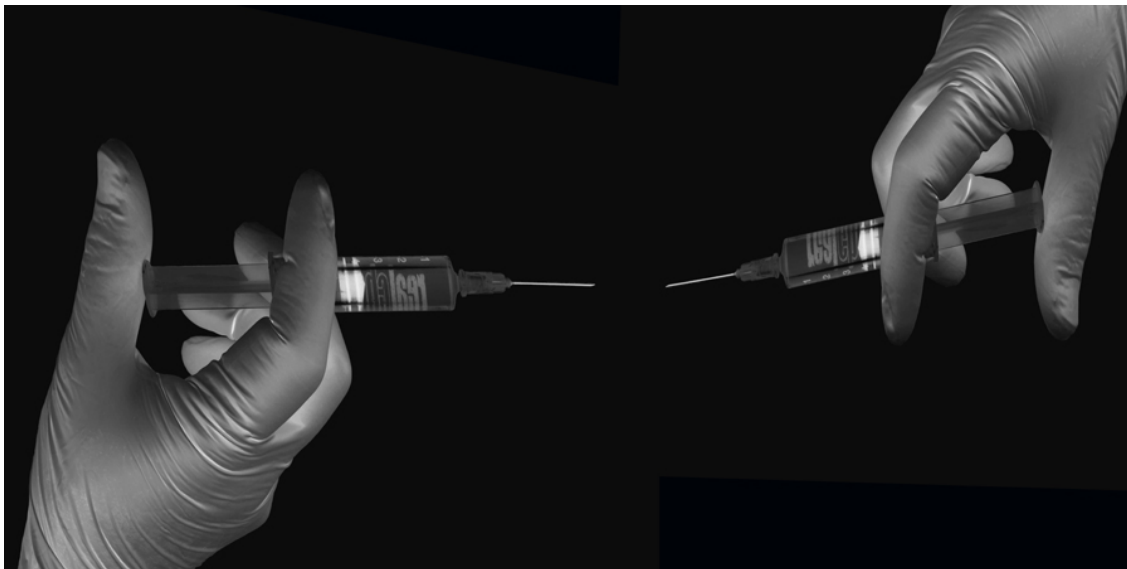


## LYNN HERSHMAN LEESON & Thomas Huber, anti-body or antibody?

Biomedica, Body Sculptures, Interviews, Key Artists



*"The immune system is a plan for meaningful action to construct and maintain the boundaries for what may count as self and other in the crucial realms of the normal and the pathological."*

Donna Haraway, *Simians, Cyborgs and Women; The Reinvention of Nature* (1991). *The Biopolitics of Postmodern Bodies: Constitutions of Self in Immune System Discourse*

**Lynn Hershman Leeson is a pioneering figure in media art.** Since the 1960s, the American artist has been creating works that address the interplay between technology, media, identity and the mutating relationship between the body and technology. She examines how new technological tools can impact our social life, our ideas about individual identity, and our relationship with the real and virtual world using photography, film, video, computer-based art and performance.

Taking from some of Donna Haraway's ideas, early in the 1990s, Hershman Leeson began working with the themes of artificial intelligence and virtual reality. A time when it became evident that it was no longer necessary to have a physical body to adopt a fictitious identity in the global network. She coined the term "anti-body" to refer to her research and work on virtual identity in cyberspace. She saw her "anti-body" (or alter-ego) as a viral presence that manifests itself in artificial intelligence fictitious forms, such as the online personas Agent Ruby and DiNA, roaming of the Internet and morphing to survive. As she explains: *anti-bodies identify, expose and transform toxins in culture. These same issues have permeated my work for the past 50 years.*

Now Hershman Leeson has brought her work a step further -in what seems the culmination of her research- with a **project rounding all this pioneering work with a major solo show, bringing together her latest work on biotechnological advancements, *Anti-Bodies*.** The exhibition comes from the hand of HeK (House of Electronic Arts Basel) [1] and central to it will be the final version of *The Infinity Engine* , a piece that raises questions around the ethics of DNA manipulation and its impact on society: how bioengineering is altering our concept of identity and human uniqueness. The piece will take the form of a composition of genetics labs with their unique signage and equipment, files of legal documents related to genetic engineering, and a facial recognition booth that identifies vital parts of the viewers' identity. Most excitingly, **it will also portray *The Antibody Room*, featuring the development of an artificially engineered antibody that bears the name "Lynn Hershman" in its molecular structure.**

A project developed in collaboration with Novartis and inspired by today's leading scientific research in the field. Antibodies, beside their widely known role as immune molecules and vaccines, have become a central tool for biotechnology and biomedicine and are well established therapeutic modalities in the Novartis portfolio. **Hershman worked alongside Dr. Thomas Huber** (the therapeutic antibody research group leader in Novartis) to create this new antibody. And, as it's standard in biotechnology laboratories, after the antibody was designed it has been subjected to a series of research experiments to discover its properties and potential therapeutic or research applications. Still undergoing investigations, it will be interesting to know what molecule this antibody targets and whether it is involved in any disease pathway (some preliminary results will be revealed on the 24th April, Dr Huber shared with us).

