

UCI Claire Trevor School of the Arts

Beall Center for Art + Technology
712 Arts Plaza
Irvine, California 92697-2775

NEWS

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WETWARE: art | agency | animation

An international intermedia art exhibition at the Beall Center for Art + Technology

Curated by David Familian and Jens Hauser

Works by Adam Brown, Evelina Domnitch & Dmitry Gelfand, Gilberto Esparza,
Thomas Feuerstein, Anna Dumitriu, Klaus Spiess & Lucie Strecker, Orkan Telhan

Exhibition Dates: February 6 - May 7, 2016

Gene Editing, Artificial Life and Ethics: An Interdisciplinary Symposium

Friday, February 5, 2016, 3pm – 5pm

Sponsored by the UCI Newkirk Center for Science & Society, the Beall Center for Art + Technology and the UCI Center for Complex Biological Systems.

Newkirk Alumni Center, Conference rooms A & B

450 Alumni Court, Irvine, CA 92697-1225

Opening Reception: Saturday, February 6, 2016, 2pm – 5pm

Family Day: Saturday, April 16, 11am – 4pm

Exhibition Address: Beall Center for Art + Technology

712 Arts Plaza, Irvine, California 92697-2775

www.beallcenter.uci.edu

Beall Center for Art + Technology | 712 Arts Plaza | Irvine, CA 92697-2775
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BEALL CENTER FOR ART + TECHNOLOGY PRESENTS AN INTERNATIONAL INTERMEDIA ART EXHIBITION FOCUSED ON SYNTHETIC BIOLOGY

IRVINE, Calif. (January 27, 2016) -- The Donald R. and Joan F. Beall Center for Art + Technology at UC Irvine's Claire Trevor School of the Arts will mount *WETWARE: art | agency | animation* featuring contemporary artists who employ laboratory methods in the context of Synthetic Biology to make works that come "close to life" itself. The artistic team will also present *Gene Editing, Artificial Life and Ethics: An Interdisciplinary Symposium* in partnership with the UCI Newkirk Center for Science & Society and the UCI Center for Complex Biological Systems on Friday, February 5, 2016, from 3pm – 5pm. *WETWARE* will open to the public on Saturday, February 6 with an Artist Reception from 2pm – 5pm. The exhibition will be on display through Friday, May 7, 2016.

WETWARE: art | agency | animation

WETWARE: art | agency | animation, curated by David Familian and Jens Hauser, features art in the light of today's convergent living technologies: While artists have previously staged "Artificial life" through the hardware and software of computers and robotics to simulate living systems, increasingly it emerges from wetware itself. Whether touching upon the brain's position between spiritualism and metabolism, the synthesis of luminescent protocells from scratch, or microbes that possess the technical ability to make gold and clean water, contemporary artists who employ laboratory methods in the context of synthetic biology are getting particularly "close to life" today.

WETWARE presents beaded necklaces containing synthetic amino acids, protocells to simulate movements of phytoplankton, bacteria that produce energy to run a musical synthesizer, a desktop gene machine, A-Life parasites fed with electro trash, as well as an artificially grown brain-in-a-vat nourished with Hegel's *Phenomenology of the Spirit*. The exhibition juxtaposes art projects that creatively and critically investigate the anthropocentric mindset in engineered moist "Artificial life," and the responsibility that arises with it. In *WETWARE*, the concepts of art, agency, and animation acquire new meanings, while aliveness is questioned in terms of components, circuits, and systems.

The exhibition features international artists who have increasingly extended their work towards wetware practices: Adam Brown, Gilberto Esparza, Thomas Feuerstein, Klaus Spiess & Lucie Strecker and Orkan Telhan. In addition Evelina Domnitch & Dmitry Gelfand and Anna Dumitriu present new works developed during their three-week residencies at the Beall in collaboration with the UCI Center for Complex Biological Systems and the UCI Newkirk Center for Science & Society.

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The UCI Newkirk Center for Science and Society, the Beall Center for Art + Technology
and the UCI Center for Complex Biological Systems
present

Gene Editing, Artificial Life and Ethics: An Interdisciplinary Symposium Feb. 5, 2016, 3pm – 5pm

Startling new developments in “gene editing” have raised profound issues regarding changing and enhancing existing life, creating new life forms, and the origin of life. At the same time, contemporary artists have started to engage with laboratory methods in the context of synthetic biology. These issues will be explored at the UCI Newkirk Center for Science and Society’s *Gene Editing, Artificial Life and Ethics: An Interdisciplinary Symposium* being held in conjunction with the opening with the exhibit *WETWARE: art/agency/animation* at the Beall Center for Art + Technology, with the cooperation of the UCI Center for Complex Biological Systems and supported by The Beall Family Foundation and the Andy Warhol Foundation for the Visual Arts. The symposium will explore issues surrounding the emerging field of synthetic biology in an era in which so-called “limit biologies,” as anthropologist Stefan Helmreich puts it, “come with the promise to reboot the life sciences.”

