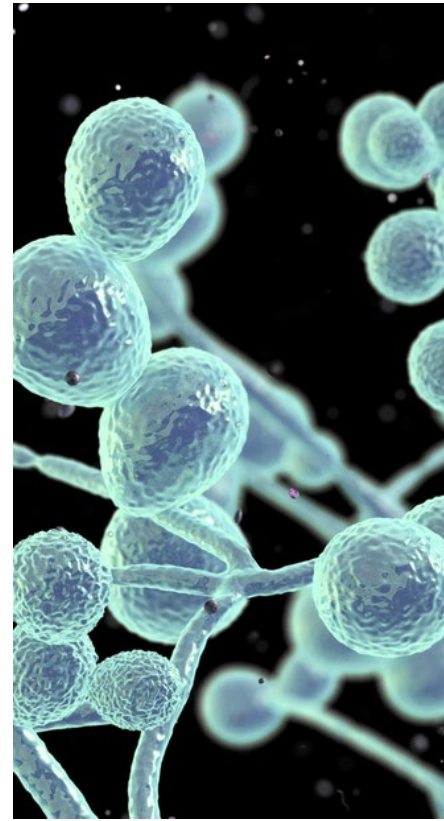
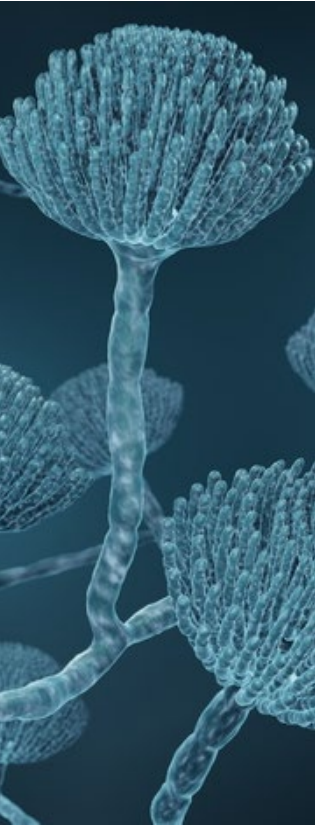




Streamline Microbial QC Testing Through Cryobiology

Nilay Chakraborty, PhD, MBA
BioNexus Foundation Principal Scientist,
Cryobiology, ATCC

