

# Accelerate. Transform lives.

STRATEGY 2023-2027

# Wyss Center Strategy



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1 Identify and support disruptive projects

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3 Realize clinical and market impact

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### Foreword

With every passing year, the toll of neurological and mental health disorders grows. In 2021, more than 1 in 3 people worldwide were living with a neurological condition, according to a landmark report in The Lancet Neurology published in March.

Past research shows that 1 in 20 people suffer from severe depression. And, as populations in many regions age, the burden of Alzheimer's and other diseases of the brain and nervous system are on the rise. Many of these conditions are challenging to treat, involve serious disability, and have enormous costs to quality of life.

Yet we also live in a period of unprecedented technological opportunity. Precise, personalized neurotherapeutics stand to transform the lives of patients with brain disorders. As just one example, we can now envision treatments that could be administered by patients themselves, thanks to AI assistance and what are called closed loop feedback systems in which tiny wearable computers enable embedded AI algorithms to direct precise neuromodulation therapies at home. Such possibilities, once unimaginable, are fueled by the rapid advances in multiple areas, including sensor development, intelligent interfaces, and technology that harnesses quantum mechanical principles. In addition - and perhaps most importantly the revolution in artificial intelligence is poised to radically accelerate such innovation.

At the Wyss Center, we and our partners are committed to advancing such innovative neuromodulation therapies for a range of neurologic and mental health disorders, including epilepsy, dementia, depression, and addiction, among others.

Erwin Böttinger, MD Director of the Wyss Center

These are solutions that empower and improve the lives of patients: people will be able to implement them at home, in their daily lives. They will be spared the side effects characteristic of pharmacotherapies and the risks and inconveniences of invasive inpatient procedures.

To develop these and other extraordinary technologies, we unveiled a bold new strategy in 2023. It sets our end goal - transforming the lives of people with brain disorders for the better at the center of our efforts. We seek to foster the most disruptive, innovative concepts emerging from the research community. We specialize in translational research and development, bridging gaps in expertise and uniting relevant stakeholders. And we bring each new neurotechnology in our pipeline to a stage where start-ups or partners can ready the device for clinical use. We have seeded an exciting portfolio of projects positioned to

> Together, we can push the limits of technological innovations to restore and enhance quality of life for millions of people.

improve treatment, diagnosis, neuroimaging, and more. We are especially proud of our work in establishing the groundbreaking Lighthouse Partnership, which brings together non-profit, academic, and clinical expertise through interinstitutional cooperation. The projects we pursue, which include non-invasive, AI-enhanced precision therapies that modify brain activity, perfectly illustrate the ambition and strengths of our multidisciplinary, collaborative approach.

Our work is ultimately made possible through the unwavering support of our partners. We are now positioned to usher in a wave of new solutions for those afflicted with brain disorders. To make our vision a reality, we seek new partnerships and support to propel our work. We want to build a larger ecosystem of investors and industry partnership to ensure the technology we develop will find its niche and thrive.

### STRATEGIC PLAN 2023-2027

# At a glance

More than 3 billion people around the world suffer from neurological or mental health disorders, many of which are highly debilitating and incurable.<sup>1</sup>

These conditions burden individuals, families, healthcare systems, and society as a whole. Advances in neuroscience and artificial intelligence (AI) offer hope for those affected. But translating promising research into safe and effective clinical realities is a complex process that requires bridging a long-standing gap between academia and industry.

### Founded in 2014, The Wyss Center is uniquely positioned and prepared to transform groundbreaking discoveries into real-world solutions with the aim of improving health.

A non-profit organization established through the generous donation of Swiss entrepreneur and philanthropist Hansjörg Wyss, we are based at Campus Biotech, a neuroscience and neurotechnology center of excellence in Geneva. Over the last 10 years, not only have we built state-of-the-art translational research and development capabilities from the ground up we have worked with faculty, clinicians, and industry, in Switzerland and internationally, to foster and support a range of collaborative research projects.



The technologies we develop have the power to transform lives worldwide, enhancing the well-being of individuals and families affected by neurological and mental health disorders.

For example, our pipeline includes new tools and technologies that aim to restore movement and communication to people who have lost those capacities. We also leverage AI and digital technology to enhance neurosurgery, and the diagnosis and treatment of conditions such as epilepsy and severe depression.