Featured panelists to date:

Lori Andrews (Chicago-Kent School of Law)

Adam Brown (Artist)

John Chaput (Pharmaceutical Sciences, UC Irvine)

Carl Cranor (Philosophy, UC Riverside)

Evelina Domnitch & Dmitry Gelfand (Artists)

Peter Donovan (Biological Chemistry, UC Irvine)

Anna Dumitriu (Artist)

Gilberto Esparza (Artist)

Chang Liu (Biomedical Engineering, UC Irvine)

Markus Schmidt (Biofaction, Austria)

Klaus Spiess & Lucie Strecker (Artists)

Simon Penny (Studio Art, UC Irvine)

Orkan Telhan (Artist)

Moderated by Jens Hauser (Curator, University of Copenhagen)

For more information on the symposium and to RSVP, visit: <http://newkirkcenter.uci.edu>

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WETWARE Artists and Artworks:

Gilberto Esparza: *Parasites* and *BioSoNot*

Gilberto Esparza's work is symptomatic of artistic practices that integrate the progressive convergence of *hardware, software, and wetware*, shifting the notions of "Artificial life" and "living machines" from mechanical, electronic and computational ones back to the organic realm.

His earlier series *Parasites* consist of a series of robotic "Artificial life" forms that 'evolve' in urban environments. Conceived as artistic creations of the artificial, these parasites 'live' and metabolize at the expense of another, since they are exclusively constructed out of humankind's technological waste and suck their energy from human electricity supplies. They move and emit sounds in order to communicate with other parasites of the same species or with humans and claim their place in the urban soundscape. The *Moscas (Flies)* are made out of discarded cell phone vibrators; the *Pepeñadores (Gleaners)* are recycled motors from toys which are programmed to remove technological scrap in their environment and screen it for materials that can be used to reconfigure new beings, while the *Marañas (Tangles)* steal electric energy from public streetlights and perform a large repertoire of songs.



Left: *Maraña*, 2007, motor, nylon thread, computer speakers, and acrylic micro-controller
Right: *Mosca*, 2007, motor from cellular phone, copper wire, and controller

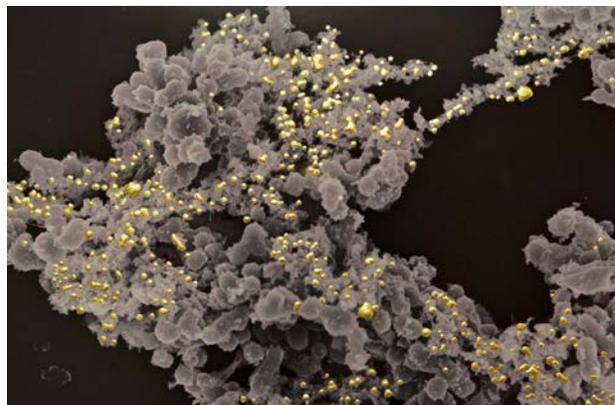
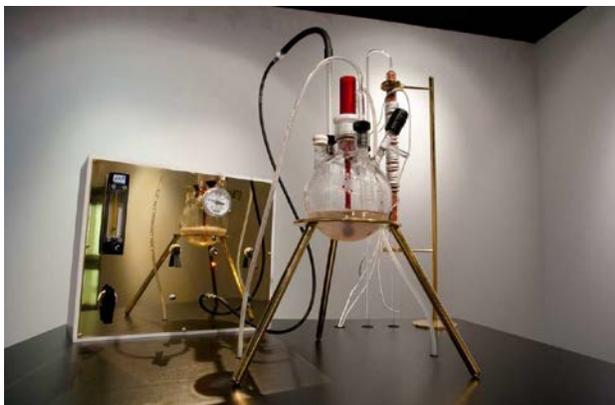
The *BioSoNot* is a performative sonification device and musical synthesizer that allows humans to hear the electrical oscillations of bacteria as they clean contaminated water. It consists of microbial fuel cells constructed by the artist, hooked up to oscillators and piezoelectric sensors, resulting in an instrument that can be used in sound performances. However, against the grain of ever more sophisticated and accelerated, purposeful human engineering, and the widespread use of modified bacteria in synthetic biology as mere 'breeding containers' or 'chassis', Gilberto Esparza's artistic practice avoids the use of engineered organisms, drawing instead on their 'natural technical' capacities. In order to purify polluted water, filter out chemicals and heavy metals, and generate energy, he is exclusively using autochthonous bacteria in the different site-specific contexts within which he is working.

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The work of Mexico City based artist Gilberto Esparza involves electronic and robotic means to investigate the impacts of technology in everyday life, social relationships, the environment and in urban structures. His practice employs recycling consumer technology and biotechnology experiments; including research projects on alternative energies in collaboration with research centers such as the Research Group in Chemical and Process Engineering at the University of Cartagena, the Mechatronics Area of the CINVESTAV Institute of Engineering, Juriquilla, UNAM, or the University National Polytechnic Institute Guanajuato, Salamanca. With a degree in Fine Arts from the University of Guanajuato Esparza has exhibited in Mexico, USA, Canada, Brazil, Colombia, Peru, Ecuador, Argentina, Spain, Holland, Belgium, Slovenia, etc. He has been awarded the Golden Nica in Hybrid Art at the Prix Ars Electronica 2015, the second prize in the VIDA 13.0 Art and Artificial Life competition, as well as the LIFE 09 price for Latin American Productions.

