

UKI - ENTER THE BIONET

KARERON

The interactive installation Enter the BioNet launches us into the future in a science-fiction scenario in which the Net, the Internet of our time, has collapsed. The Genom Corp has taken human body hostage to initiate BioNet, a network made up of red blood microcomputing cells (erythrocytes) activated to recondition our desires.

We are infected. We are the virus. We enter the Bionet

Current scientific research in biotechnology as well as research in transgenic modification with human, plants and animal genetics has led us to the BioNet era. With genetic engineering, the GENOM CORP turns human bodies into computer cells : red blood cells (erythrocytes) are formatted as autonomous cellular computing units engaging in re-programming human sensations.

The GENOM CORP's aim is to reinvent human sensations in a self generative way. By altering human orgasm data, the GENOM CORP shuts down the need for human intimacy.

UKI - Enter the BioNet is a collective bio-game in which the players (virtually) infected as the UKI virus are invited as the game players. They enter the Genom Corp's BioNet to stop the red blood cells' production of self-sustainable orgasm. The players must cooperate to reach the same emotional state in which they can eliminate the altered red blood cells and take back the stolen orgasm data.

UKI – Enter the BioNet

<http://u-k-i.co>

A collective game with biosensors

For 2 - 8 players

Duration: 30 minutes

Artist: Shu Lea Cheang

Producer: Isabelle Arvers

Co-production: Pictanovo

Residence: Imaginarium

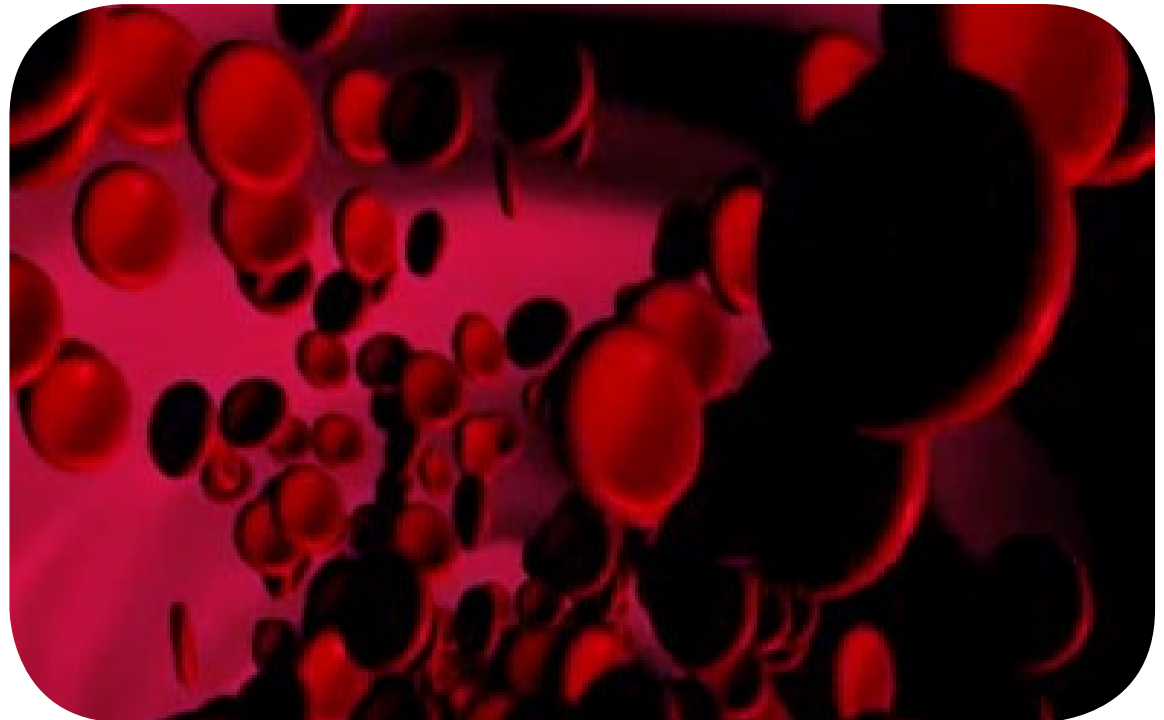
Technical director: Etienne Landon

Lights: Light Up with Christian Thellier

Sensor design: Martin Hug

Sound: Julien Ottavi

Play tests: Play in Lab



INSTALLATION/INTERACTIVE PERFORMANCE

In the actual economic and political context, bio data from our body and audio/video/text data from our communications are placed under surveillance by the government and used by companies for their own benefit. Humans, plants, animals' genes can be patented and privatized.

