

on the corner of Lomita Dr. and Campus Dr.
Stanford, CA 94305
June 4-8, 10

The Frankenstein GRID: Stanford's Monster of Modern Science

SELF [June 4th]

8 – 8:45pm sound environment:

1) AURAL ROOTS audio art composition by Andrew Watts, 15:09, 2018. Based on sounds heard by the uterus, from the project *Auralroots* by Jill Scott.

Hearing is the first sense to develop in an embryo, as the Stereocilia are fully developed by the 10-week stage. For *Aural Roots*, sounds from scientific recordings using contact microphones inside the womb were mixed with filtered sounds from outside the body to construct a unique composition. The research and interactive development of the project *Auralroots* was inspired by a residency SymbioticA University of Western Australia and at the Auditory Laboratory at the School of Anatomy, Physiology and Human Biology, with Professor Don Robertson and Dr. Helmy Mulders. *Aural Roots* sheds light on the physiology, morphology and function of human hearing.

8:45 – 9:45pm video programming:

2) THE SLEEP single channel video with sound by Renetta Sitoy, 6:40, 2018. Music: *Ex Silentio* by Andrew Watts, 2015.

Although science and technology provide a false sense of control of the world we inhabit, the earth is a living, breathing creature, marked by both quietude and violence. *The Sleep* explores the human ego as it ultimately submits to the whims and mutability of nature.

3) PULLDOWN, 1:12; DOTPLOT, 1:32, by Michal Gavish. Music by Dr. Onn Brandman.

Michal Gavish created Dotplot and Pulldown, two animation videos based on imagery from Professor Onn Brandman's laboratory at the biology department in Stanford University. The videos are construct of layered imagery of microscopy, X ray models and electrophoresis of proteins and DNA. With an original soundtrack composed by Brandman, she creates moving portraits of the minute molecules that cannot be seen by the naked eye.

4) MICROBIAL ATTRACTION/REPULSION video by Dr. François-Joseph Lapointe, 3:13, 2018. Based on relational performance *1000 Handshakes*, 2014—. Music by Dr. Onn Brandman.

Microbial attraction/repulsion presents the relationships among bacteria collected from Dr. Lapointe's skin microbiome after shaking hands with 1001 persons. Like stellar objects floating in space, different strains of bacteria come and go to form clusters of microbes with similar properties. This bacterial network is continuously evolving as his microbial identity is constantly changing in relation with the people he meets. Lapointe's professional research, which is directly informed by his performance art salutations, contributes to the ongoing 'genome revolution'. Most of our bodies is not human, but microbial: 50% of our bodies' cells are not human, nor are 90% of the genes on our body...

5) [CROSS-KINGDOM CELL FUSION] video by Dr. Oron Catts, in collaboration with Ionat Zurr, Tarsh Bates, and SynthSys (University of Edinburgh), 2018. Music: *A Dialogue in Absentia* by Andrew Watts, 14:43, 2016.

This video documents ongoing research attempts to achieve the first ever cross-kingdom cell fusion in an *in vitro* setting between a yeast cell and a human cell. The team pursues 'artificial endosymbiogenesis'; by opening membranes of mammalian and yeast cells in a micro-fluidic system, the cells can fuse and hopefully replicate. The project was presented at the Edinburgh International Science Festival (March-April, 2018) and will be presented at the Western Australia Art Gallery in September. Poetic coincidence exists in the Scottish location of the cross-kingdom research—the fictional Victor Frankenstein created his notorious monster two centuries ago on the Orkney Islands.

6) SOMABOOK video by Jill Scott, 6:44, 2018. Based on excerpts from a Neural Development and Media Art collaboration between Jill Scott and The Institute of Molecular Life Sciences, University of Zurich.

Today life is created and manipulated *in vivo*, *in vitro* and *in ovo*. This project focuses on the molecular mechanisms that underlie the establishment of neuronal circuits. The artwork, *Somabook* is about the complexity and wonder of the development of neuronal circuits in the human body. The sculpture itself is based on a scaled-up model of our own neural tube or spinal cord and through interaction; the viewers can discover how the network for incoming sensory perception and outgoing motor coordination has been developed. As can be shown *in ovo* and *in vitro*, before we are born, thousands of molecules work with proteins to guide our axons to grow from this central neural system into the correlating locations so that we can feel, smell, taste, hear, see and move normally. This embryonic development is best studied inside fertilized

chicken eggs, using what is called “an open book” method of dissection and there it can be shown that inappropriate connections and influences not only result in loss of functions, causing various problems in growth patterns, movement and coordination, but also distortions of perception. Here the viewers can touch science, in order to learn more about the life of molecular and neural research in a novel way.

7) WHAT IT MEANS TO BE POST HUMAN audio art composition by Andrew Watts, 10:01, 2017-8.

The works presented here address an individual's communicative transformation, moving along a gradient from the performer channeling their expressivity through the medium of his or her instrument to utilizing inherent musicality through fragmented speech. For instance, *What it means to be post human* (2017-18) takes the physical concept of the human as acoustical body for machines to resonate in (first outlined in *A Dialogue, In Absentia*) and re-imagines it in a futuristic, hive-mind scenario. *A Dialogue* uses implanted bluetooth speakers to playback sounds through each trombone, having the performer actively modify the sound through mouthshapes and slide movements. For *post human*, rather than a dialogue between two forces, a hocket is the primary compositional structure, whereby the audio (this time played back into each singer's mouth through a headset) is a singularity among the group. The text-to-speech procedure used before now is virtuosically allocated to the different singers. Together the two works seek to explore how technology can utilize the human body as an acoustical space, with live performers modifying the playback environment while philosophizing on the most profound tenets of humanism.