To date, our efforts have advanced potentially life-changing devices, technologies, and software, and we have supported startups on their journey to commercialization.



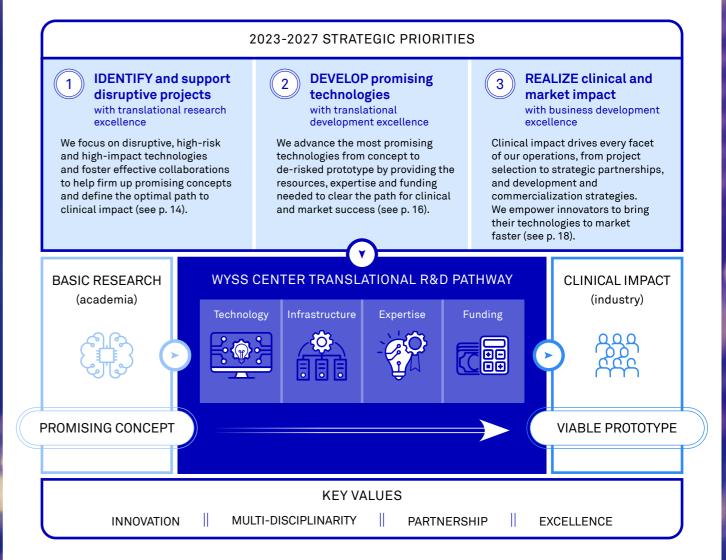
#### Examples include:

- ABILITY platform for people living with paralysis
- Epios<sup>™</sup> system and Neural Cloud **software** for long-term monitoring of seizure disorders
- MICA NEURO ACCESS visualization technology for advanced neurosurgery procedures
- NEURO QUANTIFICATION TOOL NQT as a digital biomarker for early neurodegenerative disease diagnosis

LEARN MORE ABOUT OUR PIPELINE

#### OUR 2023-2027 STRATEGY

Our strategy sets a clear roadmap to accelerate and maximize the clinical and market impact of these technologies.



### EXPECTED IMPACT

Working over a 3 to 5 year period, we advance technologies until they reach a stage where they can be developed by startup companies or industry leaders. By 2027 we aim to deliver multiple de-risked technologies ready for further development as clinical therapies and commercial opportunities.

	Speci
Market impact	2+ Al-
10+ thriving spin-offs or	manag
start-ups	2+ Al-
2+ licensing or strategic	of com
partnerships	1+ Al-r

powered predictive and preventive epilepsy management system

### ific areas of clinical impact include:

guided neuromodulation technologies in ambulatory gement of mental health disorders

guided brain-computer-interface technologies for restoration munication and movement



### CONTEXT:

# Challenges and Opportunities

### At least 3 billion people

around the world suffer from neurological or mental health disorders

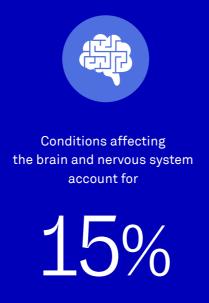
### More than 1 in 3 people

are affected<sup>2</sup>

### A GROWING PUBLIC HEALTH CHALLENGE

Neurological disorders, conditions affecting the brain and nervous system, and mental health disorders are increasingly recognized as a significant global health challenge. This burden is set to rise in the coming decades as populations age in many regions.<sup>3</sup>

Brain disorders include neurodegenerative diseases, such as Alzheimer's, Parkinson's and Amyotrophic Lateral Sclerosis (ALS); neurological disorders, including epilepsy, stroke, tinnitus and traumatic brain injury; and certain mental health conditions, for example, severe depression.



of all health loss worldwide – a measure including death and decline linked to illness. That burden exceeds cancer and cardiovascular disease.<sup>4</sup>

### THE PROMISE OF CUTTING-EDGE TECHNOLOGY

Even as the burden of neurological and mental health disorders rises, scientific advances are emerging that have the potential to radically benefit people suffering from these conditions. Recent breakthroughs in academia – especially in neuroscience, neurotechnology, neuromodulation, machine learning, and AI – could transform treatment, diagnosis and care many of these disorders.

