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# Biotechnology meets fashion

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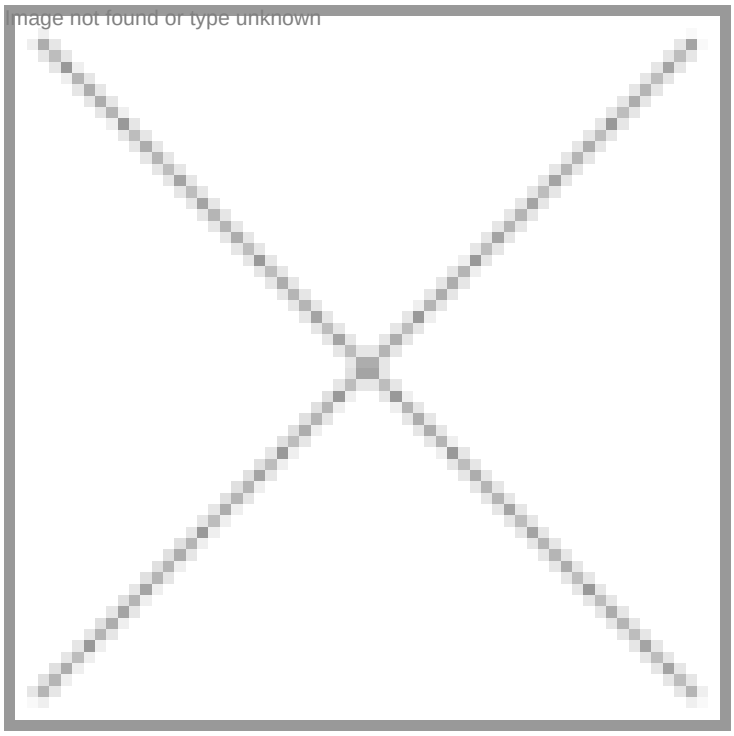


## Biotechnology meets fashion

*BIO 2006 was used as a platform to display apparels, gowns and other dresses made from polyactic acid (PLA), a polyester derived completely from corn rather than petroleum.*

A tall Chinese model sashayed down the aisle in a cream hemp/silk gown and another Korean supermodel did the same in a beige patterned gown during the BIO convention in Chicago. Fashion and biotech. What is the connection?

Lots. The models were wearing the gowns which had the overlay made with Ingeo, a fiber made using biotechnology tools. And these clothes were designed by some of the top designers like Oscar de la Renta, Halston and Elisa Jimenez. And there were other models and even some BIO staffers who did the catwalk at a special session in a variety of biotech-based clothes: a racerback tank dress, Korean crew cream jacket, short sleeve shirt with floral accents and a sheer Ingeo gown with wings.

Ingeo is one of the world's first commercially available family of fibers made entirely from renewable resources. Developed by NatureWorks, a subsidiary of Cargill, the fiber is produced from natural plant sugars and corn using a patented technology. The polylactive polymer is branded as Ingeo and is biodegradable.

Biotech fashion show is gradually becoming mainstream. The first show was held as the FutureFashion Runway show in February 2005 during the New York Fashion Week by a group of designers under the aegis of Earth Pledge.

The New York Times declared the elegant evening gown designed by de la Rent for the show which had ethereal layers of corn fiber and an ivory hemp/silk blend to be a "new collectible." And that began a rush for these fashion garments. The show had other garments spun with fibers from bamboo, cotton and other such materials.

Experts predict that fashion garments and clothings and home furnishings made from these new class of biodegradable, environment-friendly products could become a $15 billion business in a few years, emulating the success of organic food and beauty products.

Bio-based textiles is the new rage. Not just fibers, biotech is providing environment-friendly textile manufacturing processes. Take the case of stonewash jean. Earlier, the jeans were washed with acid and pumice stones which were extracted from strip machines using heavy machinery. This energy intensive process has been replaced by enzymes. The enzyme-based "stonewash" process requires much less energy and it does not damage the jeans fabric. Similarly, enzymes are increasingly used to soften fabrics for making khakis and other clothing. Enzymes are used to treat and degrease leather instead of petroleum-based solvents.

Bio-based fabrics is all set to swamp the shelves around the world in a few years.

## Syngenta, DuPont pact broadens product offers

Two seed industry leaders, the $ 8.1-billion Syngenta and the $ 26.6-billion DuPont have formed the seed industry's first ever joint venture to provide their proprietary corn and soybean seeds, genetics and biotechnology traits to farmers in North America and expand the joint offering worldwide soon.

The joint venture, GreenLeaf Genetics, will have equal shareholding by the Swiss company Syngetna and the US-based Pioneer Hi-Bred International, a subsidiary of DuPont. The two companies have decided to cross license certain corn and soybean traits so that each company will market independently under their own seed brands. The agreement includes rights for Syngenta to market the new Optimum herbicide tolerant train developed by DuPont. The announcement was made at BIO 2006 Chicago.

"This is outstanding news for growers and the seed industry because it will make available a new and unique pool of corn and soybean traits and genetics from both companies' research efforts. As a result, North American growers will have access to broader product choices and technologies," said Mijke Mack, COO of Syngenta Seeds.

"The joint venture and the licensing arrangements bring together the strength of two industry leaders to deliver new technologies to the market more quickly," said Dean Oestreich, president of Pioneer and a vice president at DuPont.

Through the cross-licensing agreements, Syngenta will receive a global license to the Optimum trait, a DuPont proprietary glyphosate and ALS chemistry tolerant trait for both soybeans and corn to be marketed in conjunction with its Agrisure brand of traits.

DuPont will receive the global license to Syngenta's insect resistance technology for European corn borer, corn rootworm and broad lepidopteran control as it develops the next generation of insect traits.

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