Adam Brown: *The Great Work of the Metal Lover* (in collaboration with Kazem Kashefi)

The Great Work of the Metal Lover is a biotechnological installation hosting extremophile bacteria that produce gold, thereby seeming to solve the alchemist riddle of the philosopher's stone. The work sits at the intersection of art, science and alchemy, re-examining the problem of transmutation through the use of modern microbiological practice and thus solving the ancient riddle of the Magnum Opus, or Great Work, of the alchemists to transmute base matter into the noble metal of gold. Extremophiles play an important role in our understanding of the origins of life. Moreover, they can metabolize and filter toxic metals out of industrially polluted soils. While Humans may look down upon these bacteria as primitive enemies, or mere workhorses in biotechnology, Adam Brown stages them to produce that most coveted of all metals associated with everlasting longevity.



Here, gold production is accomplished by the pairing of a highly specialized metallotolerant extremophilic bacterium and an engineered atmosphere contained within a customized alchemical bioreactor. The extreme minimal ecosystem within the bioreactor forces the bacteria to metabolize high concentrations of toxic AuCl_3 (gold chloride), turning soluble gold into usable 24K gold. Gold has played a vital role throughout history, and has been recognized for its glorification of both humanity and the divine. It is treasured for its rarity, malleability and incorruptibility. It resists oxidation, corrosion and other chemical bonding processes. Like alchemy, gold is imbued with secrets of the earth, origins of life and early metabolic processes. *The Great Work of the Metal Lover* speaks directly to the scientific preoccupation with trying to shape and bend biology to our will, essentially questioning the ethical and political ramifications of attempting to perfect nature.

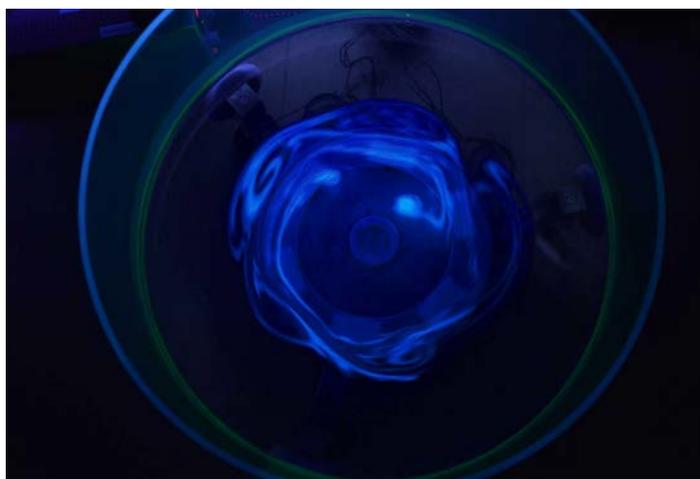
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The artwork consists of two parts: 1) the installation including a glass alchemical bioreactor, a gas manifold and a gas tank filled with carbon dioxide and hydrogen, 2) a series of images made with a scanning electron microscope; showing the gold deposits produced by the bacteria; then, using ancient gold illumination techniques, 24K gold leaf is selectively applied to regions of the print where a bacterial gold deposit has been identified. Each print contains some of the gold that was produced in the bioreactor.

Adam Brown is an Intermedia artist and researcher whose work incorporates art and science hybrids including living and biological systems, robotics, molecular chemistry and emerging technologies that take the form of installation, interactive objects, video, performance and photography. Brown is an Associate Professor at Michigan State University where he created a new area of study called Electronic Art & Intermedia. He is also a Research Fellow at the Institute for Digital Intermedia Arts at Ball State University, and serves as an Artist in Residence for the Michigan State University BEACON (Bio/Computational Evolution in Action Consortium) project, funded by the NSF. He received his BA, MA and MFA from the University of Iowa. Brown has exhibited internationally at venues including the ZKM Center for Art and Media, Karlsruhe, Ars Electronica, Linz, Espace Multimedia Gantner, Belfort; Synth-ethic, Vienna; Zero1, San Francisco, and the Brazilian Biennial Emoção Art.ficial 5.0, Sao Paulo.

Evelina Domnitch and Dmitry Gelfand: *Luminiferous Drift*

Luminiferous Drift is an art installation that stages so-called protocells – precursors or models of cells formed by an innate, complex chemistry – that visualize the movements of phytoplankton in a biosphere as seen from space. As such, it envisions a prebiotic harbinger of phytoplankton, punctiliously irradiating the whirling climate of a hypothetical planet.



The installation creates primordial cellular conditions characterized by an enzyme-activated metabolism that releases energy in the form of light. The cells are generated by a pneumatic macro-chip in which several aqueous solutions are mixed and injected into an oily membrane. These double-emulsion protocells are then released into a rotating bath of water, the dynamics of which correspond to the prebiotic climate of present-day Saturn: a polygonal jet stream is imbued with biosynthesized light.

