

NCTC 3000 - diversity of bacterial strains

NCTC 3000 is an exciting, large scale whole genome sequencing project. At the end of December 2015, 1070 strains from 27 families had been sequenced from the NCTC collection. 54% (578) of the strains sequenced were from the Enterobacteriaceae family

There is a great diversity of bacteria held within the NCTC collection and within the last 10 months nucleic acid from bacteria from many more families has been extracted for sequencing.

[Find out more](#)

E. coli strain with *mcr-1* gene added to the NCTC collection

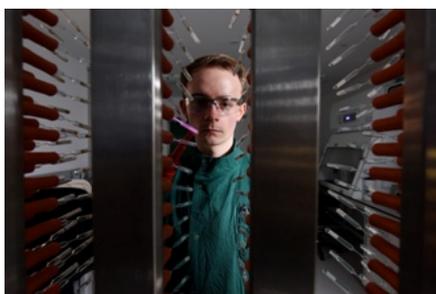
NCTC 13846 is a strain of *E. coli* isolated in 2013 from the blood of a patient with bacteraemia. The strain is colistin resistant and the plasmid-mediated polymyxin resistance mechanism gene (*mcr-1*) is present. It was added to the collection following the first worldwide report of transferable colistin resistance and can be used as a positive control for *mcr-1* testing.

Analysis of WGS data carried out by Public Health England has shown the presence of *mcr-1* in diverse genetic environments and plasmids, suggesting that it has been present in *E. coli* and *Salmonella* spp. in the food chain in England and Wales since 2012.

[View NCTC 13846](#)



[Read the publication](#)



Culture Collections article in Focus Italia

In September Julie Russell, Head of Culture Collections, was interviewed by Vito Tartamella from the Italian popular science magazine Focus. The interview chartered the history of the collections, comparing them to a 'bank' from where you can 'withdraw' biological materials. There was particular emphasis on the very important topic of biosecurity, an essential element in providing biological materials to the global scientific community.

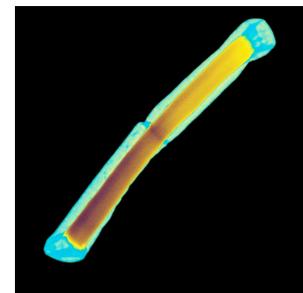
Award-winning photographer Christian Sinibaldi provided the impressive images, all of which taken in our NCTC facilities in Colindale, North London.

Did you know that all NCTC products are considered to be passage zero?
A passage is defined as the 'transfer of organisms from a viable culture to fresh medium with growth of the microorganisms'.

NCTC *Clostridium difficile* strains

Since many laboratories have recently become interested in PCR-ribotyping for *Clostridium difficile*, we are pleased to list the PCR-ribotypes and toxin status for all the NCTC strains of *C. difficile* on our website. These strains have been kindly tested for us by the Anaerobe Reference Unit in Cardiff.

[Find out more](#)



NCTC custom freeze-drying (lyophilisation) service

Specialised equipment and expertise are required for freeze-drying bacterial strains successfully so NCTC offers a custom freeze-drying service to scientists who want to preserve their own bacterial or fungal cultures.

In addition to providing cultures in the standard flame-sealed evacuated glass ampoules, NCTC can also provide freeze-dried cultures in evacuated capped vials.

Although these vials are considered to be easier to handle, the cultures are likely to be viable for a shorter period of time, depending on the strain. NCTC microbiologists will be able to advise you about this service.

NCTC can freeze-dry strains at category level 1, 2 and 3. Please contact us for a quote culturecollections.businessenquires@phe.gov.uk.

NCTC will be attending the following events:



SfAM Antimicrobial Resistance Meeting

24 November 2016
Great George St, London
Come and visit our stand!



UK NEQAS: Severe infection and sepsis matters to us!

2 December 2016
Holiday Inn Bloomsbury, London

Don't forget you can order your very own copy of the NCTC brochure!

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www.phe-culturecollections.org.uk