



Kathy High's *Blood Wars* uses donated blood to stage a Petri-dish contest between white blood cells.

CULTURE

Art that touches a nerve

Anthony King explores a Dublin exhibition that exposes the controversies of synthetic biology.

Do not expect an easy stroll through this exhibition. Visitors to *Visceral* at Dublin's Science Gallery may recoil at books made of human and pig skin or stand stupefied as hundreds of crickets watch a lecture on their own sex lives. On opening night, you could gaze at a film projected onto a living screen made of fish corneas and live human sperm, or listen to the Beach Boys' *Good Vibrations* mixed with farm sounds and pumped through a cow-bone audio speaker.

The works aim to twang a raw nerve rather than shock visitors, explains exhibition co-curator Oron Catts, who became interested in the life sciences as a design student in Perth, Australia, more than 15 years ago. He began the Tissue Culture and Art Project after visiting the lab of tissue researcher Miranda Grounds at the University of Western Australia, Perth. Early work on tissue engineering had disturbed and challenged him. "We are starting to treat biology and life as a raw material for us to engineer," he notes.

In 2000, with co-curator Ionat Zurr, Catts founded SymbioticA, an artistic research lab in the university's school of anatomy and human biology. The Dublin exhibition marks

**Visceral:
The Living Art
Experiment**
Science Gallery, Trinity
College Dublin.
Until 25 February
2011.

the lab's tenth anniversary. SymbioticA takes things that scientists view as mundane and repositions them so they seem strange, necessitating reassessment. Its visual art awakens views on the ethical and moral quandaries of biology.

Direct engagement with biotechnology is pivotal to SymbioticA's philosophy, so its artists wield the same tools as biologists. For example, Catts grew meat in the lab and ate it as a cultural comment in 2003. Artist Abhishek Hazra asks viewers of the exhibition to imagine a situation in which a rogue state must harness human biomaterials to create fertilizers and explosives. In a fully functioning lab within the gallery, his art experiment attempts to extract ammonia from breast milk. The political and scientific resonance is powerful.

During the exhibition, volunteers will donate blood for *Blood Wars*, a staged contest between individuals' white blood cells in a Petri-dish theatre. After a few hours, one set of cells will have destroyed the other. The artist, Kathy High, seeks to engage with debates

about blood traits and inherited diseases. She has Crohn's disease, and suggests that her cells are at an advantage in the contest because they are sensitive to foreign cells.

SymbioticA also explores how the language of engineering has filtered into biology. Catts cites unsettling precedents, such as the use of eugenics in the Nazi era, when a "mechanistic or engineering view of life was deployed". Synthetic biology is on his list of research topics owing to its pervasive engineering logic. In 2002, Catts's tissue-culture project lampooned "the hype" of the Human Genome Project by promising to grow pig wings.

An exhibit named *The Vision Splendid* displays living tissue from cells purchased

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online, originally obtained in 1969 from a 13-year-old African-American girl. We are asked to ponder how many of her cells may now live beyond her original body. "What is happening in life sciences now is exciting, but we don't really have a cultural language to engage with it. We can't articulate it outside of the science lab," says Catts.

This prodding of the public through disturbing visual-art installations has proved a success. The Tissue Culture and Art Project has an exhibit in the Museum of Modern Art, New York, and SymbioticA has a programme of residencies, research, academic courses, seminars and workshops. Catts notes that its work was mentioned in a paper for the US Congress on bioethics, and that the artists are often invited to comment about the impact of modern biology on culture. SymbioticA also set up the world's first master of biological arts degree programme.

Artists and scientists say that the frontier spirit of Perth — one of the world's most isolated cities — has had a big role in allowing SymbioticA to flourish. The lab does not have a display area for its works, and has had more impact beyond Australia. Its collaboration with Dublin's Science Gallery was born out of a common cause: a way to engage with science that is artistic and cultural rather than didactic.

Grounds, the researcher who first opened her lab to Catts, admits that this type of art can be challenging because you must "tune into it and learn the detail before you appreciate what it represents". But a gut response is hard to avoid. The last day of the exhibition will see a 'killing ritual' and funeral, devised with the help of the audience, to dispose of *Visceral's* living materials. ■

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