

IOTA is a creative agency that supports writing, curatorial research, and cross-disciplinary artworks in new media, the web, visual, interactive and performance art.

We aim to reach beyond the scope and duration of traditional art exhibitions, to create an environment that fosters research opportunities, multi-sector partnerships including technology, biology, and grass roots movements.

Between October 2018 and June 2019 IOTA Institute hosted a series of free public exhibitions, events and installations in Halifax, NS. Whether it's creating microbial art using yeast, or engaging with a full-body exoskeleton, **Bio Art** is a practice that transcends the fields of visual art, media art, and science — applied, social and political. This continuously evolving practice also tests (and sometimes breaks) the boundaries of these fields. .

# INTERVIEW WITH DR. JENNIFER WILLET

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by Jessica Winton, 2020

Dr. Jennifer Willet is an artist, curator, and leader in the field of bioart. Her work resides at the intersection of art and science and interspecies interrelations in the biotechnological field. She has recently become a mother of twins alongside holding the Canada Research Chair in Art, Science, and Ecology and being a professor in the School of Creative Arts at the University of Windsor. In 2009, Dr. Willet founded and now directs INCUBATOR Art Lab – a BSL2 certified bioart teaching and research facility in Windsor.

This innovative facility is a certified biotech laboratory, an art studio, a classroom, a gallery and a performing arts venue. INCUBATOR Art Lab allows researchers to reimagine our shared biotech future from truly interdisciplinary (arts, sciences, humanities, public policy) perspectives.

I was pleased to interview Dr. Willet via phone during the Spring of 2020 (during the COVID pandemic) which added certain poignancy to our discussions of microbiology and the future.

**JESSICA WINTON:** In describing your work, such as *Laboratory Ecologies* you have explained “*The lab is a complex ecology itself connected... to other human and non-human organisms in the earth’s ecology.*” As creative makers, we are all complicit in some forms of ecological destruction. I, myself attempt to reconcile my creation of plastic waste through the public education component of my work. Is there a similar reconciliation for your work and the environmental effects of waste produced by laboratory processes?

**JENNIFER WILLET:** This question keeps me up at night. There is an internal dilemma here, especially for artists addressing ecological questions through their work. Is it better to make and exhibit work addressing ecological concerns? Or is it a better contribution to sustainability to not make the work at all. In the past, I was very optimistic about the social transformation that could result from the production of artworks in the bioart genre. My thoughts have become more complex as I age. The results are less immediately visible than I thought they would be. I still believe that images and meaning produced in contemporary art circles have some impact – and certainly if you look at art history there seems to be a 100 year trickle-down effect of concepts and ideas entering into mainstream society.

Some proactive steps I am taking through my work:

- In my research group we are re-defining the terms for environmental assessment that go beyond standard practice in terms of ecological impact. One of the things we are looking at is using traditional glassware instead of disposable plastic items. There have been new guidelines developed in biomedical research at University College London, where they are moving to glassware wherever possible and making the argument that the health of the global environment should be considered alongside the individual dangers that are presented by working with glassware.
- I am working more locally, on my own projects – in seeking collaborators, and in developing projects that will benefit my community. I am

also engaging in less travel, for myself, team members and visiting artists. This recent pandemic has proved through experience that we can just STOP and come up with other ways of working together. Another good example is the band *Coldplay* has paused touring until they can figure out a sustainable model for traveling live music shows. I also would like to recognize that although we can make individual changes, corporate and government policies that address industrial CO2 emissions and waste are where the most significant solutions will be found.

- I am looking at models for digital production to engage audiences internationally to limit travel, shipping, and construction for exhibitions shows. A stunning example is Tina Tarpgaard’s recent choreography work called “*as I collapse*” (2020) where audience members experienced a deeply intimate and transformative performance via zoom. In this instance, the performer collaborated with water and AV equipment to connect their body with viewers and organisms across space and time. Though it is important to note, that use of computers and the internet also has significant environmental costs.
- I recognize and articulate my own hypocrisies in my daily life, written papers and presentations. I remain open, and listening, and learning from experience and others about how better to proceed.





**JWINTON:** I notice the term “ethics” often arises in your laboratory research. There are ethics implicit in creating environmental/ecological art, and there are ethics codified in laboratory procedures. How far apart are these?

**JWILLET:** Yes, there are several sets of ethics operating in any given situation — and as an artist working in the bioart genre I am exposed to how ethical frameworks shift between different communities, governing bodies, cultures, individuals and situations.

I work with tactical art-making strategies in this regard — stretching some rules past their intended limits and pulling back from other acceptable practices in the sciences that I am uncomfortable with. Since I work in an institutional environment I am not as flexible as some independent artists are able to be. However, there is still a lot of wiggle room, and a lot of institutional and regulatory impact possible as a result of my actions.