The promise of these technologies cannot be overstated. Cutting-edge devices and techniques are already radically improving outcomes for patients. People who have lost the power of speech due to paralysis are able to spell out words using brain-computer interfaces (BCI).<sup>5</sup> Similar technologies can also enable paraplegics to control exoskeletons and robotic limbs - making it possible for people who believed they would never walk again to stand upright.<sup>6</sup> For the millions of people around the world who suffer from serious depression, the promise of non-invasive electromagnetic stimulation that may alter brain activity to enhance therapy brings new hope.7 Al and machine learning, meanwhile, are booming fields that could accelerate the efficacy and precision of these neurotechnologies.

In short, the scientific, neuroengineering and biomedical communities could be on the verge of delivering profound solutions for people suffering from neurological and mental health disorders. This promise is what drives the Wyss Center.

### KEY TECHNOLOGIES ADVANCED BY THE WYSS CENTER:

### An introduction



### BRAIN COMPUTER INTERFACES (BCIs)

Connect the brain's signals to a computer that can decode them. The result is that a person's brain can exert direct control on a machine and regain certain forms of movement or communication.



### NON-INVASIVE NEUROMODULATION

Solutions use targeted electrical or magnetic stimulation to alter the activity of brain cells and enhance therapeutic approaches (e.g. for pain management or to treat severe depression) without the need for surgery or implantation.

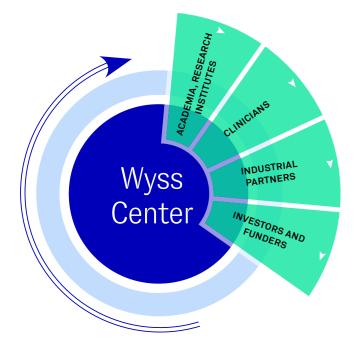


### MACHINE LEARNING AND AI

Offer ever more sophisticated algorithms, enabling researchers to decode brain signals more rapidly and precisely than ever, and expanding possibilities for diagnosis and personalized therapies.

### INTRODUCING THE WYSS CENTER

# Our working model



The Wyss Center is a non-profit translational research and development organization focused on advancing disruptive neurotechnologies that can transform the lives of people living with neurological and mental health disorders.

We meet a critical need in the development of these technologies. As an independent nonprofit, the Wyss Center can take greater risks than commercial, for-profit entities. It is a unique position that enables us to bridge the gap between academic and industry partners to advance highly promising neurotech projects that ultimately have a major impact on people's lives.

Situated at Campus Biotech – a leading hub for neuroscience and neurotechnology research and academic excellence – the Wyss Center is embedded within a dynamic innovation ecosystem. Committed to supporting that fertile ecosystem, the Center's initial years focused on building a cutting-edge infrastructure to accelerate the translation of technologies emerging out of collaborative research projects into industryready prototypes.

### OUR TRACK RECORD

Over the past decade, we have worked with faculty, clinicians, and industry in Switzerland and internationally. Together, we have assembled a broad portfolio of projects that leverage and bring together the most promising innovations in AI and bioand neuroengineering. With this, we have already made significant progress in advancing what could be transformative tech toward clinical use.

Collaboration with startups has become another key aspect of the Wyss Center's approach. Accelerating the path to market, we support each innovator's journey from conception as a promising technology through to proof-of-concept and early stage clinical studies. Ongoing collaborations with Neurosoft Bioelectronics, Artiria Medical and other ongoing startup initiatives highlight the success of our model in driving entrepreneurial success and clinical impact.



Neurosoft Bioelectronics SA is a company spinoff from the Swiss Federal Institute of Technology Lausanne (EPFL) supported by the Wyss Center. It has reached in-human studies with implantable brain electrodes for monitoring for epilepsy.

They are now developing a fully implantable BCI to treat severe tinnitus, utilizing the implantable recording system from the ABILITY project alongside their electrodes.

### ()ARTIRIA

Artiria Medical has developed SmartGUIDE, an innovative minimally invasive guidewire helping neurosurgeons navigate through blood vessels to accelerate stroke treatment and improve patient recovery.

In collaboration with the Wyss Center, the team is now working on advancing an electroactive catheter to treat post-stroke narrowing of the arteries, toward clinical impact.

