

# ATCC's Contribution to GCM 2.0: A Progress Report



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# About ATCC



# ATCC SNAPSHOT

Trusted partner to  
global researchers  
and scientists

- Founded in 1925, ATCC is a non-profit organization with HQ and operations in Manassas, VA, and an R&D and services center in Gaithersburg, MD (225,000 sq. ft. total)
- **One of the largest and most diverse biological materials resource centers in the world**
  - 5,000 cell biology products
  - 80,000 microbes
- **Talented team of 450+ employees; over one-third with advanced degrees**
  - Products, services and government contracts
  - Significant R&D and product development efforts
- **Solid business operations and financials**
  - World-wide sales reach to >150 countries
  - 2017 revenue: >\$100M
  - Cash and LT investments: >\$150M
  - No debt load



# Certification and Accreditation



## ISO 9001:2008 Certification for quality management system

- Demonstrates commitment to quality products, customer service, and continued improvement



## ISO 13485:2003 Certification for the design, development, production, testing, and distribution of medical devices

- Applies to synthetic molecular standards, standards, controls and reagents



## ISO Guide 34:2009 accreditation for production

- Applies to Certified Reference Materials (CRMs)



## ISO/IEC 17025:2005 accreditation for testing

- Applies to all ATCC cultures, derivatives, and bioproducts tested in our laboratories

# ATCC Organization



# Government Contracts



b|e|i RESOURCES  
SUPPORTING INFECTIOUS DISEASE RESEARCH



IRR™  
International Reagent Resource



NCI  
CENTRAL REPOSITORY



**ATCC Federal Solutions supports government research and development programs in:**

- Global Health
- Infectious and Chronic Diseases
- Biodefense
- Biomaterial Management



**Business Unit Performance:**

- 25 active contracts (with an additional 10 pending award) supporting >150 staff
- >\$30M annual revenue with 8% YoY projected growth
- >\$300M in contract opportunity pipeline



**50+ years supporting government clients including NIAID, CDC, NCI, FDA, DHS and DoD**

# The most comprehensive fully authenticated microbiology portfolio, supporting:

- Global public health
- Pharma research and diagnostic assay development
- Quality control testing

## Featured product categories:

- Microbiome standards
- Quantitative molecular standards for infectious agents -respiratory health, enteric diseases, vector-borne pathogens (Zika, Chikungunya) and sexually transmitted infections
- QC reference materials cited by industry standards

## Research and Development programs:

- Metagenomics tools
- Whole genome sequencing initiative
- Highly characterized multidrug resistant clinical isolates

## Brand Recognition:

- Organizations and regulatory agencies specify ATCC cultures (USP, ISO, FDA, CLSI, USDA, ASTM, AOAC, and more)
- Over 475 microbial cultures recommended as quality control reference strains

# ATCC Microbiology Portfolio

**Authenticated  
biomaterials for diverse  
applications**

# ATCC's Contribution to GCM 2.0





- ATCC's current sequencing capabilities include both short-read and long-read sequencing technologies

