JAMES CLARK GENTLES

BSc, PhD(Glas)

In 1947 Carl Browning, the very distinguished Professor of Bacteriology in the University of Glasgow, decided to establish a unit specialising in fungal diseases of humans (Medical Mycology) in his department in the Western Infirmary. To realise that aim he turned, not to a medical, but to a young man, James Gentles, who had graduated with a First Class honours degree in Botany, held a Distillers Company Scholarship, and was a lecturer in Botany in the University of Glasgow. At that time, the study of fungal diseases of plants played a major part in the Botany honours course.

James Gentles was born in Coatbridge on 18 March 1921, where his father was a steelworks manager, studied at the local Secondary School and moved on to Glasgow University in 1938. It was there that one of us (Bill Fletcher) met him and we became close friends – it was a friendship that remained and strengthened through the years, culminating in his being best man at my wedding and only illness prevented me from filling a similar role for him.

This was not the best of times to be a student; the storm clouds were gathering over Europe and within a year we were at war with Nazi Germany. In 1942 Jimmy was commissioned as a radar officer with the RAF and served with South East Asia Command. After demobilisation he returned to complete his Honours degree. Browning arranged a Distillers Company Scholarship in Mycology for him for a year in Glasgow and then sent him for a further year to study with Professor Roger Heim at the Laboratoire de Cryptogamie, Paris (where his son James was born), followed by a six weeks course at the School of Hygiene and Tropical Medicine, London. Back in Glasgow he was appointed to the scientific staff of the Medical Research Council to carry out a study on the epidemiology of foot ringworm in coalminers; and two years later, in 1954, was appointed Lecturer in Medical Mycology (the first in Scotland) in the Bacteriology Department, Glasgow University where he was promoted to Senior Lecturer in 1962. In the late 1960s he and his unit moved to the Dermatology Department. Subsequently in 1971 he was made a Reader and in 1976 Professor of Medical Mycology, the first such appointment in the UK. He established the first Diagnostic Unit in Scotland serving hospitals as far north as Aberdeen and as far south as London.

In the 1950s, P W Brian (later to become Professor of Botany in Glasgow University) discovered that the strepomycete, *Actinomyces griseus*, released a substance griseofulvin which caused fungal hyphae to twist and contort. He named it the 'curling factor'. It was of considerable academic interest, but little practical use could be found for it until in 1958 Gentles decided to try it out *in vitro* against ringworm fungi. It was extremely active and he went on to show that when taken orally it cleared up even the most difficult infections in Guinea-pigs. Tests, with equal success, followed on humans. Now, for the first time, there was an antibiotic, given orally, for the treatment of dermatophyte infections of humans and animals. Glyn Evans, one of Gentle's research students, now Professor of Medical Mycology in Leeds University and President of the International Society for Human and Animal Mycology, has said "This revolutionised the treatment of superficial mycoses. Jimmy Gentles was one of the great pioneers of our subject". Griseofulvin remained the treatment of choice for dermatophyte infections for four decades and is only now being replaced with new antifungals.

Gentles also carried out ground-breaking research on the epidemiology of the *tinea pedis*. Working with Dr J G Holmes, a Medical Officer with the National Coal Board, he established the link between the regular use of pit-head baths and an increased prevalence of infection. He was the first to demonstrate that infected skin particles containing the fungus occur on the floors of communal bathing places, thus confirming that *tinea pedis* was a contagious disease and in 1974 he demonstrated that Athlete's Foot amongst swimmers could be controlled by prophylaxis with anti-fungal foot powder. In 1970 he was the first to describe the plant pathogen *Scytalidium dimidiatum (Hendersonula toruloidea)* as a cause of skin and nail disease in humans. His other area of research interest, in which he collaborated with Dr Christine Dawson, was the sexual forms of keratinophilic fungi.

Gentles was very much in demand worldwide, giving invited papers, keynote addresses and chairing symposia at International Conferences in Edinburgh, Lisbon, Miami, Hamburg, Prague, Paris, New York, Montreal, Antwerp, Bratislava, Poznan, Teheran, Tel Aviv, Copenhagen, Philadelphia, Mexico City and many cities in Australia and New Zealand. He was made an Honorary Member of the Polish Association of Dermatology (1965), the Czechoslovak Society of Medical Mycology (1975) and the Danish Society for Mycopathology (1976). He was Secretary of the British Society for Mycopathology (1967-1970), of the Mycology Committee of the Medical Research Council (1967-1969) and of the International Society for Human and Animal Mycology (1970-1975).

He was a member of the Editorial Board of the *British Journal of Dermatology* and of the *Journal of Cutaneous Pathology*; Chief Editor of the major international journal *Sabouraudia* and English Language Editor of the Slovak Academy of Sciences Recent *Advances in Human and Animal Mycology*. He was a member of the Committee for revision of the MRC 'Nomenclature of Fungi Pathogenic to Man and Animals' and was appointed to the World Health Organisation Advisory Panel on Parasitic Disease. In 1975 he was elected President of the International Society for Human and Animal Mycology.

Thus his influence on the direction of Medical Mycology internationally was enormous. Carl Browning had made a very wise choice in 1947! And yet he was the most modest of men. His pals at Lenzie Golf Club, of which he was very proud to be Captain in 1970, would be more than a little amazed to discover that he was the most distinguished medical mycologist in Europe, possibly the world. They would certainly never have learned it from him. 'Jimmy', as he was known to everyone, was always the life and soul of the party. Pomposity and 'standing on dignity' were completely foreign to him. It is perhaps a measure of the society in which we live that Jimmy received no honours from his country and made no money from his discoveries. He was, belatedly, elected Fellow of the Royal Society of Edinburgh in 1981 and Fellow of the Institute of Biology in 1987. He was an outstanding scientist and he lightened the load of suffering of mankind.

James Gentles died on 15 November 1997. He is survived by his wife, Barr, a son James who is a Computer Manager in Strathclyde University and a daughter Carine who is a vet.

We are indebted to Professor Glyn Evans for information relating to the importance of Professor Gentles' research.

BILL FLETCHER/RONA MacKIE