# DNA data storage update

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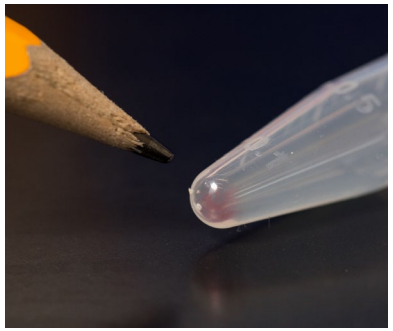
# Why DNA?

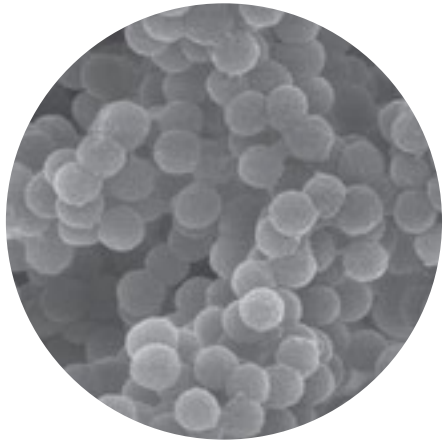
## Density



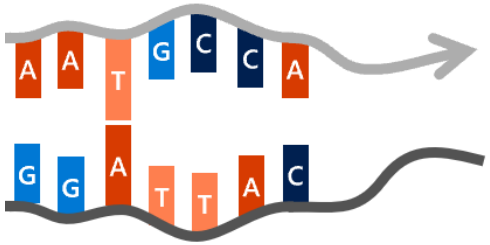
Credit: Tara Brown Photography / University of Washington

