



Performing Biotechnology: Reimagining inter-artist/interspecies interrelations in the laboratory with Kira O'Reilly.

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We are living in a time where our perceived relationship with the earth's ecology is undergoing significant change. In the same instance as we are losing biodiversity within our terrestrial and aquatic ecologies, we are producing an exponentially growing biomass of new organisms and biomaterials through science, medicine, and agricultural technologies. In the laboratory environment, we are producing a new class of life forms¹ cells and serums, partial and hybrid life forms, organisms that could never exist outside of the confines of the lab. In a larger sense, we are populating the lab with a new genealogy of life (E. coli x1776, BioSteel™ Goat, and HLA-B27 transgenic rats).² Although these life forms are not permitted to leave the lab, their byproducts and research implications are transforming our bodies, our ecologies, and by extension our cultural and social connections with each other and the natural world. The distinctions we have historically drawn between what is 'natural,' and what is unnatural, or virtual, or invasive are deeply complicated and transformed by the biotechnological processes we have devised.

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Fig. 1



Fig. 2

Kira O'Reilly and Jennifer Willet. *Untitled (Hamster Ovaries Protocol)* The Art and Genomics Centre, University of Leiden, The Netherlands, 2008

Photos by Rune Peitersen.



Fig. 3



Fig. 4

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Kira O'Reilly and Jennifer Willet. *Refolding (Laboratory Architectures)* School of Biosciences at the University of Birmingham, 2010

Photos by Hugo Glendinning.

I have worked in biotechnological laboratory settings as an interdisciplinary artist for almost ten years³ beginning in 2004 at *SymbioticA the Art and Science Research Laboratory*⁴ in Perth, Australia. My first experiences in the lab produced an acute disillusionment; as the distinction between what I thought I knew about biotechnology, and the actuality of biotechnological processes was manifest. I learned that the laboratory was not in fact the crisp – sterile – perfect – digital environment I had imagined. It was haphazard – makeshift – often dirty and smelly. The lab reminded me of a very unusual zoo: teeming with life (and parts of life) and all the messy and unruly byproducts that caging life entails. I realized for the first time that biotechnology intrinsically involves the manipulation of life towards human ends. Previously, I had understood this notion in an abstract and intellectual sense. During my time at *SymbioticA*, I participated hands-on in transforming life as a technological tool through a variety of biotechnological protocols. These experiences lead me to investigate from an artistic perspective what are the ramifications of this transformed relationship we now possess with other organisms in the lab – and by extension with life on this planet?

Kira O'Reilly⁵ is a significant UK based artist, whom I met during my time at *SymbioticA*. She and I shared the woes of maintaining life in a laboratory setting for the first time; from difficulties in learning the fine dexterities of tissue culture techniques, to ethical considerations of 'care' for the *cells* and 'care' for *ourselves* in the tissue culture process. We worked through written and verbal language to explore the complexities of what we were experiencing, but eventually turned to action, performativity, and photography to express the folding and unfolding of bodies and biomedica⁶ in the biotechnological domain.

In 2008 we conducted our first photo shoot at *The Art and Genomics Centre*⁷ at the *University of Leiden*. We were granted access to a defunct tissue culture laboratory and proceeded to conduct all of the actions in this environment that would be prohibited in a normal functioning laboratory. Our primary focus was to place ourselves (the artists/humans/scientists) within the sterile work environment normally reserved for microscopic research specimens. While in the hood we experimented with a variety of actions and positioning of our bodies within this strange and taboo environment. (fig. 1) We also performed regular tissue culture procedures, preparing and replacing the nutrient serum in a vial of cells (CHO *Cricetulus Griseus* Chinese Hamster Ovary Cells.) (fig. 2)

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In 2010 we conducted a series of three photo shoots at the School of Biosciences at the University of Birmingham. We had access to three working laboratories, a tissue culture lab, a general teaching lab, and a molecular cell biology lab. Additionally we were allowed access to the departmental biological specimen collection, and a variety of live organisms from ongoing experiments from across the school (including algae, moss, mammalian cells, and 2 boxes of flies.) Costume designer Shanti Freed worked with us to re-tool two ornate architectural origami kimono-lab coats for the project.

In each of these photo shoots we worked to combine image making, performance strategies and imaginary narratives into complex artworks. We considered notions of folding proteins, layers of cells – layers of culture, fabric folds, folding bodies – folding life. We spoke about laboratory protocols as denaturing natural history and traditional conceptions of human and animal bodies. We visited with researchers and technicians from the labs we had access to and collected stories and insights from their experiences working in the biotechnological field. We heard of one researcher who chased a mouse he had found living in the lab. Another researcher explained to us that anyone can get used to the pungent smells produced by thousands of flies living together in wire mesh enclosures. We practiced different entanglements, and unusual actions, in each site. We created a series of vignettes, menageries, typologies, articulating the complexities of artists and organisms cohabitating together in a complex laboratory ecology. (fig. 3)

In 2011 we began working digitally with the images we have created over the years. The acts we conducted in the lab were again perpetuated through digital folding. Selected images were mirrored. The entangled bodies were transformed, creased, and creased again, into conjoined biotechnological twins. (fig.4)

Dr. Jennifer Willet is an internationally successful artist 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. From 2000-2007 Willet and Shawn Bailey collaborated on an innovative computational, biological, artistic, project called BIOTEKNICA. At the same time, she taught in the Studio Arts Department at *Concordia University*, and completed her PhD in the *Interdisciplinary Humanities Program* at the same institution. Willet also taught “BioArt: Contemporary Art and the Life Sciences” for *The Art and Genomics Centre at The University of Leiden* in 2008, and now works as an Assistant Professor in the *School of Visual Arts, at The University of Windsor*. In 2009 she opened the first biological art lab in Canada, called *INCUBATOR: Hybrid Laboratory at the Intersection of Art, Science, and Ecology* at the UofW. In July 2011 she completed BioARTCAMP, a project that involved hosting 20 artists, scientists and students at The Banff Centre, where they built a portable bioart laboratory and conducted experiments in the Canadian Rocky Mountains.

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Notes

1 Ionat Zurr and Oron Catts. 2002. "The Emergence of the Semi Living." *The Aesthetics of Care?* Ed. Catts, Oron. Nedlands, Australia: School of Anatomy and Human Biology, University of Western Australia, 63.

2 "Centre for Post Natural History" (Artist Website) Richard Pell, accessed Oct. 01, 2012. <http://www.postnatural.org/>

3 "Jennifer Willet" (Artist Website) Jennifer Willet, accessed Oct. 01, 2012. <http://www.jenniferwillet.com/>

4 "SymbioticA" (Research Lab Website) accessed Oct. 01, 2012. <http://www.symbiotica.uwa.edu.au/5>

5 "Kira O'Reilly" (Artist Website) Kira O'Reilly, accessed Oct. 01, 2012. <http://www.kiraoreilly.com/blog/>

6 Eugene Thacker. 2004. *Biomedica*. Minneapolis: University of Minnesota Press, 6.

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7 “Art and Genomics Centre” (Research Group Website)
accessed Oct. 01, 2012. <http://www.artsgenomics.org/>