



HERO

Human-centred and Ethical Robotics for Health and Wellbeing

Blended Intensive Programme (BIP)

DIBRIS, University of Genoa, Italy

June 22-26, 2026 (Virtual)

/ June 29-July 03, 2026 (Physical)

Virtual Component:

- **Programme:**

Day 1	Monday 22 nd June Session 1 – Introducing the BIPS HERO & AWAKE	
9:00 – 9:15	Fulvio Mastrogiovanni UniGe	Introducing the Ulysseus and UniGe environment
9:00 – 10:30	Paula Pousinha UniCA	Introducing the Institute of Innovation and Partnership Ageing & Well being
	John Rowell UniCA	Discovering the blended intensive programmes (BIPs) setting the agenda and workgroups
10:30 – 11:00	<i>Coffee break</i>	
11:00 – 12:30	<i>HERO Innovation</i> Michal Takac DimensionLab (SK)	From Simulation to Agents: DimensionLab's Journey in Human-Centred AI for Bioengineering
12:30 – 14:00	<i>Lunch break</i>	
14:00 – 17:00	<i>Independent study</i>	
Day 2	Tuesday 23 rd June Lectures held by the Institute of Innovation and Partnership Ageing & Well being	
11:00 – 12:30	<i>AWAKE Innovation</i> Deepak Kumar Saini longevity India ISSc (IN)	Aging and longevity
12:30 – 14:00	<i>Lunch break</i>	
14:00 – 17:00	<i>Independent study</i>	
Day 3	Wednesday 24 th July Genoa's Bank Holiday	
Day 4	Thursday 25 th June Lectures – clinical research and applications	
9:00 – 10:30	<i>HERO Lecture</i> Matilde Antonj IIT (IT)	Towards clinical assessment and rehabilitation through the interaction with humanoid robots and a sensorized device
10:30 – 11:00	<i>Coffee break</i>	
11:00 – 12:30	<i>AWAKE Lecture</i> Anne Vuillemin UniCA	Why Everything Is Connected: Systems Thinking for Ageing Research
12:30 – 14:00	<i>Lunch break</i>	
14:00 – 17:00	<i>Independent study</i>	

Day 5	Friday 26 th June Lectures and workshops – transfer to healthcare, entrepreneurship	
9:00 – 10:30	<i>AWAKE Lecture</i> Pascal Staccini UniCA	HEALTHCARE AVATARS AND DIGITAL HUMANS. An Engineer's Decision Guide to Embodied AI
10:30 – 11:00	Angela Celeste Taramasso UniGe	Overview of the EDI Programme on Ageing and Wellbeing at UniGe and across the ULYSSEUS Network
11:00 – 14:00	<i>Lunch break</i>	
14:00 – 17:00	<i>Independent study</i>	

Physical Component:

