

Obituary for Paul Bacon

Christopher D Buckley, Caroline Gordon, David Isenberg, Michael Snaith, David GI Scott, Raashid Luqmani, Robert Moots, David Carruthers, Taunton Southwood, Stephen Young, George Kitas, Karim Raza

Paul Bacon, Emeritus Professor of Rheumatology and the first Professor of Rheumatology in Birmingham UK, died peacefully on Friday 12th January 2018 after a short illness. Positive and organised until the end, he was able to say “goodbye” to his family and friends who came to visit him and his wife Jean over the Christmas period at their retirement home in Lancashire.

Paul Bacon was a pioneering rheumatologist whose seminal work provided robust instruments to measure outcomes in patients with systemic rheumatic diseases. It would not be an overstatement to say that the concept of quantifying disease activity, damage and functional outcome, embedded in the indices that Paul helped develop, laid the foundations for the subsequent successful assessment of biological therapy that has transformed our discipline. Rheumatology stopped being a Cinderella speciality in the 1990’s with the introduction of biologic drugs and the fact that we could measure their benefits robustly. Without such measurements many of the treatments now being used to treat lupus and vasculitis would never have been approved. The legacy of this legend of British Rheumatology is that he forced a sceptical discipline to measure and record change and not rely just on subjective clinical opinion.

Brought up at a Quaker school (Leighton Park) in Reading, he went up to Cambridge to read medicine and finished his clinical training as a medical student at St Bartholomew’s Hospital (Barts) in London. He said he was “the black sheep of the family” as he eschewed two generations of family tradition in actuarial studies to pursue a career in medicine. After graduation he became interested in Cardiology and was fortunate to be a junior physician in the cardiology unit at Barts that introduced cardiac catheterization to the UK. He often mentioned that observing the precision with which cardiologists measured disease activity led him to want to do the same in Rheumatology, which until the 1980’s lacked such precise tools. From 1965 to 1968 Paul was a Research Fellow at the newly established Kennedy Institute in London and with an Arthritis Research Council travelling fellowship visited Carl Pearson’s group in UCLA in 1971. Carl also taught him to measure; this time pathology scores in animal models of arthritis. His time in the USA also gave him a taste for American dress and barbeques (do you remember the boot lace ties and cowboy shirts?)

Paul returned to the UK in 1972 to become consultant rheumatologist at the Royal National Hospital for Rheumatic Diseases in Bath and Southmead Hospital in Bristol. He was one of the first to set up specialist clinics and with research fellows such as David G.I. Scott he established a systemic vasculitis clinic in order to make comparisons between the pathologies that drive different forms of vasculitis (for example Rheumatoid Vasculitis compared to ANCA or lupus-associated vasculitis). David remembers being “run ragged round the hospitals” by Paul in order to collect and curate the patient cohorts. Those who worked with Paul invariably recall his enthusiasm, boundless energy and his ability to somehow make you say “yes” when you really wanted to say “no”.

Following the endowment of a chair in Rheumatology in Birmingham by the Arthritis Research Council (the predecessor of Arthritis Research UK), Paul was appointed as its foundation chair in 1981. The inspired use of the endowment, with further core funding by the ARC in the 1980's, was vital in allowing Rheumatology in Birmingham to develop. Along with many other UK units, Paul would not have been able to achieve his vision for Birmingham without such support. As David Scott recalls: "With the endowment, Paul was able to draw up a very detailed ten year plan for the expansion of Rheumatology in the Midlands and for the development of a first class combined clinical and laboratory unit. That he achieved all the goals he had set, in much less than ten years, including a dramatic expansion of Birmingham-linked clinical posts in the region, was characteristic of his vision and energy". It was even more remarkable as his predecessor (Clifford Hawkins) had been the only academically active Rheumatologist in the West Midlands at the time.