Credible Leads to Incredible™



BioProcess International

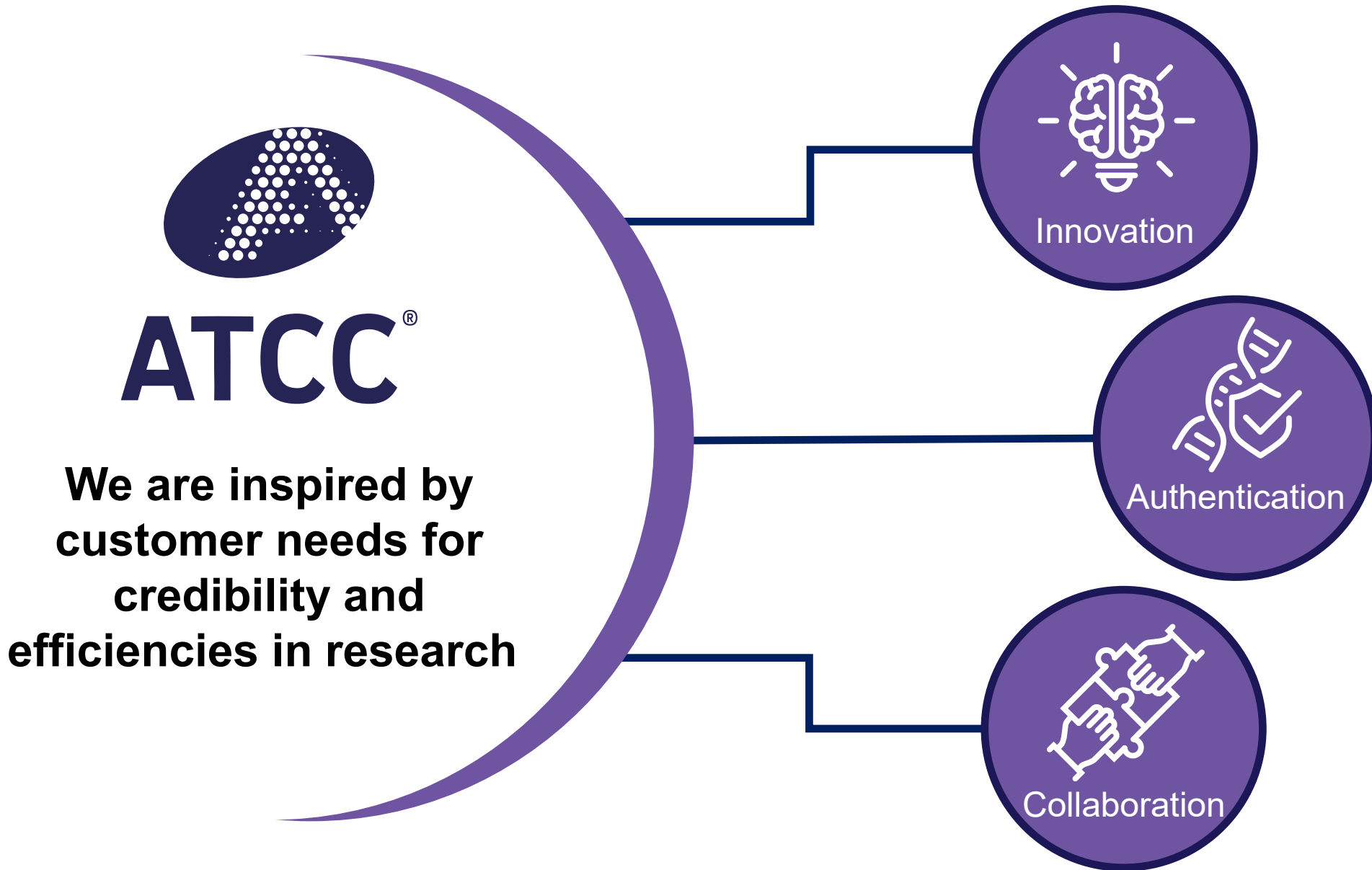
About ATCC®

- Founded in 1925, ATCC® is a non-profit organization with HQ in Manassas, VA, and an R&D and Services center in Gaithersburg, MD
- World's premier biological materials resource and standards development organization
 - 5,000 cell lines
 - 80,000 microorganisms
 - Genomic & synthetic nucleic acids
 - Media/reagents
- ATCC® collaborates with and supports the scientific community with industry-standard biological products and innovative solutions
- Growing portfolio of products and services
- Sales and distribution in 150 countries, 20 international distributors
- Talented team of 600+ employees, over one-third with advanced degrees

Visit us at booth #739



Enabling scientific progress for nearly 100 years



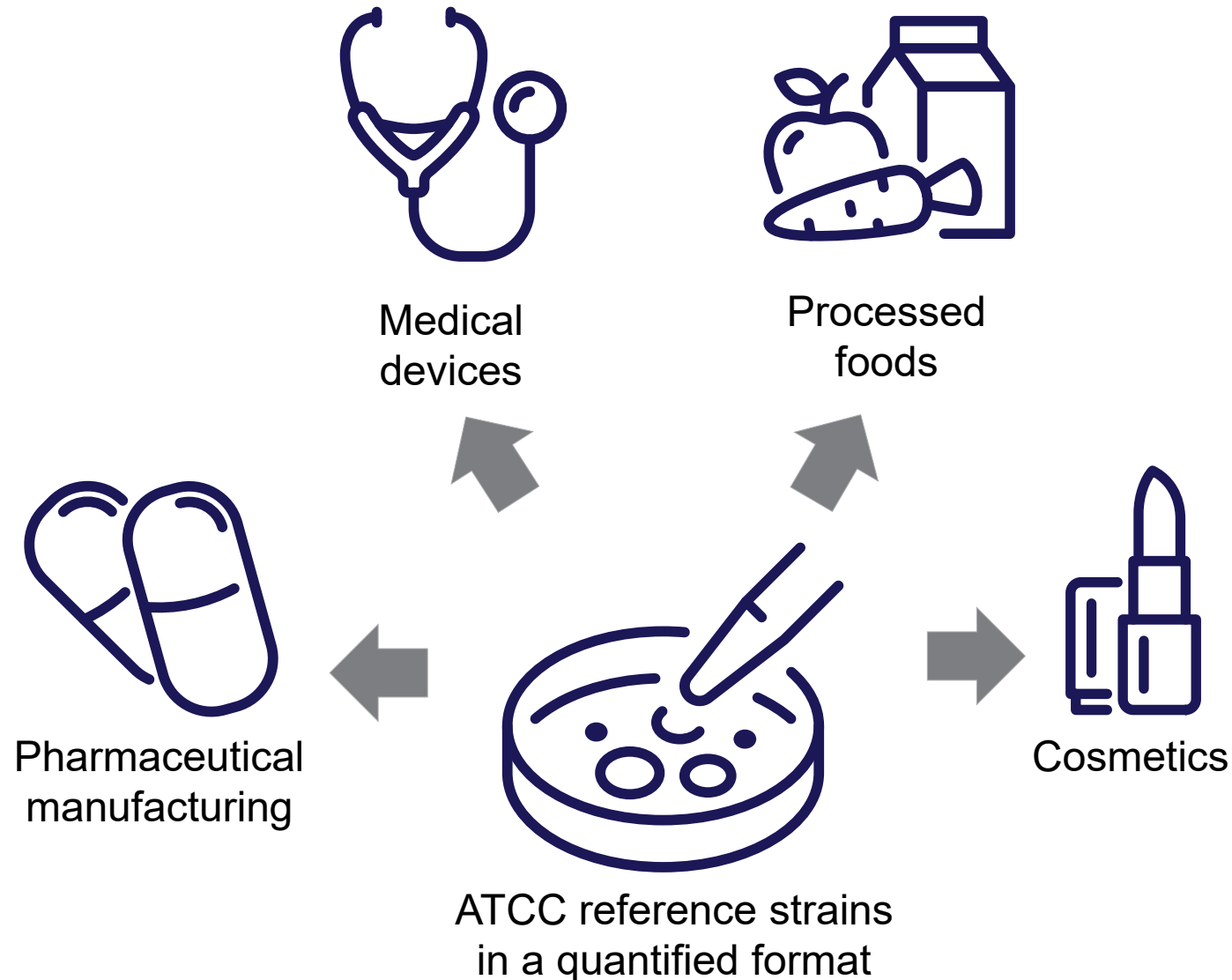
Innovative products in bioproduction



Comprehensive collection of advanced cell models and microbial reference materials that support biologics production

