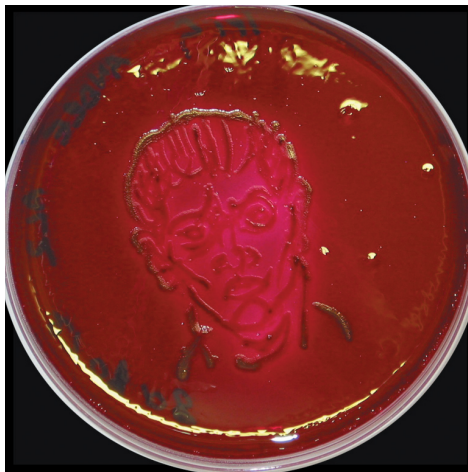


## A BIOLOGICAL EXPRESSION

The fact his original self-portrait can never outlive him inspires Andre Brodyk in a way no Old Master ever could.



Photos: Andre Brodyk

“

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While the clichéd image of an artist involves sun-drenched studios, berets and paint-splattered smocks, you will most often find Brodyk at work in a University of Newcastle biology laboratory wearing a white coat, gloves and safety glasses.

It is a clinical environment but to Brodyk the lab is an awe-inspiring Aladdin's cave of unexplored artistic possibilities.

Pushing the boundaries of expression, the fine art lecturer works at the interface of art and science, using molecular biology processes and live genetically modified media to create experimental artistic interpretations.

His paint is genetically modified organisms (GMOs), his brushes syringes and his canvases Petri dishes.

In short, Brodyk grows DNA in living substances as media, then watches as his art progresses to its natural conclusion – to glow, sharpen or fade, according to how he has engineered the matter.

His particular interest is 'junk', or non-coding DNA, from which he creates his novel scripts by engineering them into bacteria.

Brodyk works under the supervision of biochemist Associate Professor Peter Lewis in the School of Environmental and Life Sciences in collaboration with one of Lewis' PhD students, Ryan Withers.

Brodyk has been working with molecular biology processes for six years and was the first Australian artist to create and exhibit GMOs in 2002. Since then, his work has been shown nationally and internationally.

His latest exhibition consisted of junk DNA transformed into the genomes of a strain of *Escherichia coli* bacteria and synthetic versions of markers coding for either a green or red fluorescence protein.

Using a fine artist's sable brush, almost invisible miniature images drawn onto nutrient agar gels were incubated to slowly reveal themselves as coloured two- and three-dimensional images.

It may seem like an unusual choice of medium for an artist but to Brodyk it is the natural thing to do.

"This is an extension of art," he explained. "That is what artists do. They re-interpret and manipulate materials to create something new. It just happens that my interest is in junk DNA and genetic engineering.

"Artists have used living materials since the 1930s but what I am doing is creating new art as an extension of that."

Brodyk's latest work is centred on his interest in a chain of non-coding DNA found in genes informing Alzheimer's disease. Using the gene inserted into *Escherichia coli* bacteria, he has created a series of tiny line drawings of his face sealed into Petri dishes.

The individual artworks are stored at different temperatures to either slow down or quicken the natural deterioration which occurs in the genetic material.

Using time-lapse photography, Brodyk will shoot the almost-imperceptible deterioration of the faces and exhibit them as an accelerated video projected onto a Petri dish accompanied by the deteriorating live art.

"The work is a metaphorical representation of the way late-onset Alzheimer's may lie dormant inside a person for many years without giving a visual indication that it was present," Brodyk said.

"We cannot see it, we only notice its effects gradually as it begins to manifest itself in the decline of someone's identity and personality."