I have come up with my own ethical framework for how to treat others (humans and non humans) but also exchange interactions (economic, management, creative). I work to educate myself around how institutional bias (misogyny, colonialism, capitalism) and personal bias determine what is ethical and I try to challenge those models. This framework is always evolving. I have made large and small mistakes. It is an ongoing project, and I am continually learning from new experiences and others about how better function in this regard.

Engaging deeply in this type of institutional work has transformed me over the years from a spritely and unruly artist into a middle aged bureaucrat. Stringent written and unwritten rules, endless paperwork, certifications and approvals, accrues and forms outcomes that are imprinted in my psyche, my art practice, my body, in my behaviour. Good thing I have such an active imagination and a quirky sense of humor.

**JWINTON:** Your work operates, and is funded, across the fields of Fine Arts, Scientific Research and Public Education. Is it important that you reach outside the artistic field through collaboration to elucidate the considerations of artmaking to others?

**JWILLET:** I am always an amateur because I have such diverse fields of inquiry in my research and creative practice. So, I have to collaborate with a lot of specialists. These are often scientists, social scientists, community groups and business entities. I try to meet people where they are at and learn from them. I spend a lot of time in field and lab research facilities shadowing PhD students, reading papers I do not understand, and asking strange and unusual questions towards artistic ends. Often towards the end of a collaboration the scientists I work with will comment that the experience of working with an artist was also impactful on their own research in ways that surprised them.

Another area of interdisciplinary collaboration happens in my research lab at the University of Windsor. At any given time we have 6-9 artists, scientists, filmmakers, philosophers, working together to produce research and creative works. I see myself functioning like a film director in this context, where I employ multi-disciplinary collaborators towards producing work that is larger than I could ever achieve alone, and so much improved for their contributions. I strive to pay well, and mentor junior members on their own career development. I ensure all contributors receive public credit for their work.

Some of my collaborators are unwitting. I work with numerous non-human organisms towards the production of artwork. In this regard, I try to figure out what the organism likes to do, and prefers not to do

— and work to facilitate those choices. I do not assume that I am the driver of these interspecies relationships. Bacteria are very smart — they know how to persuade us and teach us to do their bidding.

Other unwitting collaborators include bureaucrats and other institutions: Health and Safety officers, permit arbiters, granting officers. To be successful in engaging with these organizations I have to learn the goals, vocabulary, community standards of each institution. Through each interaction I am expanding knowledge of contemporary art and the field of bioart. Inversely, I am transformed through learning what their values, objectives, and needs are. In these contexts I am a performer, a participant, and an audience member.

**JWINTON:** Humour is evident in the composition and interactions in your public work. You've stated, "Whereas lab equipment designed as part of *Baroque Biology* are counterintuitive, they imagine biotechnology research integrated into everyday life, life of the family and child, a life including imagination and play." Do you think play and absurdity a grounding action of the propositional realms to your research? Is humour also found in the microbe interactions that are created?

**JWILLET:** I enjoy wonder and play. I am a very silly person, it's my nature. Humour is also a tool that can allow difficult conversations to happen. Earnest humor can soften the edges of critique, and support political dialogue in less adversarial ways. I also use humor to encourage cross disciplinary audiences to see and value bioart contributions as I present my work in a lot of non-art contexts. I used to use self-deprecating humour a lot, but I have really moved away from that as I think it re-emphasizes notions that women and artists are not serious contributors to society.

Laugh out loud humor can also provide embodied experiences for audiences, enlivening the moment, allowing them to feel themselves experiencing an artwork, another human, a non-human organism. In terms of embodied experience, this relates to ethics: embodied experience breeds a different response than a more cerebral, objective, cost/benefit analysis of any situation.



I also wonder can we share humour with other organisms? Or in the shared presence of other organisms? There are a lot of fart jokes in my lab - our experience of the microbes producing smells as a result of their metabolic processes evoke humour in the human participants on a regular basis.

**JWINTON:** Much of your laboratory artworks involve revealing invisible lives and encouraging audiences to look closely. Is the magic of this act what drew you to this bioart realm?

**JWILLET:** I am very motivated by vision — making things visible, actively looking, enjoying the pleasure derived from seeing. I often say that a large portion of what I am teaching my students is how to look very, very carefully, and how to read and write in visual language. Merleau-Ponty says in *The Visible and the Invisible* (english trans, 1968.) "The look, we said, envelops, palpates, espouses the visible things." His description of the eye massaging the seen world describes my embodied experience of looking carefully. Pairing this work with considerations surrounding the politics of looking (i.e. *Ways of Seeing*, Berger, 1972) and/or being seen is an essential turn in my practice as a bioartist.

