

Transcription of Enterprising Australians video Gary Cass – Fermented Fashion

The video for this transcript can be found on the Questacon YouTube channel at:
<https://www.youtube.com/watch?v=-RIRdUSA19c>

Transcription from video:

[intro music]

Gary: My name's Gary Cass, I call myself a creative scientist. That's someone who uses scientific objects for a creative outcome.

My invention is Fermented Fashion. That is, the first dresses in the world made from the bacterial fermentation of wine, beer and coconut water.

It happened about 20-odd years ago in a vineyard, down in the South West of Australia where I made a mistake in the winery.

I contaminated a vat of wine with some of this bacteria. Now it was a non-harmful, non-infectious bacteria and that bacteria called acetobacter converted the wine into vinegar.

The byproduct of that conversion of wine into vinegar is this slimy, sludgy material that formed on top of the vat.

Many years later, when I was working with a fashion designer Donna Frankline and we were looking at the future of fashion and trying to find more environmentally sustainable fabrics, my mind shot back to this material that I had found in the vineyard.

We did a bit of research into this material that I had found in the vineyard. We did a bit of research on this material and found that it was a cellulose product.

Now, if we know anything about cellulose and cellulose fibres, that's what cotton is made from. So it didn't take us too long to work out that if it was a cotton-like material, we can make garments from it.

We were having a bit of fun initially. You know, myself and Donna in the laboratory. We were putting these garments together.

We did a photoshoot, and all of a sudden, the world's just got hold of it and it just went crazy.

So that sort of drove us on to making more garments, to try and improve the garments, making them more wearable, which we're still doing today.

One of the other industries that we'll look into will be the horticulture world.



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We can now actually grow plants and germinate the seeds on this medium.

Nanallose's plant-free cellulose fibres are very similar, physically, to collagen fibres.

We've now found that we can grow eardrum cells, liver cells, human and muscle cells, on our fibre.

So all of a sudden we're going to try and see if we can use our plant-free cellulose as a scaffold for regenerative tissue engineering.

Within the next year or two, we would like to get our plant-free cellulose fibres out into the fashion world.

We want the world to be wearing our garments.

I believe that it's not what you know and how much you know, but on your ability to be creative. It's these creative people that will be the problem-solvers of the future.