ENDPOINTS NEWS

Meet 20 women leaders reshaping biopharma in 2023

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It's easy to forget that change takes time.

Drugmakers and industry organizations have launched a wave of diversity, equity and inclusion efforts over the last decade, but in some respects, it seems like the needle has barely budged. Women remain vastly underrepresented across biotech's highest ranks, and recent data suggest slow progress.

Until you meet some of the women leading the push. They've created their own networks, empowered other female leaders to launch companies, filed court briefs and spoken up against injustices. They're also behind some of the industry's most cutting-edge science, finding new applications for mRNA, working through solutions to cell therapy's greatest challenges, reviving underserved areas like antibiotics and women's health, and exploring new frontiers in diagnostics and decentralized trials. Their contributions to medicine and to the women of future generations are immeasurable.

For the fifth consecutive year, we're pleased to introduce you to 20 exceptional women in biopharma R&D who have dedicated their careers to making change happen, however long it takes. — *Amber Tong and Nicole DeFeudis*

ENDPOINTS WOMEN IN BIOPHARMA R&D, 2023

HIGHLIGHTS

CSO, Palleon Pharmaceuticals

Li Peng: Chief scientific officer charts a 'new future' for cancer treatment

Li Peng was building antibodies at MedImmune's Maryland headquarters when she stumbled upon an overlooked approach to treating cancer. Months later, she moved her family to Boston to pursue what she calls a "new future" for oncology drugs.

It was known for decades that some patients' tumors have an abundance of sialoglycans, complex carbohydrate chains that are attached to proteins and lipids, and those patients tend to do worse. Later, scientists discovered that these cell-surface glycans trick the immune system, preventing immune cells from detecting and attacking cancer cells.

Palleon Pharmaceuticals was built around the discovery that the upregulation of sialoglycans suppresses the immune system in more than half of cancer patients. Peng was introduced to the company's CEO Jim Broderick in 2016, just as he was closing a $47 million Series A on the promises of research from scientific co-founder Carolyn Bertozzi. Peng joined months later as a senior director of discovery, and in 2020 became the company's first chief scientific officer.

"This field has been overlooked," she said. "We're even now still underappreciated by a lot of basic researchers, also drug hunters [and] drug developers."

Palleon's current approach is to use an enzyme to cleave off the sialic acid at the end of sialoglycans, preventing it from binding with inhibitory receptors called siglecs. Bertozzi has compared the company's experimental therapy to a lawn mower, clipping off the sialic acid.

The concept has some logical similarities to checkpoint therapies, and in some of the first preclinical models, Palleon's enzyme demonstrated "very robust anti-tumor activity," Peng said, comparable to PD-1/PD-L1 blockade. Peng said she didn't sleep for days after seeing the data.

"I couldn't fall asleep because of the excitement about the science and the potential," she said. "If this works, it's a new dimension of treating patients."

But in early attempts, Bertozzi's enzyme was bacterial, and the team needed a human one — which was much more fragile. They screened millions of variations, until finally in 2017 the team's enzyme survived, queuing another restless night.

Palleon's technology has since evolved, and Peng is now shepherding the first program through the clinic. The company recently brought Phase I data to AACR suggesting its lead candidate E-602 showed signs of dose-dependent desialylation and immune system activation. It was also "well-tolerated across the entire dose range evaluated with no dose limiting toxicities," according to the company.

"If you understood the glycoscience, it's in retrospect obvious, hiding in plain sight," Bertozzi told Endpoints at AACR in April. "I anticipate that history will look back on this with the big question like, 'Why didn't people look at this sooner?'"

The company has determined the right dose to bring into Phase II, and CMO Dave Feltquate suggested earlier this year that the candidate may ultimately be combined with other therapies in pursuit of potential cures. The company also sees potential for the platform in inflammatory diseases.

"It's even more exciting than I had thought when I joined Palleon," Peng said. "This is a new future, a new dimension." — *Nicole DeFeudis*