# **Project** pipeline

At any point in time there are approx. Center Geneva
 Develop projects over period of 3 to 5 y from Wyss, and new projects are onbo
 Confront some of the most ambitious

BRAIN COMPUTER INTERFACE TECHNOLOGIES	DESCRIPTION	1	2	YEARS 3	6 4	5
ABILITY	BCI for movement restoration	0				
EPIOS	Implantable electrodes for epilepsy	0				
NEURAL CLOUD	Cloud software for EEG collection and AI	0				
NEURO VISUALISATION AND IMAGING TECHNOLOGIES						
MICA NEURO ACCESS	Optical Coherence Tomography for neurosurgery	0				
NEURO QUANTIFICATION TOOL NQT	ASL biomarkers for neurological disease	0				
HUMAN BRAIN MAPPING APR	Neural imaging data transfer		0			
NEURO GI	Imaging and modulation of gut brain axis					0
AI GUIDED NEUROMODULATION AND PERSONALIZED NEUROTHERAPEUTICS						
BRAIN-SPINE DIGITAL BRIDGE	Restoration of movement				0	
NON-INVASIVE DBS	Neuromodulation of mental health areas brain				0	
OPTOGENETICS FOR PERIPHERAL NERVE DISORDERS	Opsins to release spasticity in paralysed patients			0		
GENERATIVE AI	Computational AI and Neuromodulation					0

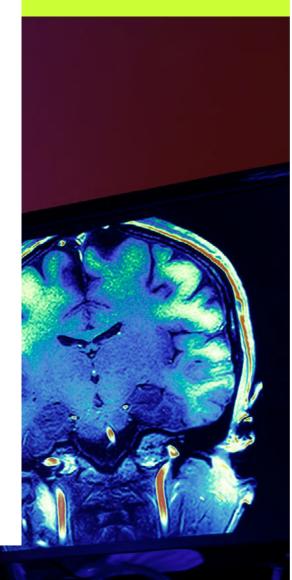
- 4. 10 15 projects ongoing at Wyss
- years, at which point they move on barded
- and risky projects in neuroscience

2023-2027 STRATEGY

# Wyss Center



At the heart of our mission lies a profound commitment to giving individuals grappling with neurological and mental health disorders the tools they need to live better lives.



world solutions.

### OUR GOAL

development.

center of our work.

### The fast-track to life-changing advances

Our pipeline is poised to address some of the biggest challenges in translational neuroscience and neurotechnology to radically benefit the lives of people with neurological and mental health disorders. More than ever, we want to propel these and other ground-breaking projects so that they can achieve their full potential as real-

Over the next 3 years, we are working to rapidly advance the projects in our pipeline. The aim is to bring them to a point where they can either evolve into startup companies, or become ideal partners for established industry leaders, who then guide their further investment and

To do this, we focus on three strategic priorities that put clinical and market impact at the

### STRATEGIC PRIORITY:

# Identify and support disruptive projects

Innovation emerges from the linking of ideas and expertise in novel and unanticipated ways. The Wyss Center takes several steps to drive a new wave of technologies forward.

#### **Prioritizing disruptive innovation**

We seek to identify and make bold investments in concepts that can make a real difference to patients. At the same time, we balance our willingness to push the boundaries of innovation with our commitment to deliver results. To that end, we select those ideas that show greatest promise in making a significant clinical impact in the near term.

#### Fostering powerful partnerships

The field of neurotechnology draws from neuroscience, engineering, machine learning, and AI. Recognizing the need for a multidisciplinary approach, we work to bring academia and industry together breaking down siloes, connecting experts, and providing the skills, resources, and funding needed to advance new technological solutions.

### THE LIGHTHOUSE PARTNERSHIP

#### THE AIM

To accelerate the development of AI-guided technologies for the treatment of neurological and mental health disorders through collaboration and interdisciplinary cooperation.

#### OUR APPROACH

Leveraging expertise within the Lemanic Region of Switzerland, the Lighthouse Partnership brings together leading scientists, engineers, researchers, and clinicians in the fields of neuroscience, engineering, computer science, and medicine. Drawing on their combined expertise, the initiative promises to accelerate the development of new technologies that target deep brain structures non-invasively, advance a brain-spine interface for paralysis, and innovate peripheral nerve therapies.

#### COLLABORATING PARTNERS

Academic partners

Neuro X Institute of École Polytechnique Fédérale de Lausanne (EPFL) Neuroscience and Mental Health – University of Geneva Fondation Campus Biotech Geneva

UNIVERSITÉ

DE GENÈVE

EΡF Neuro X Institute

**Clinical partners** 

Hôpitaux Universitaires de Genève (HUG) Lausanne University Hospital (CHUV)





çampus

Launched in January 2024, the Wyss Center has committed to providing CHF 18M over four years to support the development of Lighthouse Partnership technologies.

