

Corning Cell Culture Connection

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“Corning’s focus is on what’s to come—the people, the products and the innovations that will drive the next 50 years of science,” says Kim Titus, Business Director – Research, on 2024 marking the 50th anniversary of Corning cell culture plasticware.

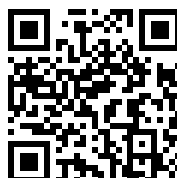


To CELLebrate Corning’s 50th Anniversary of cell culture essentials, we asked you to nominate the exceptional efforts of your lab peers for a chance to win noteworthy prizes.

The contest is now closed and our 10 finalists are being reviewed by a cross-functional judging panel for a chance to win a weekend getaway to Kennebunk, ME, a trip to AACR 2025, and Corning swag.

Plus, their work will be recognized in Corning articles, webinars, website, and social media channels. Stay tuned for our winner announcement and CELLebrating fellow scientists in a future newsletter edition!

Current Promotions



Lab Essentials

The choice is yours.



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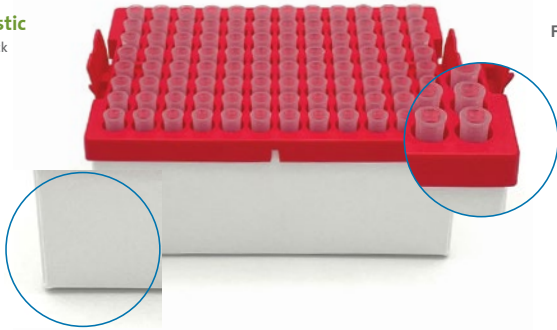
New Products from Corning

Innovative paperboard and plastic hybrid design uses

70% less plastic
than a traditional tip rack

Take care of the environment with Corning

Paperboard base can be easily recycled using most curbside recycling programs which can significantly reduce the amount of plastic being thrown away in the lab.



Functionality meets sustainability

The unique hybrid design creates a stable platform allowing end users to pipet directly from the paperboard base – even with a multi-channel instrument.



This product is included in Corning EcoChoice™. All products included in the program are produced, packaged, or distributed in an environmentally friendly manner following United States FTC Guidelines. To learn more, go to www.corning.com/EcoChoice.

Axygen® HybridRack™ Pipet Tips

Improve your environmental footprint with Corning's innovative hybrid design

Learn more and request a sample >



Axygen LTS Compatible Pipet Tips

Effortless ejection, superior sealing, ergonomic excellence

Axygen LTS Compatible Tips are ergonomically designed to reduce discomfort and optimized to work with Rainin LiteTouch™ pipettors.

Learn more and request a sample >



Inert polyethylene filter reduces the risk of crossover contamination, protecting your samples

Ultra Clear USP Class VI resin

Fine point delivery system ensures crisp sample dispensing



Flexible sealing area optimized to work with LTS pipettors enables less force to be used during pipetting

Graduation lines for quick accuracy checks

Lab Essentials

Spotlight on: Sera



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ARTICLE DOWNLOAD

Cracking the Reproducibility Code: Sera is a Key Component

Fetal Bovine Serum helps cells thrive, but its incredible complexity leads to lot-to-lot variability.

Learn how careful planning can improve the reproducibility of your experiments.

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Corning Fetal Bovine Serum (FBS)

Corning offers a wide variety of FBS options to satisfy applications from research to production. We draw on our fully integrated supply chain, comprehensive product offering, and manufacturing capabilities to help you produce consistent, reliable, and reproducible results.

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Get Your Sera questions answered. Our serum technical team offers full support through your lot selection, evaluation, and scale up process.

[Learn how Corning serum complements our cell culture media portfolio >](#)



Advancements in Precision Medicine: The Crucial Role of 3D Cell Culture

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When searching for oncology precision medicine treatment options, every minute matters. Technological advancements, including the use of **3D cell culture**, have opened the doors to faster, more reliable drug development. By mimicking the biological similarity and complex heterogeneity of the actual tissue, **3D organoid models** enable researchers to better predict outcomes of treatment options, which is especially helpful in testing drugs on cancers that have metastasized to other organs. Now more than ever, scientists are leveraging the benefits of organoids—from predicting treatment responses on cancerous lung and colon cells, to improving the chances of successful organ transplant—instilling hope for patients worldwide.

