

*Image from the glomerular cell layer of the olfactory bulb of a rat, courtesy of Dr Nuria de Zavalía, Concordia, Centre for Studies in Behavioural Neurobiology*

# **Blood, Brains + Other Trains:** Thoughts on Emerging Collaborations & Camaraderie in the Arts+Sciences

October 19-22, 2016,  
EV building (various locations), Faculty Of Fine Arts (FOFA)

*This event has been generously supported by the Office of the Dean, the Faculty of Fine Art, CUPFA  
(Concordia University Part-time Faculty Association), and the FOFA Gallery.*

**What do the arts have to do with nano-science, molecular modeling, or material composites? A lot, it turns out.** Our conversations range from shared interests in visualization and the material manifestation of abstract concepts and unseeable matter, to the uses of various tools and technologies that every investigator/practitioner relies upon, to simple questions about ways of working and thinking.

This socially oriented colloquium that looks at common interests and shared goals between the arts+sciences and provides a meeting ground for anyone interested forming further links between the disciplines. Commencing with a **book-launch** and continuing with **two keynotes, two salon sessions** and a **workshop**, the colloquium highlights Concordia cross-disciplinary research initiatives (Embedded Faculty Initiative, CUPFA Microlinks and FOYER) alongside models from elsewhere (MIT, NSCAD, U of T, Harvard Medical School). Download or print full programme [here](#).

# Schedule

## Day 1: Wednesday October 19, 2016

- Book launch + reception, HYBRID BODIES project**  
Time: 17h30  
Location: FOFA gallery marble table, EV building

## Day 2: Thursday October 20, 2016

- Salon session 1 "MODELS"**  
Time: 18h00-20h00  
Location: EV6.735
- Keynote 1, Kim Morgan (NSCAD) "Lab/Work: Experiments in Art & Science"**  
Time: 20h30  
Location: EV1.605 amphitheater

## Day 3: Friday October 21, 2016

- Salon session 2 "MELTING"**  
Time: 18h00-20h30,  
Location: EV6.735

## Day 4: Saturday October 22, 2016

- Workshop w/ Joe Davis "ABCs of DNA"**  
Time: 14h00  
Location TBA, registration required, contact [peter.flemming@concordia.ca](mailto:peter.flemming@concordia.ca) for details
- Keynote 2, Joe Davis (MIT/Harvard medical School) "The Quickening: Forecast for a Vitruvian Age"**  
Time: 15h30  
Location: EV1.605 amphitheater

## **BOOK LAUNCH: HYBRID BODIES**

**October 19, 17h30, FOFA Marble Table**

**Authors + Collaborators:** Alexa Wright (UK), Catherine Richards (Canada), Andrew Carnie (UK), Ingrid Bachmann (Canada), Dr. Heather Ross (Toronto), Dr. Patricia McKeever, (U of T), Dr. Susan Abbey (University Health Network), Dr. Jennifer Poole (Ryerson University, Toronto); and Dr. Margrit Shildrick (Linkoping University, Sweden)

[www.hybridbodiesproject.com](http://www.hybridbodiesproject.com)

The aim of the HYBRID BODIES project is to further explore the complexity of organ transplantation in a novel way which makes it accessible to the public by providing context to discuss and explore these ideas. We hope the artworks will provide a tangible focus for discussions. Seen as both the seat of human identity and the archetypal symbol of love, the heart is an organ that has been ascribed qualities and associations far beyond its anatomical functions. Since the first heart transplant in 1967, the technical aspects of the operation have been streamlined and now heart transplantation is the accepted therapy for end-stage heart failure. Four internationally exhibiting artists, Alexa Wright (UK), Catherine Richards (Canada), Andrew Carnie (UK), and Ingrid Bachmann (Canada), have had access to an innovative research study exploring the process of incorporating a transplanted heart. This interdisciplinary study, PITH (The Process of Incorporating a Transplanted Heart), was conducted by a leading research team based at the University Health Network in Toronto. The team consists of Dr. Heather Ross, a cardiologist and Director of the Cardiac Transplant Program at the University Health Network (Toronto); Dr. Patricia McKeever, a health sociologist (U of T) ; Dr. Susan Abbey, a transplant psychiatrist (University Health Network); Dr. Jennifer Poole, a health scientist (Ryerson University, Toronto); and Dr. Margrit Shildrick, a philosopher (Linkoping University, Sweden). While significant research has been conducted in transplantation using the bio-medical model, few researchers have explicitly connected organ recipients' experiences and cultural views about transplantation to the notion of embodiment.

