04  EDITORIAL
    Francis Christian

06  ENCOUNTERS WITH SURGEONS
    John Graham-Pole

10  HYBRID BODIES: INTERSECTIONS WITH MEDICINE, SCIENCE AND ART
    Ingrid Bachmann

16  OSLERIUM
    Francis Christian

18  CHAUVINISM IN MEDICINE
    Sir William Osler

22  THE VERY GOOD AND THE VERY GENTLE AND THE VERY BRAVE
    Ronald Nguyen Haisen

30  POETRY CORNER
    Andrea Guebert

32  ZHIVAGO: DOCTOR IN LITERATURE
    Excerpts from memoirs of R. M. Kirk
    Chapter 6

38  SUBMISSION GUIDELINES
HYBRID BODIES: Intersections With Medicine, Science and Art

Ingrid Bachmann, Associate Professor
Studio Arts Department
Concordia University, Montreal, QC

This engraving of a common household flea is one of my favourite images by one of my favourite natural scientists Robert Hooke, the 18th century scientific experimenter and inventor. Hooke made significant contributions in the fields of physics, astronomy, biology and medicine. In 1664, he published his book, Micrographia, a book of observations he made using the compound microscope he had recently invented. Hooke was developing and working with the latest, most advanced technology of his time but with that technology, he observed what many might consider to be the most mundane and prosaic things. I find it interesting that one of the first images he produced with the aid of his new technological device, is this image of the common flea. In fact, in Micrographia, he waxes rhapsodic about the beauty and strength of the flea.

I feel a special kinship with Hooke because as an artist, my work is also fuelled by observation and curiosity and I like to work with new technologies and science and am deeply invested in the world around me. My collaborators have included individuals, buildings, the movement...
of the earth's tectonic plates (seismic shifts), and hermit crabs. So I have always been interested in exploring alternative ways to make art and this has led me to some remarkable collaborations with scientists, programmers, and medical practitioners.

In 1992, pre WorldWideWeb (WWW), I worked on an early internet project, A Nomad Web: Sleeping Beauty Awakes, to see if this new digital terrain might provide an interesting space for art. And in 1995, I worked with colleague Barbara Layne and seismologists at the Canadian Geological Survey and California Institute of Technology to create Fault Lines: Measurement, Distance and Place. This project involved the simultaneous production of two textiles in two distinct locations Montreal, Quebec and Santa Monica, California that recorded, measured and transformed seismic information from each of these two sites into a woven record. The seismic data was transmitted via phone modems (!) from one site to computers attached to textile looms at the other site. The daily seismic records of Santa Monica and Montreal were woven over the period of one month and resulted in two 17 metre cloths.

In the spring of 2001 I undertook a research trip to a number of leading scientific laboratories in the eastern United States that specialize in advanced medical textile research and production. In one case, the animal tissue of specially bred pigs are attached to a sewing ring of metal or plastic sheathed in a custom knit fabric (usually Dacron or polytetrafluoroethylene) to create a biomechanical heart valve used in valve replacement. These early explorations and projects laid important groundwork for future collaborations.

In 2007 I, along with three other artists: Alexa Wright (UK), Catherine Richards (Canada), Andrew Carnie (UK), was invited to participate in a unique interdisciplinary research project in the non-medical aspects of heart transplantation.

Few organs are as charged as the human heart. Seen as both the seat of human identity and the archetypal symbol of love, it is an organ that has been ascribed qualities and associations far beyond its anatomical functions. Since the first heart transplant in 1967, the purely mechanical process of the operation has been streamlined. Today the medical model is understood well and a heart transplant is almost a routine operation. However, the psychological impact on transplant recipients is
referenced ideas around embodiment, and identity, themes that are central in the PITH research. This first meeting proved to be pivotal as it was at this meeting that we became a team. The second in-process exhibition was held at the Hexagram Media Centre at Montreal’s Concordia University at the same time as the annual International Society of Heart and Lung Transplantation conference, which was held in Montreal that year.

From these meetings and in-process exhibitions, a great deal about contemporary art and exhibition practices was discovered regarding their impact on the viewer. Or more specifically, on viewer’s bodies. First, many galleries are not easily accessible physically to the disabled or infirm and few galleries grasp the importance of providing seating. Secondly, lower lighting levels made viewers less aware of themselves as spectators and more comfortable in viewing art and art forms that may be unfamiliar. Third, contemporary art galleries are intimidating to many members of the public, thus direct invitations from research team members were critical in attracting and reaching diverse audiences. Finally, the artists’ presence as intermediaries to the work in the test phases was essential. We were able to talk to visitors and get feedback firsthand. The final works were generated from the findings and on the feedback received from recipients, their families as well as medical professionals.