The interactive installation Enter the BioNet uses the artist's game format in order for the public to join in as performers to sabotage the BioNet.

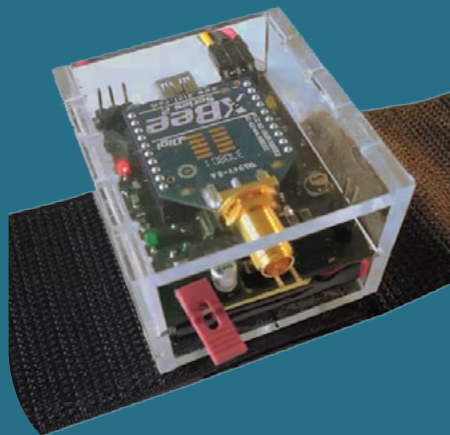
The public are immersed in a fictional BioNet where their bodies become the confrontation interface against the companies' control.

In this game, each player is equipped with a GSR (Galvanic Skin Response) sensor that collects data linked to the player's state of mind and physical

condition. These data are processed and transmitted live to the game programming system. The players have to synchronize themselves in reaching the same level of emotional state whereupon the red blood cells can be defeated. A score system that calculates the diminishing of blood cells bring the game to the END, the ZERO state.

Biosensors' data fluctuation effects the ongoing game and shows itself through a composed infra bass sound environment. Together, the data we collect, we possess, we transmit, are tools of resistance.

Hacking the BioNet and retrieving our own body data is in the end an artistic expression applied in electronics/computer science, visual imagery and audio amplification.



Before entering the installation's space, each player is wired with a GSR (Galvanic Skin Response) biosensor which measures skin moisture detecting the gamer's emotional state, heart beat and blood pressure.

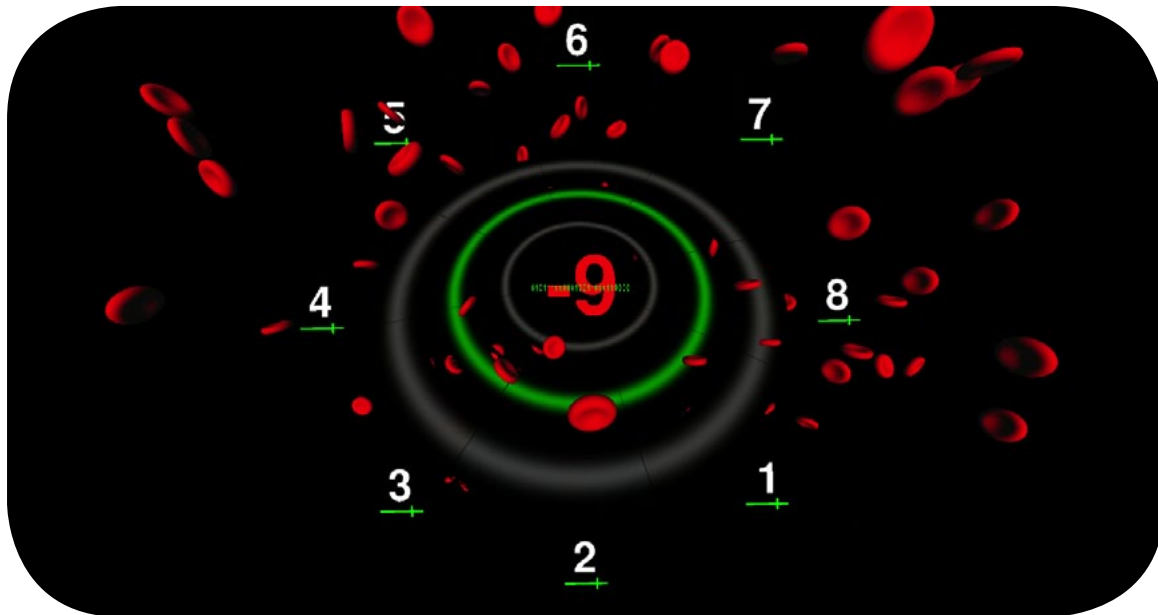
The sensor is built with a wifi (Xbee) transmitter and able to send the body sensing data to the system control computer set up in the space. The game allows 2 to 8 gamers to join.