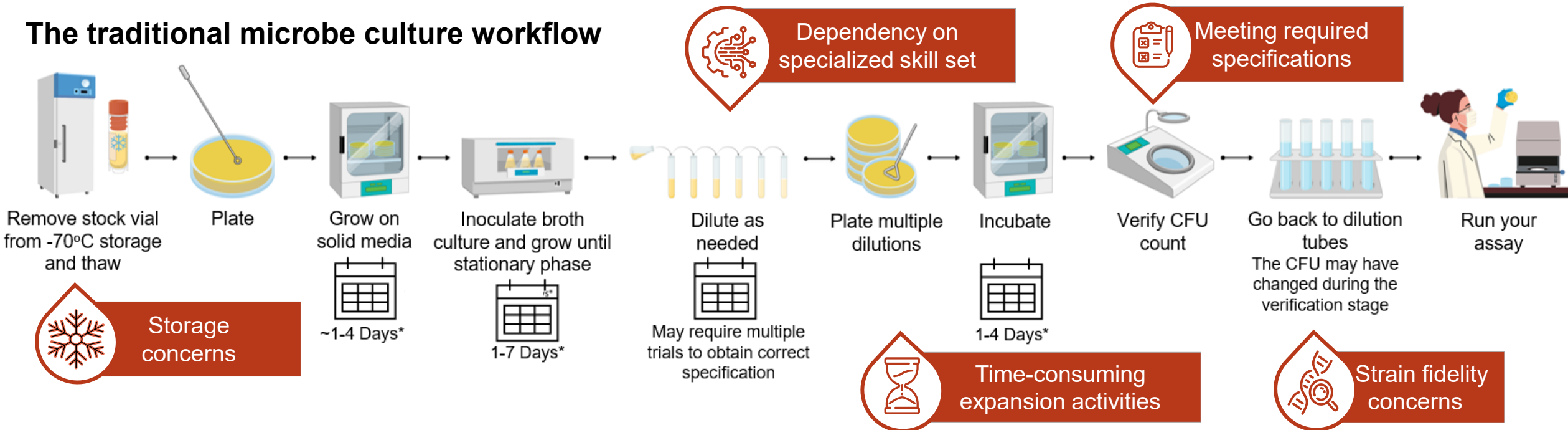
- Bioproduction cell lines and cell lines for enhanced virus production
- Analytical reference materials for residual host cell DNA testing
- Viral reference materials for evaluating the dose and potency of gene therapy products
- Purified polysaccharides and infectious disease strains for vaccine development
- Microbial quality control strains specified in standards and guidelines by organizations and regulatory agencies (USP, EP, ISO, FDA, CLSI, USDA, ASTM, AOAC, WHO)

Microbial QC testing applications span several industries



Challenges when using microbial reference strains

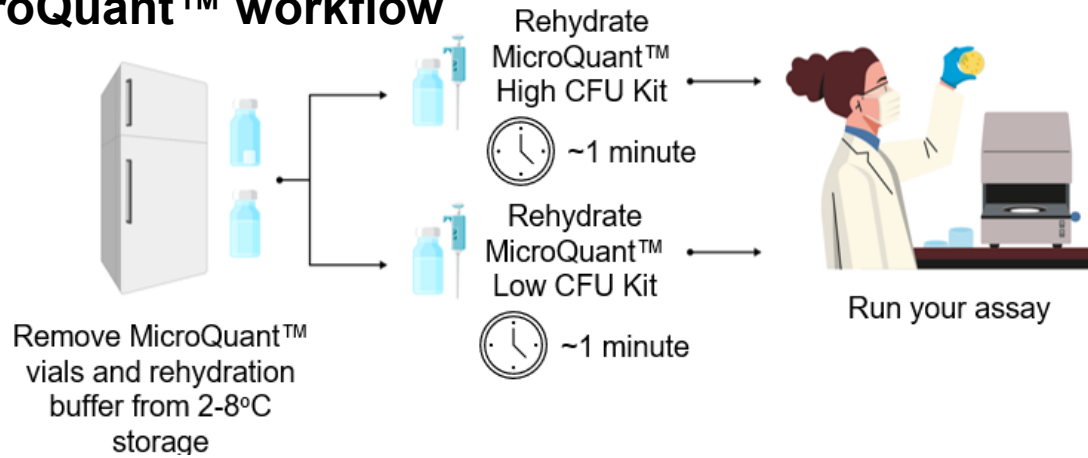
The traditional microbe culture workflow



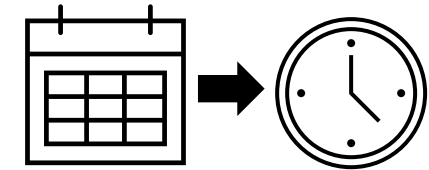
*Different species require varying incubation times

Challenges when using microbial reference strains

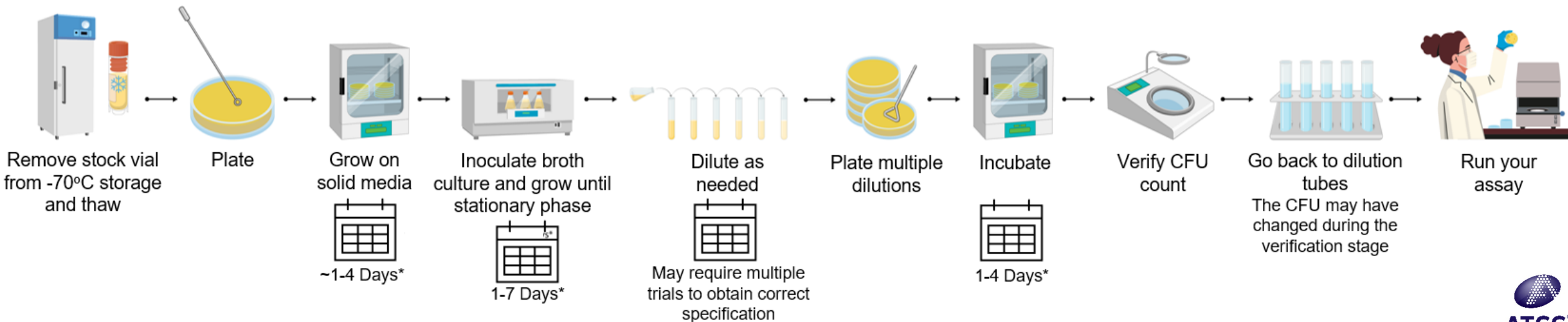
The MicroQuant™ workflow



Our innovative cryopreservation technology enables you to streamline your microbial QC workflow from days to minutes.



