

This Week's Citation Classic®

CC/NUMBER 3
JANUARY 18, 1988

Dunlop E M C, Vaughan-Jackson J D, Darougar S & Jones B R. Chlamydia infection: incidence in 'non-specific' urethritis. *Brit. J. Vener. Dis.* 48:425-8, 1972. [Whitechapel Clinic, London Hospital, and Department of Clinical Ophthalmology and Virus Laboratory, Institute of Ophthalmology, London, England]

Chlamydia trachomatis was isolated from urethral material from 44 of 99 men presenting because of "non-specific" urethritis and from 10 of 34 female sexual contacts from whom isolates were obtained from the cervix, rectum, and urethra, in whom there were characteristic colposcopic signs. [The SC⁷® indicates that this paper has been cited in over 115 publications.]

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July 28, 1987

Following the isolation of *Chlamydia* from trachomatous conjunctival material by F-F. T'ang and coauthors,¹ Barrie R. Jones, L.H. Collier, and C.H. Smith² reported (in 1959) isolation of *Chlamydia* from the conjunctiva of a baby with inclusion conjunctivitis and from the cervix of the mother of another such baby. Jones, an ophthalmic surgeon with a widely inquiring mind, then learned the technique of isolation in yolk sac. Accordingly, starting in 1962 I spent my spare time with him at the Institute of Ophthalmology of London, investigating the role of *Chlamydia* in urogenital infection.

Our first isolate from the urethra of a man with urethritis came from the father of a baby with isolate-positive chlamydial ophthalmia.³ We isolated *Chlamydia* from babies with inclusion conjunctivitis and from the cervix of one of their mothers. On colposcopy the mothers had inflammatory changes with "follicles" of the cervix similar to those produced in the eye of the adult by *Chlamydia*, there was proctitis and salpingitis, and the fathers had urethritis. In 1965 we reported isolation of

Chlamydia from the genitalia of men and women with chlamydial ocular infection.

We also reported our first two isolates from urethral material of nine men presenting because of nonspecific urethritis (NSU).⁴ The Medical Research Council then supported us by establishing the Oculogenital Virus Research Group at the Institute of Ophthalmology.

In 1966 at Asilomar we reported our clinical findings and the results of isolation in yolk sac. Results included 19 isolates of *Chlamydia* (then called *Bedsonia*) from 89 men with NSU and 14 genital isolates from their female consorts.⁵ Francis B. Gordon (then director of the Department of Microbiology, US Naval Research Institute) told us how, with Alice L. Quan, he had grown *Chlamydia* in their cell-culture system from laboratory isolates.⁶ Afterwards, they spent a summer with us at the Institute in London where their system was inoculated with clinical specimens.⁷ It was free from cross-contamination, more sensitive than yolk sac, quicker, less time-consuming, and more tolerant of secondary infection in the specimen; accordingly, we isolated *Chlamydia* readily from eye, urethra, and cervix and, for the first time with certainty, from the rectum.⁷ The description of proctitis due to D-K serotypes of *C. trachomatis* followed in 1971.

The advent of cell culture for the isolation of *Chlamydia* facilitated further study and fired increasing interest and work on chlamydial infection. By 1985 it was clear that infection with *C. trachomatis* was the most common sexually transmitted disease of the developed world.⁸ In that field during 1985 the number of publications on *Chlamydia* were second only to those on AIDS.⁹

Sadly, Francis Gordon and his wife, Mary, were drowned in 1973 in a shipping accident, when he was on his way to take up a research fellowship at the Institute of Ophthalmology after his retirement.

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