The UKI virus (a.k.a the players) enter the Bionet where the luminous soundscape is shaped by the data collected through the sensors.

The infiltration into the BioNet is amplified by the sound production coming from eight loudspeakers (subwoofers), whose low frequency sound sends vibrations towards the public. Each player's sensing sensibility also modulates the fluctuation of the subwoofer's low frequency sound, jointly all gamers compose a soundscape of vibration.

The players and the public find themselves in a closed space, immersed in a digital mapping of flowing blood cells. The algorithm of diminishing blood cells calculated from players' joint sensor data tracks the game in progress. Three emotional levels showing the variation of players' emotional state arrives in a round circle when data is synchronized upon which the score marks «-1» (representing thousands of red blood cells). The END GAME - SCORE 0.





Here are some ideas to interact during the game to vary the sensors' data and synchronize your state of emotion with other players'.

1. Breath – deeply breathing in and out.
2. Contract muscles.
3. Have body contacts with others.
4. Relax, close your eyes, sit down and lay down comfortably.
5. Feel pain, pinch yourself, bite your lip.
6. Make unexpected sounds to surprise your game partners.
7. Regulate and repeat your unexpected acts at a regular pace.
8. Try out key words with other players.
9. Mislead other players with simple questions.
10. Ask arithmetic questions - $6+3-5 \times 4+7+836 = ?$
11. Apply various degree of stimulus to your co-players.
12. Alternate the above actions with other players.



Each player is therefore turned into a fighting agent against the GENOM Corp's BioNet scheme. While the data from each player is received individually, the scores are measured collectively.

This interactive installation/bio-game poses the ultimate questions- How do the participants/players manage to coordinate their bodies and communication inside the BioNet? How is it possible to confront corporate/state control collectively?



NOTE OF INTENT FROM THE AUTHORS

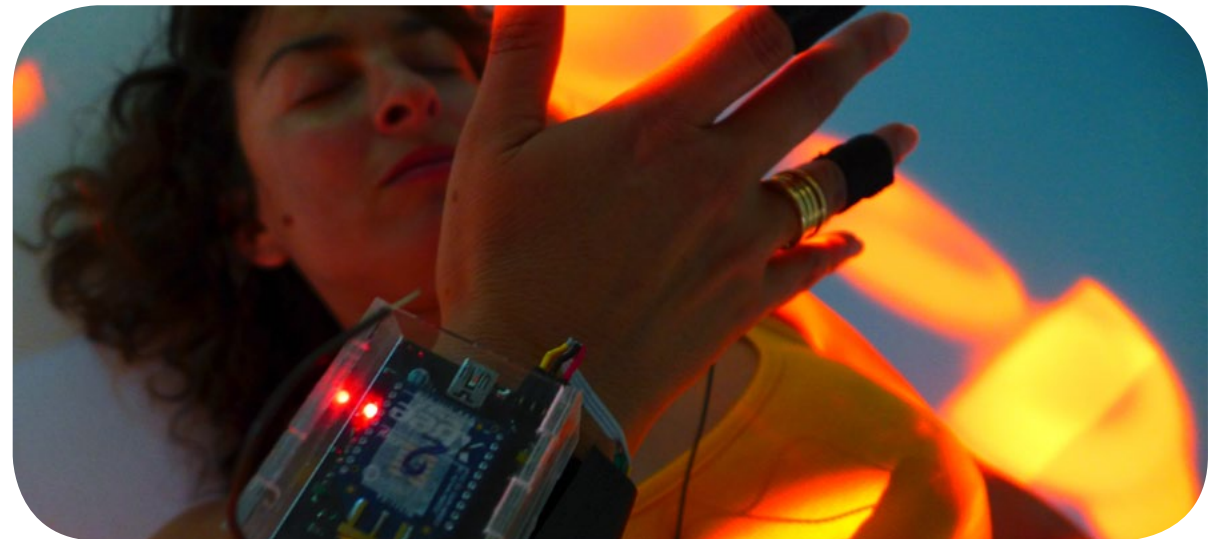
UKI - Enter The BioNet is keen on placing the public in an unexpected position with a zest of science fiction.