The traditional microbe culture workflow



*Different species require varying incubation times

Meeting the challenge through cryobiology

ATCC developed an innovative preservation technique that delivers:

- A stable pelleted format that uniformly and rapidly rehydrates
- Precise quantitation of biological materials
- Convenient storage in refrigeration



Introducing **MicroQuant**[™] by **ATCC**[®]

Precision in every pellet, trust in every test

A ready-to-use solution to help you streamline microbial QC testing

- Precisely quantitated in high-titer and low-titer pelleted formats
- Single-use format using an innovative, proprietary preservation technology
- Rapid, uniform rehydration in less than a minute
- Easy to store and ready to use anytime—no need to thaw
- Original ATCC materials manufactured under ISO 17034



MicroQuant™

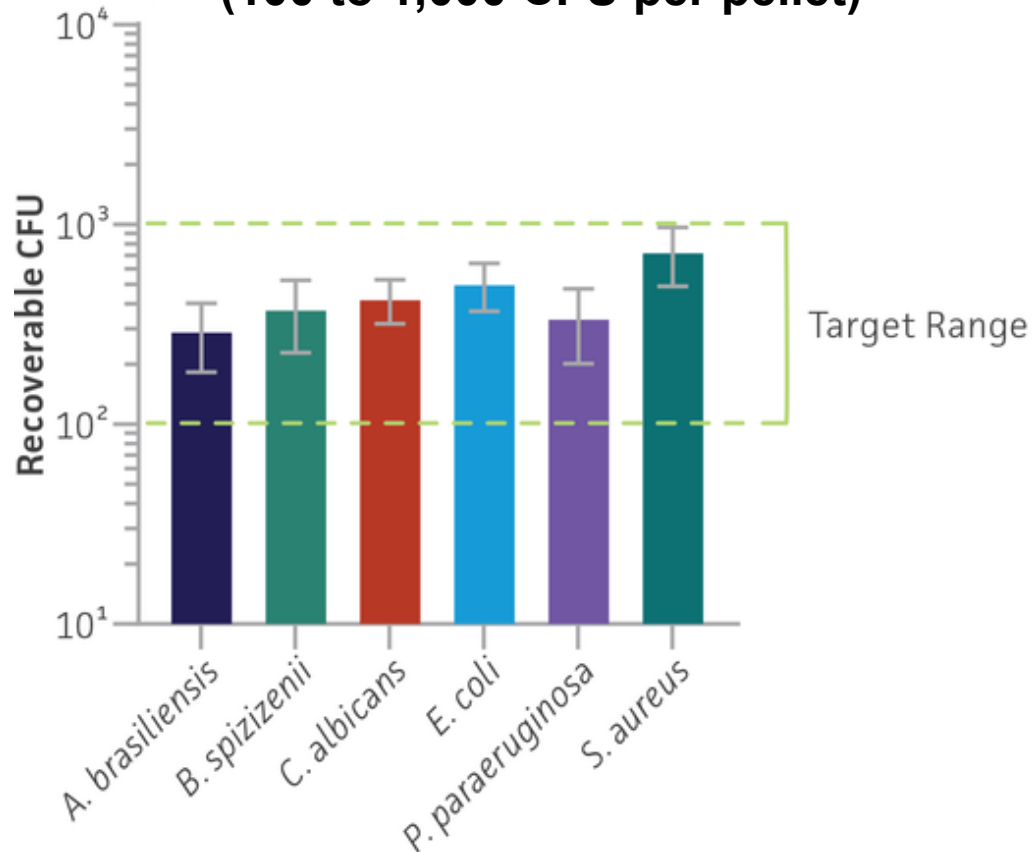
by ATCC®



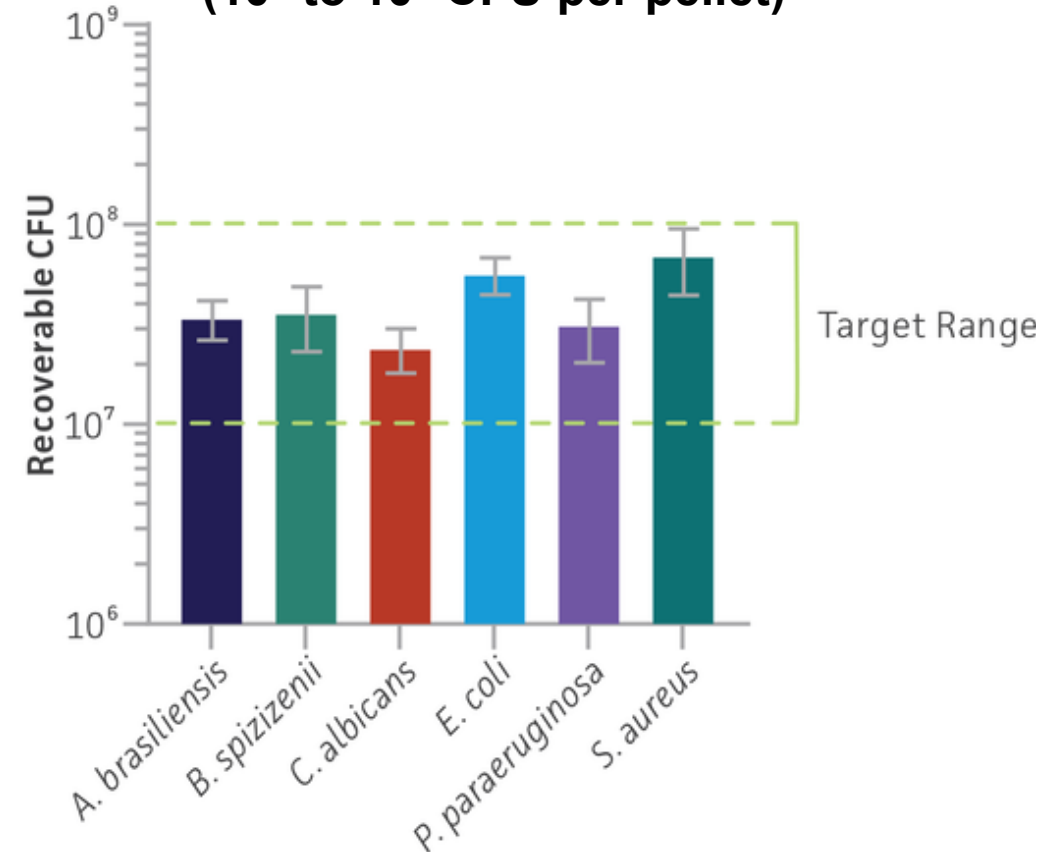
Save time and eliminate process complexities

MicroQuant™ is provided as a single-use quantitated pellet that enables fast assay set up and minimizes handling.