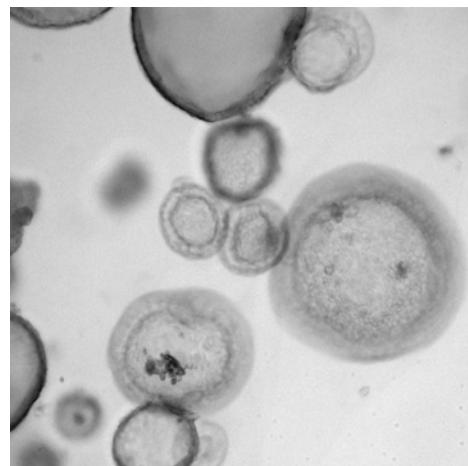
Predicting Treatment Responses

When time is of the essence, it helps to have access to the right tools to overcome workflow challenges. Those studying small cell lung cancer (SCLC) know collecting tissue for treatment screening is challenging, even more so when fighting brain metastases. SCLC is a heterogenous, aggressive cancer with poor survival outcomes; most patients only live about a year after diagnosis. Rapid tumor growth and low survival rates make obtaining viable tissues extremely difficult. In fact, tissue scarcity for primary and metastatic SCLC has been a long-standing obstacle to the molecular characterization of the disease—an issue that Amanda Linkous, PhD, Scientific Manager at the NCI Center for Systems Biology of Small Cell Lung Cancer at Vanderbilt University, knows all too well.

“Organoids are helpful because we can generate miniature tumor specimens in a dish within a microenvironments that mimic human organs,” says Dr. Linkous. “These are tumors that otherwise would not be available to us – aside from a clinic specimen every few months. Now, we can make them on a monthly basis on a very large scale, which allows us to gather more information which would otherwise be very limited if we had to rely solely on specimens from the clinic.”

Organoids are increasingly used in labs around the world, as they enable the researcher to visualize and manipulate organoid cells in real time. Even more, organoids modeling the lung and the brain can be grown in as little as 4-6 weeks alleviating the need for more invasive tissue procurement procedures.

Reflecting tissue heterogeneity is also important for treatment testing and understanding the longer-term success rate of cancer treatments. “Despite the fact that colorectal cancer is a somewhat textbook disease, the therapy has remained the same for over 40 or 50 years,” says Francesco Cambuli, PhD, Senior Scientist at the New York Genome Center. Like lung cancer, in stage IV colorectal cancer, studying the primary tumor is insufficient; the metastasized tumors must be addressed as well. Organoids are well-suited to study treatment responses across organ systems



and are being leveraged to predict tumor behavior and resurgence even in different subtypes of the same cancer. According to Dr. Cambuli, “In one particular type of tumor, there may be five different heterogenic types. The benefit of organoid modeling is that it can be used to study and treat all different types of colorectal cancer.”

Improving Organ Transplant Success

Like cancer, organ transplantation is a difficult feat that is bound by time, especially in vital systems like the liver, as there are no established methods to restore cell function. In fact, most tissue transferred during transplant is lost due to graft failure in the first days after transplant. Precision medicine and 3D cell culture methods present a unique



Amanda Linkous, PhD; Francesco Cambuli, PhD; and Nino Faleo, PhD

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opportunity to supply the body with complex, differentiated liver cells, grown from a human donor and treated to fight disease, that can be transplanted into patients who have lost liver function. Spheroid cultures have demonstrated improved hepatocyte function and resiliency during transplantation through the portal vein or umbilical cord compared to cells grown in 2D cultures.

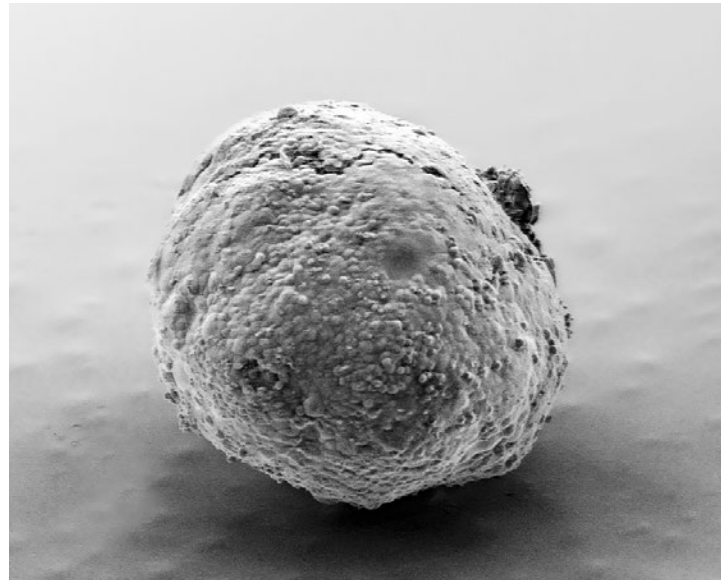
Nino Faleo, PhD, Senior Scientist at Ambys Medicines, is leveraging 3D spheroid technology to push the boundaries of what's possible. "By increasing the complexity of the 3D spheroids we can better mimic the physiology of the liver and enhance hepatocyte function," says Dr. Faleo. "It's exciting to think about the big picture. Having more accurate disease models enables faster drug screening, which decreases the time and ultimately the costs needed to develop new treatments for patients."