Strangely, I also have very poor vision. I am legally blind without my glasses. When I drop my glasses I often have to ask someone to help me find them. I am fearful that one day there will be no form of augmentation that will allow me to see well.



### JWINTON: What's next?

**JWILLET:** There is often a significant time lag between the conception of my works to the making of objects — the works you are seeing now began percolating in my mind 5-7 years ago.

In 2015 I gave birth to fraternal twins! This astonishing event seemed curiously foreshadowed in my work through years of repeated visual symmetries, pairs, conjoined twins. And my work in the lab is often about encouraging unusual bi-

There is certainly some magic in the experience of exposing unseen things to the seeing eye. In the history of science there are many stories of this revelation. The invention of lenses, for example, made worlds large and small visible to us. Ocular microscopes and telescopes are similar vision technologies, the invention of both opened up conceptual worlds previously unknown to humans. I often remind my students that lenses were similarly transformative to human civilization as the internet or iPhones are today. I use a lot of microscopy in my teaching and art practice. I collaborate with many microbes in my work - often deploying molecular transformations and cultivation techniques intended to make our invisible co-pilots in living perceivable to human audiences.

However, it was not microscopes, but human anatomy (also a practice of making the unseeable visible to the human eye) that drew me to bioart. While drawing preserved cadavers in the human anatomy lab at the University of Calgary I was exposed for the first time to a recently deceased corpse. As the surgical students practiced on a table next to me, the interior landscape of the human body was laid open to my witness. I learned that day that human flesh is a form of camouflage for the multi coloured, sometimes iridescence of the interior human body. Had I ever been hunting, or participated in the slaughter of an animal, I would have already carried this knowledge with me.

ological and reproductive events in microorganisms. With my next body of work I am thinking a lot about reproduction, mothering and care. I am thinking about the forms of care I show to non-human organisms in the lab, towards pets, students and family are all interrelated, possibly entangled activities. Having now undergone the process of biological reproduction myself, I have also become keenly aware of what I am asking of other organisms in the lab. Biological reproduction and care of offspring is an incredibly liminal activity, and I consider how those activities might affect an organism in the production of biological artworks.

I am also thinking a lot about this same set of questions within the context of the COVID-19 Pandemic. Unlike my usual creative process, I find myself very immediately responding to the social, political, familial, biological ground shifting under our feet while waiting out this time of social isolation.

Lastly, I am very excited to announce the University of Windsor is investing in a new storefront studio for my research group called INCUBATOR Art Studio in downtown Windsor this fall. I am working with the architects now. The space will be beautiful, an immersive artwork itself. The 1700 sq/ft space will function as an art and design studio, a shop, a community workshop hub, and a bioart laboratory. Stay tuned!

**Dr. Jennifer Willet** works internationally as an artist and curator in the emerging field of Bioart. Her work resides at the intersection of art and science, and explores notions of representation, the body, ecologies, and interspecies interrelations in the biotechnological field.

Willet's work has been exhibited at the Arnolfini Museum, Bristol UK (2010), Exit Art Gallery, New York, NY (2009), Ars Electronica festival, Linz (2008), FOFA Gallery, Montreal (2007), ISEA San Jose, USA (2006), Biennial Electronic Arts Perth Perth, Australia (2004), The European Media Arts Festival Osnabrück, Germany (2003), La Société des arts et technologiques (SAT) Montreal, Canada (2005), and The Forest City Gallery London, Canada (2004), amongst others. She has conducted research during residencies at The Banff Centre for the Arts Banff, Canada (2002, 2007, 2009), and SymbioticA, The University of Western Australia, Perth, Australia (2004, 2006).

Willet holds a PhD from Concordia University in Interdisciplinary Humanities Program, and an MFA from the University of Guelph. She has taught in Studio Arts at Concordia University, at the Art and Genomics Centre at the University of Leiden in the Netherlands, and now works as an Associate Professor in the School of Creative Arts at The University of Windsor.

In 2009 she opened INCUBATOR Lab, the first biological art lab in Canada. In January 2018, INCUBATOR launched a new theatre/laboratory facility where live audiences can view multimedia bioart performances through a glass wall. Jennifer Willet is partnered with the IOTA Studio Gallery.

<https://incubatorartlab.com/>

**Jessica Winton's** art practice is based in Halifax, though her projects often carry her off into the streets, woodland and open fields. As an advocate for art in the public realm, her work includes gallery exhibitions, unsanctioned interventions, and participatory events while congruently developing critical thought supported by her writing.