**Low CFU Items
(100 to 1,000 CFU per pellet)**

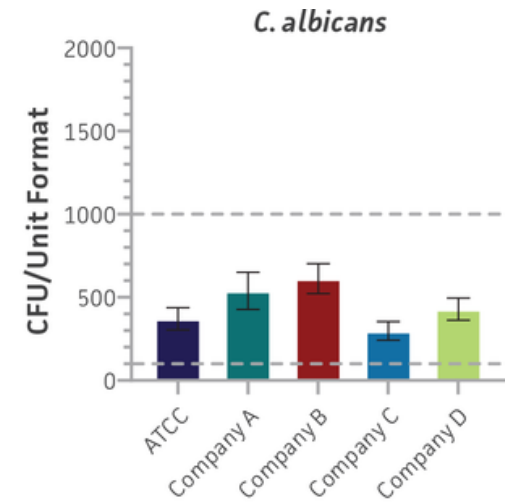
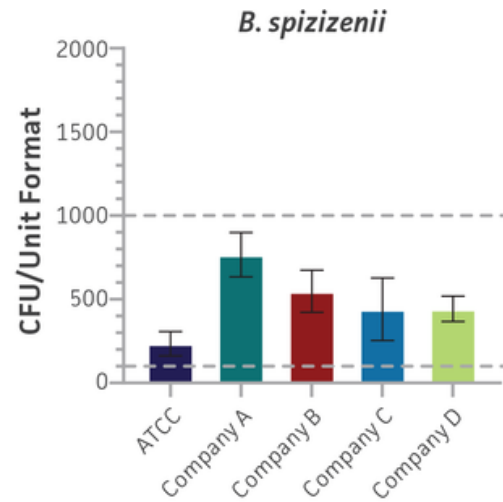
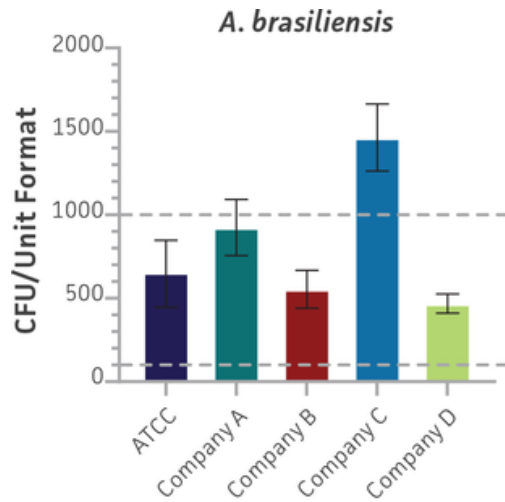


**High CFU Items
(10⁷ to 10⁸ CFU per pellet)**

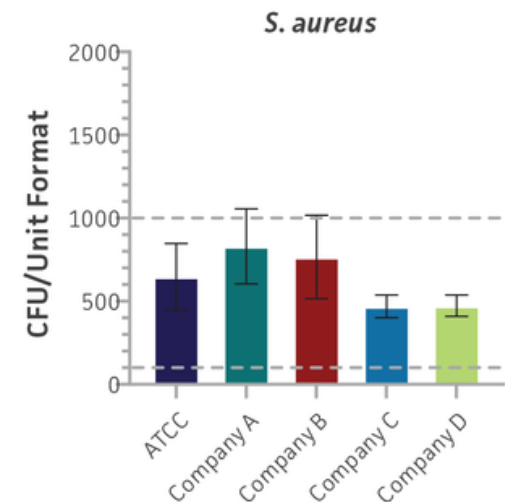
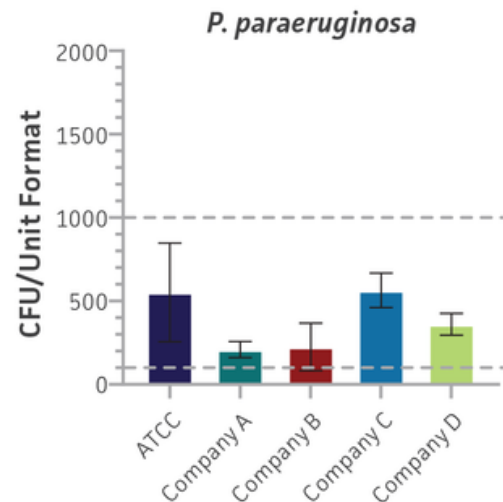
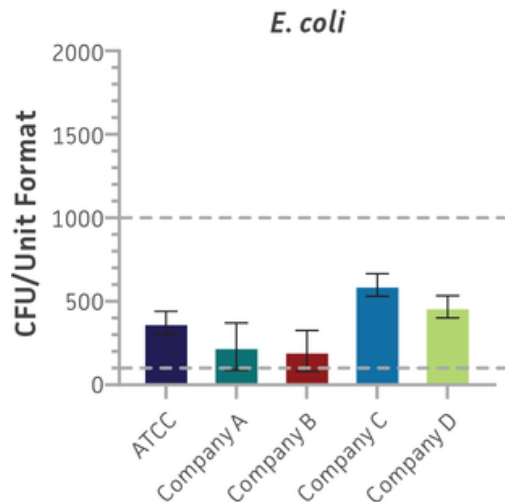