Shu Lea Cheang's work is based on political reality. In UKI's case, we explore the technology in relation to the fusion of softwares and viruses, the human body and the control of biotechnologies by companies. How do we stretch the public's imagination? Should they be co-writing partners of a scenario in constant transformation?

In these bio technological times, people have the need to be in touch with their own bodies which are drowned by the multiplication of various medicine and genetic modification.

UKI - Enter The BioNet wishes, via an interactive and collective experiment, that people may reconnect with their own bodies' physical and sensual state - body temperature, blood circulation, heartbeats and orgasmic gratification.

Through their own management of communication with others, there is chance of 'winning'.

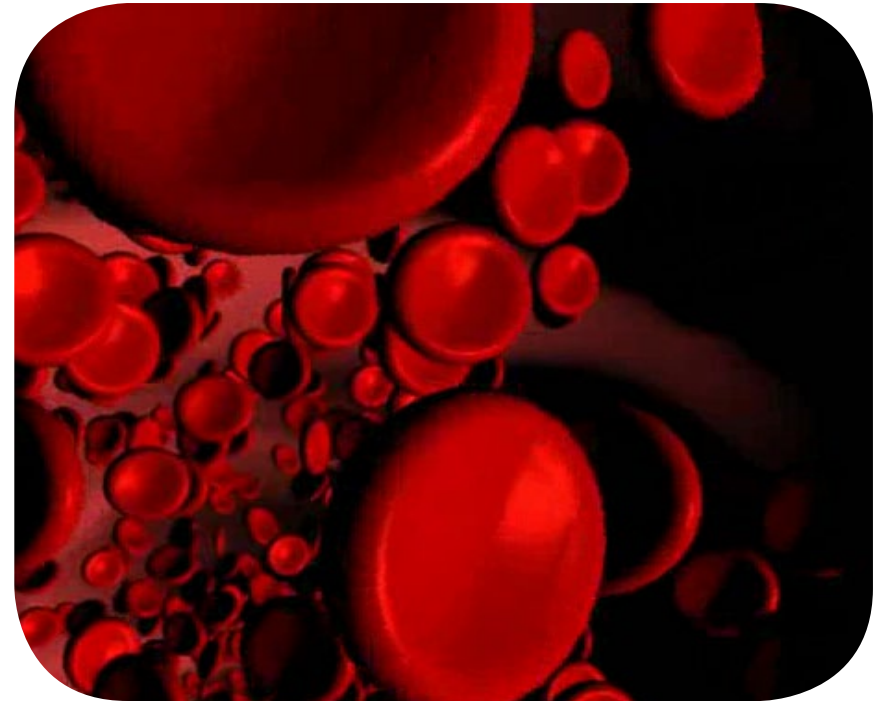


INNOVATION

UKI- Enter The BioNet offers a new kind of interaction between different persons but also between players and the public of spectators. How does one get the public to participate other than by involving their body?

In Enter The BioNet, the public will be able to feel physically what 8 players are feeling thanks to infra-bass sounds and follow their progression in the experience thanks to the interaction between the scoring and blood cell mapping system.

Very often interactive experiments are watched but the spectators are left out, whereas in Enter The BioNet, they are immersed in the installation thanks to the mapping of blood cells that surrounds them and physically feel what the players are feeling. This creates a very unique sense of sharing. Enter The BioNet is also an applied proposition of live data harvesting and its conversion in sound and projection environment.



PUBLICS

The general public, students, families.

Private companies developing innovative technology.

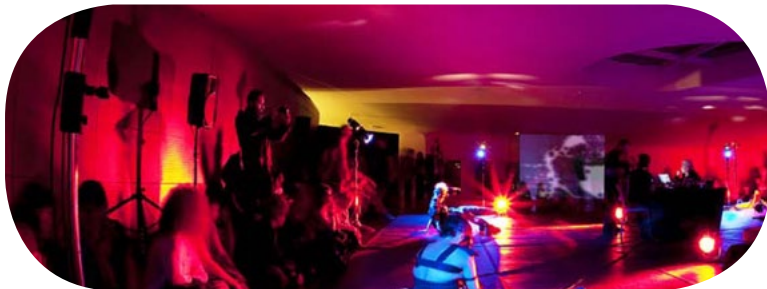
Indeed Enter The BioNet is a work that enables us to establish a link between the general public and private companies as it mixes innovative technology and fun activities.