- **Programme:**

Day 1	Monday 29 th June - <u>Aula A4</u> Lectures and workshops – setting the scene	
9:00 – 10:30	Emilio Di Maria & Clio Flego UniGe	Introducing BIPs HERO and AWARE, Ulysseus and the Innovation Hub in Robotics
	John Rowell UniCA	Beyond the Ivory Tower: How PhD Skills Open Career Paths Beyond Academia
	<i>HERO Innovation</i> Francesca Redoano Two Birds (IT)	From Lab to Market: Translating AI and Robotics Research into Responsible, Regulatory-Ready Startups.
10:30 – 11:00	<i>Coffee break</i>	
11:00 – 12:30	PARALLEL SESSIONS <i>HERO Innovation</i> Francesca Odone UniGe 'From Seeing to Understanding: Computer Vision for Human-Centred AI and Healthcare'	<i>AWARE Workshop</i> Breaking the ice and setting the workgroups
12:30 – 14:00	<i>Lunch break & Poster viewing</i>	
14:00 – 15:00	<i>Joint poster session – AWAKE & HERO</i>	
15:00 – 17:30	<i>Workgroup</i>	
Day 2	Tuesday 30 th June - <u>Aula A4</u> Lectures held by the Institute of Innovation and Partnership Ageing & Well being	
9:00 – 10:30	<i>AWAKE Lecture</i> Stéphanie Lopez UniCA	Technology Transfer for Ageing and Well-Being: Policies and Best Practices
10:30 – 11:00	<i>Coffee break</i>	
11:00 – 12:30	<i>AWAKE Lecture</i> Paula Pousinha UniCA	Reinforced Hippocampus-Accumbens pathway marks a shift towards cognitive decline in aging
12:30 – 14:00	<i>Lunch break & Poster viewing</i>	
14:00 – 15:00	<i>Joint poster session – AWAKE & HERO</i>	
15:00 – 17:30	<i>Workgroup</i>	
19:00	<i>Informal Social Dinner</i>	
Day 3	Wednesday 1 st July - <u>Aula A2</u> Lectures held by the Innovation Hub Robotics	
9:00 – 10:30	<i>AWAKE Workshop</i> John Rowell UniCA	Can We Turn Ageing Biology into Medicine Without Falling into Hype?

10:30 – 11:00	<i>Coffee break</i>	
11:00 – 12:30	<i>HERO Lecture</i> Nicoletta Noceti UniGe	Analysing interactions on videos
12:30 – 14:00	<i>Lunch break & Poster viewing</i>	
14:00 – 17:30	<i>Workgroup</i>	
Day 4	Thursday 2 nd July - <u>Aula A6 > A4</u> Lectures – clinical research and applications	
9:00 – 10:30	<i>HERO Lecture</i> Antonio Sgorbissa UniGe	Bring Out the Real Robots!
10:30 – 11:00	<i>Coffee break</i>	
11:00 – 12:30	Lab visit – Antonio Sgorbissa	
12:30 – 14:00	<i>Lunch break & Poster viewing</i>	
14:00 – 17:30	<i>AWARE Lecture</i> Alessio Nencioni UniGe	
	PARALLEL SESSIONS <i>HERO Workgroup</i>	<i>AWARE</i> Lab visit – Alessio Nencioni
Day 5	Friday 3 rd July - <u>Aula A4</u> Lectures and workshops – transfer to healthcare, entrepreneurship	
9:00 – 10:30	<i>HERO Lecture</i> Indya Ceroni IIT	Muscle Synergies During Robot-Assisted Reaching for the Assessment of Post-Stroke Motor Control
10:30 – 11:00	<i>Coffee break</i>	
11:00 – 12:30	Plenary workgroup presentations	
12:30 – 14:00	<i>Lunch break & Poster viewing</i>	
14:00 – 17:30	<i>Networking activities – Thank you & Farewell</i>	

Abstract and Bio:

Alessio Nencioni is a full professor at the University of Genoa. He received an MD from the University of Genoa in 1999 and served as a specialist in Internal Medicine at the University of Genoa from 1999 to 2005. He completed a post doctorate course at the University of Tübingen from 2000 to 2001, and a post doctorate course at Massachusetts Institute of Technology from 2003 to 2004. He worked as a visiting scientist at the Whitehead Institute for Biomedical Research from 2005 to 2006 and associate professor and attending physician at the IRCCS A.O.U. San Martino, IST-National Institute for Cancer Research from 2015 to 2019. His research interests include dendritic cells, T lymphocytes, inflammation, the immune response, NAD, sirtuins, apoptosis, leukemia, breast cancer, and pancreatic cancer.

Angela Celeste Taramasso, professor at the Department of Civil, Chemical and Environmental Engineering (DICCA) and Rector's Delegate for Equal Opportunities and Inclusion at the University of Genoa. She also coordinates the ULYSSEUS work package on Equality, Diversity and Inclusion (EDI) and Community Engagement, leading collaborative initiatives across the alliance on these topics.