9:45 – 10pm sound environment:

AURAL ROOTS

bios

DR. ORON CATTS is the Director of SymbioticA, the Centre of Excellence in Biological Arts at the University of Western Australia, which he co-founded in 2000. SymbioticA has won numerous awards under Dr. Catts' leadership, including the Prix Ars Electronica Golden Nica (2007), the WA Premier Science Award (2008), and was recognized as a Centre for Excellence in 2008. As artist, researcher, and curator, he has continued to define innovation in the biological since his pioneering 'Tissue Culture and Art Project' (1996). He is interested in our ever-evolving perceptions of life and seeks to foster new cultural articulations of this concept. He has held research and teaching positions at Harvard Medical School, Stanford University (Art, Art History), and the Royal College of Arts, London. He has been recognized as one of Thames & Hudson's "60 Innovators Shaping Our Creative Future" and Icon Magazine's (UK) top 20 designers "making the future."

DR. MICHAL GAVISH is a multi-media artist, currently based in Washington DC. She received her MFA from the San Francisco Art Institute in 2008. Previously, she had earned a PhD in Physical Chemistry, which influenced her art and science projects. Gavish is a staff writer for SciArt, and wrote also for SF Artnews and for Intellect UK magazine. She recently gave talks at the National Academy of Science DASER and at LASER Leonardo events. She exhibits her art extensively including recent solo shows in New York, the Hungarian Jewish Museum, Yerba Buena Center for the arts, Spinnerei, Leipzig to name a few.
www.michalgavish.com

DR. FRANÇOIS-JOSEPH LAPOINTE is an arts scientist from Montréal (Canada) with a PhD in evolutionary biology (1992) and a PhD in dance and performance studies (2012). As a scientist, he has published 120 papers ranging from molecular systematics and population genetics to metagenomics. As an artist, he applies biotechnology as a means of dance composition, and has created the field of choreogenetics. For his most recent project, he is currently sequencing his microbiome (and that of his wife) to produce microbiome selfies. His work as a bioartist has been exhibited in Canada, France, Germany, Denmark, Australia and the USA.

DR. JILL SCOTT is lecturer, professor and context provider with many years experience the unique field of Art and Science research. Currently, she co-directs the LASER Salon in Zurich for Leonardo Society USA. She is professor emerita at the Institute for Cultural Studies in the Arts, at the Zurich University of the Arts (ZhdK) in Zürich and founded their Artists-in-Labs Program in 2000. She was the Vice Director of the Z-Node program- Planetary Collegium with 16 PhD graduates in clusters of art and science at the University of Plymouth, UK (2000 to 2016). Her own artwork spans 38 years of production about the human body, behaviour

and body politics, but in the last 10 years she has focused on creative media art experiments about neuroscience, ecology and sensory perception resulting in a series called Neuromedia. This current research is based on making interpretative interactive constructions of sculptural models with interactive film segments based on actual scientific research and imbedded with cultural metaphors.

www.jillscott.org

www.imls.uzh.ch/en/research/Stoeckli.html

RSITTOY is a multimedia artist who was born in New York, NY. She studied English at Boston University and holds an MFA in Design + Technology from the San Francisco Art Institute, where she was the recipient of the San Francisco Art Institute MFA Fellowship from 2005 to 2007. Her videos and installations explore the search for self and identity, influenced by media, technology, and the (in)accuracy of memory. Her work has been shown in Atlanta, Baltimore, New York City, Los Angeles, Phoenix, Bulgaria, Hungary, Greece, Russia, and throughout the Bay Area. She has lectured throughout Northern California and was awarded a residency at the Philadelphia Art Hotel in 2009. She received an Individual Artist Grant from the City of Oakland Cultural Funding Program for 2012-2013 and again for the years 2015-2016. She lives and works in Oakland, California.
www.rsittoy.com

ANDREW WATTS' works, from chamber and symphonic to multimedia and electro-acoustic, are actively performed throughout the US and Europe. His compositions have been premiered at world-renowned venues such as Ravinia, the MFA Boston, Jordan Hall, and the Holywell Music Room. In the past few years Mr. Watts has written for top musicians and ensembles including Distractfold, RAGE Thormbones, Splinter Reeds, Quince, Line Upon Line, Tony Arnold, Séverine Ballon, and LAPQ. In 2017-2018 he will be writing a new vocal ensemble piece for Ekmeles and a large chamber piece for Proton Bern. He is currently a doctoral candidate at Stanford studying with Brian Ferneyhough and working towards a D.M.A. in Composition. Mr. Watts received his master's with distinction from Oxford and his bachelor's with academic honors from the New England Conservatory. He has been a featured composer at Delian Academy (Greece), the Young Composers Meeting (Netherlands), Cheltenham Music Festival (England), the 48th International Summer Course for New Music at Darmstadt (Germany), the Composit Festival (Italy), the Biennial Ostrava Days Institute (Czech Republic), the highSCORE Festival (Italy), the Wellesley Composers Conference (USA), the Etchings Festival (France), Fresh Inc. Festival (USA), New Music on the Point (USA), and the Atlantic Music Festival (USA).

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