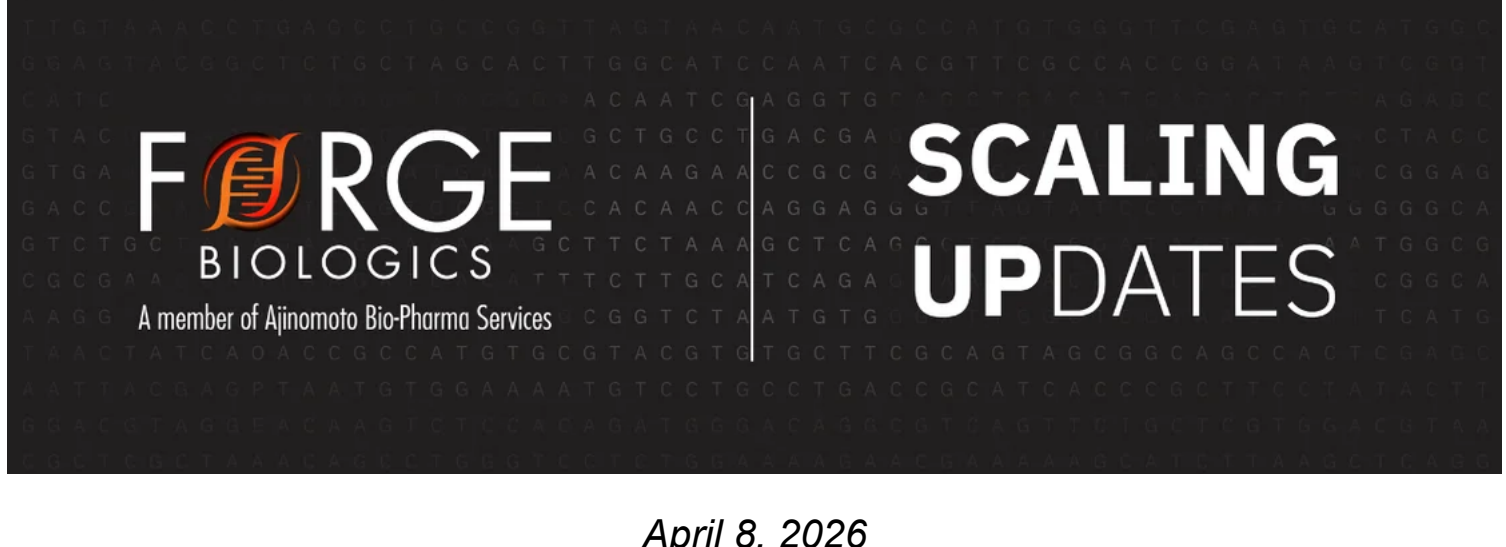




April 8, 2026

This month's newsletter is 505 words—a 3-minute read.



David Dismuke
Chief Technical Officer

Welcome to the April issue of *Scaling Up(dates)*. A strong scientific case is no longer enough; investors increasingly want to see that your gene therapy manufacturing strategy is credible, scalable, and grounded in operational reality. My colleagues have put together a practical framework for an article in *Endpoints News*, from CMC workstreams to the diligence questions investors are asking now. Take a look below.

- **From the Lab:** What investors look for in a gene therapy manufacturing plan.
- **"Viral" News:** Forge honored as a CDMO Leadership Award finalist.
- **Ember Events:** Meet with our team at Med this month.
- **Dr. Barrett's Bench to Batch Advice:** Polyplex doubts.
- **Genes of Interest:** Downstream AAV manufacturing with Vincent Garcia.
- **Factoid of the Month:** A fun fact (and fun way to learn) with strawberry DNA.
- **Gene-ius Jobs:** Seeking a Facilities & Utilities Engineer.

