

## **Giuseppe Brotzu and the Discovery of Cephalosporins**

Orru', B; Riva, A

Orru', Beniamino: University of Cagliari, Biblioteca Centrale dell'Area Biomedica, Cittadella Universitaria Monserrato I-0904, Italy, borru@pacs.unica.it

Giuseppe Brotzu (1895-1976), for over thirty years Professor of Hygiene in the Medical Faculty and Rector (1936-1945) of the University of Cagliari, was also superintendent of Public Health during the campaign for the eradication of malaria in Sardinia.

As a scientist, his fame is due to the discovery of cephalosporins that he made in Cagliari, at the end of the "2nd World War. He isolated from the outfalls of a local sewage a microorganism, identified as *Cephalosporium acremonium*, whose cultures inhibited several important Gram negatives as *Salmonella typhi* and *Brucella Melitensis*.

Even if he was aware of the importance of his discovery, owing to the lack of facilities and financial support he was unable to study further the activity of the fungus.

Thus, in the year 1946, after the publication of his results on the journal "Lavori dell'Istituto di Igiene di Cagliari", he sent the fungus to the Laboratory of Pathology at Oxford University. Here Edward Abraham, who had been part of Florey team in the study of penillin, succeeded in producing the Cephalosporin antibiotics, one of the most important tool in the therapy of infectious diseases.

For his discoveries Brotzu was awarded in 1971 the honorary degree in Science by Oxford University.