# Who we are

**The Wyss Zurich Translational Center (Wyss** Zurich) is a unique accelerator, embedded within the ETH Zurich and the University of Zurich, that is dedicated to the emerging fields of regenerative medicine, robotics, and medical devices/bionics technologies.

We unite world-leading experts, pooling their knowledge and expertise, to form multidisciplinary teams.



# acceptance: Somagenetix AG Project start: Dec 17, 2018 incorporation Aug 15, 2019

Current

projects

**Wyss Zurich** 

Project start: Mar 1, 2015

TH Zürich 'ioneer fellowship



Wyss Zurich provides its projects with:

Funding to cover personnel expenses and translational research and development, notably early-phase clinical trials

Access to world-class infrastructures, including a dedicated facility to produce compounds that can be used in humans

Support in the design, analysis and business strategy of the projects by subject-matter experts

# **Our mission**

We drive the translation of outstanding scientific discoveries into new therapies for patients and breakthrough innovations in the fields of regenerative medicine, robotics, and medical devices/bionics technologies.

Swiss entrepreneur and philanthropist Dr. h.c. mult. Hansjörg Wyss aims to support early-stage, practical applications to overcome the "valley of death."



Spin-off company: Nanoflex Robotics AG ETH | Start: 2021, Team: 15

Somagenetix

Spin-off company: Somagenetix AG **UZH | Start: 2019, Team: 10** 

Somagenetix is developing new cell and

system. A particular focus is on curing devas-

tating inherited diseases in children, such as

chronic granulomatous disease, an immune

nfections. The Somagenetix team is currently

first-in-human clinical trial and aims to extend

establishing GMP compliance to prepare a

the platform technology to other genetic

diseases of the immune system.

disorder that can lead to life-threatening

gene therapy solutions for patients with severe genetic disorders of the immune

Nanoflex aims to develop and launch magnetically controlled neurovascular catheters and corresponding navigation units to facilitate the removal of blood clots for the treatment of ischemic stroke. The team is designing a soft robotic system to delicately and precisely insert a catheter into the brain, allowing clinicians to treat stroke faster and more safely than traditional methods. This novel method will also allow clinicians to control the system remotely, extending access to specialized care. The team is currently optimizing the system and establishing regulatory requirements towards clinical validation of the technology.

A Manager
012010

BRIDGE Discovery	Project start: May 1, 2021	Nanoflex Robotics AG incorporation	Series A	UZH Entrepreneur BRIDGE fellowship PoC	
2021	·	2022	2023	2021	

Nanoflex

### LifeMatrix

Spin-off company: LifeMatrix Technologies AG UZH/ETH | Start: 2015, Team: 11

LifeMatrix is developing a unique bioengineering technology to grow human replacement tissues in the laboratory as off-the-shelf next-generation implants for the treatment of cardiovascular disease. Focusing on children with congenital heart malformations, LifeMatrix aims to provide novel replacement blood vessels and heart valves that have the potential to grow and regenerate with patients. The team is currently preparing a first-inhuman clinical trial.



# Liver4Life

### UZH/ETH | Start: 2015, Team: 8

Liver4Life is developing a perfusion technology to preserve and regenerate livers outside of the body. This technology alleviates the donor liver organ shortage and will provide liver cancer patients with a novel treatment option. Liver4Life's first-in-human transplantation of a liver discarded by all Swiss transplant centers was successfully performed following 3 days of preserving and treating the liver on its device. The interdisciplinary team is currently preparing a multicentric clinical trial

is					Human liver		Startup DAYs Pitch Winner	SGC/S Prize \	SSC Winner		
,	Projec July 1,	t start: , 2015	Pig liver p (7 days)	erfusion I	perfusion (7 days) I	Pig liver re-transp	lantation	Nature Biotechnology I	Human liver transplant	Nature Biotechnology I	
$\longrightarrow$	2015	201	6	2017		2018	2019	2020	2021	2022	$\rightarrow$