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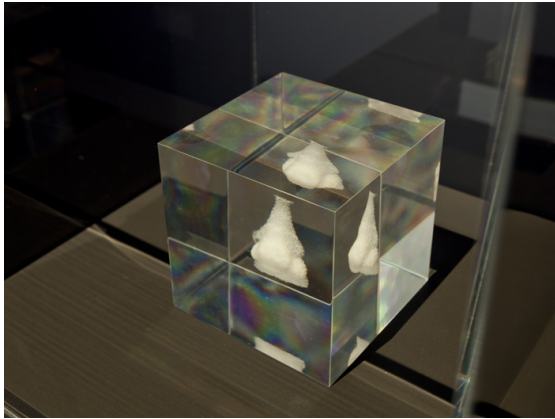
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With this latest work, Hershman Leeson gives a new biological dimension to the concept of "alter-egos" and what it means to be human. An antibody seems in her hands the ultra representation of identity in the form of a reactive molecule which actually can even be reactive against oneself. A representative example of the depiction of the technology-induced epistemological changes in art that started at the turn of this century.

[!] *Anti-Bodies* will run from May 3 until August 5, 2018 (in parallel to Art Basel).

Text by Meritxell Rosell (Twitter @dancingmoog)



(Lynn Hershman Leeson, *Bio Printed Nose*, 2015. From *The Infinity Engine* series. © Lynn Hershman Leeson)



(Lynn Hershman Leeson, *Lab* (detail). From *The Infinity Engine* series. © Lynn Hershman Leeson)

**Over five decades you have been exploring the relationship between humans (and in particular women) with technology, identity, surveillance and the use of media as a tool of empowerment against censorship and political repression. As a witness of the different social and political movements since the 1960s, how has your artistic practice evolved alongside the socio-political changes over all these years?**

LYNN: My experience in the 60's shaped my political interests and efforts. Being a direct part of the free speech movement in Berkeley and watching the formation of the Black Panthers and Woman's Movement, I began to understand the generation of content in work and how art could actually affect social change.

**Your upcoming exhibition, *Anti-bodies*, will be a solo exhibition bringing together your latest work on the theme of biotechnological developments. Lynn, could you tell us a bit about the intellectual process behind it? and Thomas, could you tell us more details about Novartis role in the Antibody room project and how it got involved in it?**

LYNN: It came purely with my own investigations that began in 2006, understanding that programming the genome was one of the most important acts of this era. I set out to investigate the effects of this by contacting scientists, sometimes Nobel winners (in this case, Elizabeth Blackburn who agreed because she had seen my film, *Conceiving Ada*) and visiting labs. The information I garnered with the more than 18 labs around the world shaped *The Infinity Engine*. It was through dialogue and understanding possibilities now available that the lab was shaped.

THOMAS: Antibodies are well established therapeutic modalities in the Novartis portfolio. Lynn Hershman approached Novartis to gain more insight into antibody discovery processes and applications. To explain our research activities and to personalize what Novartis is doing in research, the idea was created to design a novel antibody. Antibodies are made up of amino acids. There are 20 different naturally occurring amino acids and each is typically abbreviated by a letter, e.g leucine = L. The novel antibody will reflect Lynns name in its amino acid sequence, making up the region that is typically important to recognize antigens. The Lynn Hershman region of the antibody will mediate its unique character. Our part was the design, production and profiling of the antibody and generating data and reports of the process. For the exhibition, we will further provide some scientific equipment and the actual LYNN HERSHMAN antibody. It would be great, if the LYNN HERSHMAN antibody project may trigger some thoughts and excitement around the field of therapeutic antibodies in one or the other visitor.

**In *Antibodies*, you will be presenting for the first time *The Antibody Room*, featuring the development of an artificially engineered antibody that bears the name of Lynn Hershman in its molecular structure and developed in collaboration with Novartis. What were the biggest challenges you both faced in the development of the project?**

LYNN: I did not see any challenges. I worked with a great scientist, Dr. Thomas Huber, and the main challenge is seeing actually what the function of this anti-body will be on April 24. For the DNA conversation, I was lucky that the scientist's

actually what the function of this anti-body will be on April 21st of the DNA conversation, I was lucky that the scientist's brother was a sculptor so he was sympathetic.

THOMAS: Sharing research activities with non-scientists is often challenged by the complexity of the topic. To create a personal connection and allow a different perspective may facilitate it. How well can the LYNN HERSHMAN antibody be produced? May it have unique features? Could it treat diseases? Questions no one can answer before running the experiment. Novartis is typically looking at an extremely high number of different antibody sequences to identify the single one having the desired properties. Starting with only a single sequence bears a high risk that the antibody may be misbehaving. It was a great relief, seeing the first production data indicating that the LYNN HERSHMAN antibody was a quite good one.