This interactive experience should allow different types of public to mix up, should they be young or older, since it is based on communication and the listening between the bodies. Also the technological part of the project is not heavy but just a sensor to wrap up around your wrist.

U-K-I ENTER THE BIONET BACKGROUND

UKI is a reminiscence of the sci-fi cyberpunk film IKU, for which the code has contaminated a post-netcrash e-trashscape inhabited by open source coders and network patchers. IKU, directed by Shu Lea Cheang., had its preview screened in 2000 at Sundance Film Festival.

“If I.K.U is purely cyberpunk, UKI takes from biopunk science fiction, pretexting internet’s collapse in the future and the creation of a biological network (BioNet) infecting blood cells and DNA by creating some Organismo, a virtual and chemical orgasm, without any sensual contact.” Maxence Grugier, *Digitalarti Portrait: SHU LEA CHEANG’s interactive mythologies*, January 17th 2013.”



THE CYCLE UKI

UKI Enter the BioNet is part of a project launched in 2009. It includes a performance, an interactive application and an installation/interactive performance for 8 players.

UKI performance: robots are locked up in an e-trash and start to copulate with computers and are infected. They become the UKI virus and decide to unfold it in every city in the world. This performance was filmed in Barcelona in the middle of 4 tons of e-trash collected from one day field trip in the city alone.

The live performance then welcomes the sound artists to join in a live saphm coding jam session.

Performance’s video extracts : <https://vimeo.com/37978993>

Performance’s distribution from 2009 - 2014:

Piksel festival (Bergen, Norway) – [piksel.no]

La Générale en Manufacture (Sèvres, France) – [lagenerale.org]

Live performers’ meeting (Rome, Italy) – [liveperformersmeeting.net]

MEM festival (Bilbao, Spain) – [musicaexmachina.com]

Museo Nacional Centro de Arte Reina Soffa (Madrid, Spain)

– [museoreinasofia.es]

Electropixel festival (Nantes, France) – [electropixel.org]

Eye for an Ear at N.K.project (Berlin, Germany) – [nkprojekt.org]

Ars Electronica Nightline at Stadtwerkstatt, (Linz, Austria) – [aec.at]

Sight&Sound at Eastern loc (Montreal, Canada) – [sighandsoundfestival.ca]

Interactive UKI application in town : each person becomes a UKI agent and can infect its contacts or contaminate friends in town or around the world.

A interactive application using smartphones and a geolocation system as well as QR Codes.

<http://www.u-k-i.co/viralgame1/index.html>

<https://vimeo.com/37971522>

In summer 2011, UKI was granted a residency at Plataforma Cero (led by curator Pedro Solar) at Laboral [Centro de Arte y Creacion Industrial] in Gijon, Spain. At the end of this artistic residency at Labora la presentation/demonstration of a UKI scenario was presented to the public.

<http://u-k-i.co/game/html/laboralaugust2011.html>

THE TEAM

As a conceptual artist, net activator and film director, Shu Lea Cheang conceives network installations and multiplayer performances in an impromptu mode of participation. She incorporates science-fiction stories to her movies and her artistic imaginary world. She conceives social interfaces with transgression and open networks to allow the participation of the public. Involved with mediatized activism in the 80's and 90's in the U.S. Cheang brought to a close her American days with BRANDON (1998-1999), the first net art commission and collection of the Guggenheim museum New York. Since she relocated in the E.U. zone in 2000, Cheang has initiated numerous collectives to allow collaboration on a large scale and performances while pursuing her own art work realization. Presently located in the BioNet's post-crash zone, her work concerns issues of viral love and bio hack.

<http://mauvaiscontact.info>

SHULEA CHEANG

Isabelle Arvers is an author, critic and media art curator. Her field of studies is the immaterial, through the relationship between Art, Video Games, Internet and new forms of images linked to network and digital imaging. After having organized numerous exhibitions in France and abroad (Australia, Norway, Italy, ...) she regularly collaborates with the Centre Pompidou as well as french and international festivals. Her latest exhibition and event projects present video game as a new language and a mean of expression for the artists particularly through the screening of machinimas (film made from video games) and organizing workshops to initiate or direct machinimas. In 2014 she creates the association Kareron for production and diffusion of works between art and games.