Paul was one of the first to use the principle of the physician's intention to treat to help derive outcome measures. Two decades later this same principle was used in the 2010 EULAR/ACR classification of Rheumatoid Arthritis, based on the intention to use methotrexate. In 1984 he founded the British Isles Lupus Assessment Group (BILAG) with Mike Snaith, Peter Maddison, David Isenberg and Asad Zoma. A picture of the "BILAG bench" where the idea of BILAG was born in Paul's garden in Birmingham was beautifully captured during the BILAG 21st celebrations in 2005 (see picture: Paul's apron shows that he was Head of Barbeque!). In 1988 the BILAG group, together with colleagues from Toronto (notably Dafna Gladman and Murray Urowitz) and Boston (Matt Liang) met in Birmingham at a meeting funded by NATO and organised by Paul. Its mission was to try and bring some harmony to the thorny issue of how best to assess disease activity in SLE. This group became established in 1991 as the Systemic Lupus Erythematosus Collaborating Clinics (SLICC) group and continues to meet twice a year.

By the early 1990's Paul had transformed the rheumatology department in Birmingham into a world class unit. He had come back from a sabbatical at the NIH in Bethesda in 1988 full of energy and re-inoculated with the American 'can-do' spirit. With characteristic energy he supported the development of the Birmingham Vasculitis Activity Score, published in 1994 with Raashid Luqmani and Robert Moots playing key roles. His consummate skills as a collaborator further revealed themselves. With Loic Guillevin, Wolfgang Gross, Gene Hunder and Cees Kallenberg and with Caroline Savage and Jo Adu in Birmingham, he drove comparisons between renal and rheumatological vasculitis for the first time. Much against perceived wisdom at the time, he and Raashid found that the mortality and morbidity in patients with airways vasculitis was similar to those with renal vasculitis. As in many areas Paul was the first to break down boundaries; this time across medical specialities. He pioneered the development of Paediatric Rheumatology in Birmingham, appointing Taunton Southwood as professor. He was one of the first to appreciate the need for transitional care as children with rheumatic diseases became adults and needed specialist clinical care.

During the late 1980's Paul began setting up specialist clinics, often an uphill struggle. With Eddie Tunn and Margaret Farr he established one of the first early arthritis clinics in the UK, based on his experiences in Bath. He set up a specialist clinic in scleroderma which Tom Sheeran and Mark Pugh ran for some time. Deborah Symmons and then Caroline Gordon established the Birmingham Lupus Cohort which, with Caroline's expert leadership, has

become the Jewel in the Birmingham crown. He supported the development of specialist clinics in Bechet's and Sjogrens Syndromes and was delighted in his retirement to see the establishment of National Centres in these diseases involve colleagues in Birmingham such as Deva Situnayake (Bechets), Emma Derrett-Smith (Scleroderma) and Simon Bowman (Sjogrens).

Paul was not just interested in clinical indices for systemic rheumatic diseases. He also had a deep interest in the pathogenic mechanisms that underpin rheumatic diseases including Rheumatoid Arthritis and the Spondyloarthropathies. He was extremely supportive of discovery science within his unit. Soon after his move to Birmingham, laboratory studies on the processes driving joint damage in Rheumatoid Arthritis were established with a focus on oxidative damage with David Blake and immune cell dysfunction with Steve Young and Mike Salmon. During the 1990's he supported and encouraged the careers of Paul Emery (rheumatoid arthritis) and Hill Gaston (spondyloarthropathies) who moved to chairs in Leeds and Cambridge respectively. He also took pride in supporting and mentoring the career of non-clinical scientists such as Steve Young and Mike Salmon. Mike subsequently took over as Head of Department from 2002 until his cruelly premature retirement due to ill health in 2008. Mike made important scientific discoveries on naïve and memory T cells in health and disease and developed strategic links between the Birmingham Rheumatology unit and other renowned immunology departments, such as that in Birmingham and the Royal Free in London. Mike and Paul were instrumental in supporting and developing the careers of Chris Buckley and Karim Raza, who were both subsequently appointed to the Arthritis Research UK (ARUK) Chair in 2002 and 2017. In particular Paul took great delight in supporting the careers of those who came to train in the UK and was especially proud of the achievements of George Kitas in researching the cardiovascular comorbidities of Rheumatoid Arthritis. Paul also supported the development of metabolomics by facilitating the location of the first high field NMR spectrometer in Birmingham within the Department. Many scientists completed PhDs in the department during this time and they owe much to Paul's support and encouragement. In particular Darrell Pilling, Jane Goodall and Dagmar Scheel-Toellner were appointed as ARUK Fellows during this golden era for Paul.

