

*The Times, Saturday September 28<sup>th</sup> 1985*

## DR E. KLIENEBERGER-NOBEL

Dr Emmy Klieneberger-Nobel who died on September 11 aged 93 was a pioneer in research on mycoplasmas, a group of micro-organisms some of which are now recognized as agents of human, animal and plant diseases.

Born in Frankfurt-am-Main on February 25, 1892, and educated at the Universities of Göttingen and Frankfurt, she began her research career in 1922 with an appointment as bacteriologist at the Municipal Hygiene Institute of Frankfurt University under Professor Max Neisser. This appointment ended abruptly in 1933 when the National Socialist Government dismissed all officials of Jewish origin.

Arriving in London that year, she found sanctuary at the Lister Institute of Preventive Medicine, where she was to remain until her retirement in 1962. Encouraged by the Director, Dr J. C. G. (later Sir John) Ledingham, she began to study the micro-organisms causing contagious pleuropneumonia of cattle and agalactia of sheep and goats.

Unlike true bacteria, both lacked a rigid cell wall and

assumed a variety of shapes during growth. They were then regarded as microbiological curiosities, but Dr Klieneberger suspected that they represented a new class of micro-organisms, widespread in nature. With improved techniques she discovered and studied similar organisms associated with disease in rodents and in man.

In 1942 she was awarded a DSc (University of London) on her published work. Her original ideas were finally vindicated in the 1960s when the agent of human primary atypical pneumonia was identified as a mycoplasma and similar organisms were implicated in economically important plant diseases.

In recognition she was elected the first honorary member of the International Organization for Mycoplasmaology in 1976 and a biennial lecture was instituted in her honour. In 1980 she was awarded the Robert Koch Medal, one of the highest honours that can be bestowed on a microbiologist.

Emmy Klieneberger married in 1944 Dr Edmund Nobel, a Viennese paediatrician who died in 1946.