

# ANTON BREINL AND TROPICAL HEALTH

by **Lori Harloe**

Anton Breinl was an internationally acclaimed medical scientist who worked on an important national problem in an isolated tropical backwater during the first decades of the twentieth century. Widely known at the time, but lost to two generations, was the Australian Institute of Tropical Medicine, the inaugural Director of which was the gentle Sudeten, Anton Breinl, whose work and importance to Australian history has not yet been adequately recognised.

Anton Breinl was an honorable, bright, energetic and sensitive man. He spoke several European languages. His English was heavily accented. He was not a tall man. It is known that he was remarkably athletic and enjoyed horse riding and swimming. He played the violin well, in fact to concert standard. His thirst for adventure led him into tropical medicine and research at the time when major advances in tropical medicine and health were being recorded by all the Western colonial powers.

In 1906 shortly after graduation with the degree of Medicine Universalis Doctor from the university of Prague, Breinl began working with one of the two dominant figures of this branch of science, Sir Ronald Ross of malarial mosquito fame. It was not long before Breinl had demonstrated his extraordinary abilities and became one of the pre-eminent medical scientists in the world. He was awarded the Mary Kingsley Medal for exemplary scientific investigations into African tick fever and the life cycle of the *Piroplasma canis* and in recognition of his “atoxyl” work. The significance of this award is appreciated when one recalls other luminaries who were bestowed with same honour — Patrick Manson, David Bruce, Alphonse Laveran, and Robert Koch.

Breinl’s success in isolating and treating *trypanosomiasis* (sleeping sickness) by the use of “atoxyl” was the cardinal step in the chemotherapeutic revolution we have experienced this century. Although his scientific reputation rests securely on protozoal research he demonstrated a understanding of tropical medicine in teaching at the Liverpool School of Tropical Medicine and as Director of Scientific Research of the Runcorn Research Laboratory attached to that institution.

An appreciation of Breinl’s predilection for adventure and thirst for knowledge is necessary to understand why this internationally recognised scientist left the comfort and security of a vibrant academic

community to go to the end of the world to solve a problem which subsequently turned out to be a very minor medical triumph, although a tremendously significant national issue.

The “un-British” tropical land of northern Australia was a challenge to Anglo-Saxon expansion which conventional wisdom doubted could be suitable for fair skinned people. The ever-present threat of an Asian invasion, highlighted by the massive influx of Chinese miners on the Palmer River gold fields stimulated discriminatory racial legislation. This culminated in the repatriation of the South Pacific indentured labourers from the Queensland sugar plantations before it was certain that Europeans could indeed hold and work the land. Never in the history of European colonisation had this feat been attempted. The dilemma about the ability of white man to survive genetically unchanged beyond three generations was the challenge Breinl was commissioned to solve.

On 1 January 1910 Breinl arrived in north Queensland. Townsville, the principal town with about ten thousand inhabitants was isolated and uncomfortable. The Australian Institute of Tropical Medicine was founded largely by local initiative and housed within the grounds of the Townsville Hospital. Breinl’s work temporarily inspired great pride in the local community. However, during World War 1, at the height of anti-Germanic phobia, he was singled out for an excessively vitriolic campaign which affected his work, his confidence and his standing with in the Townsville community which had once revered him for his international reputation and status as a scientific researcher.

It is ironic that Breinl, himself the subject of racist attack, should have been the director of an institute which served to advance the political and racist aims of the “White Australia” policy.

Breinl’s main contribution was that he was chosen to resolve the debate about white man in the tropics, which had taken a particularly significant turn once the Australian parliament legislated for the repatriation of coloured labourers from the Qld sugar fields and passed the ‘white Australia policy’. The idea of an Institute became an issue of political importance. Breinl took seriously the not unfounded anxieties of Europeans attempting to work and survive in the tropics. For some time debate had raged about the hypothesis of white man’s survival in the tropics, particularly with regard to tropical disease, a factor of unknown dimension. Breinl instilled, if only for a short time, the confidence and reassurance so necessary for that second generation inhabiting tropical Australia. He also identified numerous sociological factors requiring clarification in order to adequately determine the effects of climate on health.

To the extent that the Institute was founded to advance political needs, Breinl’s success paralleled national interest. The first aim was

the resolution of conflict between the ideology of nationalism and the unknown demands of climate on settlers health. The second was Breinl's contribution to the national cause during World War I while the concomitant vile propaganda campaign was raging. The third major national political success was the adoption of Breinl's outline for the Hookworm Campaign by the Rockefeller Foundation and the subsequent establishment of a national health department which subsumed the only national organization - the Australian Institute of Tropical Medicine. Symptomatic of the perspective of the times was failure of the authorities to adopt Breinl's recommendation to establish a Branch Laboratory in the mandated territory of Papua to address the gross medical problems there.

Under Breinl's directorship the Institute was the birth place of biochemistry in Australia. Notwithstanding the public denigration which emanated from a small local minority, Breinl was greatly esteemed by patients who even to-day remember him with affection. Indeed, on his resignation from the Institute in 1921, Breinl continued to minister to the local community. He introduced, in the 1930s, the latest radium technology and acted as Honourary Physician to the local hospital community. He participated fully in the professional community of north Queensland, sharing scientific insights with younger doctors and nurses. A more venerated name than Breinl is difficult to find.

It is appropriate that Breinl be remembered in the context of the time in which he lived. His major contributions were equally the resolution of the Australian tropical problem and the identification of inequalities experienced by Papuans under Australian rule. Fitting recognition has been the establishment within James Cook University of North Queensland of the Anton Breinl Centre for Tropical Health and Medicine which is following up some of the unresolved issues Breinl had anticipated.

#### Bibliography

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