**Thomas, Could you tell us a bit more details on the characterisation of the antibody? Have you used fluorescence technology (which can also have an artistic aspect) to identify any target antigen or potential therapeutic pathway?**

THOMAS: Therapeutic antibodies are typically aimed for extracellular (secreted or cell membrane bound targets). For the Lynn Hershman antibody we have indeed chosen a fluorescence based assay, which is based on a recombinant protein CHIP array having around 7000 different secreted proteins spotted. It was the wish of the Swiss TV that we will evaluate the CHIP experiment only when Lynn is visiting on 24. April. Thus, we don't know the results yet. A therapeutic antibody optimally recognizes specifically the single protein for which it was selected for and is not binding to any other. For the Lynn Hershman antibody we defined the sequence of the antibody and are probing for a potential binding specificity. My expectation is that due to the long binding loop it may bind weakly to a variety of proteins. If we would see a more defined specificity, or no binding to any proteins that would be extraordinary in my view. But we have to see... It still is an exciting experiment to run.

**Lynn, what were you most surprised about by closely working with scientists? What were you most fascinated by their research of the techniques used for the antibody development? And Thomas, has collaborating with artists had an impact on the way you view some aspects of your research?**

LYNN: Science is very creative, not different from making art. The difference in this case is you are working from the inside out of the human structure directly and making shifts that will enable recovery hopefully.

THOMAS: Scientists are trained to anticipate possible outcomes before actually running an experiment. This may also be reflected to some degree in the way they define as role as a project team member. Input might be provided according to expectation. Lynn has a very open mindset. This open frame gave room for the rather "unconventional" idea of this antibody project.

***The Antibody Room* culminates your body of work exploring the concept of "anti-body" or alter ego. This line of work started more focused through your examination of virtual identity in cyberspace and had evolved with a new set of meaning since the development of biotechnology. An antibody seems in your hands the ultra representation of identity in the form of a reactive molecule (which actually can even be reactive against oneself). In which ways do you think the new biotechnological advances are changing or affecting human behaviour towards identity ethics?**

LYNN: Absolutely I think I was always making antibodies. Antibodies identify toxins in the environment and attempt to neutralize them. This is what art does. Bio technology and ethics are no different than anything and ethics. It depends on individuals.

Antibodies seem to have always been part of my art practice. An antibody identifies toxins in culture and then attempts to neutralize or erase them. Roberta Breitmore and later Roberta's viralized representative multiples illuminated the rampant toxins of sexism in her 1970's era. By the mid 1980's antibody photographs appeared. In 1995 the text "Romancing the Antibody, Lust and Longing in Cyberspace" was published.

While the search for antibodies exists in all of my works, identifying the antibody moves inwards with this project and becomes an inverted biological gesture that has as its goal healing from the inside out, a cyborgian dream of infiltrating the body itself and thereby attempts to create a radical and curative recovery of individual culture

**Why do you think it's interesting or relevant to bring artistic projects in collaborations to scientific labs?**

THOMAS: Science and technology are progressing at an incredible speed. Key drivers are innovative ideas. Stepping out of the "routine" work and being exposed to new perspectives can provide the freedom required to find new solutions. Art can offer those perspectives. On the other hand, the collaboration between science and art provides a unique opportunity that people outside the lab can discover science in an inspirational way. And finally, also bringing scientists outside the lab to an audience that might be "scared" by the complexity or had just not have the opportunity to get involved into scientific topics.

**Are you optimistic or pessimistic about the future?**

LYNN: Optimistic, absolutely.

**What is your biggest enemy of creativity?**

LYNN: Administration. Overwork. No time. The burden of people not understanding what I am doing.

## You couldn't live without...

LYNN: Time, meditation, immersion into the poetics of living.

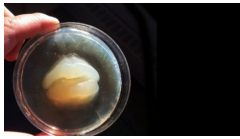
Websites: [www.hek.ch/en/program/events-en/event/lynn-hershman-leeson-anti-bodies-1.html](http://www.hek.ch/en/program/events-en/event/lynn-hershman-leeson-anti-bodies-1.html), [www.lynnhershman.com/](http://www.lynnhershman.com/)  
(Photo 1: Lynn Hershman Leeson, Double Syringe after Michelangelo, 2014. From *The Infinity Engine* series. Digital Print Photo. © Lynn Hershman Leeson. Photos courtesy and copyrighted © Lynn Hershman Leeson)



18 Apr 2018

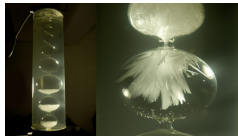
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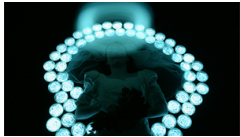
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