



Public Health
England



NCTC
National Collection
of Type Cultures

Operated by Public Health England

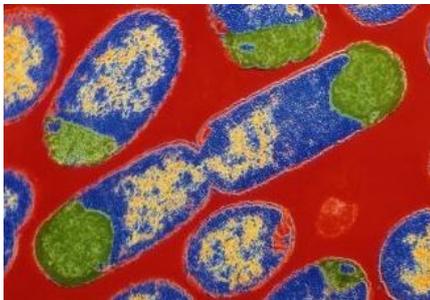
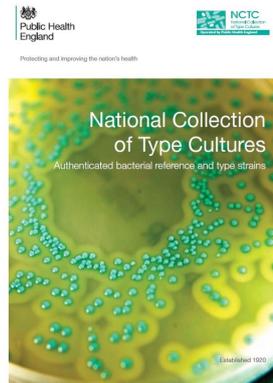
NCTC news - September 2016

Welcome to the first NCTC newsletter. The newsletter will be circulated monthly and will contain information on new strains to the collection, services, products and events.

NCTC brochure

Read about the products and services available from the National Collection of Type Cultures (NCTC) in the NCTC brochure. The brochure includes information for microbiologists and quality control scientists on the range of bacterial strains available, their application and the benefits of depositing their own bacterial isolates with NCTC.

[Request a copy or download the NCTC brochure](#)



Over 1000 bacterial isolates sequenced in the NCTC 3000 project

In a bid to improve public health research and clinical diagnostics, over 1000 bacterial isolates have been sequenced as part of the NCTC 3000 project.

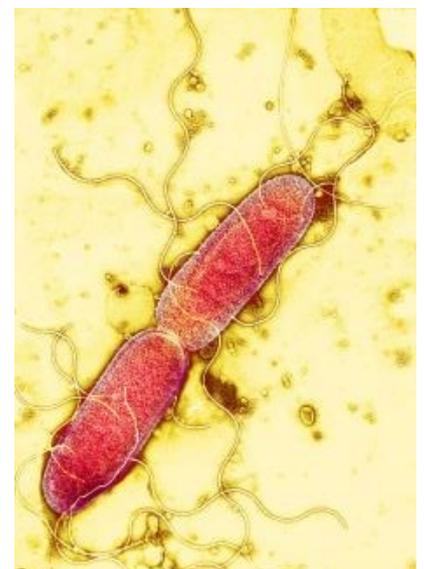
Run in conjunction with the Wellcome Trust Sanger Institute and Pacific Bioscience (Pac Bio), the project aims to generate reference genomes for 3000 NCTC bacteria. It is hoped that the data will be used to inform and direct research and improve clinical diagnostics.

[Find out more](#)

Outbreak strains

We have an active programme to acquire bacterial strains for our catalogue including bacteria with unusual characteristics and outbreak strains such as NCTC 13562 *Escherichia coli* O104:H4. This organism was responsible for the largest recorded STEC outbreak of haemolytic uraemic syndrome and bloody diarrhoea, in Germany, in 2011. NCTC also provides a range of STEC strains including both toxigenic and non-toxigenic strains of the O157 serogroup. Authenticated NCTC organisms provided by PHE are used by the research community to understand how shiga-toxic *E.coli* strains cause disease, and to support the work of healthcare professionals and clinicians in rapid diagnosis.

[Find out more](#)





NCTC control strains for UK SMIs

Public Health England (PHE), together with partner organisations, is responsible for developing UK Standards for Microbiology Investigations (SMI) for use in clinical microbiology laboratories.

The Test Procedures (TPs) help to assure equivalence of investigation strategies in different laboratories; all the TPs for bacteriology stipulate the use of control strains from NCTC.

Find out more

A poster for display in clinical testing laboratories is available which provides images of the expected reactions for each of the SMI TPs using NCTC cultures.

Download or request a copy of the poster

How to open and grow freeze-dried NCTC strains

NCTC introduced freeze-drying strains in glass ampoules, flame-sealed under vacuum, in the 1930s and the process is still considered to be the most reliable method for preserving and storing bacteria. Ampoules can be opened by scoring and snapping under aseptic conditions, or by using a heat source. More information to help you open NCTC glass ampoules and reconstitute the contents can be found on our website. The guidance includes a short video and step by step instructions.



Find out more



Watch a video on how to open an ampoule

Events in September

NCTC will be attending the following events:

Microbe 23-25 September 2016 – Sheffield. Come and visit our posters!

- viability study: maintaining a biomedically relevant bacterial culture collection
- evaluation of a polyphasic approach to bacterial identification/authentication at the National Collection of Type Cultures UK with the incorporation of whole-genome sequencing

World Data Centre for Microorganisms (WDCM) 6-9 September 2016 - China

Find out more

Evolving a national culture collection to meet current challenges in microbiology

Julie Russell, Head of Public Health England's Culture Collections explains how NCTC stays current and how historic strains are shedding light on mechanisms of antimicrobial resistance.

Read the article

[Download the NCTC brochure](#)

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