Ingrid Bachmann, Dr. Heather Ross and Dr. Patricia McKeever will be present for the launch .

## SALON SESSIONS

**Description:** Multiple, rapid-fire presentations in an informal setting designed to provoke conviviality and dialogue. Come to session one for discussion of existing and in-progress models of art+science collaboration from around Concordia (Embedded Faculty Initiative, CUPFA Microlinks and FOYER) and elsewhere. Session two attempts to melt things together... come to hear and talk about everything from drawings made by caterpillars to zero-energy solar houses to images of the brain-clock in mice!

### Session 1 (Thursday October 20, 18h00, EV6.735)

#### Title: "MODELS"

[Ingrid Bachmann](#) (Concordia, Faculty Of Fine Arts, "Hybrid Bodies project")

[Louise-Marie Bouchard](#) (Concordia, CUPFA, "The Art of Creativity")

[Dr. Tagny Duff](#) (Associate Professor in the Department of Communication Studio, Concordia, "Mangling Methodologies Across Art and Science")

[Peter Flemming](#) (Concordia, Studio Arts, "Embedded Faculty Initiative")

[Allison Reiko Loader](#) (Concordia, CUPFA, "En Masse")

[Dr. Catherine Mulligan](#) (CIWESS, Concordia Institute for Water, Energy and Sustainable Systems)

[Lorraine Oades](#) (Concordia, CUPFA, "Microlinks")

[Dr. Andrew Ryder](#) (Concordia, Centre for Clinical Research in Health)

[Dr. Adrian Tsang](#) (Concordia, Center for Functional and Structural Genomics)

### Session 2 (Friday October 21, 18h00, EV6.735)

#### Title: "MELTING"

[Dr. Shimon Amir](#) (Concordia, Centre for Studies in Behavioural Neurobiology, "Brain clocks: Interface between neuroscience and visual art")

[Dr. Andreas Athienitis](#) (Concordia, Centre for Zero Energy Building Studies, "My Solar House")

[Gabriela Reyes Fuchs](#) (Mexico/Topological Media Lab visiting artist - FONCA/ FOFA "Dead Soon")

Dainius Juras (Concordia, Mechanical & Industrial Engineering)

Dr. Pankaj Kamthan (Concordia, Department of Computer Science and Software Engineering, "Collaboration Matters")

[Najmeh Khalili-Mahani](#) (Concordia, PERFORM Centre, "Mindoscopy & Brainology")

[Christine Swintak](#) (Concordia, Faculty Of Fine Arts, "FOYER project")

[Dr. Suong Van Hoa](#) (Concordia, Concordia Centre For Composites)

[Dr. Rölf Wunthrich](#) (Concordia, Electrocatalytic Green Engineering Group, MIE. "ePersonalization and Electrochemistry 4.0")

[Cristian Zaelzer-Perez](#) (McGill, Neuroscience/Convergence Initiative, "Micro-Macro-Maniacal-Mechanical")

**KEYNOTE 1 (October 20, 20h30, EV1,605)**

**Speaker: Kim Morgan (NSCAD)**

**Title: "Lab/Work: Experiments in Art & Science"**

[www.kimmorgan.ca/blood-work/](http://www.kimmorgan.ca/blood-work/)

**Summary:** Kim Morgan will give a public presentation focusing on her work and other artists' work which converge on the boundaries of art, medicine, science and technology with a focus on the body. She will discuss her own practice and experience as an artist-in-residence both within the context of art residencies, such as her current position as international artist-in-residence at Artpace, San Antonio, and at academic and research institutes such as the University of Regina, TRILabs Regina, and most recently, at the Dalhousie Medical School where she developed and created her current project, Blood Work. Through examples she will emphasize the various roles art and artists play in these types of partnerships and collaborations: how art can push research in medicine, science and technology in unique and unexplored directions, the mutual benefits of this work to all participants, the challenges, and how these projects interact with the public to open up a space of curiosity, knowledge, and understanding.