Project start: Feb 15, 2021

LifeMatrix EACTS POC vascular grafts Technologies AG Techno-College

incorporation

### Phire

Spin-off company: Phire Therapeutics AG (in foundation) ETH/UZH | Start: 2021, Team: 4

Life Sciences

Phire is developing a novel T-cell engaging antibody to transform current hematopoietic stem cell transplantation practice into an immunologic precision-medicine approach. In life-threatening diseases such as Acute Myeloid Leukemia, Phire's antibody will allow for a more precise immunologic eradication of the existing healthy and diseased stem cells of the blood system, thereby circumventing toxic chemotherapeutic or radiation treatments prior to transplantation. The team is currently in the pre-clinical phase preparing a first-in-human clinical trial.



# **MUVON**

Spin-off company: MUVON Therapeutics AG UZH | Start: 2021, Team: 13

MUVON is establishing a novel personalized treatment modality based on autologous skeletal muscle cells that allow for the regeneration of damaged and degraded muscle tissue. The lead indication of this platform technology is stress urinary incontinence. A Phase I clinical trial to assess the tolerability and safety of the treatment has already been completed. Phase II is in progress. The team is further improving the GMP production process to pave the way for a large multicentric Phase III clinical trial to prove the efficacy of the treatment, which aims to help patients regain control over their lives.

		Werner Siemens			A. de Vigier Stifi Ialist	tung	
Horizon 2020	Associate project	fellowship	CT Phase I start	MUVON Therapeutics AG incorporation		Venture Leaders CT Phase I Med Tech completed	
2017	2018	2019	2020	2	2021	2022	

### Recolony

Venture Kic WINNER Phase III

Spin-off company: Recolony AG UZH | Start: 2022, Team: 4

Recolony focuses on the development of a bacteria-based therapy for colorectal cancer consisting primarily of selected bacteria of the gut microbiota. These bacteria have an enormous influence on the immune system and enhance an immune reaction against tumors. The team is developing orally applied commensal bacteria as a monotherapy with higher safety and tolerability than the standard treatment. Recolony is currently establishing regulatory requirements towards validating the novel approach in the clinic.



### mint & pepper

Outreach project Start: 2018, Team: 7

mint & pepper inspires the next generation, regardless of background or gender, for STEM and life science professions. STEM stands for science, technology, engineering, and mathematics, which are referred to as MINT subjects in German. mint & pepper brings inspiration from groundbreaking research, innovative spirit and ten years of experience in its workshops for school and leisure time, talent program, and collaborations so that the members of the youngest generation can become strong and confident shapers of their own future.

Health Innovation Hub USZ, Stage III Falling Walls Breakthrough of the year

Venture Kick Venture Project start: WINNER Leaders Recolony AG Apr 1, 2022 Phase II Biotech incorporation

# Technology Platforms



Regenerative Medicine Technologies Certified state-of-the-art technologies platform to support Wyss Zurich projects to meet regulatory standards.

The Wyss Zurich Regenerative Medicine Technologies Platform is dedicated to manufacturing clinical-grade products that meet the required regulatory standards. The platform is a certified cleanroom facility for Good Manufacturing Practice (GMP), which comprises GMP and Good Distribution Practice (GDP) specialists, expert advisors, and GMP qualified infrastructure.

The platform provides the expertise, guidance, and infrastructure required to respond to the diverse regulatory and technical challenges of Wyss Zurich projects in the field of regenerative medicine.

Support is provided through the following departments, infrastructure, and services:

### Manufacturing

- Quality Management
- > Quality Control
- > Hygiene
- > Biobank
- Good Distribution Practice ISO 13485 for Medical Devices





**Robotics Technologies** 

State-of-the-art technology platform to support Wyss Zurich projects in their transfer to the market.

