



Modern Meadow Wins 2023 EPA Green Chemistry Challenge Award

Nutley, New Jersey, U.S.A. (October 23, 2023) – The U.S. Environmental Protection Agency (EPA) has awarded Modern Meadow, a purpose-driven biotechnology company with mission to enable world transition to sustainable materials, its prestigious Green Chemistry Challenge Award in the Small Business Category. Modern Meadow was one of the just five 2023 Green Chemistry Challenge Award winners who were honored at a ceremony at the National Academy of Sciences, Washington D.C. on October 23, 2023.

The EPA recognizes Modern Meadow with this prestigious award for creating Bio-FREED™, Fast Resources Efficient Enhanced Dyeability technology, powered by Bio-Alloy™, a more a more efficient textile dyeing process that uses less water, energy, dyes, and chemicals compared to traditional methods.

"All of us at Modern Meadow are very honored by this award," said Dave Williamson, CSTO. "I would like to thank the EPA for considering our contributions to green chemistry and making textiles more sustainable. I want to thank our dedicated team of scientists and engineers for inventing, developing, and scaling methods for greener and cheaper textile dyeing processes. I also want to thank our formulation, field development, commercial, operations, and corporate development teams for paving the way to pilot our technology at one of the highly respected and regarded textile mills Limonta, where they will have a great impact due to their potential to reduce the need for water, energy and chemicals."

Bio-FREED™ Fast Resource Efficient Enhancing Dyeing powered by Bio-Alloy™ delivers the textile industry a greener one-step dyeing system that is a drop-in to replace the commonly used three-step dyeing process. Bio-FREED™ is a one-step continuous dyeing process that reduces up to 95% water use, reduces 80% of dyes applied, and decreases energy use by approximately 67%. Up to 95% of water reduction is achieved by eliminating two of the three water-intensive steps. The 80% dye usage reduction is achieved through precision delivery of the dyes to the fiber surface in the textile. The 67% of energy saved is the result of eliminating two energy-intensive steps. Bio-FREED™ textiles can also be pre-dyed or post-dyed, giving the textile industry new and unique design efficiencies, e.g., dyeing garments after they are made, thereby gaining additional environmental and supply chain benefits.

The ability to precisely deliver protein functionality to fiber surfaces is expected to provide a path toward textile circularity. Applying the Bio-Alloy™ to a textile preserves the fiber properties without introducing covalent bonds between the Bio-Alloy™ and the underlying fiber substrate, therein preserving the fiber for future use.

The Bio-FREED™ process is unique in that it also increases production efficiency while improving the resistance to color migration for polyester fibers. Furthermore, it also offers a greater reduction in both water and energy use relative to the ECOFAST Pure technology claims.

About Modern Meadow:

Modern Meadow is a purpose-driven company positioned at the intersection of material science and biology with a mission to be a catalyst for real-world impact on people and the planet. Our proprietary technology application platforms, Bio-F@rm™ (protein design and fermentation) & Bio-Alloy™ (protein and polymer tunable miscible blend), harness the unique properties of proteins to sustainably move the world away from petrochemical and animal-derived inputs without compromising on performance. These innovations can drop into any existing manufacturing infrastructures for immediate scalable adoption in the materials, beauty, biomedical, and other

industries. Our close relationship with industry-leading development partners and production facilities allows companies partnering with Modern Meadow to feel confident knowing our high-quality products are 100% traceable from Lab-to-Brand™.

For more information, visit www.modernmeadow.com.

About EPA's Green Chemistry Challenge Awards

Since the inception of the awards more than a quarter century ago, EPA and the American Chemical Society, which co-sponsor the awards, have received more than 1,800 nominations and presented awards to 133 technologies that decrease hazardous chemicals and resources, reduce costs, protect public health, and spur economic growth. Winning technologies are responsible for annually reducing the use or generation of hundreds of millions of pounds of hazardous chemicals and saving billions of gallons of water and trillions of British thermal units (BTUs) in energy.