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Protocells share some of the physical-chemical properties of living organisms; they are 'not yet alive' but are considered the missing link between the barren early earth and the first living organisms in evolution. But being the most intricate chemical reactor ever encountered, the living cell has eluded all attempts to duplicate it from scratch, and consequently unravel its origination and evolution. One of the pivotal stages of early cellular evolution was the appearance of unicellular autotrophs known as phytoplankton. Earth's primary eco-synthesizers, phytoplankton, metabolize sunlight into over half of the oxygen in the atmosphere, and carbon dioxide into organic compounds that fuel the whole planetary food chain. At night, their residual energy is emitted as bioluminescence – for still unknown reasons that have bewildered such varied minds as Aristotle, Newton and Darwin. This complex biochemical behavior arises through the interaction of their cellular membrane with the surrounding flow of water. Though barely visible when emitted by an individual organism, collectively, their glow can be seen all the way from Earth's orbit as it illuminates the elaborate motion of ocean currents. Phytoplankton emerge as key components of a planetary feedback system, revealing the life-supporting climate which they have photosynthesized.

Luminiferous Drift is a dynamic, non-equilibrium spectacle that evokes the biosphere as a cosmic phenomenon originating beyond terrestrial history. Life is conceived as a self-tuned, coherent state, synchronizing multiple scales of reality: from stellar to planetary, from oceanic to cellular, and ultimately, from molecular to quantum. The installation has been developed in collaboration with the Hui Lab (UCI), the Hydrodynamics Lab of the Ecole Polytechnique in Paris (LadHyX), and the Huck Group at Radboud University.

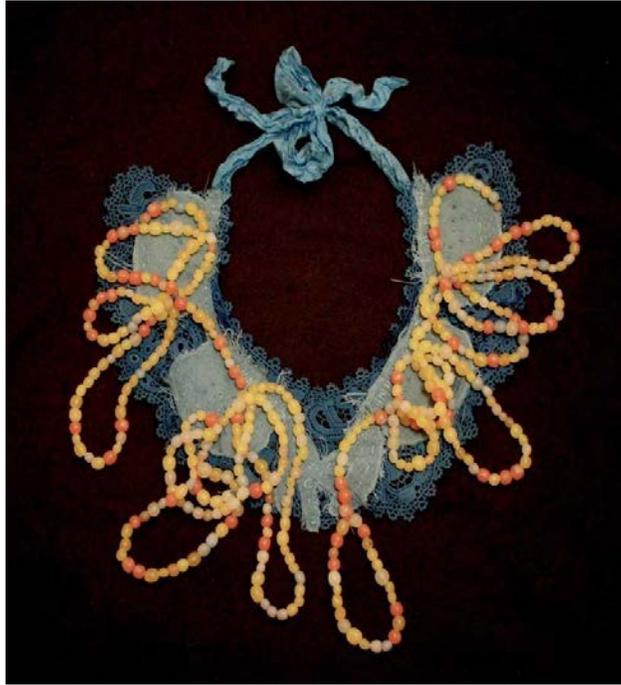
Dmitry Gelfand and Evelina Domnitch create sensory immersion environments that merge physics, chemistry and computer science with uncanny philosophical practices. They employ current findings to investigate questions of perception and perpetuity. Having dismissed the use of recording and fixative media, Domnitch and Gelfand's installations exist as ever-transforming phenomena offered for observation. Because these rarely seen phenomena and ephemeral processes take place directly in front of the observer without being inter-mediated, they often serve to vastly extend one's sensory threshold. The immediacy of this experience allows the observer to transcend the illusory distinction between scientific discovery and perceptual expansion. The duo collaborates with numerous scientific research facilities, including the Physics Institute of Göttingen University, the Nagoya Institute of Advanced Sciences and Technologies, and the European Space Agency. Gelfand and Domnitch are recipients of the Japan Media Arts Excellence Prize (2007), and four Honorary Mentions (2013, 2011, 2009 and 2007) at the Prix Ars Electronica.

Anna Dumitriu: *Engineered Antibody* (and other works in progress)

Anna Dumitriu presents a series of works developed as part of her artist residency working with researchers in the Liu Lab for Synthetic Evolution at the University of California Irvine. *Engineered Antibody* is a beaded necklace based on lab member Xiang Li's research working with an antibody purified from the blood of an HIV positive patient. Made up of 452 hand-made beads, it both represents and physically contains the actual 21 amino acids of the antibody in the precise order. The light chain and heavy chain of the protein structure have been folded into the exact structure of the antibody. An antibody is a protein that is produced by the immune system in order to combat foreign bodies and viruses, which it can bind to. Xiang Li is working to improve this antibody by engineering it to better block HIV infections through the introduction of an additional amino acid called sulfotyrosine.

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The artist draws on the image that all forms of organic life are made of amino acids, which join together like strings of beads to form proteins that fold into three-dimensional structures essential to their function. The beads are then attached to textiles that have been dyed using Coomassie Brilliant Blue – originally a wool dye which is nowadays used as a stain in laboratories to visualize and separate proteins. The form of the embroidered calico is based on the diagram of the antibody structure.