Collaboration Drives Innovation

Innovation is made possible by lessons learned through trial and error, and in this case, by passionate scientists and experts who work together to find solutions. Companies like Corning Life Sciences work hand-in-hand with customers to overcome barriers to discovery. "I've had a great experience working with Corning specialists," says Dr. Faleo. "At the beginning, they offered their expertise and brought a lot of product knowledge to the table—which shortened my initial trial period."

And when it comes to perfecting workflows, Dr. Linkous says she can rely on the technical advice from Corning to produce more consistent results over time. "At one point, we had an issue that was causing some of the organoids to stop expanding during a particular step," she says. "It's nice to collaborate with experts who know how to optimize lab staples, like **Corning® Matrigel® matrix**, to overcome those physical challenges."

Precision medicine has come a long way since the Human Genome Project—the accuracy in predicting an individual's response to treatment has significantly increased by using tumoroids (patient-derived organoids) versus the patient-derived cell lines of the past. Scientists have made headway testing the efficacy of anti-cancer drugs on patient avatars, but the possibilities go far beyond drug discovery alone. Advancements in precision medicine and predictive science provide a small glimpse into patient-centric care of the future, which will undoubtedly change the healthcare industry as we know it.



New! Corning® Synthegel® 3D Matrix Kits

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Corning Synthegel 3D matrix kits are defined, self-healing synthetic peptide hydrogel bio-tools for culturing many different types of cells including cancer and stem cells, in a 3D format with robustness and convenience.

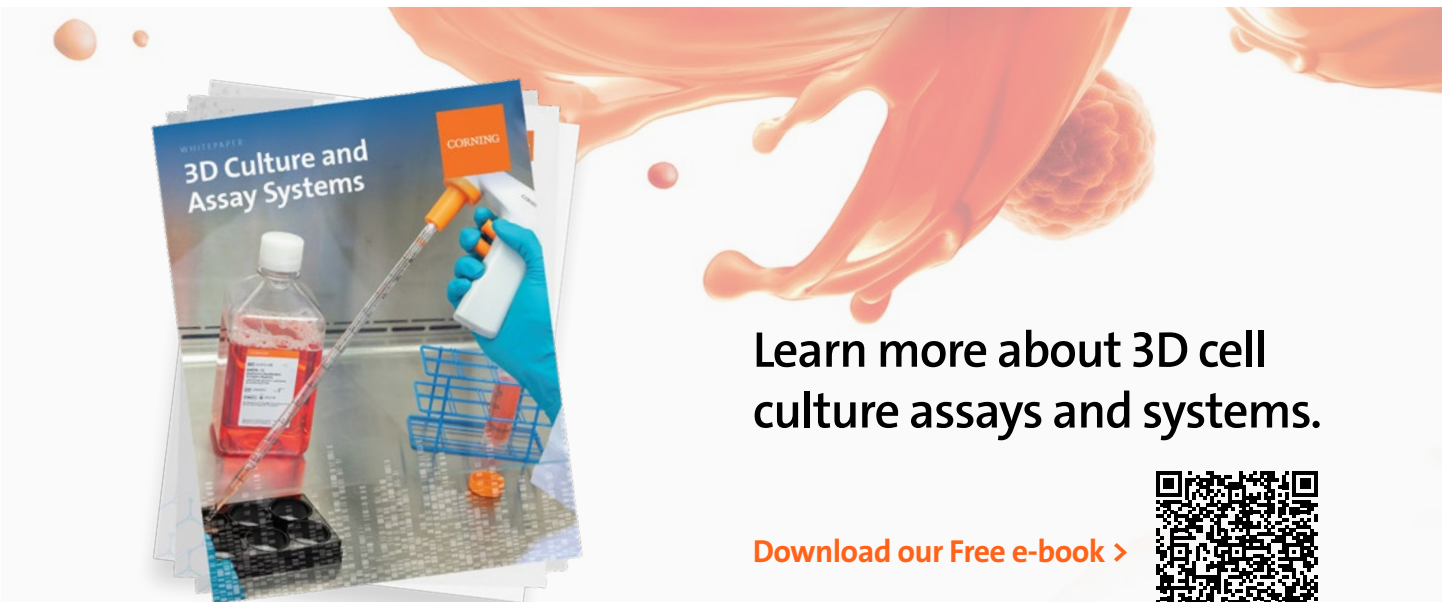
- Ideal for formation and growth of physiologically relevant cancer spheroids
- Allows 3D culture and passaging of hiPSCs in embedded and suspension conditions
- The hiPSC Grow Mix supplement provides a complete culture environment for hiPSC 3D culture
- Purified synthetic peptide in neutral pH
- Matrix rigidity is tunable by altering the peptide concentration
- Fast hydrogel formation (5 to 30 min.)
- Works with standard cell culture methodologies