### In motion

INNOVATING NON-INVASIVE NEUROMODULATION THERAPIES FOR MENTAL HEALTH DISORDERS

### The complexity of mental health

Developing effective therapies for these conditions remains challenging due to the complexity of the human brain. Certain common symptoms, such as apathy, compulsion, and memory deficits, are highly resistant to treatment, even when other aspects of mental health improve with pharmaceutical therapies. These symptoms occur frequently in depression, schizophrenia, Parkinson's disease and addiction are hugely detrimental to people's quality of life. They also impose a significant financial burden on society. Innovative solutions are urgently needed to address this growing global health challenge.

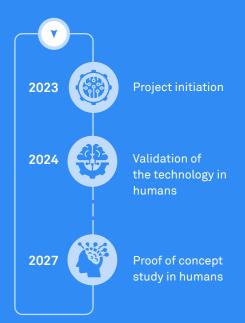
### The solution explored

Apathy, compulsion, and memory deficits occur when the neuronal circuits involved in motivation become dysfunctional. Deep electrical stimulation of the basal ganglia of the brain, where these circuits are found, holds the key to restoring the mental health and well-being of patients. However, traditional techniques require administration and supervision in the clinic, which limits opportunities for the prolonged and repeated application needed for optimal results. Non-invasive devices that can be self-applied in the comfort of a patient's own home could boost the effectiveness of therapy, as well as offering flexibility, autonomy and convenience.



### Project timelines

As existing non-invasive stimulation techniques lack the capacity to reach the basal ganglia<sup>8</sup>, the Lighthouse Partnership is focusing on innovative methodologies, such as transcranial temporal interference electrical stimulation (tTIS), as promising approaches to closing this gap. Empowered by advanced AI algorithms and a wealth of digital biomarker data, the Wyss Center and partners envision a holistic platform for home-based self-application that allows personalized, targeted, non-invasive deep brain stimulation specifically tailored to the unique needs of each individual.



Our work represents a beacon of hope for patients for whom apathy, compulsion, and memory deficits cast shadows over the brightness of life, heralding a new era in the treatment of mental health disorders.

### STRATEGIC PRIORITY:

# Develop promising technologies

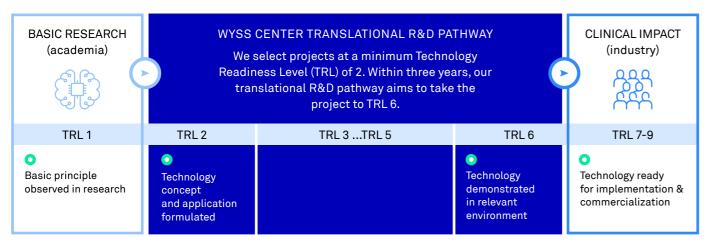
Once a project is selected, the Wyss Center charts a course to ensure the concept receives the critical support needed to rapidly and efficiently advance.

### Planning with purpose

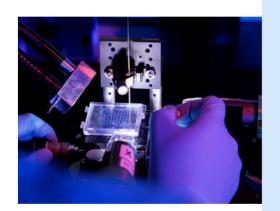
Selected projects enter our translational research and development pipeline and progress through a well-defined process, which validates their potential by demonstrating a technology's feasibility and functionality. Product "Entry" and "Exit" is carefully planned. To do this, we consider how our efforts and support will bring a promising scientific advance from the realm of basic science to the point where partners will carry the project forward in its clinical development and eventual commercialization.

### Providing support to propel progress

To accelerate neurotechnological breakthroughs, we provide not only funds but also key resources, expertise and unique access to cutting-edge facilities. The skills and knowledge of Wyss Center staff, combined with the unparalleled expertise of academic, clinical and industrial collaborators – at Campus Biotech Geneva and beyond – help us push the boundaries of neurotechnologies and build momentum for each project.



\* The Technology Readiness Level (TRL) scale is used by researchers and industry to assess the maturity and readiness of technologies for implementation or commercialization.