Engineered Antibody, Anna Dumitriu, 2015-16

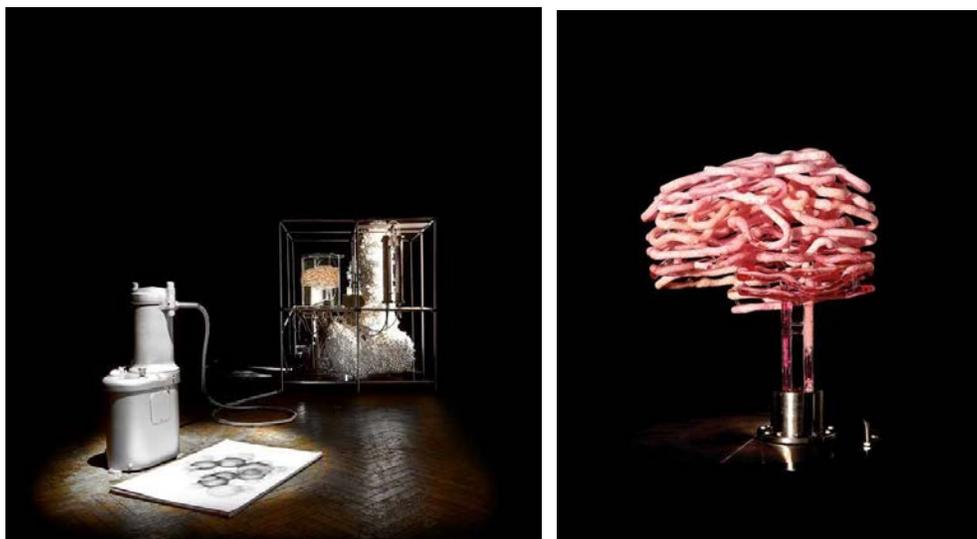
In *Faster Mutation* the artist manufactures embroidered works on velvet impregnated with yeasts that contain an enzyme derived from a bacteriophage that is undergoing increased mutation. Such velvet squares are used in the lab in a process called ‘replica plating’ which allows for producing an exact copy from one agar plate to another. While the medium of black velvet is considered to belong to the domain of amateur artists, the embroideries here also reference the appearance ecclesiastic embroideries and metaphorically hint at public suspicion that synthetic biology is ‘playing god’.

Anna Dumitriu is a British artist whose work fuses craft, technology and bioscience to explore our relationship to the microbial world, biomedicine and technology. She is artist-in-residence on the Modernising Medical Microbiology Project at the University of Oxford, at the Department of Computer Science at The University of Hertfordshire, and at the Wellcome Trust Brighton and Sussex Centre for Global Health Research. She is also a Research Fellow with Waag Society, and initiated the Creative Europe supported project “Trust Me, I’m an Artist” which investigates novel ethical problems that arise when artists create artwork in laboratory settings. Her work has been exhibited at venues such as the V&A Museum, London, the Picasso Museum, Barcelona, the Science Gallery, Dublin, and the Museum of Contemporary Art, Taipei.

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Thomas Feuerstein: *PANCREAS*

The processual sculpture *PANCREAS* is *wetware* in the most literal sense: it denotes functional elements equivalent to hardware and software found in biological systems or in a person, for example the nervous system and the human mind. Touching upon the brain's position between spiritualism and metabolism, *PANCREAS* presents itself as an artificially grown brain-in-a-vat. Glucose, as a universal fuel of life, which all cells, especially brain cells, feed from, becomes the artistic material for *PANCREAS* (etymologically from the Greek *pánkreas*, *pán* = "all", *kréas* = "flesh"). It is conceived as a pataphysical machine that uses biotechnology in order to translate language and books, that is symbols and data, into matter and flesh. For this reason, the installation *PANCREAS* transforms books into sugar (glucose) that feeds human brain cells. The books' paper is shredded, soaked in water, and pressed into an artificial intestine (fermenter), in which specifically modified bacteria break down the cellulose into glucose. After filtering and purifying, the glucose is fed to the cells growing inside a glass tank – literally a brain in a vat, referring to the well-known thought experiment in which reality is simulated via external electrical impulses to the neurons of an encephalon removed from the body and suspended in life-sustaining liquid. In *PANCREAS*, however, the feeding of the artificial brain follows a strict diet: the brain food consists exclusively of Hegel's *Phenomenology of Spirit*.



PANCREAS has been developed with the scientific support of Thomas Seppi at the Medical University of Innsbruck.

Thomas Feuerstein is a Vienna based artist and writer whose work oscillates between the fields of fine art and media art. He uses the most diverse media, comprising installations, drawings, paintings, sculptures, photography, radio plays, net and biological art. He focuses particularly on the interplay between verbal and visual elements, the unearthing of latent connections between fact and fiction, as well as on the interaction between art and science. Feuerstein studied art history and philosophy, and has been teaching as a lecturer and a visiting professor at numerous universities since 1997. At the core of his practice is an artistic method he calls "conceptual narration."