Ordering Information

Cat. No.	Description	Qty/Pk	Qty/Cs
354787	Corning Synthegel 3D hiPSC matrix kit (10 mL)	1	1 kit
354792	Corning Synthegel 3D hiPSC Grow Mix (1 mg)	1	1
354789	Corning Synthegel Spheroid matrix kit (10 mL)	1	1 kit
354791	Corning Synthegel hiPSC suspension matrix kit (16 mL)	1	1 kit
354792	Corning Synthegel 3D hiPSC Grow Mix (1 mg)	1	1

[Learn more >](#)



Learn more about 3D cell culture assays and systems.

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Corning EcoChoice™ Products

Supply Your Lab. Sustainably.

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You can identify Corning EcoChoice products by looking for the green leaf symbol in our e-catalog.

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Read [this article](#) on 10 Ways to Boost Lab Sustainability with Laboratory Best Practices.

Corning Life Sciences' EcoChoice products are designed with a focus on reducing environmental impact throughout their lifecycle. Corning EcoChoice products meet one or more of the following criteria:

- Recycled content (pre-consumer or post-consumer)
- Source reduction
- Manufactured using environmental attribute certificates (EACs)
- Intensification: products designed to enable greater cell production in a smaller footprint, resulting in less plastic per unit of output

Go Green in your lab

REUSE WITH GLASS PRODUCTS
Switch pasteurizers for glass and replace single-use items with reusable products where possible.

SELECT SUSTAINABLE SUPPLIES
Look for supplies with lifecycle protection and reduce waste strategies. For example, Corning's 2024 20% Recycled Plastic is made using 20% recycled plastic used in manufacturing.

RECYCLE
Recycle paper recycling cart rigid plastics. Plus, supplies that enable recycling.

CORNING ECOCHOICE
Corning EcoChoice products reduce resource consumption and waste through how they're produced, packed and delivered.

Read more about how you can be even more sustainable in your lab.
[www.corning.com/lab/green](#)

Go Green in your lab

Learn how you can be *even more* sustainable in your lab.

[Download the infographic >](#)



Learn from our experts

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Cell Culture Fundamentals: Cryopreservation, Pipetting, and More

9:30 a.m. EST | June 20, 2024



Presented by
Raquel Matos, Ph.D.
Scientific Support Manager
Corning Life Sciences



Advanced Synthetic Peptide Hydrogel for Physiologically Relevant 3D Cell Cultures

11:00 a.m. EST | May 30, 2024



Presented by

Xiuzhi Susan Sun, PhD
University Distinguished Professor
Kansas State University



Elizabeth Abraham, PhD
Director, New Product Strategy
Corning Life Sciences



Understanding and Managing Cell Culture Contamination

11:00 a.m. ET | April 25, 2024



Presented by
Connie MacDonald
Senior Scientific Support Specialist
Corning Life Sciences



2D versus 3D: Benefits of Moving to 3D Cell Culture

11:00 a.m. ET | April 11, 2024



Presented by
Hilary Sherman
Senior Scientist
Corning Life Sciences



How to Use the Corning® Cell Counter

11:00 a.m. ET | May 16, 2024



Presented by
Alex Toomey
Technical Support Specialist
Corning Life Sciences



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