BLOOM

an immersive 360° interactive installation with 16-channel sound
by Linda Dement, Laura Splan & the Cardiovascular Regeneration Group
interactive environment production by Michael Bullo

On View during AusBioprint™ on 2 December 2024
Viewing Hours: 10:00AM–11:30AM / 12:00–2:00PM / 3:00–4:00PM
UTS Data Arena, Building 11, Ground Floor, Room 101
Free and open to the public
Spoken description of visuals & text description of audio

A biotechnical underworld layered with artefacts from cardiovascular bioprinting research. Circumscriptions of scientific success and failure are destabilized in entangled structures strewn with microscopy, molecular models, images, particles and sounds.

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Laura Vettori
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ABOUT "BLOOM"

From the deepest mud grows the most beautiful lotus.
—Thic Nat Han

"Bloom" is an immersive interactive experience created by Linda Dement and Laura Splan in collaboration with the Cardiovascular Regeneration Group at UTS. The otherworldly 3D environment invites viewers to traverse a biotechnological landscape layered with artifacts of the laboratory. Circumscriptions of scientific "success" and "failure" are destabilized through an audiovisual entanglement of digital and biological worlds. A landscape strewn with microscopy, molecular models, photographs, and sound recordings creates poetic connections among the often-unseen detritus of the scientific process of experimentation and observation.

In research, as in making art, our hypotheses and ideas meet formidable material resistance when we attempt to make them real. More often than not, we fail. Again and again, our well-articulated theories and preconceived beliefs collapse in wreckage. From that wreckage though, an authentic trajectory can reveal itself.

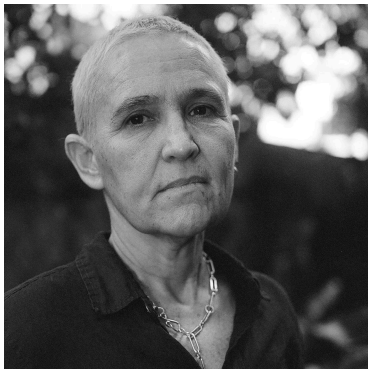
"Bloom" both visualises and connects material aspects of failure and success from the scientific research process. Giant root systems draw from an underlying swamp of breakage, waste, infection and noise to feed delicate glowing molecules of success far above. If we venture close to those perfect molecules, they fall apart. In the immersive space we can travel from the black depths up to the glowing surface, venturing closer in or pulling back for a wider view anywhere along the way. Ethereal sounds and animations are triggered as we explore the terrain.

The root structures function as a scaffold that situates both computer-generated and photographically documented imagery. A series of 3D protein models represent the ingredients of hydrogels fabricated by the Cardiovascular Regeneration Group for 3D bioprinting. The protein models reflect AI-generated images created with text prompts that included excerpts from the CRG's bioengineering research. Images and textures on the roots include photography and microscopy donated from the CRG's failed bioprinting experiments. The soundscape was composed from the artists' field recordings made in biotech laboratories including robotic machines, drains, scanners, and automated devices, as well as direct contact microphone recordings of bioprinters.

Project Webpage

Spoken description of visuals & text description of audio

ABOUT THE COLLABORATORS



Linda Dement is an Australian multidisciplinary artist with a longstanding interest in bodies and technologies. Originally a photographer, her digital practice spans the programmed, performative, textual and virtual. Dement's programmed and still image work has been widely exhibited internationally and locally, including at the Institute of Contemporary Art London, Ars Electronica Austria, multiple International Symposia of Electronic Art and Impakt Media Arts Festivals in Europe. She is twice winner of the Australian National Digital Art Award and has been awarded a New Media Arts Fellowship by the Australia Council for the Arts. Her work is held in collections such as the Bibliotèque Nationale de France, ArtBank, Australian Video Art Archive, New York Filmmakers Co-op and the Daniel Langlois Foundation. (Photo Credit: Jessie Boylan)

Laura Splan is an American artist working at the intersections of Science, Technology, and Culture. Her research-based studio practice and interdisciplinary collaborations culminate in multimedia artworks, exhibitions, and events. Her work reframes artifacts of the posthuman landscape to interrogate the "GUI/gooey" or liminal spaces that mediate our relationship to nature and to our bodies. Splan's artworks and exhibitions have been presented at the Museum of Modern Art (NYC), Brooklyn Museum (NYC), Musea Brugge (Bruges), Centre d'Art Santa Mònica (Barcelona), and The Nobel Prize Museum at Liljevalchs (Stockholm). Commissions include projects for the Bruges Triennial, Vanderbilt Planetarium, and the Beall Center for Art+Technology. Her research has been supported by the Simons Foundation, EY Metaverse Lab, and NEW INC at the New Museum. Awards include AS220's National Endowment for the Arts Digital Arts Fellowship. (Photo Credit: Danielle Ezzo) @laurasplan

The Cardiovascular Regeneration Group at UTS is led by Dr. Carmine Gentile, an internationally recognized expert in 3D bioprinting and stem cell technologies. His recent studies focus on novel molecular and cellular approaches to treat cardiovascular disease, including myocardial infarction and heart failure. These studies are based on the use of "mini-hearts" he developed as "bioink" for human heart tissues. In 2016, he was invited as Visiting Research Fellow at Harvard Medical School, where he worked towards novel in-vitro models using mini-hearts to study human heart physiology.