- Illumina MiSeq



- Oxford Nanopore



GridION

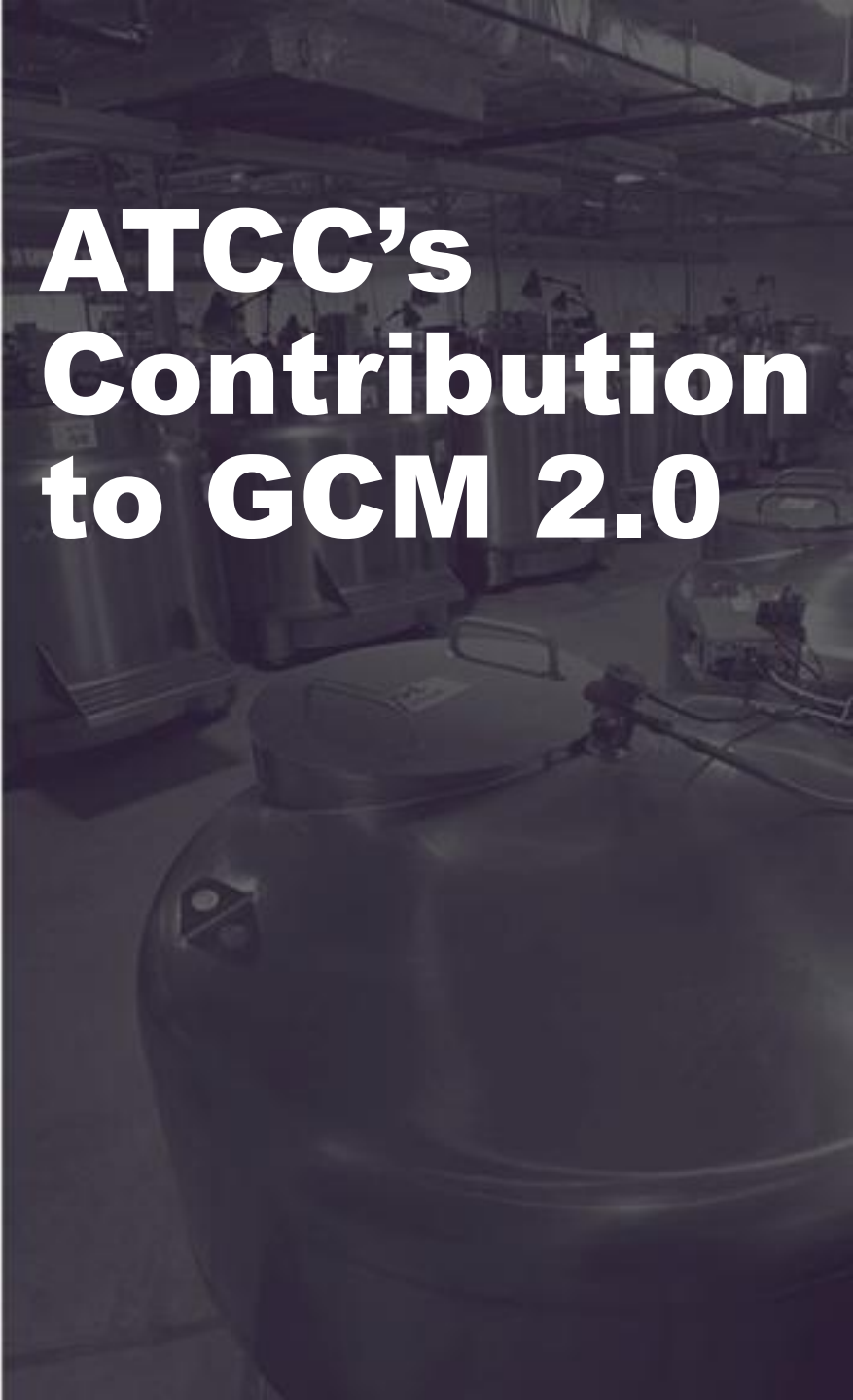


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# ATCC's Sequencing Department

- ATCC has committed to provide the GCM 2.0 with an initial set of 20 genomes of bacterial type strains
- To date, 14 organisms have been grown and high-quality DNA (high-yield and long fragment length) have been extracted
  - 12 organisms have been completely sequenced (Illumina and Oxford Nanopore)
  - 1 organism has been partially sequenced (Illumina only)
- Delivery of genome raw data to GCM 2.0 includes FASTQs for both Illumina (13) and Oxford Nanopore (12)
- Sequencing and delivery of remaining genomes in near future

# ATCC's Contribution to GCM 2.0



# Sequenced Items

GCM ID	ATCC Item #	Species	Gram	Aero.	BSL	Growth	Illumina	Nanopore	Complete	Delivered to GCM
1	33673 <sup>T</sup>	<i>Providencia rustigianii</i>	GN	AE	1	●	●	●	●	●
2	35585 <sup>T</sup>	<i>Eubacterium sulci</i>	GP	AN	1	●	●	●	●	●
3	39922 <sup>T</sup>	<i>Kibdelosporangium aridum</i> subsp. <i>largum</i>	GP	AE	1	●	●	●	●	●
4	49957 <sup>T</sup>	<i>Roseomonas cervicalis</i>	GN	AE	2	●	●	●	●	●
5	51272 <sup>T</sup>	<i>Hallella seregens</i>	GN	AN	1	●	●	●	●	●
6	51285 <sup>T</sup>	<i>Balneatrix alpica</i>	GN	AE	2	●	●			Illumina
7	51727 <sup>T</sup>	<i>Arcanobacterium bernardiae</i>	GP	AE	2	●	●	●	●	●
8	51849 <sup>T</sup>	<i>Actinomyces neuii</i> subsp. <i>anitratu</i> s	GP	AE	2	●	●	●	●	●
9	51856 <sup>T</sup>	<i>Actinomyces radingae</i>	GP	AE	2	●	●	●	●	●
10	BAA-2759 <sup>T</sup>	<i>Mycobacterium malmesburii</i>	GP	AE	2	●	●	●	●	●
11	BAA-547 <sup>T</sup>	<i>Meythlobacterium podarium</i>	GN	AE	1	●	●	●	●	●
12	BAA-694 <sup>T</sup>	<i>Cardiobacterium valvarum</i>	GN	AE	2	●	●	●	●	●
13	BAA-788 <sup>T</sup>	<i>Cellulomonas denverensis</i>	GP	AE	2	●	●	●	●	●
14	15707 <sup>T</sup>	<i>Bifidobacterium longum</i> subsp. <i>longum</i>	GP	AN	1	●				

GP: Gram Positive    AE: Aerobic  
GN: Gram Negative    AN: Anaerobic



**Thank you!**