## Relevance

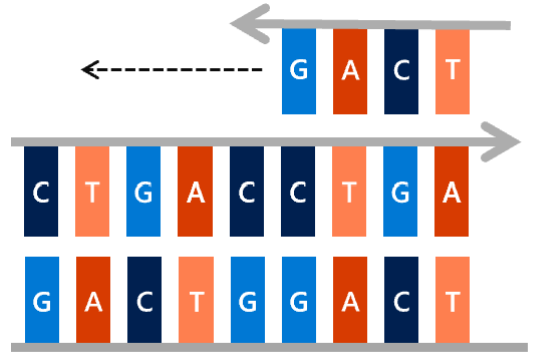
## Durability



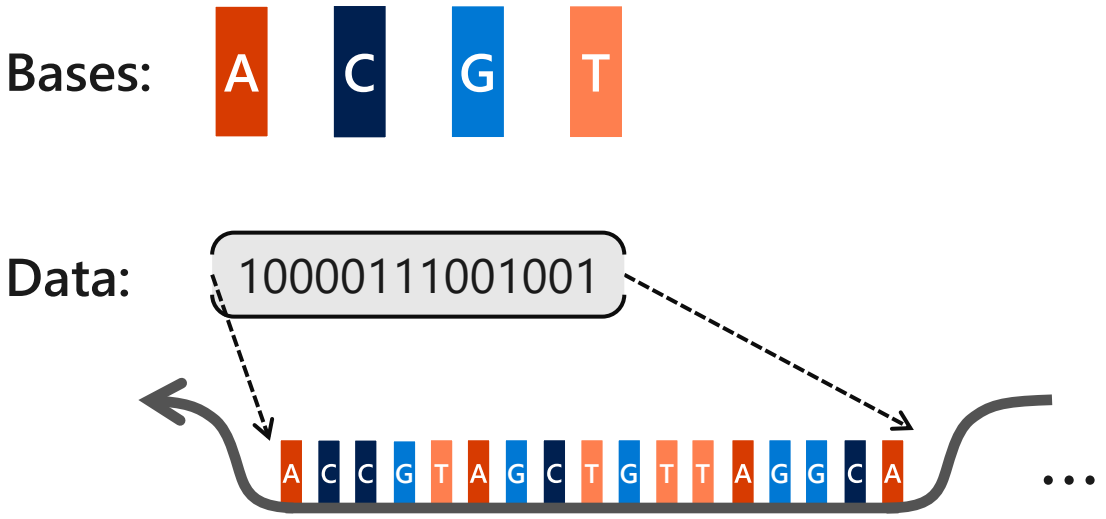
## Computation




## Copies



# DNA data storage basics

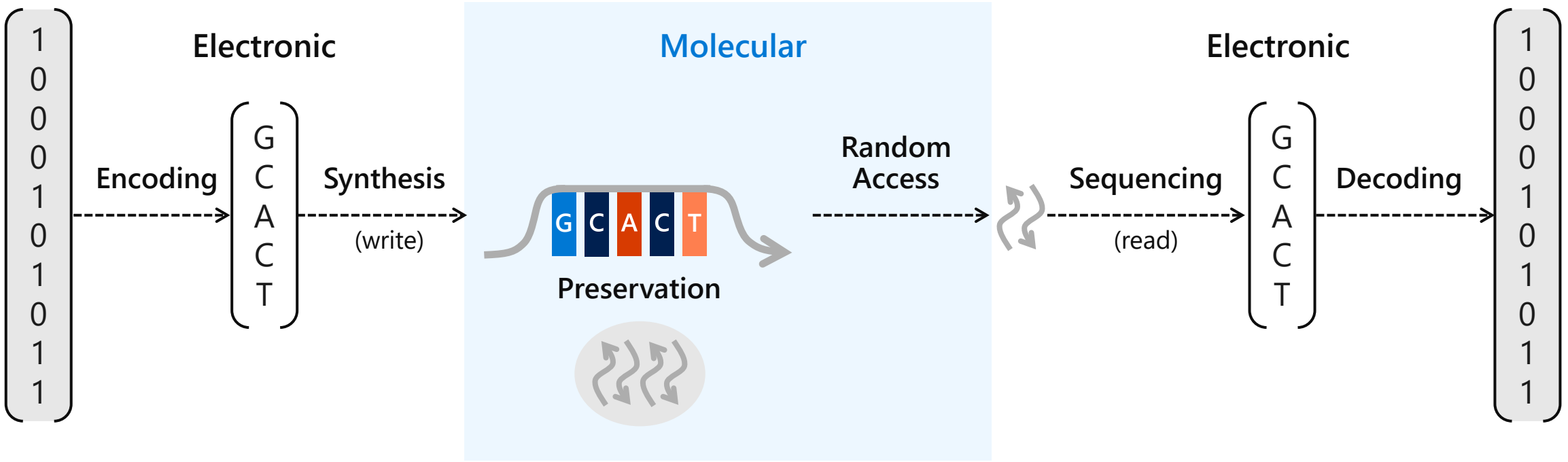



Store data in synthetic DNA strands

**Simple mapping:**

| Bits | Base |
|---|---|
| 00 | A |
| 01 | C |
| 10 | G |
| 11 | T |

# DNA storage end-to-end system



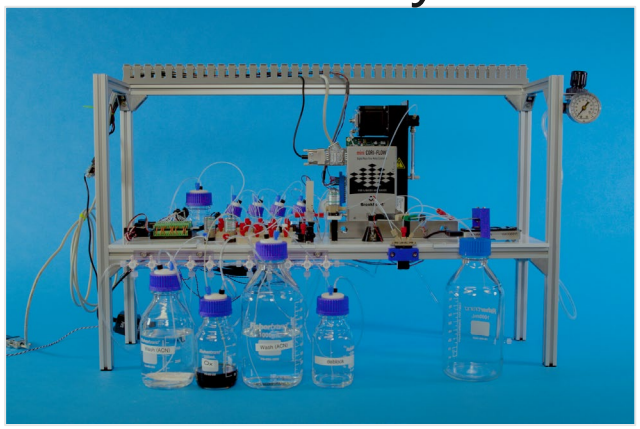
# Previously featured…

## Codec: 1GB

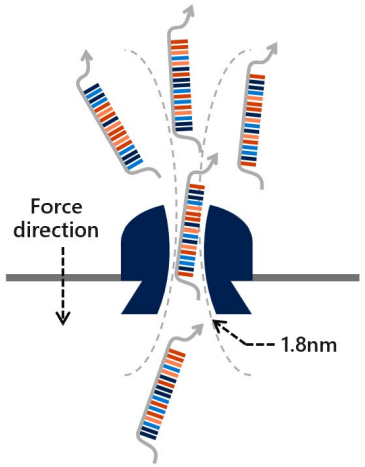
Project Gutenberg

CROP TRUST