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Klaus Spiess and Lucie Strecker: *Hare's Blood +*

The core of the biotechnological live performance and installation *Hare's Blood +* is a specifically designed artistic *biobrick*, a standardized genetic sequence, that Spiess and Strecker manufactured in order to allow an audience to speculate on the increasing value of bio-banked parts of 'artistic animals.' In order to question the exploding prices of artworks that incorporate animal relics in the light of a counter-economy as envisioned by Joseph Beuys, they opened one of the two hundred multiples in which Beuys himself had shrink-wrapped hare's blood. The artists isolated the gene coding for catalase from the blood – a key antioxidant enzyme in the body's defense against oxidative stress which protects against aging – and spliced it into living yeast cells. After having engineered a synthetic gene from the hare's blood and its host's DNA they programmed a peroxide-driven interface able to specifically activate the synthetic gene. At a public auction the transgenic Beuysian creature was then introduced to act as an 'eco-political agent', with the attendees' commercial interest now governing the new artwork's life. While DNA engineering eventually becomes a non-trivial task of bringing the past back to life for an unpredictable future, the auction explores concepts of 'living money' and property rights over bio-banked animals in art, science and beyond. The installation consists of the original, opened Beuys multiple, *Sublation I*, and *Sublation II*, the cooled transgenic yeast with 67% surviving and 33% apoptotic cells, tracing the actual decomposition of the cells at the moment the winning bid was submitted.



Hare's Blood +, Performance video and installation, 2014/2015

Hare's Blood + has been developed with the scientific support of the Mark Rinnerthaler group and Reinhard Nestelbacher at the Department of Cell Biology and Genetics at Salzburg University.

Klaus Spiess and Lucie Strecker have been developing trans-disciplinary performances and installations that address biopolitical issues for five years. Together, they run the cross-disciplinary Arts in Medicine program at the Center for Public Health at the Medical University of Vienna. A former endocrinologist and psychosomaticist, Klaus Spiess is an associate professor at the Medical University of Vienna. Lucie Strecker is an artist and stage director. She is currently a research fellow at the University of the Arts Berlin, and holds a senior postdoc position at the University of Applied Arts Vienna. They performed at Budascoop Kortrijk, Tanzquartier and Belvedere/21er Haus, Vienna; their installations have been shown at the Haus der Kulturen der Welt, Berlin, and the OK Center, Linz, where the duo has been awarded a Honorary Mention (2015) at the Prix Ars Electronica. They have published articles on their trans-disciplinary performances in Performance Research, Kunstforum International, Springerin, and The Lancet, among others.

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Orkan Telhan: *Biorealize: Microbial Design Studio* and *Bananaworks*

Orkan Telhan's artistic practice illustrates the current trend to transfer the open source spirit from hardware and software culture to wetware, moving from the production of forms to the very conception of systems, media and devices. *Biorealize Microbial Design Studio* is an automated biolab to design, culture, and test genetically modified organisms. The machine incorporates the facilities of a wetlab into a single inexpensive hardware, which transforms, incubates, and purifies microorganisms so that they can create novel proteins encoded by custom DNA designs. The platform runs as a closed-loop system that automates the design of living organisms through combinatorial design, process control and analytics algorithms. Besides serving as a novel fabrication tool, *Biorealize* also provides a critical framework to explore self-evolving and self-designing living systems.



Left: *Biorealize*, custom liquid handling and incubation hardware.

Right: *Bananaworks*, bacterial media encapsulated into macro-fluidic gels (assisted by Carolina English).

In this exhibition, *Biorealize* is used to speculate about the future of food and the evolution of taste. Today, what we consume is not only shaped by biological evolution but also by complex social and economic decisions imposed by humans. Since the earliest days, we grow what we like; what evolves through Nature is highly implicated by our anthropocentric “taste.” Today, Cavendish, the most popular banana in the international market, for instance, is mostly a human artifact; it is an outcome of a long history of selective breeding practices that standardized its form, texture, and taste. As a living artifact, on the other hand, Cavendish is a monoculture—it cannot grow by itself and rather needs to get cloned across different plantations around the world. As it cannot sexually reproduce, it also cannot diversify its own biology and “taste.” A series of *Bananaworks* is featured as biochemically novel concoctions that are made of probiotics, microbe-sourced proteins, and wild banana water. They function as hybrid semi-living encapsulations that can diversify their taste on their own and create infinitely new possibilities that cannot be created by nature-born (wild) bananas or microorganisms alone.

Orkan Telhan is interdisciplinary artist, designer and researcher whose investigations focus on the design of interrogative objects, interfaces, and media, engaging with critical issues in social, cultural, and environmental responsibility. Telhan is an Assistant Professor of Fine Arts - Emerging Design Practices at the University of Pennsylvania, School of Design. He holds a PhD in Design and Computation from MIT's

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Department of Architecture. He was part of the Sociable Media Group at the MIT Media Laboratory and the Mobile Experience Lab at the MIT Design Laboratory. Telhan's individual and collaborative work has been exhibited internationally in venues including the 13th Istanbul Biennial, 1st Istanbul Design Biennial, the Armory Show 2015 Special Projects, Ars Electronica, ISEA, LABoral, Archilab, Architectural Association, the Architectural League of New York, MIT Museum, Museum of Contemporary Art Detroit, and the New Museum of Contemporary Art, New York.