The translation of technologies into products following the time and resource allocation is a major challenge for startups. The mission of the Robotics Technologies Platform is to support and accelerate Wyss Zurich projects in their transfer to market by providing multidisciplinary expertise and services, covering a range of core competences such as engineering, industrial design, prototyping, product development, and regulatory requirements

Through an interdisciplinary team, state-ofthe-art mechatronic prototyping facilities, and a network of external partners, the platform provides a range of services in the following topics:

- > Engineering & prototyping
- > Mechanics, electronics, embedded software
- engineering > State-of-the-art 3D Printing and laser-cutting
- > Mechatronic fabrication and testing product development
- > Development strategy and planning
- > Product design and usability
- Manufacturing and procurement
- > Regulatory/Certification



MUVON UZH Regenerative	CeNeReg* UZH/ETH Zurich
Phire Medicine H/ETH Zurich	denovoSkin* UZH
Recolony UZH	ETIMSred* UZH
Somagenetix UZH	LifeMatrix UZH/ETH Zurich
itreach projects	Associate projects
THOS* * completed projects	SwissProsthetics* Rosie*

# **Completed projects**



Zurich Eye 2015-2016 **Reality Labs/Oculus** Replicating human

visual perception in robots. Team of >120

Investment factor 4.3



Wingtra 2016-2018 Wingtra AG

Map larger, map faster, map anywhere.

Team of >100 Investment factor 30.0 Headquarters in Zurich, Switzerland. Additional offices in Denver, US, and Zagreb, Croatia.

# **Completed outreach** and associate projects

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PATHOS 2018-2022 Poetic Animatronics Through Hands-On Systems



Rosie 2017-2019 Train a robot. Learn science



SwissProsthetics 2017-2021 A modular system of application-specific prosthetic hands



**HYLOMORPH** 

**HYLOMORPH AG** 

Investment factor 4.1

Headquarters in Zurich,

2015-2020

Team of 8

Switzerland.



**ETIMSred** 2015-2021 **Cellerys AG** Reinventing multiple

An even more carefree life for sclerosis therapy. people with implants. Team of 12

in 2021 for clinical development. Headquarters in Schlieren, Switzerland.

Partnership with Novartis



A JOINT ACCELERATOR OF







**ANYmotion** 2016-2019

**ANYbotics AG** 

for industrial

inspection.

Team of 95

Switzerland

Autonomous robots

Investment factor 15.2

Headquarters in Zurich,



motune **ETH Zurich** 

ETH Zurich UZH Liver4Life ETH Zurich/UZH

ANYmotion\* ETH Zurich Sevensense\*

Hylomorph

ETH Zurich Seervision\*

Voliro\* **ETH Zurich** Wingtra\* **ETH Zurich** 

Nanoflex

**ETH Zurich** 

OxyPrem\*

Zurich Eye\* **ETH Zurich/UZH ETH Zurich** 

For more information please see our website:



OxyPrem

patients.

Team of 12

Switzerland.

2018-2022

**OxyPrem AG** 

Uncovering brain

oxygen in high-risk

Investment factor 0.9

Headquarters in Zurich



CeNeReg 2016-2022 NovaGo **Therapeutics AG** 

Enhancing the regen eration of the injured central nervous system. Team of 6

Investment factor 4.2 Headquarters in Schlieren, Switzerland.





Voliro

2019-2023

Voliro AG

robotics flight

work at height.

### hemotune 2017-2022 hemotune AG Restoring immune

balance in sepsis. Team of 19 Investment factor 2.7 Headquarters in Schlieren, Zurich.

Team of 26 Investment factor 2.4 Headquarters in Zurich, Switzerland.

The multi-purpose

platform redefining







8200m additional funding raised by the projects/startups

# Wyss Zurich Translating Science into Life



### Seervision 2018-2021 Seervision AG

Camera automation software for effortless video production.

Team of 20 Investment factor 4 7 Headquarters in Zurich, Switzerland, Additional offices in Athens, Greece Ten partners in 18 coun-



### Sevensense 2018-2021 Sevensense **Robotics AG**

robots.

Team of 34

Switzerland

Personalized, Autonomy for your bio-engineered, dermo-epidermal skin grafts.

Investment factor 5.8 Team of 36 Headquarters in Zurich, Investment factor 7.9 Headquarters in Schlieren, Switzerland. Subsidiary office CUTISS Innovation in

Sophia Antipolis, France.

denovoSkin

2016-2022

**CUTISS AG**