

## **Gamma Biosciences Acquires Nanopareil to Advance Next-Generation Purification Capabilities of Astrea Bioseparations**

- Next-generation nanofiber membrane to complement Astrea's ligand discovery capabilities and bioseparation products, expanding Gamma Biosciences' downstream purification offering
- Novel, non-woven, high capacity nanofiber technology enhances Astrea's chromatography offering and addresses increasing demand for improved downstream processing solutions for advanced therapies

Menlo Park, CA and Cambridge, UK (September 30, 2020) - Gamma Biosciences, a life sciences tools platform created by KKR, today announced that it has acquired Nanopareil LLC, a South Dakota, US-based company developing next-generation nanofiber membrane products for chromatographic separation in bioproduction. Nanopareil's membrane technology employs a novel, durable nanofiber structure that offers significant performance advantages compared with conventional chromatography resins as well as similar, non-resin-based separation technologies.

Gamma will operate Nanopareil as part of its existing subsidiary, Astrea Bioseparations. Together with Astrea's recent acquisition of Essential Life Solutions, the US-based developer of SNAP® brand chromatography columns and other accessories, Nanopareil positions Astrea as a leader in next-generation, downstream purification for biopharmaceuticals and advanced therapies. Matt Gunnison, President of Gamma Biosciences, commented "We are excited to bring Nanopareil into the Gamma family as part of Astrea. Nanopareil's highly innovative technology and deep expertise in the field of bioseparations supports our commitment to help our customers achieve new levels of process efficiency and performance."

Dr Steve Burton, CEO of Astrea Bioseparations, added "Nanopareil's robust and highly porous nanofiber membrane provides significant performance advantages in comparison to beaded chromatography media and competing non-woven membranes, including very high surface area and binding capacities, as well as pore sizes compatible with today's larger advanced therapies. With almost instantaneous binding and residence times in the region of one second, Nanopareil brings a combination of features that addresses key challenges currently faced by the biomanufacturing industry."

The acquisition complements Astrea's ligand discovery capabilities, expanding its range of derivatizable substrates to develop custom separation products for a wide variety of biopharmaceutical applications. Gamma plans to invest substantially in further productization and technology development, application development and customer support as it establishes Nanopareil as a key platform within Astrea's growing range products.

"We are equally excited to be joining the growing team of world-class professionals at Gamma Biosciences and Astrea," said Dr. Todd Menkhaus, Co-Founder and CSTO of Nanopareil LLC. "We look forward to our collaboration that will bring forward Nanopareil's technology to dramatically improve downstream purification operations for biopharmaceuticals"

"From our first meeting, we quickly developed an extraordinary partnership with Astrea" said Craig Arnold, CEO of Nanopareil LLC. "The Astrea team has a strong track record of bringing innovative

new products to the market. With their leadership and capabilities, Nanopareil will be well positioned to become the next-generation market leader.”

Nanopareil was advised in the transaction by John Chickosky of Binder Associates, GmbH.

### **About Gamma Biosciences**

Gamma Biosciences is a life sciences tools platform created by KKR. Gamma’s mission is to build a leading player in next-generation bioprocessing for advanced therapies by acquiring high-potential businesses with outstanding technology and accelerating their growth. For more information about Gamma Biosciences, please visit [www.gammabiosciences.com](http://www.gammabiosciences.com).

### **About Astrea Bioseparations**

Astrea Bioseparations Ltd. (formerly Prometic Bioseparations Ltd) provides bioseparation products to the pharmaceutical and biotech markets, including chromatography adsorbents, custom adsorbent discovery and development services and pre-packed chromatography columns and column hardware. A wholly owned subsidiary of Gamma Biosciences, a life sciences tools platform supported by KKR, Astrea Bioseparations has R&D laboratories located at Cambridge, UK and manufacturing facilities located at the Isle of Man, British Isles, Joliette, Quebec, Canada and Stoughton, Massachusetts, USA. For more information about Astrea Bioseparations, please visit [www.astreabioseparations.com](http://www.astreabioseparations.com).

### **About Nanopareil**

Nanopareil, LLC was founded on the campus of the South Dakota School of Mines and Technology (SDSMT) and was a beneficiary of several projects sponsored by the US National Science Foundation. Nanopareil’s range of products will allow customers to benefit from off-the-shelf installation into existing manufacturing processes while providing industry-leading binding performance and production advantages, including faster throughput, lower operating pressure, higher adsorptive capacity, less water consumption, less waste generation, and greatly improved manufacturing simplicity and reproducibility to realize the promise of end-to-end single-use biopharmaceutical manufacturing. For more information about Nanopareil, please visit [www.nanopareil.com](http://www.nanopareil.com).