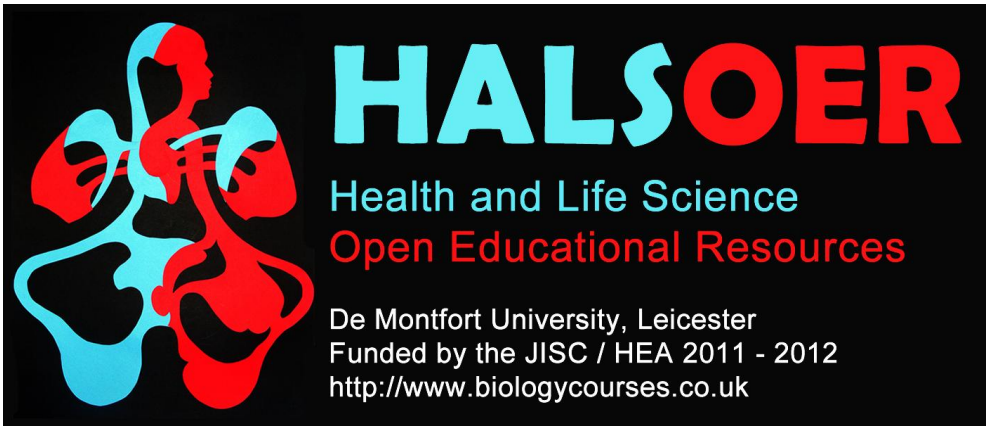


OPEN EDUCATIONAL RESOURCES @ DE MONTFORT UNIVERSITY, Leicester UK

IMMUNOFLUORESCENCE TECHNIQUE FOR DETECTING N. GONORRHOEAE

BY MALGORZATA REKAS

ASSOCIATED RESOURCES ON YOUTUBE

http://www.youtube.com/watch?v=pftlio12im0&feature=plcp

This document is a transcript of the above video.

The aim of the immunofluorescence (IF) test is to provide a quick and easy method of detecting Neisseria gonorrhoeae (N. gonorrhoeae) infection. The immunofluorescence reagent contains antibodies bound to a fluorescence dye (e.g. fluorescein isothiocyanate FITC) that then bind to antigen of interest on the bacterial wall. Thus, the presence of fluorescence validates the identification of the bacteria.

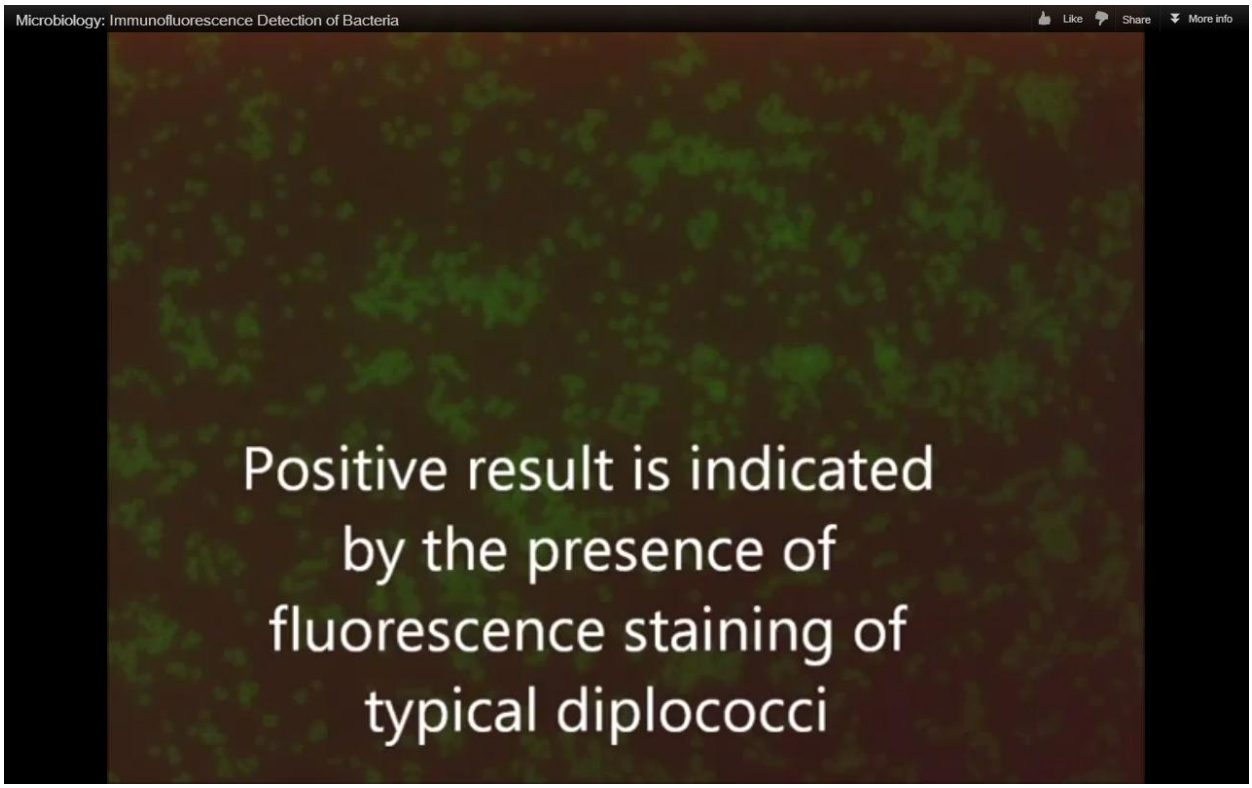
Why is this test important? The prevalence of sexually transmitted diseases is high, and sample screening places a large burden on biomedical science laboratories. Therefore the use of a quick and effective method of detecting microorganisism is required. Formerly, N. gonorrhoeae would have been identified using a Gram stain, but immunofluorescence has been demonstrated to be much more specific and sensitive, thus is the well used technique used today. However, other high-throughput automated detection methods are being explored all the time.

Steps:

1. A light suspension of the tested organism (2-5 colonies) is prepared on a mono-spot slide.
2. Prepared slide is then allowed to dry.
3. The slide is heat fixed.
4. For accuracy, prepare a Gilson pipette to aliquot 20 µl of reagent.
5. Using a sterile pipette tip 20µl of reagent is added to the bacterial suspension.
6. Incubate at 37°C (aerobically) for approximately 15 minutes.
7. The slide is placed on moist filter paper to prevent drying.
8. The excess reagent is removed with distilled water.
9. One drop of special mounting fluid is added to the slide well.
10. A cover slip is placed on the slide.

The slide should be examined immediately after staining under the fluorescence microscope using x100 oil immersion objective.

Positive result is indicated by the presence of fluorescence staining (green) of typical diplococci.



Useful reference

McLean CK, Gedney J, Munday PE et al (1985). Evaluation of a direct immunofluorescence test for diagnosing gonorrhea. J Clin Pathol 1985;38:1142-1145. Available: http://jcp.bmj.com/content/38/10/1142.full.pdf