Above all Paul was an enthusiast. He always took an interest in trainees, never smothered them, yet could be infuriatingly stubborn. His opinion was hard to change. He disliked U turns. Whilst this led him to remarkable achievements in the clinical arena, it got him into trouble with discovery scientists who wanted him to alter and retest his 'hypotheses' when there was overwhelming evidence against his view. In later years he was persuaded that changing your mind could actually be a sign of great strength. Many of those who worked with him remember Paul as a dogma-busting, disruptive force with a keen and astute mind and a first rate chairman of any panel he led. Many British rheumatologists trained with Paul during his 21 years as ARC Chair in Birmingham. We think he trained more Professors of Rheumatology than any other academic in the UK (16 and counting).

Paul's appointment in Birmingham coincided with the 'birth' of rheumatology as a medical sub-speciality. He made sure that all members of his unit took part in teaching medical students. Paul's patients with vasculitis captured the imagination of students. He used this to encourage some of the brightest medical students in Birmingham to consider Rheumatology as a career. He also persuaded a small but significant number of students to

study for PhDs during their undergraduate training (in effect an MD PhD programme). David Carruthers, and his colleague Maggie Allen became hooked and, as Paul's last Clinical lecturers before he retired, they were extraordinary proselytizers for Rheumatology amongst medical students in Birmingham. Paul was delighted to learn that David Carruthers (now Medical Director at Sandwell and West Birmingham NHS Trust) was appointed Professor of Rheumatology based largely on his inspirational teaching to undergraduate medical students.

Like all of us, Paul was paradoxical. He could be puritanical in his zeal for a particular project or cause, to the exclusion of all else around him; yet we remember him as a thoughtful, supportive and caring mentor, physician and friend. For many he acted as a wise councillor and confidant, especially when the emotional pressures of working in medicine and research affected family life. He did so willingly, at times involving considerable self-sacrifice, and always with enormous compassion. He was always engaging, always encouraging, always enabling and supporting trainees (and not just those in his own unit) to find a niche and become a specialist in it. He had time for trainees and genuinely took pleasure in seeing them shine. Paul believed that research mattered and saved lives. It's a shame that he was not academically active in the UK during the last decade of his life when the National Institute for Health Research (NIHR) would have been a wonderful vehicle to help him deliver his vision of research for the benefit of patients.

Paul never really retired after he stepped down from the ARC Chair in 2002, much to his wife Jean's dismay! He took on new projects: developing and delivering a disease activity index for Takayasu's arteritis, overseeing the Birmingham Arthritis Resource Centre (BARC) and for five years chairing the ARUK fellowship committee. But it was his links to India that really drove him in retirement. He was almost evangelical in his passion for the development of the Indian Takayasu Activity Score. As the disease is more common in Asia he achieved this with the help of colleagues in India such as Rohini Handa, Ramnath Misra Debasish Danda and Dr K.M. Mahendranath. In Indian Rheumatology circles Paul is seen as a guru. While pride may prevent his national colleagues from admitting it directly, we suspect quite a few British rheumatologists think he is too!

We will all remember Paul in different ways. He published over 380 papers, which have been cited over 20,000 times. But it's neither for his seminal science nor his legendary indices that Paul will be most remembered. As his close friend Mike Snaith has so astutely noted it's "Paul's Pause" that we will remember him by. Mike describes this pause as "the hesitant, almost pernickety, form of words before his opinion was given, question put, or conclusion drawn". David Scott adds "the pause almost invariably included a slight but very deliberate and audible clearing of the throat". Paul's pause was not part of his stellar curriculum vitae, but a little quirk that we know many will remember as they think fondly of Paul.