

# Morten Ansgar Kveim (1892-1966) and the Norwegian Contributions to Sarcoidosis

<sup>1</sup>Nick J Levell <sup>2</sup>Kari Kveim Lie, <sup>3</sup>Timothy J Peters,

<sup>1</sup>Department of Dermatology, Norfolk and Norwich University Hospital, Norwich, UK

<sup>2</sup>National Public Health Institute, Oslo, Norway

<sup>3</sup>Institute of Archaeology and Antiquity, University of Birmingham, UK

## Early Years and Education

Morten Ansgar Kveim was born 27<sup>th</sup> December 1892 in Gjerstad, a country village 200 km south of Oslo, the seventh of nine children. The local primary school teacher noted his and his elder brother's academic potential and encouraged them to attend high school. The brothers set out for Oslo, two days journey away, with a trunk containing food for the first weeks and clothes.

In 1913, Morten passed the university entrance exam to study philology (fig 1). He worked as a private teacher for five years to pay loans and save towards his medical training at the University of Oslo, from where he graduated in 1924.



Figure 1: Kveim initially studied Philology at Christiania (Oslo) University prior to his Medical Studies.

## The Rikshospitalet, Dermatology and Sarcoid

After working as a country doctor and postgraduate training in Germany, France, Hungary and Switzerland, Kveim joined the newly built dermato-venerology department at the Rikshospitalet (National Hospital) in Oslo (fig 2) where he worked from 1929-40 (figs 3a-c).



The former National Hospital from 1883 consisted of a number of separate buildings in a park. The drawing shows the circular pool that now enjoys pride of place in Sentralparken.



Figure 2: Kveim worked at the Oslo National Rikshospitalet: derided as too small at the opening in 1883, it was finally relocated from central Oslo in 1990 and the site has become an ecological housing zone.



Figure 3a: Kveim developed the test for sarcoid at the Rikshospitalet, Oslo.



Fig 3c: A serious group of Kveim's work colleagues at the Rikshospitalet.



Fig 3b: Kveim, identified with an annotation by his daughter, outside the Rikshospitalet.



Figure 4: Caesar Boeck, Oslo Professor of Dermatology and art aficionado, described cutaneous sarcoidosis in 1899.

The dermatology department was the first in Norway founded by Carl Wilhem Boeck (1808 – 1875) and then developed further by his nephew Professor Caesar Boeck (1845-1917) (fig 4) who described cutaneous sarcoid<sup>1</sup>.

## Kveim and Sarcoid

Kveim published papers on Gaucher's disease<sup>2,3</sup> and the treatment of gonorrhoea with sulphonamides<sup>4</sup>, but his major contribution was the extension of Boeck's work on the nature of cutaneous sarcoidosis including the diagnostic test<sup>5-6</sup>.

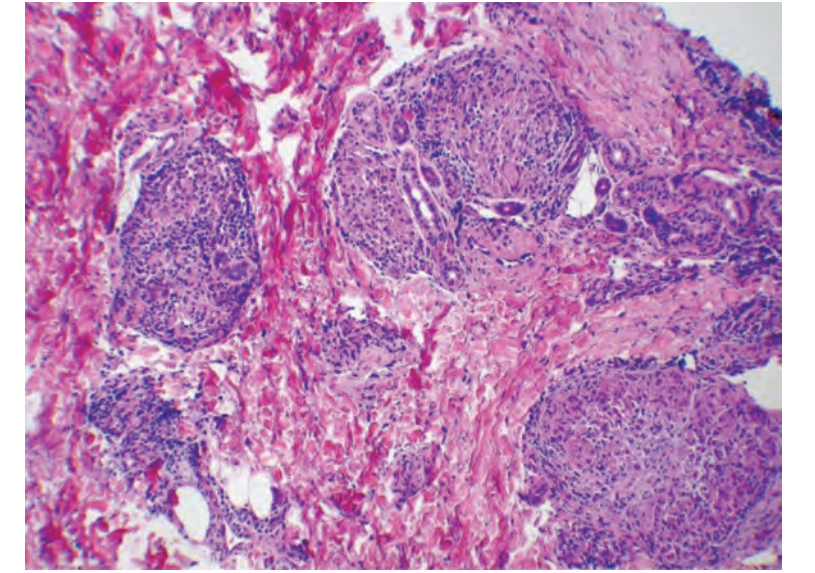


Figure 5: Non-necrotising granulomas seen in the Kveim test.

The Kveim-Siltzbach test, extended the observations of Williams & Nickerson in 1935<sup>7</sup> who prepared a sterile extract from a cutaneous sarcoid lesion and found that on intra-dermal injection in four sarcoid patients a papule was produced in 2-3 days. No reaction occurred in four controls. Kveim examined such papules histologically and showed that they had epithelioid cell granuloma similar to the original sarcoid lesions<sup>5</sup> (fig 5). Merrill Chase<sup>8</sup> attempted to isolate the putative antigen and Louis Siltzbach used the test in a large series<sup>9</sup>. However recent experience has shown that the test has not infrequent and variable false negative and positive reactions and reagent batch variability<sup>10</sup>.

It was suggested that the reaction may reflect a non specific trigger for an immunological reaction<sup>11</sup>. Mycobacterium tuberculosis catalase-peroxidase has been identified as a tissue antigen and target of the adaptive immune response in sarcoid, with biochemical and clinical properties similar to the Kveim reagent<sup>12</sup>. There has been recent experimental use of the Kveim antigen in modelling potential vaccines for HIV<sup>13</sup>.

The test is now little used in clinical practice due to more rapid investigations in suspected sarcoid, the failure to identify the putative antigen and concern over the possibility of inducing prion disease.

## Later career and family life

Kveim worked as a private practitioner in dermato-venerology from 1931, full time during the German occupation, retiring gradually from professional work. In 1943 he married Elise Aars Rynning (1906-91) and had two children, Kari and Morten (fig 6). He remained active in the international dermatology world, but also focussed on family activities introducing his children to the wonders of natural history. He remained interested in bee keeping (fig 7), cultural history, philology and latin, with the latter helping his daughter during her medical training. He developed atherosclerosis, suffering a myocardial infarction in 1958 and dying from a stroke in 1966.



1949  
We lived in neighbouring rooms to father's office - he is obviously with his doctor's gown on - dragged out of the office for the photograph

Figure 6: Kveim with Elise and daughter Kari.



Ca 1963 - working with his bee-hives

Figure 7: Kveim relaxing with his bees.

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