From the Lab

Our latest publication: **"Presenting Your Gene Therapy Manufacturing Plan to Investors: What They Expect in 2026 and How to Deliver It"**



Most AAV gene therapy developers know manufacturing will be a key part of investor diligence. Translating the technical decisions behind that strategy, across vector design, process development, and analytics, is where things often get complex. [Victoria Maharaj](#) and [Rachael Hardison, Ph.D.](#), share a practical framework to help development teams articulate their manufacturing strategy with clarity and confidence, from structuring core technical assumptions around vector design, scalability, and analytics, to anticipating the diligence questions that investors today pose.

The *Endpoints News* article walks through what investors actually expect to see in a manufacturing plan, how early technical decisions translate into timeline and capital implications, and how to present a staged analytical roadmap that signals program maturity.

Read it [here](#).

"Viral" News

The latest and greatest news about Forge

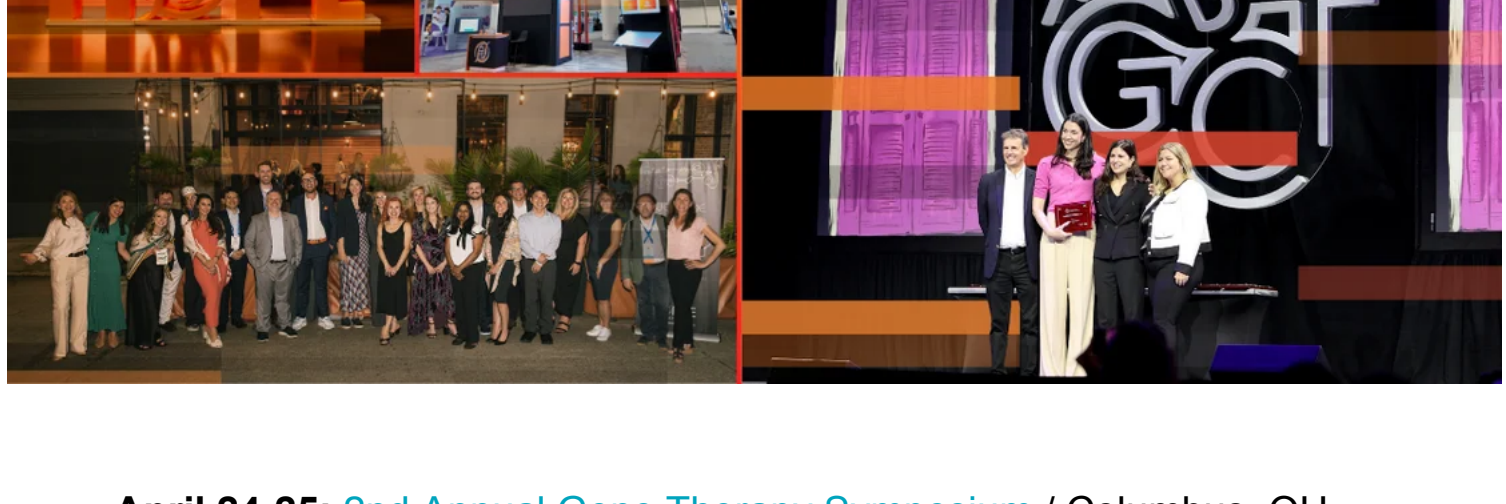


- **March 18,** [The 2026 CDMO Leadership Awards Finalists](#) (Outsourced Pharma/Life Science Connect)

You can always find the latest Forge news [here](#).

Ember Events

Opportunities to connect with our team live at these events



- **April 24-25:** [2nd Annual Gene Therapy Symposium](#) / Columbus, OH
- **April 28-30:** [Cell & Gene Meeting on the Med](#) / Rome
- **May 11-15:** [ASGCT Annual Meeting](#) / Boston
- **June 22-25:** [BIO International Convention](#) / San Diego

Can't make it to an upcoming event? Connect with us [virtually](#).



Every AAV program comes with critical manufacturing decisions and a labyrinth of options. In this new advice column, our **Head of Technical Sales and Scientific Advisory**, [Dr. Brianna Barrett, Ph.D.](#), answers real developer questions about program manufacturing strategy with practical guidance shaped by supporting over 60 gene therapy programs. Consider it direct access to a manufacturing strategist from early planning through delivery.

