

## Technical Enquiry:

**Question** - I recently purchased a freeze-dried ampoule. How long can I store it for before using it?

*Scroll to the end of the newsletter for the answer.....*

## Lyophilisation: Long-term storage for bacterial strains

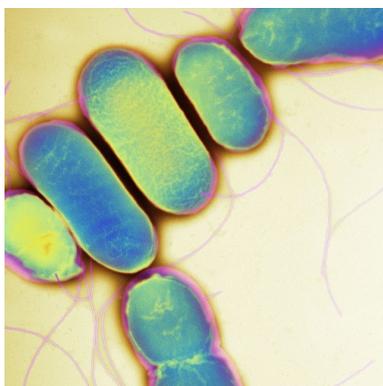
Lyophilisation, also known as freeze-drying, is a preservation method achieved through dehydration. The process was developed initially in 1906 and the technique currently applied by NCTC is an adaptation of the method used during World War II to preserve and transport blood serum.

The majority of bacterial strains in NCTC are supplied as lyophilised cultures in glass ampoules which have been flame-sealed under vacuum. This format is particularly suitable for long term preservation of organisms.



[Find out more](#)

In addition to supplying bacteria from the catalogue in this format, NCTC can also carry out contract freeze-drying for your strains.



## New bacterial strains

### New bacterial strains in 2017

Since January 2017, NCTC have added 27 new bacterial strains to the collection. These can be separated broadly into three groups:

Murray strains – 11 new strains of *Klebsiella pneumoniae* from the **Murray collection** of pre-antibiotic era *Enterobacteriaceae*.

WDCM strains – new strains to NCTC that are included in the **WDCM catalogue**.

Recently circulating strains – clinically isolated strains from recent outbreaks and sporadic cases of illness including isolates of *Streptococcus pneumoniae* and *Bordetella pertussis*

**The 8th of March was International Women's Day - read about the women who have shaped and contributed to NCTC, one of the world's oldest working bacterial collections.**

## NCTC strains now available as bespoke DNA

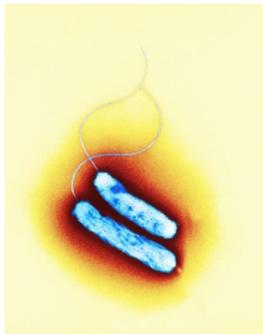
NCTC are pleased to announce that we are now able to provide some of the strains within the collection as a bespoke DNA product.

The high molecular weight (HMW) (>60kb) and high yield (~2-3 µg) DNA products are available for the majority of the NCTC strains within our collection and will be heat dried for ambient shipping. At the present time DNA will be made to order as a bespoke product.

If you are interested in the NCTC DNA products please contact us for more details:



[CultureCollections.BusinessE@phe.gov.uk](mailto:CultureCollections.BusinessE@phe.gov.uk)



### Safe and patent deposits

In addition to depositing for distribution through our publicly available collections, NCTC also offers specialist deposit services:

#### Patent Deposits

If filing a European patent application you will need to deposit your culture within a International Deposit Authority (IDA) such as NCTC and ECACC, both registered with the Budapest Treaty since 1982 and 1984 respectively. We can accept cell lines, viruses, bacteria and DNA.

#### Safe Deposits

A fully confidential service providing a second site safe storage for your valuable bacterial strains. Our site is staffed 24 hours a day and we can advise on how best to use our service to provide you with secure back up to your existing facilities.

### Meet the team: Dr Sarah Alexander

Sarah is the Microbial Projects Team Lead and NCTC Scientific Lead. After working in the PHE Sexually Transmitted Bacteria Reference Laboratory for 13 years, Sarah joined Culture Collections 18 months ago and now works between the Colindale and Porton Down laboratories.

Her role includes leading the NCTC 3000 whole genome sequencing project, identifying relevant strains to add to the NCTC collection and scientific development of new NCTC products.

Three facts about Sarah:

- loves being outdoors and gardening, including working on the allotment.
- goals for the year include adding intracellular bacteria to NCTC catalogue
- her greatest achievement is being a mum to her two children



### Articles

The following articles are particularly relevant to NCTC users.



#### SfAM Microbiologist - March 2017\*

**The Nagoya protocol** how could the proto-col impact your work?

#### 3D cell culture models for investigating virus-host interactions

\*Link available via certain search engines eg Google Chrome



#### IBMS Gazette - February 2017

**Is your lab ready?** Read about the recent changes to UKAS accreditation.

### Events

NCTC will be attending the following events in the next few months - we hope to see you there.

**Microbiology Society Annual Conference 2017** 3-6 April, Edinburgh, UK **Stand 6**

**27th ECCMID** 22-25 April, Vienna, Austria

As well as having a stand there will also be an oral presentation (**2956**) and eposter (**5427**) at the event.

#### Technical Enquiry:

**Answer** - Freeze-dried cultures are stable for many years. In general cultures are viable for up to 50 years depending on the organism. More information can be found on the individual certificate of analysis.

[Download the NCTC brochure](#)

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