For Hybrid Bodies, I created two works, The Gift, and A/Part of Me. The Gift, a multi-channel video installation that explores, through movement, the experiences of heart transplant recipients. In watching the interviews with transplant recipients I was struck by the compelling gestures of the patients, gestures that were often at odds with their words. I chose to work

we returned to our respective studios and began to develop and prototype artworks based on the rich findings of the PITH team’s research.

Another important element in the arc of the project was in-process exhibitions. These semi-public events allowed us to present our art work in process. The primary purposes of these events was to share knowledge and progress in research between teams, and also to present the artworks in process for feedback from invited artists, healthcare professionals, patients, and selected members of the public. For the first exchange, the artists installed work at a local Toronto gallery, YYZ. The artists showed earlier works that
with two dancers to express through movement and gesture the complexity of the transplant experience. With transplantation, the notion of the dyad is re-occurring - the relationship between the donor and the recipient; the healthy and the unhealthy heart; the body's need for a new heart and that same body's immune system's rejection of it; the gift as both burden and gift. As the experience of transplantation is a very private one - transplant recipients carry no visible trace of their experience in spite of having undergone a very intense and traumatic experience - I wanted to make a work that was both intensely physical yet not material. I worked with two talented dancers, Linnea Gwiazda and Maxine Segalowitz. The themes I chose were the gift; ambivalent host/ambivalent guest; weight; I'm great...but; grasp; territory; the intruder; failing. I felt the medical practitioners had taken such a risk in pursuing this research that I wanted to also take a risk in my own artwork. I am a visual and media artist, not a choreographer so working with dance was quite a leap for me.

In the audio piece, A/Part of Me, I used the body both as the means and the site for listening to the narratives of the transplant recipients. I recorded friends reading so no one could be identified. Also the words, "heart" and "transplant" were not included in the text. Visitors hear the stories of transplant recipients intimately in their body and through their body. Bone transducer sensors are used to conduct the sound in the listener's body. Bone conduction is the conduction of sound to the inner ear through the bones of the skull. Typically sound waves travel through the outer and middle ear before arriving at the cochlea in the inner ear. But sound waves can also get to the cochlea through direct vibration of the bones in the head. Bone transducers translate sound into vibration patterns, which conduct sound to
the inner ear through the bones of the skull. Only the person holding the transducer to his/her bones can hear the sound. The transducer can be moved to different bones, on the temple, chin, or cheekbone to hear the sounds. If the listener plugs his or her ears the sound will still be heard. As the experience of transplantation is an intimate one, the work is both intensely physical, yet immaterial. The Hybrid Bodies artworks were presented in the first public iteration at the PHI Centre in Montreal, Canada in 2014, at Kunst Kraft Werk in Leipzig, Germany, 2016, and Gallery West, London (UK) 2017.

As an artist this project has been one of the richest and most thought provoking of my career. It challenges traditional notions of artistic license and also suggests new roles for the artist. I learned a great deal from working with the transdisciplinary team. I was impressed by their commitment to the patients, their willingness to work outside of their comfort zone to ease the distress of their patients. Although our fields are quite diverse, there were many surprising elements of commonality. Visual arts belong to a different register and reach different communities than the specialized discipline of medicine and generally do not follow a quantitative methodology. But as artists we can perhaps contribute in bringing important scientific information into the social and cultural sphere in novel ways.

We are in our 10th year of working together. The PITH project ended in 2014 but we have begun to work on a new project together that explores donor families and anonymity around organ donation. I look forward to the next 10 years.

www.hybridbodiesproject.com
www.ingridbachmann.com

Ingrid Bachmann is a Montreal artist who works in multiple formats including kinetic and interactive sculptures and installations, drawing, sound and video. Technology, both redundant and new, figure in her work as do the stories that are told around them.

Bachmann has been involved in a multi-year art-science project, Hybrid Bodies, in collaboration with an interdisciplinary scientific team to explore the non-medical effects of heart transplant in recipients.

Bachmann has exhibited her work nationally and internationally including the 11th Biennial of Havana (Cuba), Manifestation D’Art International 6, (Quebec), the Southern Alberta Art Gallery (Canada), as well as exhibitions and festivals in Belgium, the U.S., Estonia, Singapore, Peru, Cuba, Australia, Hong Kong, and the UK. In 2010 Bachmann was awarded the Paris Studio, La Cité International des arts, from the Canada Council. Bachmann is currently Associate Professor in the Studio Arts Department at Concordia University in Montreal, Canada and the Director of the Institute of Everyday Life, art-ideas research lab.