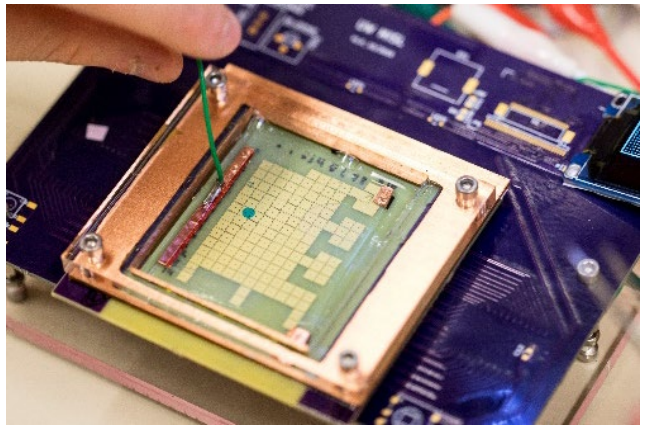
## End-to-end system



## Nanopore readout




## Library automation



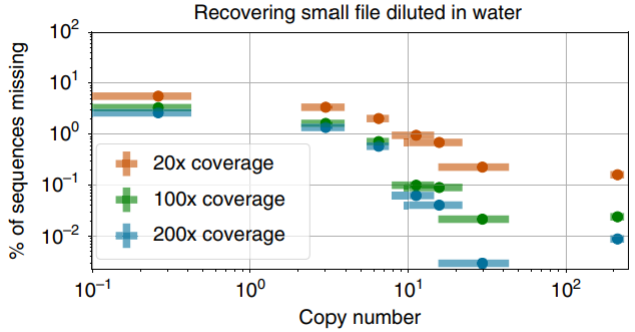
## Molecular similarity-based search

Query

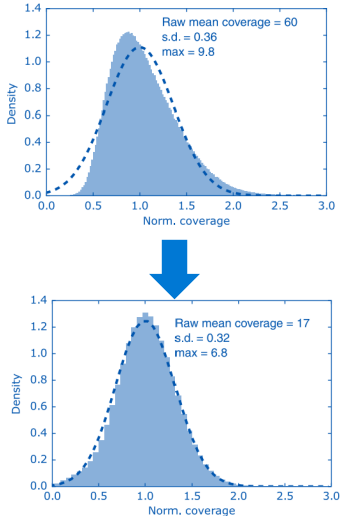
Results

# New since last meeting

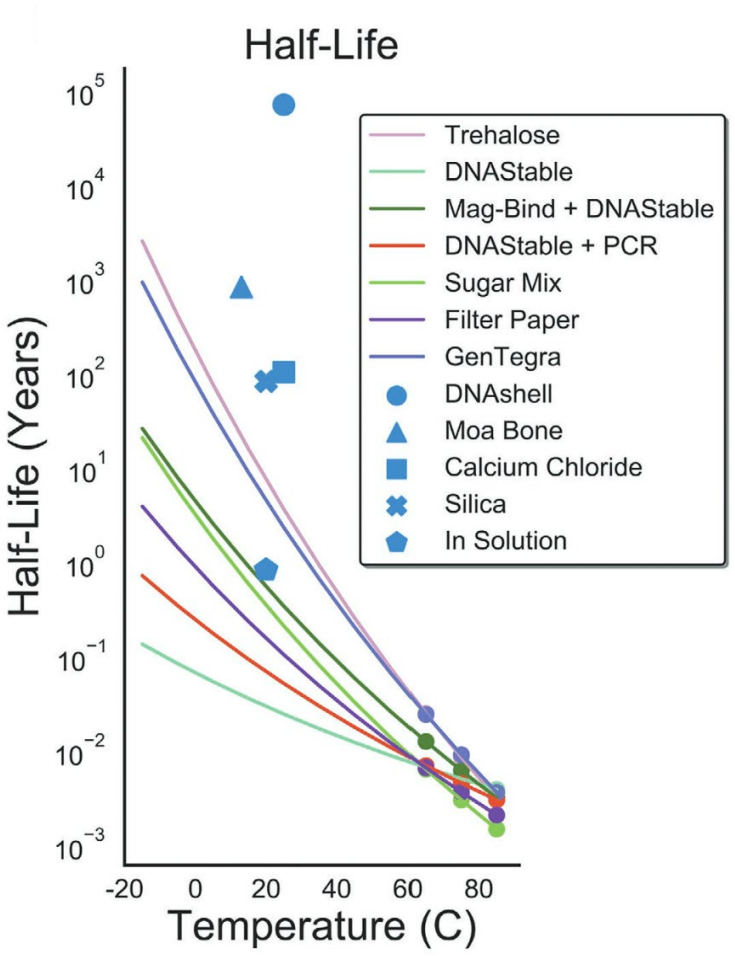
## Physical recovery limits



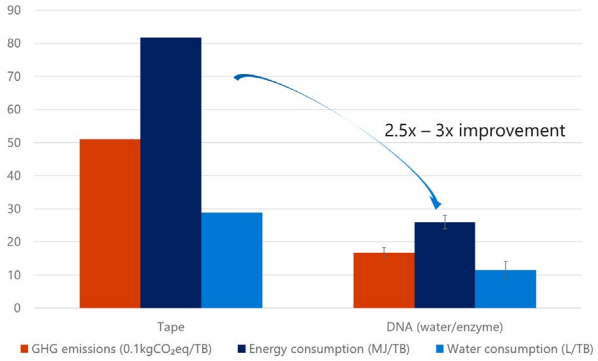

## Bias sources



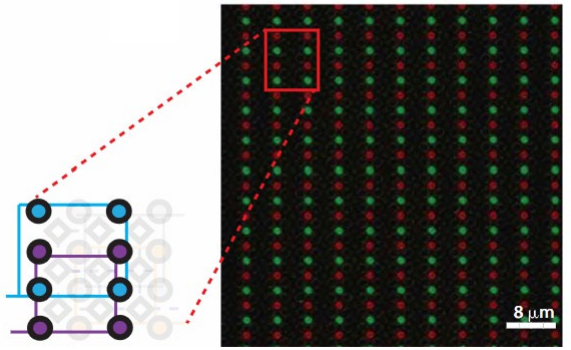

## Preservation study




## Sustainability study



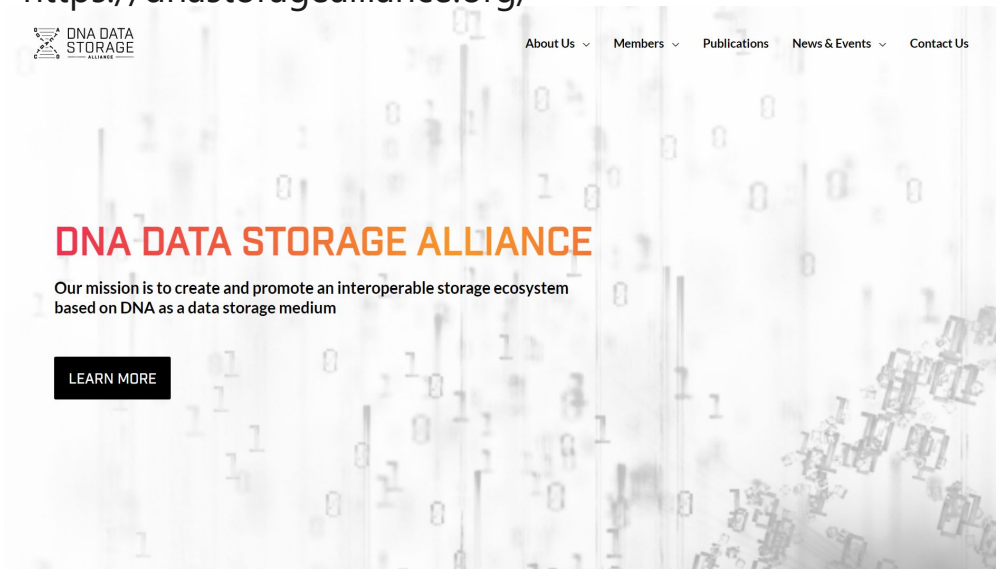

## Scaling synthesis




https://www.microsoft.com/en-us/research/project/dna-storage/publications/

# DNA Data Storage Alliance

https://dnastoragealliance.org/

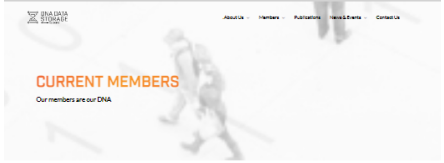



Website launched


**Preserving our Digital Legacy: An Introduction to DNA Data Storage**

Our first whitepaper will give you a good overview of DNA Data Storage technology and the need for a new archival storage medium that will help with the explosive growth of digital data.

First whitepaper published





50+ members and growing

Microsoft MISL

# Questions?