### We provide:

- Cutting-edge laboratory infrastructure, equipment, and R&D capabilities
- Advanced technical expertise for rapid prototyping, data analysis, and software development
- Legal, regulatory, clinical and business development support
- The skills and knowledge of our in-house experts and world-class network of clinical and industry partners

# In motion

ACCELERATING SOLUTIONS FOR PARALYZED PEOPLE WITH ADVANCED BCIs

### Lost connections

Across the globe, millions are affected by neurological disorders that sever the basic threads of connection to the world around them: movement, communication, and independence. Conditions such as stroke, spinal cord injuries, and degenerative diseases such as amyotrophic lateral sclerosis rob people of their ability to perform basic tasks, engage in meaningful interactions, and even express their most fundamental needs. The consequences extend beyond the physical – casting shadows over mental health, social integration, and the emotional well-being of patients as well as their caregivers.

### **Redefining possibility**

BCIs hold the promise to dramatically improve lives by translating brain signals into commands that can control external devices or computer systems. Whether restoring communication or enabling stroke or spinal injury patients to regain mobility by controlling robotic limbs, the clinical potential of BCIs is immense.<sup>9</sup>

Our Active Brain Implant Live Information Transfer System, known as ABILITY, is an innovative, fully implantable BCI device that brings together state-of-the-art technologies to enable it to function in the body for years, providing independence to patients and caregivers.



- Innovative, fully implantable and connected electrodes capture and wirelessly transmit brain signals to the data processor through a wearable component
- The integrated software utilizes sophisticated AI-based algorithms to decode high volumes of data in real-time, with a user-friendly data visualization output

### Case study: Breaking the silence

In 2022, the Wyss Center, in collaboration with the University of Tübingen, broke new ground for individuals with complete paralysis. Thanks to the ABILITY platform, our study participant, a courageous man in his 30s with rapidly developing ALS, gained a new voice that enables him to communicate with his loved ones despite being completely locked-in.



### STRATEGIC PRIORITY:

### **Realize clinical** and market impact

Our strategy's emphasis on clinical and market impact impels us to set each innovation on a path to success.

### The power of an "exit" strategy

When the technologies we develop mature, we hand them off to our partners who will work through final implementation and commercialization stages. As they exit our pipeline, these projects feature a working prototype and are sufficiently de-risked to move forward and ultimately have a profound impact on patients.

With the end point guiding the steps of our translation pathway, we develop each project with a view to its destination in 3 years' time and work backward - progressively building the foundation for a successful exit.

### Startups as a vehicle to bring innovation

When it comes to innovation in neurotechnology. expert, domain-specific knowledge outweighs the general business skills an external CEO can bring. Recognizing that start-ups led by passionate, dedicated, and knowledgeable founders are the most likely to attract investors, we encourage innovators to join the founding team and be part of the startup that will bring their innovation to market.

Our position as a non-profit partner means contributions by ensuring that most of the



For each project, the Wyss Center acts as an institutional co-founder. Whenever possible, we collaborate with the technology's innovator and support them in becoming a startup founder.

## In motion

### PUTTING THE POWER OF LONG-TERM BRAIN MONITORING IN THE HANDS OF PATIENTS

### A long-term view

For the millions of people living with chronic neurological disorders such as epilepsy, long-term brain monitoring has the potential to personalize diagnosis and treatment. The technologies needed to enable this are limited with physicians relying heavily on patient-reported data that is prone to inaccuracies.

Without effective management, epilepsy can lead to severe complications such as bodily injury, neuropsychological and psychiatric impairment and reduced life expectancy.<sup>10</sup>

### **Regaining control**

Wyss Center scientists and engineers are working in collaboration with clinicians, faculty, and industry to develop a practical, long-term monitoring platform that can be used 24 hours a day, at home, at work, or on the move. The data generated will help clinicians characterize the type and number of epileptic seizures, improve their diagnosis, and create highly personal treatment plans. Long-term data could also help unlock new progress in seizure forecasting and give people living with epilepsy the power to plan their lives free from threat of sudden, spontaneous seizures.



- Thin leads with sensing electrodes and a miniature implant are inserted beneath the skin
- Neural signals are wirelessly transmitted to an external receiver
- Data is transferred, processed, analyzed and stored to the Epios Cloud

Project selection: Use cases clearly defined, with promising clinical impact in the near term

- Translation:
  - 3 years prior: Market analysis, technology requirements
  - 2 years prior: Business planning, compiling data and evidence
  - 1 year prior: Business planning, active outreach to investors
- Handover: Securing investment and deal closure

that the Wyss Center can deliver favorable terms to these founders. We incentivize continuity, commitment and long-term equity is distributed as evenly as possible among the full-time founders.