Dear **Dr. Barrett**,

We've been running our AAV5 process in adherent HEK293T cells in cell factories for two years with acceptable titers. We're now scaling into a 50L stirred-tank bioreactor (SUB) using suspension-adapted HEK293 cells. Our process development lead insists we can directly transfer our transfection conditions using the same PEI:DNA ratio, same plasmid:viable cell ratio, and same harvest time. Is there anything else we should be considering before initiating this batch?

— *Polyplex Doubts*

Dear **Polyplex Doubts**,

Your adherent and suspension processes are not the same biological system in different clothing. These two systems are fundamentally different contexts for transfection, and PEI cares enormously about context. In adherent culture, PEI:DNA polyplexes sediment passively onto a stationary monolayer allowing gravity to work for you. In a stirred-tank bioreactor, that same polyplex must find a cell in a turbulent, impeller-mixed environment. Polyplex size, stability, and endosomal escape kinetics all shift under shear. A PEI:DNA ratio optimized for a static cell stack may aggregate, underperform, or become cytotoxic at bioreactor scale.

"Your adherent process is a starting hypothesis for suspension."

At minimum, I would recommend reoptimizing your PEI:DNA ratio across a range in a benchtop bioreactor or high throughput system such as the Ambr® 250, recheck your cell density at transfection and run a harvest time course from 48 to 120 hours post-transfection. Suspension optimums for cell density are typically tighter than adherent, often 1–3×10⁶ viable cells/mL, and this value is the basis for most transfection calculations.

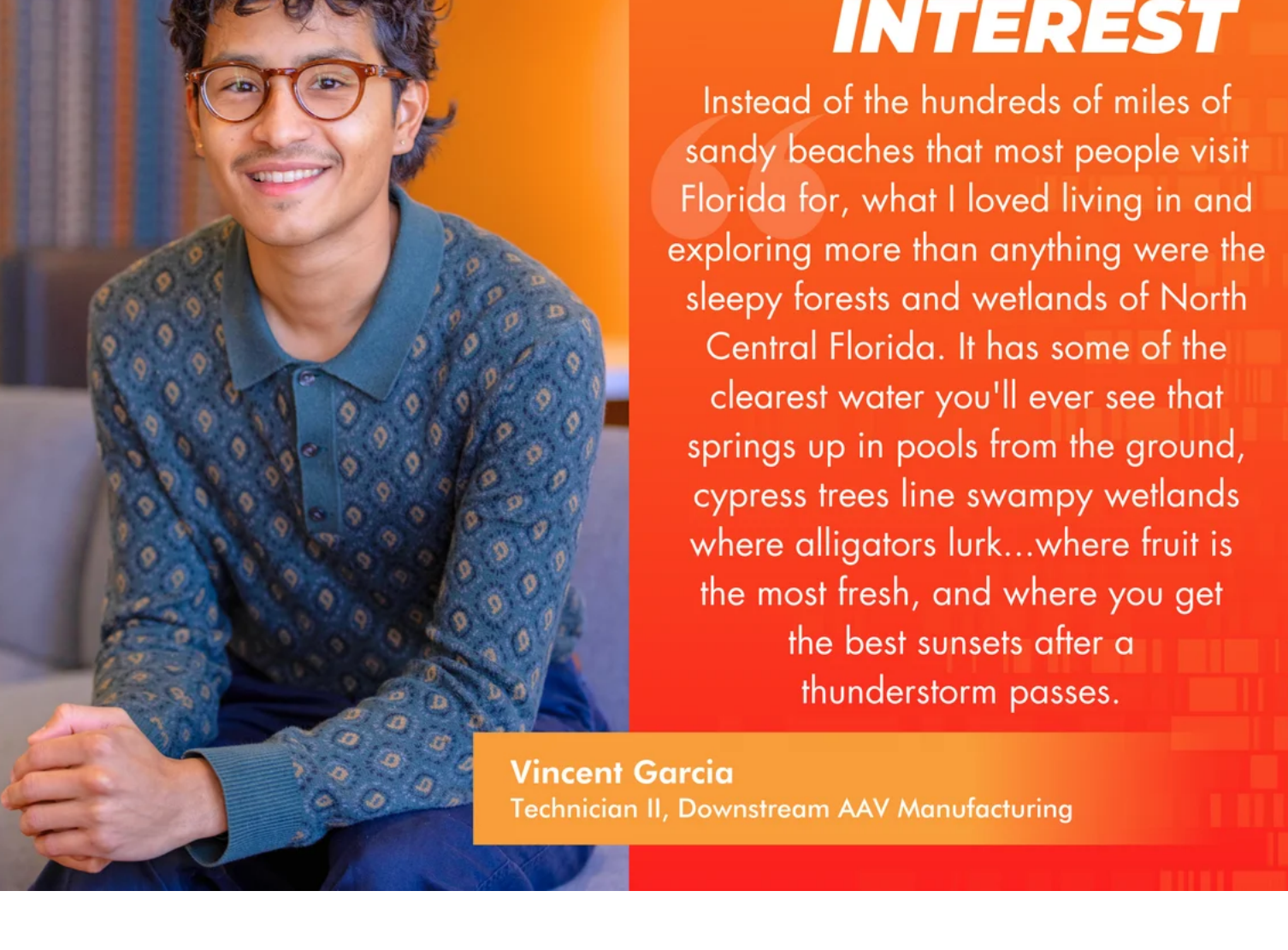
A path to scaling up from adherent to 50L suspension may include parameter optimization design-of-experiments (DOE) in Ambr® 250, process confirmation in 3 x 5 L benchtop bioreactors, then transfer to a 50L SUB. The cost of one failed production run poses a greater risk than the cost of a proper scale-down DOE. Trust your instinct and choose the path that best positions your company for speed and precision.