Rely on consistent, precise quantitation

MicroQuant™ - Precise and accurate low CFU pellets for bioburden testing

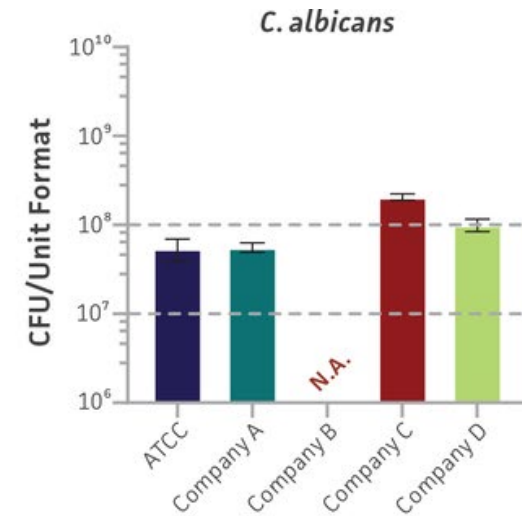
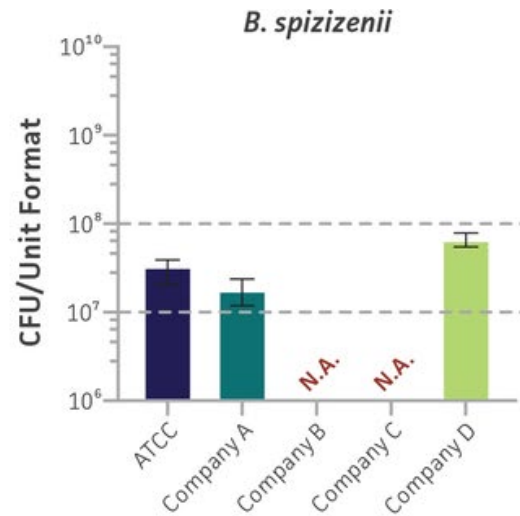
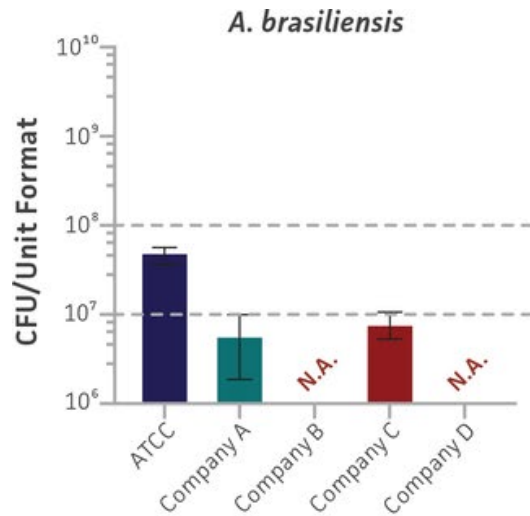


"Low CFU" means 100 to 1,000 CFU/pellet

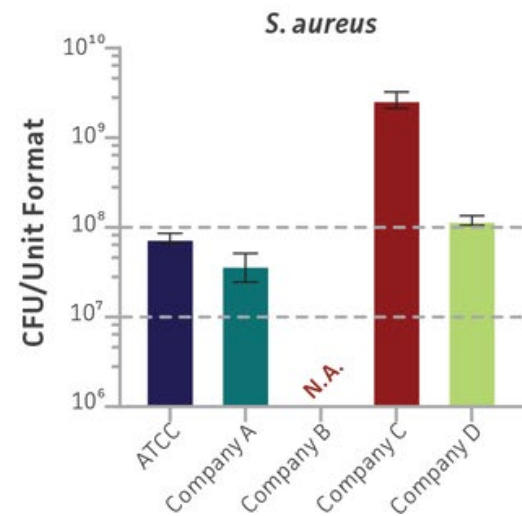
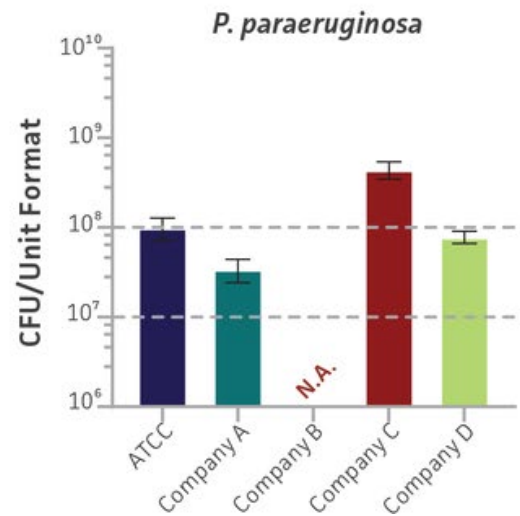
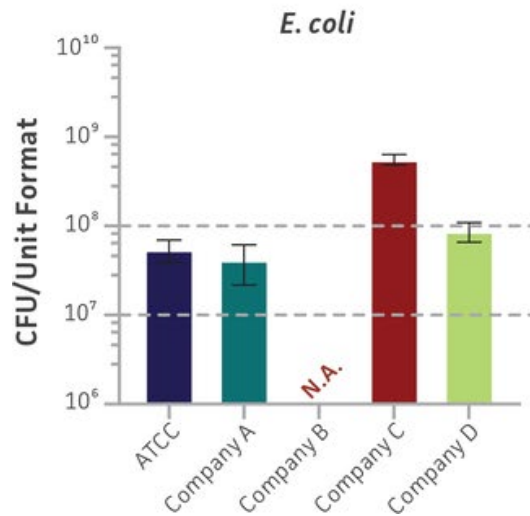


