

IN MEMORIAM

Benjamin Burrows, MD, 1927–2002

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Benjamin Burrows, for many years Chalfant-Moore Professor of Medicine at the University of Arizona College of Medicine in Tucson, AZ, USA, has recently died. At the age of only 20 he obtained his MD degree at Johns Hopkins, Baltimore, MD, USA. After residencies and service in the US Air Force, he joined the faculty of the University of Chicago, Chicago, IL, USA, where he rapidly established his international reputation as an investigator of obstructive diseases of the airways and was promoted to Associate Professor at a young age.

In the early 1960s, intrigued by the striking contrasts in prevalence and labelling between British "chronic bronchitis" and American "emphysema", he established a study with Charles Fletcher and Norman Jones comparing patients in Hammersmith, London, and Chicago. This study showed that the clinical and physiological features were remarkably similar. Among his numerous other studies set up in Chicago, his studies of survival are still quoted regularly.

In 1968 he became a founding Professor of Medicine at the newly established medical school of the University of Arizona in Tucson, a relatively small city in the desert just 60 miles north of the USA-Mexico border. To the current generation of respiratory physicians, accustomed to regard Tucson as a leading international centre for the investigation of adult and paediatric respiratory disease, it must

be difficult to truly imagine the pioneering nature of this move from a famous medical school situated in a large, "blue-collar", industrialised conurbation of the type traditionally associated with chronic respiratory diseases. Fortunately, by 1971, Ben and his colleagues had persuaded the National Institutes of Health (NIH) (after some initial hesitations) to fund a Specialized Center of Research in Airways Obstructive Disease in Tucson, to undertake a large prospective epidemiological study of obstructive airway disease in >5,000 Tucson residents. This continued until his retirement in 1996, at which time it was the longest sustained grant of its type funded by the NIH. This study provided much of the current core knowledge of these diseases, for example, the detailed analysis of smoking and quitting smoking on the course of lung function, the distribution of spirometric abnormality in relation to pack-years, the role of childhood respiratory disease, the role of immunoglobulin E in "intrinsic" asthma and analysis of the overlap between asthma and chronic obstructive pulmonary disease (COPD) (he was the author of one of the two papers that first proposed this name in 1964!). This was all achieved by the sustained application of a relatively small group of senior investigators who he recruited and to whom the Respiratory Science Center in Tucson was "home". Ben was closely and personally "hands on" in almost every project over this whole period, design, analysis, interpretation and writing-up. In addition to his internationally known research, he was heavily involved and appreciated for his clinical work in respiratory medicine, in the clinical and basic science training programmes and in fund raising for the Respiratory Sciences Center on the campus.

For many years Ben sustained close connections and friendships with several European centres, enjoying his invariably questioning and inspiring discussions with, among others, Charles Fletcher in London (does the "horse racing effect" really exist?) and with proponents of the "Dutch hypothesis" in Groningen. His experience in Arizona also played an important role in the design and interpretation of the continuing longitudinal surveys in the Po valley and Pisa. He spent a sabbatical year with Margaret Turner-Warwick at the Brompton Hospital in London in the late 1970s analysing survival in fibrosing alveolitis. But most of his time was spent in Tucson, where his and Nancy's four children and their families all continue to live. There must have been few individuals who made such an important and singular contribution to our understanding of obstructive airway diseases in the last 40 years, so much of it the result of that bold move from Chicago to Arizona.