— *Dr. Barrett, rooting for your polyplexes*

Got a question? [Email Dr. Barrett!](#)

Genes of Interest

Our employee spotlight showcasing the individuals behind Forge that make our team unique



cGMP manufacturing is the operational foundation of our work and depends on the dedication and expertise of the technicians who bring it to life.

Vincent Garcia exemplifies the rigor and pride behind that work. Outside the cleanroom, you'll likely find him in nature. Growing up exploring the forests and wetlands of North Central Florida sparked his lifelong appreciation for the natural world and continues to inspire his scientific curiosity.

Get to know Vincent in our latest [Genes of Interest](#) spotlight!

Factoid of the Month

One Strawberry Cell > One Human Cell (in DNA!) 🍓



Strawberries have more DNA than you do, at least at the cellular level! Humans have 2 copies of each chromosome, but cultivated strawberries have 8, making them octoploid. That means a single strawberry cell contains more DNA than a single human cell, which is one reason they're great for DNA extraction experiments. Through our hands-on strawberry DNA extraction activity, students get to see this first-hand by isolating real DNA using simple materials like dish soap, salt, and rubbing alcohol.

We're all about sparking the joy of science and innovation, and we're proud to volunteer in our local schools to bring that spark directly to students, inspiring them to explore careers in STEM. By igniting curiosity and inspiring future scientists, we're proud to play an active role in building the next generation of biotech leaders. Who knew the path there could start with a strawberry?

Gene-ius Jobs

Featuring the latest career opportunities at Forge



We're seeking a **Facilities & Utilities Engineer** to keep the critical heartbeat of The Hearth, our 200,000-square-foot cGMP facility in Columbus, Ohio, running at its best.

Your hands-on expertise with utility systems like WFI, Clean Steam, RO, and HVAC will help drive reliability, compliance, and continuous improvement across our facility infrastructure, while your project leadership skills will shape how we grow and scale for the future.

Take a look at the job description and browse the latest career opportunities at Forge. [Apply now!](#)

Did someone you know (perhaps a *genius*) forward this email to you, and you want to get it, too? [Subscribe here to receive the Scaling Up\(dates\) newsletter straight to your inbox.](#)

Stay inspired, stay curious, and keep the fires of innovation burning!

Warm regards,
The Forge Team

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