**Bio:** Kim Morgan (BA McGill University, BFA The School of the Visual Arts, New York City, MFA University of Regina) is a visual artist working in multi-media sculpture and installation. For the last ten years she has been exploring the process of cross-disciplinary collaborations through the creation of public art projects in partnership with scientists, engineers and other artists. Such projects use the public space as a laboratory to explore new ideas. Within this framework, her work addresses the impact of technology on the human body, our perceptions of time and space, and the shifting boundaries between the private and the public. Recently Morgan was the artist-in-resident at the Dalhousie Medical School, HEALS program. From 2004 to 2008 she was the artist-in-residence at TRILabs, University of Regina. Other residencies include: Artpace San Antonio (Fall 2016), Robert Rauschenberg Residency (Summer 2014), The Banff Art Centre (2015). Morgan received the Nova Scotia Masterworks Award 2012. She was the co-recipient of a SSHRC (Social Science Humanities and Research Council) Research and Creation Grant, and she has received grants from, Arts Nova Scotia, the Saskatchewan Arts Board, and the Canada Council for the Arts. She lives and works in Halifax where she is an Associate Professor at the Nova Scotia College of Art and Design.

**WORKSHOP (October 22, 14h00, location TBA)**

**Workshop leader: Joe Davis (MIT)**

**Title: "ABCs of DNA: Introduction to Art Making with DNA and Principles of Genetics"**

**Summary:** Is there an art to genetics? Ever wanted to include biological material in an artwork? MIT/Harvard artist-scientist Joe Davis leads an 'everything about DNA' workshop for artists and scientists, curious and initiated alike. In his words, this workshop covers: Use of modular assemblies and visual compositions for hands-on instructive exercises about basic principles of DNA structure and operation of the genetic code. These activities will include details about the so-called "Central Dogma" of molecular biology which describes fundamental cellular machinery involved with transcription of DNA into RNA and the process of translation of RNA into protein. Workshop participants will be encouraged to create alternative structural models and will learn how to create artworks that code language and color into sequences of DNA and vice versa.

Free of charge, registration required. Please contact Peter Flemming ([peter.flemming@concordia.ca](mailto:peter.flemming@concordia.ca)) for details.

**KEYNOTE 2: Joe Davis (MIT/Harvard Medical School), "Forecast for a Vitruvian Age"**  
**October 22, 15h30, EV1.605**

[https://en.wikipedia.org/wiki/Joe\\_Davis\\_\(artist\)](https://en.wikipedia.org/wiki/Joe_Davis_(artist))

**Summary:** The arts and sciences are becoming ever more familiar, even indefensible companions in the quest to reveal the mysteries of life and summon the deepest sources of human spirit. The rise of Romanticism provoked a grand capitulation to powers of faith, superstition and revelation. Champions of Counter-Enlightenment preached submission to authority of monarchs and aristocracy that in turn fostered cruel social consequences and global environmental catastrophes of the industrial revolution. Revivals and evangelical movements marked a return to pious religious values. Artists represented a world subject to the hand of God, with human beings portrayed as tiny figures in vast panoramas, no longer the masters of their environment. Opposition to the awesome scale and monstrous power of nature was seen as human vanity, hopeless and futile. Yet creation and preservation of the rich legacy of civilization automatically imply running battles with harsh effects of radiation, thermal extremes, erosion and corrosion, vagaries of climate and terrible natural disasters. Like science, art is expected to describe the whole world, but artists simply cannot describe those things they choose not to understand. Marcus Vitruvius Polio, a polymath in the court of Caesar Augustus (ca. 1st century BCE), wrote about the things he thought an artist should know. These included topics in mathematics, geometry, history, physics, philosophy, astronomy and physiology. Two thousand years on, Vitruvius might have added a few subjects to the list. The artistic search for qualities of vitality and function that distinguish life and death descends to us from Vitruvius' time. Yet, in the span of a few decades, once mythical tools to discover and implement these qualities have become tangible, widespread and enormously powerful. A new generation of explorers inhabit the overlapping metacosm that resides both within and around humankind.

**Bio:** While earning his Creative Arts degree (1973) from Mt Angel College in Oregon, Joe Davis pioneered sculptural methods in laser carving at Bell Laboratories in Murray Hill, NJ, University of Cincinnati Medical Center Laser Laboratory and other nationally renowned laboratories. He joined MIT Center for Advanced Visual Studies in 1981 as a Research Fellow and in 1989 Davis joined the laboratory of Alexander Rich at MIT where he is widely regarded to have founded new fields in art and biology. In 2010, he joined the laboratory of George Church at Harvard where he is designated "Artist Scientist." Davis is also currently affiliated with Thomas Schwartz Laboratory at MIT Biology. In 2011 Davis worked with collaborators to genetically modify silkworms to produce transgenic silks biomineralized with metallic gold turn silk into gold. Davis initiated Astrobiological Horticulture in 2016, a multifaceted project to create organisms suited for survival in extraterrestrial environments.