Rely on consistent, precise quantitation

MicroQuant™ - Precise, high CFU pellets for testing under USP <51> guidelines

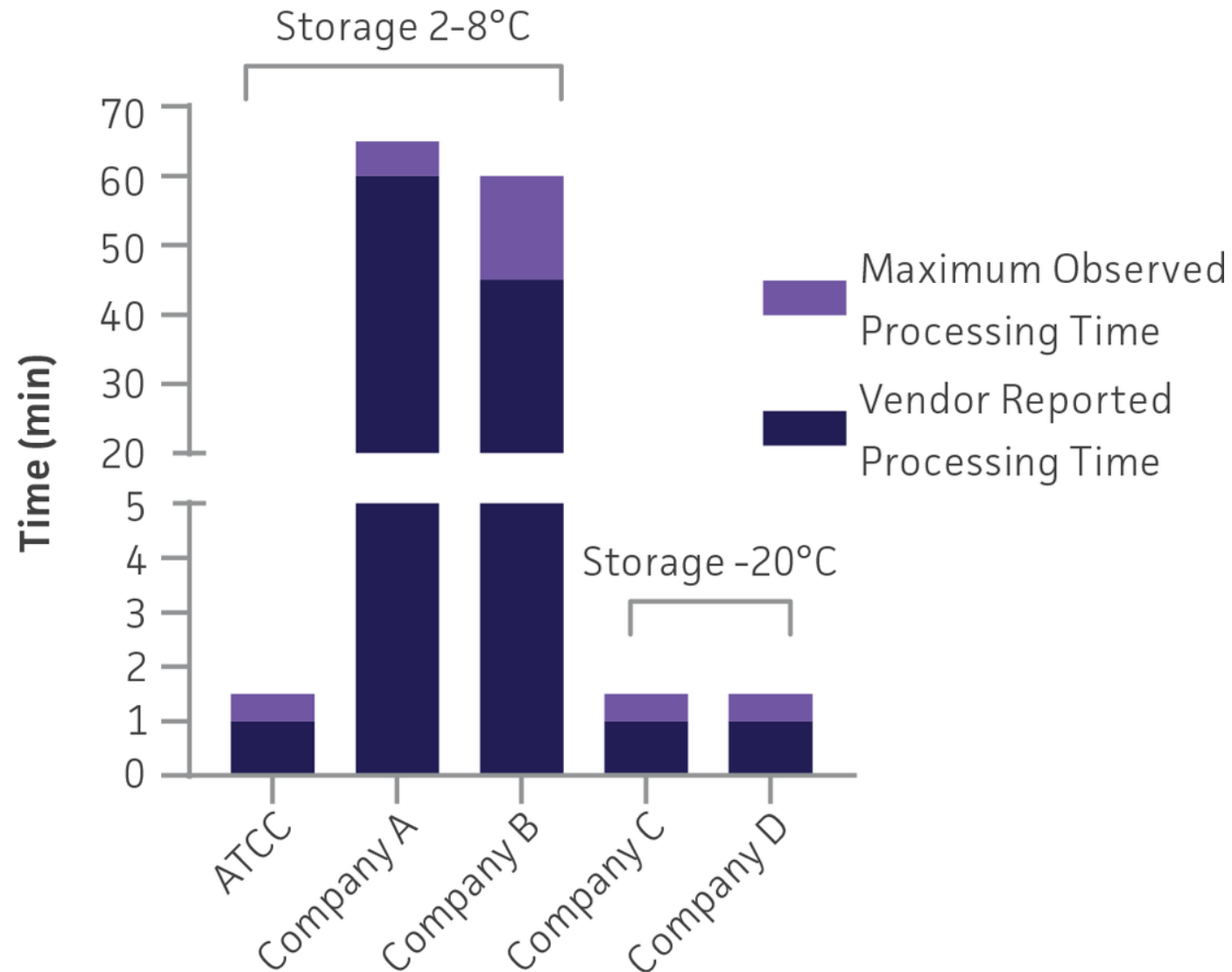


"High CFU" means 10⁷ to 10⁸ CFU/pellet



Maximize your resources

MicroQuant™ is stable at 2-8°C, making it convenient to store and ready to use anytime



No need to thaw!

How MicroQuant™ compares to similar products

Features	MicroQuant™	Company A	Company B	Company C	Company D
Processing time ~1 minute	✓			✓	✓
2-8°C refrigeration storage	✓	✓	✓		
Manufactured under ISO 17034	✓	✓	✓	✓	✓
Includes all strains for USP <51> (High CFU format)	✓	✓*		✓*	✓*
Includes all strains for USP <61> (Low CFU format)	✓	✓	✓	✓	✓
Product kit includes rehydration buffer	✓	✓	✓	✓	
Sourced from ATCC	✓	✓	✓		

*Some strains were not available for purchase at the time of testing

Explore the MicroQuant™ portfolio

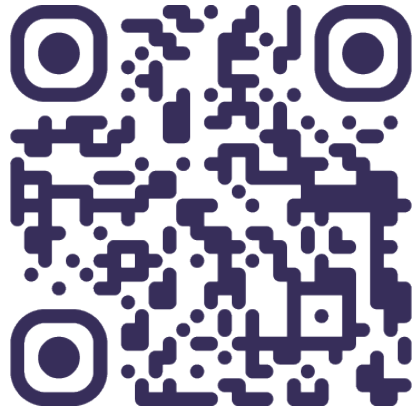
ATCC® No.	Description
10231-LQ-PACK™	MicroQuant™ <i>Candida albicans</i> , low CFU
10231-HQ-PACK™	MicroQuant™ <i>Candida albicans</i> , high CFU
9027-LQ-PACK™	MicroQuant™ <i>Pseudomonas paraeruginosa</i> , low CFU
9027-HQ-PACK™	MicroQuant™ <i>Pseudomonas paraeruginosa</i> , high CFU
6538-LQ-PACK™	MicroQuant™ <i>Staphylococcus aureus</i> subsp. <i>aureus</i> , low CFU
6538-HQ-PACK™	MicroQuant™ <i>Staphylococcus aureus</i> subsp. <i>aureus</i> , high CFU
16404-LQ-PACK™	MicroQuant™ <i>Aspergillus brasiliensis</i> , low CFU
16404-HQ-PACK™	MicroQuant™ <i>Aspergillus brasiliensis</i> , high CFU
8739-LQ-PACK™	MicroQuant™ <i>Escherichia coli</i> , low CFU
8739-HQ-PACK™	MicroQuant™ <i>Escherichia coli</i> , high CFU
6633-LQ-PACK™	MicroQuant™ <i>Bacillus spizizenii</i> , low CFU
6633-HQ-PACK™	MicroQuant™ <i>Bacillus spizizenii</i> , high CFU