<http://isabellearvers.com>

ISABELLE ARVERS

<http://noiser.org>

JULIEN OTTAVI

Julien Ottavi is mediactivist, artist-searcher, poet, theorician and arracheur de langue, composer / musician, experimental film director and performer (body & movement)...etc. Founding member of Ap033 (transdisciplinary artistic, technological and theoretical laboratory), Ecos (Eco-creation, biotope's observatory) and activator of the the labels Noise Mutation and Fibr Records (cd/web production - open recordings). He develops a work of research and creation cross-referencing sound art, sound poetry, new technologies, DIY electronic devices and physical performance. Active in free software movements, he develops the multimedia distribution Gnu/Linux Apodio.

MARTIN HUG

<http://drumanart.com>

Originally from Switzerland, Martin Hug lives in Barcelona since 1994. He has studied and played percussion, the piano, the trombone and composition and also took part in contemporary music recitals. His research in the percussion domain has led him to conceive and build his own instruments, partly inspired by daily objects. He has programmed an assembling language for microcontrollers and collaborated with dancers and visual artists in various places, including the Miró foundation and the Sonar festival.

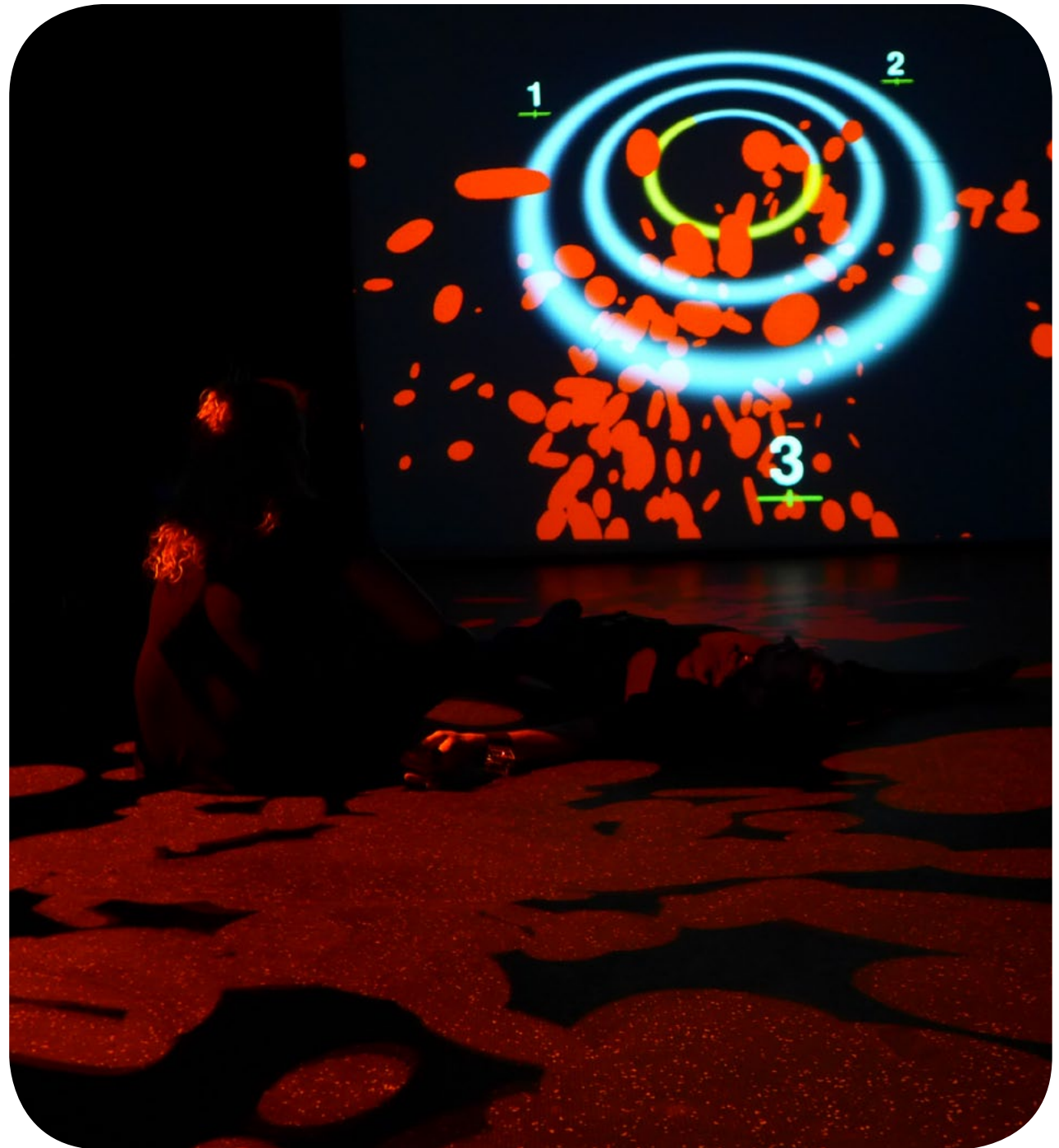
PARTNERS