Curators

David Familian is the Artistic Director and Curator at the Beall Center. He began working at the Beall Center in 2005 and was appointed Artistic Director and Curator in 2009. An artist and educator, he received his BFA from California Institute of the Arts in 1979 and his MFA from UCLA in 1986. For the past twenty years Familian has taught studio art and critical theory in art schools and universities including Otis College of Art and Design, Minneapolis College of Art and Design, Santa Clara University, San Francisco Art Institute and U.C. Irvine. He currently teaches the Beall Center's Digital Arts Exhibition course at U.C. Irvine's Claire Trevor School of the Arts. Although David began his career as a photographer, since 1990 new media has become integral to his own artistic practice and his work as a web producer and technical advisor for individual artists, museums and universities such as Walker Art Center, University of Minnesota and the Orange County Museum of Art. David has curated and organized the majority of exhibitions at the Beall Center. David developed the Black Box Projects Initiative at the Beall Center and meets regularly with artists as well as technologists and scientists to collaborate on new projects.

Jens Hauser is a Paris and Copenhagen based art curator, writer and media studies scholar who focuses on the interactions between art and technology. He holds a dual research position at the Department of Arts and Cultural Studies and at the Medical Museion/Faculty of Health Sciences at the University of Copenhagen, and is distinguished affiliated faculty of the Department of Art, Art History and Design at Michigan State University. His curated exhibitions include *L'Art Biotech* (Nantes, 2003), *Still, Living* (Perth, 2007), *sk-interfaces* (Liverpool, 2008/Luxembourg, 2009), the *Article Biennale* (Stavanger, 2008), *Transbiotics* (Riga, 2010), *Fingerprints...* (Berlin, 2011/Munich, 2012), *synth-ethic* (Vienna, 2011), *assemble | standard | minimal* (Berlin, 2015), and *SO₃* (Belfort, 2015). Hauser is also a founding collaborator of the European culture channel ARTE and has produced numerous reportages and radio features.

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Beall Center for Art + Technology

The Beall Center is an exhibition and research center located on the campus of the University of California, Irvine. Since its opening in 2000, the Beall Center's exhibitions, research, and public programs have promoted new forms of creation and expression. For artists, the Beall Center serves as a proving ground — a place between the artist's studio and the art museum — and allows them to work with new technologies in their early stages of development. For visitors, the Beall Center serves as a window to the most imaginative and creative innovations in the visual arts occurring anywhere. The Beall Center promotes new forms of creative expression by: exhibiting art that uses different forms of science and technology to engage the senses; building innovative scholarly relationships and community collaborations between artists, scientists and technologists; encouraging research and development of art forms that can affect the future; and reintroducing artistic and creative thinking into STEAM (Science, Technology, Engineering, Arts, and Math) integrated learning in K-12 to Higher Education.

The Beall Center's curatorial focus presents a diverse range of innovative, world renowned artists, both national and international, who work with experimental and interactive media. Many of these artists have shown their works primarily within group exhibitions or have a limited number of solo exhibitions in the US. The Beall Center is committed to exhibiting these artists in a way that more fully expresses their individual body of work. We strive to present a direct connection between our programs and the larger trajectory of the history of video, installation art, kinetic and cybernetic sculpture. Our approach is not to exclusively emphasize the technological aspects of works, but to present experimental media projects that are equally strong aesthetically, conceptually and technically.

The Beall Center received its initial support from the Rockwell Corporation in honor of retired chairman Don Beall and his wife, Joan, the core idea being to merge their lifelong passions - business, engineering and the arts - in one place. Today major support is generously provided by the Beall Family Foundation.

The Beall Center's 2014-16 exhibitions are supported by the Andy Warhol Foundation for the Visual Arts and The Beall Family Foundation.

UC Irvine's Claire Trevor School of the Arts

Times Higher Education ranked UC Irvine first among U.S. universities under 50 years old and fifth worldwide. Since its founding in 1965 as one of UC Irvine's original schools, the School of the Arts (renamed for actress Claire Trevor in 2000) has become one of the nation's leading educators in visual and performing arts. Awarded "Best Arts Organization" in Orange County 2014 by the Coast Community Awards, the School offers undergraduate and graduate degrees in Art, Dance, Drama and Music, a minor in Digital Arts and Digital Filmmaking, and one of the few university doctoral programs in Drama. The UCI Claire Trevor School of the Arts is located at 4000 Mesa Road, Irvine, CA 92617. For more information, please visit us at www.arts.uci.edu.

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WETWARE: art | agency | animation **Fact Sheet**

Exhibition:

Exhibit Dates: February 6 – May 7, 2016

Curated by David Familian and Jens Hauser

Works by Adam Brown, Evelina Domnitch & Dmitry Gelfand, Gilberto Esparza,
Thomas Feuerstein, Anna Dumitriu, Klaus Spiess & Lucie Strecker, Orkan Telhan

Events:

- **Gene Editing, Artificial Life and Ethics: An Interdisciplinary Symposium**
Friday, February 5, 2016, 3pm – 5pm
Newkirk Alumni Center, Conference rooms A&B
450 Alumni Court, Irvine, CA 92697-1225
Guest Speakers: Markus Schmidt, Biofaction; Carl Cranor, UCR; Lori Andrews, Chicago-Kent
School of Law. Moderated by Jens Hauser.
- **Opening Reception:** Saturday, February 6, 2016, 2pm – 5pm
- **Family Day:** Saturday, April 16, 2016, 11am – 4pm, Free event, open to the public.