### **Changing lives**

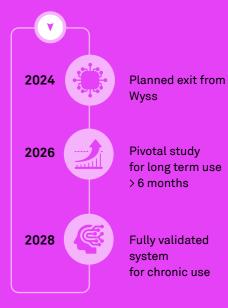
The Epios platform has potential for use across multiple conditions. These include movement restoration for people with spinal cord injury and stroke, as well as Parkinson's disease, sleep disorders, pain management and neuromodulation of brain circuits for mental health applications.

#### Paving the way to market

FDA Breakthrough Device status was granted to Epios in 2023 for patients with drug-resistant epilepsy. The Wyss Center continues to work with a network of industrial technology partners to develop and manufacture platform components, and with academic and clinical partners for preclinical and clinical testing.

We are currently exploring commercialization opportunities and strategic partnerships for the Epios platform.

### **UPCOMING MILESTONES:**





## Enabling brighter futures for people with neurological and mental health disorders

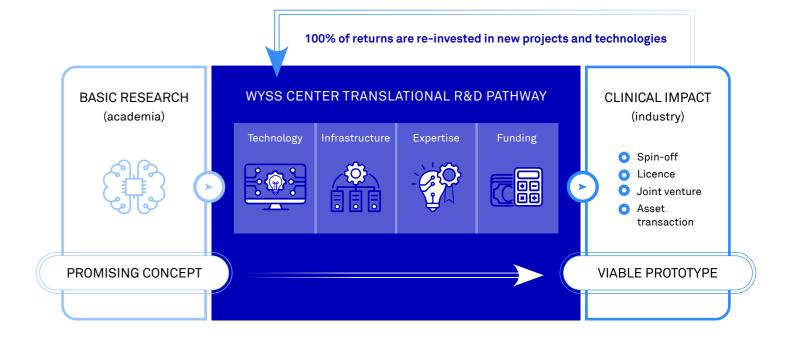
By 2027 we aim to deliver multiple de-risked technologies ready for further development as clinical therapies and commercial opportunities.

Bridging the gap between academia and industry, we work to create a fertile ecosystem which allows this innovation to thrive. We cannot do this without building a network of funders, partners, investors and philanthropists who share in our vision and understand the value and promise of these advances. Their support is fundamental to ensuring our projects succeed in changing lives.

UNDER THE WYSS CENTER UMBRELLA, EXPERTS FROM A DIVERSE RANGE OF FIELDS COME TOGETHER TO DEVELOP THEIR VISION AND CARVE A PATH FROM INNOVATION TO IMPACT

### Powering a virtuous cycle of innovations

Finally, our non-profit model enables us to take greater risks than other organizations and to enable talented innovators to become startup founders who can drive their vision forward. That does not mean we do not care about making returns on our investments. Quite the opposite. As a philanthropic organization, we reinvest 100% of our returns in upcoming projects and technologies - creating a virtuous cycle of innovation and maximizing the impact of our work. EVERATE SPREADER OF STREET STR



Tomorrow's development pipeline depends on the return we unlock today. Support our work and together we can keep the cycle of innovation and translation moving forward.

Creating a world where people with neurological and mental health disorders can live life to the fullest.



Wyss Center Strategy

## Organization and Governance

The Wyss Center's governance and organizational structure drives accountability, efficiency and performance in everything we do.

We value the diversity and multidisciplinarity of our teams, and are committed to fostering a work environment that embraces diversity and ensures equal opportunities for all.

The Wyss Center is a member of the ALBA Network which is an organization that aims to promote diversity, equity and inclusion in brain sciences.

