

# Interlocking Small-Volume Cryovial Design



CASE ID: UA 279-14

## BACKGROUND

Cryogenic vials are designed for long-term storage of biological material at ultra-low temperatures and are used by museums, research labs, and other facilities to archive samples in perpetuity. Currently, cryovials are offered in a limited range of volumes and dimensions. As more samples are cryogenically preserved, more space is needed to accommodate these fixed-volume cryovials.

## DESCRIPTION

To address this problem, UAF researchers have designed an interlocking small-volume cryovial that doubles the amount of storage space for genomic samples archived at the UA Museum of the North. At the same diameter as standard 1.8mL commercial cryovials but half the height, twice as many cryovials can be housed in a standard freezer box. Retaining the current diameter of 12 mm for the vial allows for easier handling and filling compared to thinner, space-saving cryovials currently on the market. These small-volume cryovials interlock vertically for secure, easy storage in—and removal from—standard freezer boxes that house 1.8mL cryovials. They can also be intermingled with 1.8mL cryovials within the same freezer box, allowing the user to dictate the storage volume needed to maximize available space in their current infrastructure without having to invest in different boxes and racks.

## ADVANTAGES

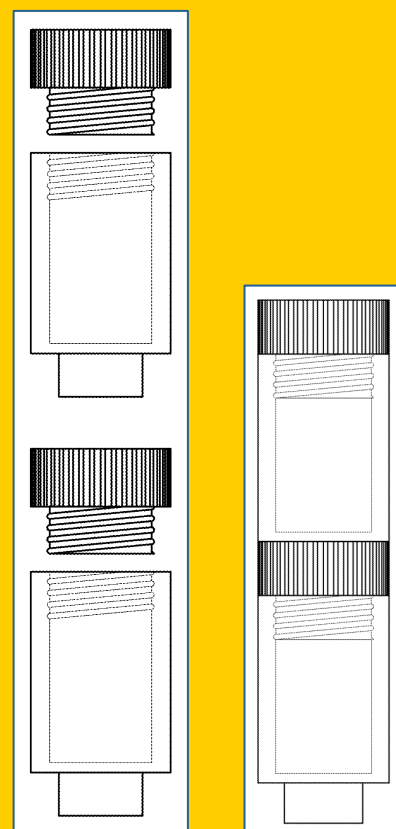
- Increases storage space in standard freezers
- Easy handling and filling of cryovial samples

## APPLICATIONS

- Storage of genomic samples

## INTELLECTUAL PROPERTY

- US Design Patent No. D820,467
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## INVENTORS

Link Olson  
Kyndall Hildebrandt  
Aren Gunderson

## CONTACT

Mark Billingsley  
mbillingsley@alaska.edu  
907.474.2605