Gallery Hours:

Thursday through Saturday: 12pm – 6pm

Closed: Sunday and Monday

Closed: March 22 – 29, 2016

Free Admission. Public is Welcome

Location:

712 Arts Plaza, Claire Trevor School of the Arts, UC Irvine, Irvine, CA 92697

The gallery is located near the intersection of West Peltason & Pereira

Parking:

Student Center Parking Structure, at Campus Drive and West Peltason, Irvine, CA 92697

Mesa Parking Structure, at Mesa Drive and University Drive, Irvine, CA 92697

For maps, driving directions and parking information go to <http://beallcenter.uci.edu/directions> or
use the UCI campus interactive map: <http://www.parking.uci.edu/maps/imap.cfm>

More Info:

www.beallcenter.uci.edu

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Beall Center for Art + Technology | 712 Arts Plaza | Irvine, CA 92697-2775
tel. 949 824 6206 | fax. 949 824 2450



UCI Claire Trevor School of the Arts

WETWARE: art | agency | animation

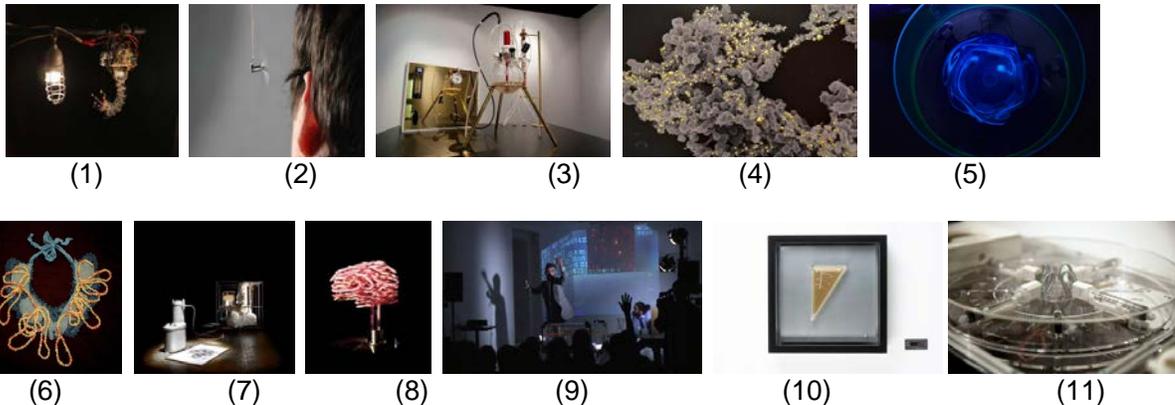
An international intermedia art exhibition at the Beall Center for Art + Technology

Curated by David Familian and Jens Hauser

February 6 - May 7, 2016

Works by Adam Brown, Evelina Domnitch & Dmitry Gelfand, Gilberto Esparza, Thomas Feuerstein, Anna Dumitriu, Klaus Spiess & Lucie Strecker, Orkan Telhan

Press Images:



- (1) Gilberto Esparza: *Maraña*, 2007, motor, nylon thread, computer speakers, micro-controller, and acrylic
- (2) Gilberto Esparza: *Mosca*, 2007, motor from cellular phone, copper wire, and controller
- (3) Adam Brown: *The Great Work of the Metal Lover* (in collaboration with Kazem Kashefi), 2012, glass alchemical bioreactor, gas manifold and gas tank with carbon dioxide and hydrogen
- (4) Adam Brown: *The Great Work of the Metal Lover* (in collaboration with Kazem Kashefi), 2012, scanning electron microscope image, 24K gold leaf, and gold produced by bacteria
- (5) Evelina Domnitch and Dmitry Gelfand: *Luminiferous Drift*, 2015/16, pneumatic macro-chip, mixed aqueous solutions, oil, and rotating bath of water (Scientific support: Hui Lab (UCI), Hydrodynamics Lab of Ecole Polytechnique (LadHyX), Huck Group (Radboud University))
- (6) *Engineered Antibody*, Anna Dumitriu, 2015-16, 21 amino acids, polymer clay, Coomassie Brilliant Blue dye, jewellery wire, cotton calico, vintage tatted linen lace, silk, and embroidery (Scientific support: Liu Lab (UCI))
- (7) Thomas Feuerstein: *PANCREAS*, 2012/13, glass, metal, plastic, technical equipment, brain cells, bacteria (Scientific support: Thomas Seppi at the Medical University of Innsbruck.)
- (8) Thomas Feuerstein: *PANCREAS* Thomas Feuerstein: *PANCREAS*, 2012/13, glass, metal, plastic, technical equipment, brain cells, bacteria (Scientific support: Thomas Seppi at the Medical University of Innsbruck.)
- (9) Klaus Spiess and Lucie Strecker: *Hare's Blood +*, Performance video and installation, 2014/2015
- (10) Klaus Spiess and Lucie Strecker: *Hare's Blood +*, Performance video and installation, 2014/2015
- (11) Orkan Telhan: *Biorealize*, 2015, custom liquid handling and incubation hardware. (Image Courtesy of Biorealize.com)

More Info: www.beallcenter.uci.edu

Note to editors: The images are approved only for publication in conjunction with promotion of the exhibition *WETWARE: art | agency | animation*. Reproductions must include the full caption information, and images may not be cropped or altered in any way or superimposed with any printing.

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