Enter The BioNet was first developed during a workshop on scenary based elements organised by Artsgames 2009 at La Casa Encendida, Madrid (Spain). In 2010, a PlayLab workshop took place at medialab prado (Madrid, Spain). In 2011, further development took place with desvisualizar residency at medialab prado and with a residency at Plataforma Cero at LABORal, Centro de Arte y Creación Industrial in Gijón (Spain).

Game In provides precious advice to the project in terms of professionals in the region. It coordinates the different contacts on location and enables the various actors of the project to meet.

The Imaginarium welcomed Shu Lea Cheang, Isabelle Arvers and Julien Ottavi as resident artists during ten days for them to develop the project's sound and lighting systems and enable the testing of the project by Play In Lab. The imaginarium offers a showcase the residency's outcome during a public evening event. Interaction, scoring system and sensors' tests are carried out by Play In Lab in Tourcoing (France). Finally, the lighting system and interaction system between the score and the light beams is conceived by Light Up.

The project is co-produced by Pictanovo.



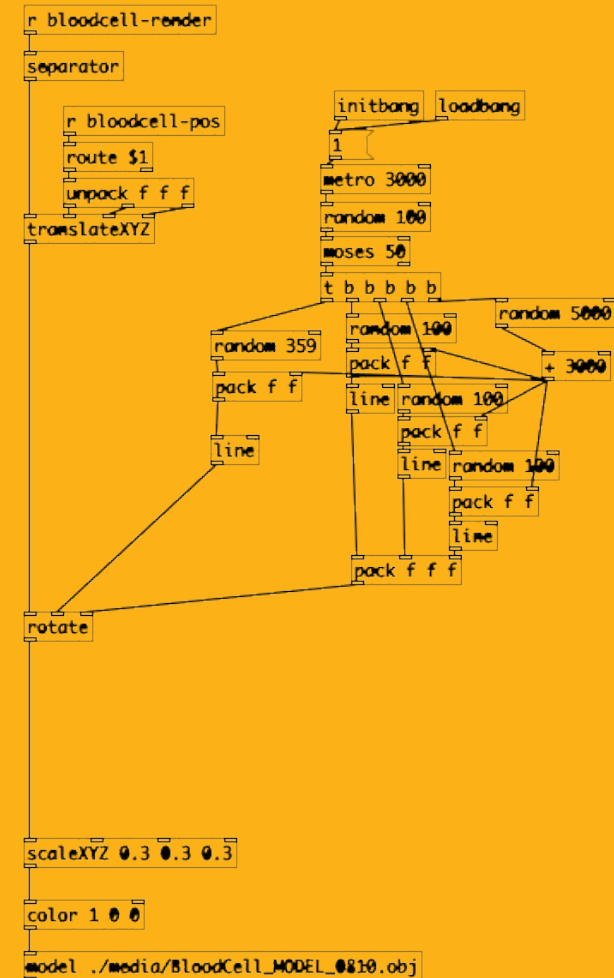
TECHNIQUE

Softwares:

Score system and sensor data transmission with sound sychronization all programmed with free open source software Pure data.

Material:

GSR (Galvanic Skin Response) sensor unit with wifi Xbee transmission (8)
Speakers and Subwoofers [up to 1000Khz frequency range] (8 set)
Amplifier (8)
System computer (2)
Projection screen (2)
Projector (4 to 6 for mapping and score system)



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