Low CFU = 100 to 1,000 CFU/pellet

High CFU = 10^7 to 10^8 CFU/pellet



Learn more about MicroQuant™



ATCC.org/MicroQuant



Explore our portfolio



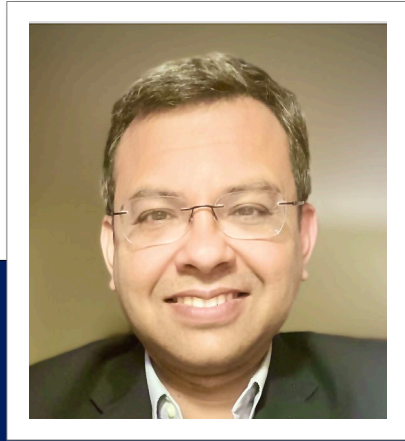
Get the application note



Read the blog post

The screenshot shows the ATCC website page for MicroQuant. At the top, there are navigation links for Careers, Support, and United States. A search bar is present with the ATCC logo to its left. Below the search bar is a horizontal menu with links for Applications, Cell Products, Microbe Products, Services, Federal Solutions, The Science, Resources, and About Us. The breadcrumb trail reads: Home > Microbe Products > Applications > Quality Control > MicroQuant. A 'SHARE' button is on the right. The main heading is 'MicroQuant™' followed by the sub-heading 'Best-in-class controls for pharmaceutical testing'. Below this is a large image of blue-tinted microorganisms. The text below the image reads: 'MicroQuant™ – Precision in every pellet, trust in every test'. A paragraph follows: 'MicroQuant™ is ATCC's new product line of precisely quantitated microbial reference materials used to streamline microbial quality control testing in pharmaceutical manufacturing. Leveraging an innovative cryopreservation technology, MicroQuant™ products come in the form of stable, rapidly rehydrating pellets that deliver consistent quantitation and accurate, reproducible results—addressing the key challenges faced by microbial testing laboratories. This novel product suite enables simplified workflows and quick turnaround times while adhering to strict quality standards. With nearly a century of enabling scientific progress, this new ATCC offering represents the latest step in empowering innovation, collaboration, and trust through industry-leading microbial testing solutions.' Two buttons are present: 'EXPLORE THE MICROQUANT™ PORTFOLIO' and 'VIEW FAQs'. Below this is the section 'Streamline microbial QC testing' with a list of five bullet points: 'Precisely quantitated', 'Single-use format', 'Immediate rehydration at room temperature', 'Convenient storage at 2-8°C', and 'Reliable'.

Let's connect



Visit me in Booth #739

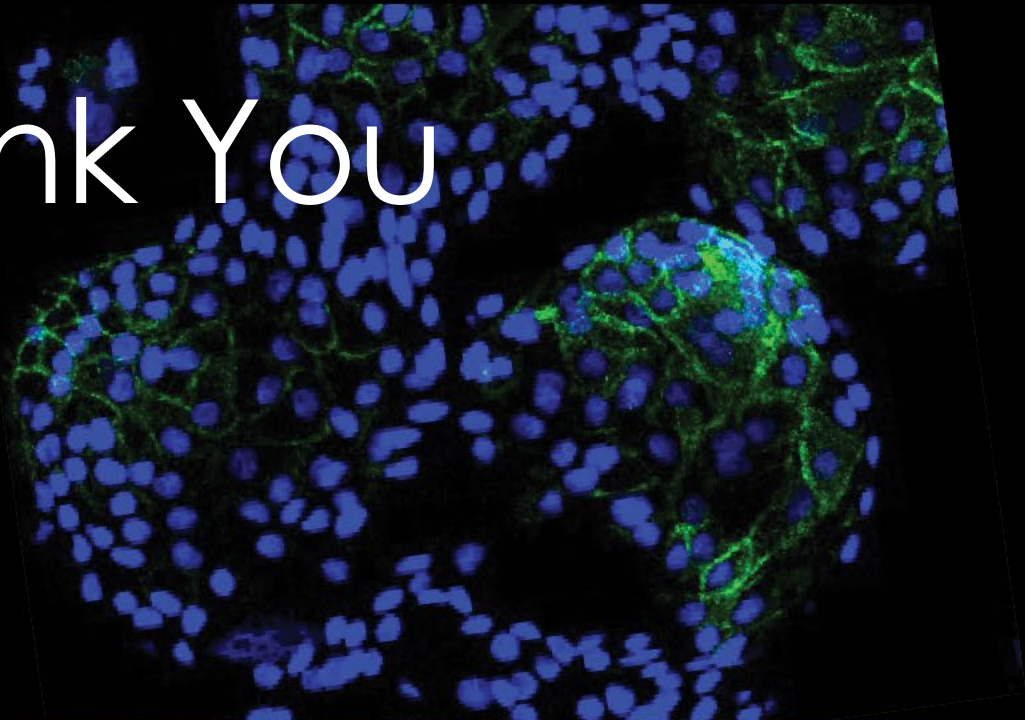
Nilay Chakraborty, PhD, MBA

BioNexus Principal Scientist

ATCC

nchakraborty@atcc.org

Thank You



CREDIBLE
MODELS

INCREDIBLE
OUTCOMES



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