

Perth beer dress goes from backyard shed to catwalk

March 25 2015, by Michelle Wheeler



Donna Gary Cass' and Donna Franklin's beer dress. Credit: Adam Scott

Exactly 75 years after nylon was introduced at the World Fair in New York, a dress created from beer in a Perth backyard shed is set to premiere at the World EXPO 2015 in Milan.

The garment is the brainchild of Perth creative scientist Gary Cass and local fashion designer Donna Franklin, and was made using bacteria to ferment the amber brew.

The result is a unique fabric with fibres that are chemically similar to cotton, known as [Nanollose](#) microbial cellulose.

"You add a bacteria called Acetobacter, which is a naturally found, friendly, non-infectious, non-harmful bacteria, into the liquid beer," Mr Cass says.

"That bacteria will 'drink' the beer and then convert the beer liquid into a solid fibre."

The project comes after Mr Cass and Dr Franklin famously created a [wine](#) dress inspired by a mistake Mr Cass made while working at a vineyard in the 1990s.

He accidentally allowed oxygen into a vat of wine, an oversight that allowed Acetobacter to grow and set off a natural process that would become the foundation for the new fermented fabric.

"[The [bacteria](#)] got in, we forgot to look at it for a week and within the week we had converted 10,000 litres of wine into this mat that we're now using to make dresses from," Mr Cass says.

While the original wine dress needed to be kept wet at all times, the beer dress can be worn more easily.

Mr Cass says the dress has no smell.



The beer dress. Credit: Adam Scott

"What we've done with the advanced technology that we've been able to achieve over the last year is make this material flexible now while it's dry," he says.

"This really now opens it up for the fashion industry and for commercialisation."

About 20 million people are expected to attend the World EXPO in Milan but it is not just the high fashion world that has the dress' creators excited—it is also the technology's potential for use in medical applications.



The result is a unique fabric with fibres that are chemically similar to cotton, known as Nanollose microbial cellulose. Caption: Adam Scott

Mr Cass says it has been shown certain stem cells will adhere to the material and small patches of the fabric can be used to scaffold tissue.

"The great thing about the cellulose in this mat is it's inert in the body, so we can leave that patch...for the lifetime of that patient," he says.

The [beer](#) dress' creators are currently looking for partners to develop the technology further.

Provided by Science Network WA

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