

## HONORARY GRADUATE

### John Brereton Barlow

John Barlow retired from his position of Professor of Cardiology in the University of the Witwatersrand and Chief Cardiologist at the Johannesburg Hospital in the middle of 1990. His retirement represented the end of an era in clinical cardiology in which it was possible to advance scientific knowledge by observations and deductions made at the bedside. It was an era in which John Barlow played a dominant role.

John Brereton Barlow's career has been one of dedication to the interests of our university, of our country, and of humanity as a whole. He was born in Cape Town in 1924, went to school at St John's College, Johannesburg, and proceeded in 1942 to this university to study medicine. But after the fall of Tobruk that year his patriotism overcame his academic ambitions, and he joined the South African Artillery. After service in North Africa and Italy with the Sixth South African Armoured Division he resumed his studies as a first-year medical student in 1946. His studies competed with his exertions for the university in the game of rugby, for which he was awarded a half-blue in 1948. Nevertheless he qualified for his degree in due course in 1951.

After serving as an intern, senior house officer and medical registrar at Baragwanath Hospital, Barlow went to London to pursue further studies, being elected a Member of the Royal College of Physicians in 1955. Then he was appointed medical registrar to Sir John McMichael at Hammersmith Hospital and the Royal Postgraduate Medical School of London. During his period abroad Barlow obtained a thorough grounding in cardiology. With his vision enlarged by valuable experience, he returned to Johannesburg in late 1957, initially to join the staff of the Johannesburg General Hospital as a medical registrar. At the same time he assumed the demanding task of building up the cardiac division of our Department of Medicine. In 1960 he was appointed to the full-time staff of the department, rising in rank to attain the position of Principal Physician (Cardiology) in 1968. In that year he was awarded our degree of Doctor of Medicine, his thesis being entitled *The Late Systolic Murmur and Non-ejection Systolic Click*.

In 1970 John Barlow's distinction in his field was recognized by his elevation to Ad Honorem Professor of Cardiology. And when the Chair of Cardiology was created he was immediately made the first incumbent. After thirty years of devoted service to the Medical School and its Department of Medicine, he left the establishment of the University with the rank of Professor Emeritus, being accorded the distinction of appointment as an Honorary Research Professorial Fellow. Those are the bare bones of John Barlow's career. They must be fleshed out.

In the early 1960s cardiology was an exciting and rapidly advancing speciality. John Barlow inherited from his predecessors a clinically orientated cardiac unit in the forefront of research and teaching. At this time the unit served mainly the Johannesburg General Hospital. He expanded the cardiological services to include the Non-European, Coronation and Baragwanath Hospitals, and thereby encompassed more distant areas in the Transvaal and neighbouring countries. The reputation of the unit was such that it attracted international interest, and in the sixties and seventies many young cardiologists and cardiac surgeons in training came from abroad to work in the Department. In large measure it was John Barlow's personal stature that motivated them. His reputation as an outstanding clinical cardiologist is well founded. Many hours spent in painstaking examination of patients, in mulling over problem cases and in discussions with surgical colleagues to provide the best management have established him as a clinician par excellence. Experienced senior colleagues, in both academic and private practice, continue to seek his advice and draw on his diagnostic skills.

Another of John Barlow's unique attributes is his refusal to accept dogma and his continued questioning of so-called hard data, especially if they are at variance with his own observations and experience. This is in keeping with his concept of the 'highly dangerous Big-name Syndrome' that encompasses not only the diagnosis or opinion of senior colleagues but also the results of special investigations. By making junior colleagues aware of the fallacies inherent in this approach, he has encouraged independent and original thought. John Barlow is a man of ideas and innovative concepts based on his own observations, many of which have subsequently been validated by detailed clinical studies. Indeed, his renown as an exceptional academic and clinical cardiologist has been disseminated by generations of doctors not only in South Africa but throughout the world.

Over the years John Barlow has made several significant contributions to scientific knowledge. While he was working with Sir John McMichael in London, he studied the auscultatory and phonocardiographic features of the atrial sound in hypertension and ischaemic heart disease. He also analysed the response of mitral and acute systolic murmurs to amyl nitrite inhalation - a mode of study subsequently adopted by many others in the analysis of various auscultatory features and haemodynamic states. This ongoing interest of Barlow's in auscultation and phonocardiography is reflected in numerous subsequent publications. John Barlow's work on the elucidation of the etiology and significance of late systolic murmurs and non-ejection clicks at the mitral valve received international acclaim. Prior to his work these auscultatory findings were thought by most investigators to be extracardiac in origin and of little clinical importance. In a series of fine studies he established that they were usually due to 'billowing' of the mitral valve associated with mild mitral regurgitation. He recognized the existence of a syndrome in some symptomatic patients with the typical auscultatory features and associated ECG changes. It is now internationally known as 'Barlow's Syndrome'. His original paper, published in 1968, was identified in 1983 by the United States Institute for Scientific Information as a Citation Classic. Indeed it was the second most frequently cited paper ever published in the *British Heart Journal*. Since 1987 he has been invited on four occasions to contribute chapters to books devoted to various aspects of the syndrome. He has also presented

numerous papers at national and international meetings and has chaired scientific sessions and working groups on the subject.

John Barlow's wide-ranging interest in the mitral valve resulted in publications on more severe mitral regurgitation, both rheumatic and non-rheumatic, on submitral left ventricular aneurysms and on the components of the first heart sound and presystolic murmur in mitral stenosis. At the request of E A Davis, instigated by the renowned cardiac pathologist, Bill Roberts, he wrote a book entitled *Perspectives on the Mitral Valve*. This was published in 1987 and was well received. Other publications reflect his ongoing interest in conditions such as atrial myxomas, hypertrophic and congestive cardiomyopathy, infective endocarditis, pulmonary thromboembolic disease, rheumatic fever and rheumatic heart disease. In the early seventies he encouraged Dr Margaret McLaren to undertake a major epidemiological study of rheumatic heart disease in the schoolchildren of Soweto. He himself participated actively in this landmark survey. A more recent interest has included studies of the stress ECG in ischaemic heart disease and the distinction from 'false positive' effort ECGs by the recognition of different time course patterns.

John Barlow has played an active part in the establishment of cardiology as a discipline in South Africa. He was President of the Southern African Cardiac Society between 1966 and 1968 and still serves as a member of the Executive Committee in Johannesburg. He is also on the Executive Committee of the Heart Foundation, and was previously a member of an advisory committee to the Government on coronary artery disease. He was the part-time consultant cardiologist to South African Airways between 1975 and 1988 and was Director of the Cardiovascular Research Unit at the University of the Witwatersrand until his retirement. In the international sphere he has served as a member of the Editorial Board of the *American Heart Journal* and has been invited to deliver many lectures of established prominence, including the St Ives Lecture of the British Cardiac Society, the Laennec Lecture in Washington and the Guest Lecture of the British Heart Foundation. Recently he was invited to address the Japanese College of Cardiology and the Portuguese College of Cardiology.

Professor Barlow has received a number of awards for his contributions to cardiology. These include the André Allard Medal of the International Society of Aviation and Space Medicine (1987), the Percy Fox Award for Outstanding Achievement (1990) and the Annual Prize of the South African Cardiac Society.

The University wishes to signify its deep appreciation of the unique contributions to his discipline of a man of distinction, of the great benefit society has derived from the services of a scholar and clinician of whom it may be said that there is no cardiologist in South Africa whose name is more widely known and highly regarded throughout the world, by conferring on him the degree of Doctor of Science in Medicine *honoris causa*.