in the work of the Norwegian Organization for Quality Improvement of Laboratory Examinations (NOKLUS) and worked as an Adjunct Professor at the University of Bergen. In Norwegian Organization for Quality Improvement of Laboratory Examinations (NOKLUS) he engaged, inspired, and supervised many PhD and MSc students and all looked forward to his visits in Bergen with anticipation. In addition to his publications, Dr Petersen was a captivating speaker and was invited to present his work at many conferences and meetings too countless to detail, but from every country in Scandinavia, through Milan,

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Antwerp, Padua, Jackson Hole: Colorado (at the invitation of the College of American Pathologists), Kobe: Japan (resulting in a book “Maintaining a Healthy State within the Individual”), Bratislava, Barcelona, Kuwait (giving a two-week course in selection and evaluation of analytical methods for the Ministry of Health, with Callum Fraser), and many others, including Australia. Together with Linda Thienpont, Dietmar Stöckl, Kristian Linnet and Sverre Sandberg, over

many years, he toured around the world presenting a comprehensive course in medical statistics. A great scientist, innovator, and communicator, who contributed so much to the development of the numerical aspects of laboratory medicine. Per Hyltoft Petersen had great ambitions for the discipline: in contrast, his ambitions on his own behalf were small.

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