1 GBD 2021 Nervous System Disorders Collaborators. (2024). Global, regional, and national burden of disorders affecting the nervous system, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. The Lancet Neurology, 23(4), 344-381. https://www. thelancet.com/journals/laneur/article/PIIS1474-4422(24)00038-3/fulltext 2 GBD 2021 Nervous System Disorders Collaborators. (2024). Global, regional, and national

2 GBD 2021 Nervous System Disorders Collaborators. (2024). Global, regional, and national burden of disorders affecting the nervous system, 1990–2021: a systematic analysis for the Global Burden of Disease Study 2021. The Lancet Neurology, 23(4), 344-381. https://www. thelancet.com/journals/laneur/article/PIIS1474-4422(24)00038-3/fulltext

3 Huang, Y., Li Y., Pan, H., Han, L. (2023) Global, regional, and national burden of neurological disorders in 204 countries and territories worldwide. Journal of Global Health, 13: 04160. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10685084/

4 Institute for Health Metrics and Evaluation, University of Washington (2024). Brain Healt Atlas [dataset]. Available from brainhealthatlas.org 5 Metzger, S. L., Littlejohn, K.T., Silva, A.B., Moses, D.A., Seaton, M.P., Wang, R., Doughert

5 Metzger, S. L., Littlejohn, K.T., Silva, A.B., Moses, D.A., Seaton, M.P., Wang, R., Bougherty, ME., Liu, J.R., Wu, P., Berger, M.A., Zhuravleva, I., Tu-Chan, A., Ganguly, K., Anumanchipalli, G.K., Chang, E.F. (2023). A high-performance neuroprosthesis for speech decoding and avatar control. Nature, 260, 1037-1046. https://doi.org/10.1038/s41586-023-06443-4 (2023) 6 Lorach, H., Galvez, A., Spagnolo, V.m Martel, F., Karakas, S., Inering, N., Vat, M., Faivre, O., Harte, C., Komi, S., Ravier, J., Collin, T., et al. (2023) Walking naturally after spinal cord injury using a brain-spine interface. Nature, 618, 126–133. https://www.nature.com/articles/ s41586-023-06094-5

7 Boscutti A, Juliana Mendonca De Figueiredo, Dana Razouq, Murphy N, Cho R, Selvaraj S. (2023). Noninvasive Brain Stimulation Techniques for Treatment-Resistant Depression: Transcranial Magnetic Stimulation and Transcranial Direct Current Stimulation. Psychiatr Clin North Am.;46(2):307-329. https://pubmed.ncbi.nlm.nih.gov/37149347/

8 Marsden, J., Stevenson, V. & Jarrett, L. Treatment of spasticity. in Handbook of Clinical Neurology vol. 196 497–521 (Elsevier, 2023)

9 Chaudhary, U., Vlachos, I., Zimmermann, J. B., Espinosa, A., Tonin, A., Jaramillo-Gonzalez, A., Khalili-Ardali, M., Topka, H., Lehmberg, J., Friehs, G. M., Woodtli, A., Donoghue, J. P., & Birbaumer, N. (2022). Spelling interface using intracortical signals in a completely locked-in patient enabled via auditory neurofeedback training. Nature Communications, 13(1), 1236. https://doi.org/10.1038/s41467-022-28859-8 Willet, F. R., Avansino, D. T., Hochberg, L. R., Henderson, J. M., & Shenoy, K. V. (2021). High-performance brain-to-text communication via handwriting. Nature, 593(7858), 249–254. https://doi.org/10.1038/s41586-021-03506-2 Lorach, H., Charvet, G., Bloch, J., & Courtine, G. (2022). Brain-spine interfaces to reverse paralysis. National Science Review, 9(10), nwac009. https://doi.org/10.1039/nsr/nwac009 10 Alhashimi R, Thoota S, Ashok T, Palyam V, Azam AT, Odeyinka O, Sange I. (2022). Comorbidity of Epilepsy and Depression: Associated Pathophysiology and Management. Cureus, 23;14(1):e21527. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8863389/



### Organization and governance chart

The Executive Board, supported by Advisory Experts, serves as the ultimate decision-making body of our organization.

Under the leadership of the Chief Executive Officer, the Wyss Center teams are organized in four departments closely working together toward our end goal.

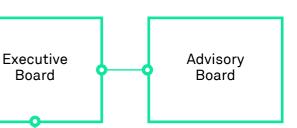






Craig Cook Head of Business Development & Licensing Tracy Laabs Head of Development & Special Programs

The Wyss Center's Leadership team brings extensive experience in science and technology, management, business and scientific operations, research and development, as well as entrepreneurship, venture capital and company building in a range of disciplines and industries.





Erwin Böttinger Director



Mark Stolz Head of Research & Development



Roma Vuarier Head of Finance & Administration



### **GET IN TOUCH**

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