Overview of the EDI Programme on Ageing and Wellbeing at UniGe and across the ULYSSEUS Network

During her brief intervention, Prof. Taramasso will present the EDI initiatives developed at the University of Genoa and within the ULYSSEUS network, with a particular focus on activities related to Ageing and Wellbeing. She will provide an overview of the strategies and actions aimed at promoting equal opportunities, inclusion, accessibility, diversity awareness, and wellbeing across academic communities. The presentation will also highlight how these themes are integrated into teaching, research, and institutional policies, fostering more inclusive and supportive environments for students, researchers, and staff.

Anne Vuillemin is a Full Professor at Université Côte d'Azur (France), where she is a member of the Movement, Expertise, Sport, Health Laboratory (LAMHESS). She serves as Vice-President for Doctoral Policy at Université Côte d'Azur, Chief Scientific Officer of the Ulysseus Innovation Hub on Ageing and Well-being, in collaboration with Professor Laurent Counillon, and Head of the WHO Collaborating Centre on Systems Thinking and Innovation for the Prevention of Noncommunicable Diseases. She is a public health researcher specializing in the promotion of health-enhancing physical activity. Drawing on systems thinking, her work explores the complex determinants of physical activity behaviors across multiple levels of influence. She is also actively engaged in health promotion research within real-life settings, with a particular focus on sports environments as levers for population health.

Why Everything Is Connected: Systems Thinking for Ageing Research

Population ageing is one of the most pressing public health challenges of our time, yet its drivers and consequences cannot be understood through a single disciplinary lens. This session introduces systems thinking as a powerful framework to analyse the complex, interconnected determinants of health and well-being in ageing populations.

Moving beyond the limits of traditional epidemiological and biomedical approaches, participants will explore key systems thinking concepts and their application to real-world public health challenges. These include the social determinants of healthy longevity, the dynamics of health inequities, and the sustainability of health systems under growing demographic pressure.

By adopting a systemic perspective, the session highlights how to uncover root causes, anticipate unintended consequences of interventions, and identify high-impact leverage points to support more equitable and sustainable health outcomes across the life course.

Antonio Sgorbissa is Full Professor at the University of Genova, where he teaches Real-Time Operating Systems and Social Robotics in the European Master in Advanced Robotics. He is the coordinator of the Italian Doctorate in Robotics and Intelligent Machines (DRIM). His research interests include autonomous quadruped, aerial, and wheeled vehicles and social humanoid robots. He is the director of the RICE lab, Robots and Intelligent systems for Citizens and the Environment, rice.dibris.unige.it

Bring Out the Real Robots!

For decades, researchers around the world have been investing energy and resources, both public and private, in developing autonomous and intelligent robots: machines capable of assisting and keeping company with vulnerable people, providing information, and exploring environments in search of dangers. However, much of the scientific community seems more attracted to complex theoretical questions and to the construction of “refined” prototypes—destined to have an impact only in the distant future—than to the problem of how to design more “realistic” robots, capable of working here and now and of making a tangible contribution to society. Antonio Sgorbissa will share his experience in developing and deploying “simple but robust” social robots, able to provide useful support to people right away, without needing to be constantly shadowed by an engineer with a toolkit ready to intervene at the first malfunction.

Deepak Saini earned his PhD in Biotechnology from All India Institute of Medical Sciences (AIIMS), New Delhi, specializing in Molecular Biology and cell signaling. He subsequently pursued postdoctoral research in cell signaling at the Washington University School of Medicine in St. Louis, USA. Since joining the Indian Institute of Science (IISc) in 2010, Dr. Saini has served as a Professor in the Department of Developmental Biology and Genetics, and as an Associate Faculty member in both the Department of Bioengineering and the Centre for Infectious Diseases Research.

Dr. Saini’s research centers on translational approaches to fundamental processes in cellular aging, inflammation, and infection biology. He also serves as the faculty coordinator for the Longevity India Initiative at IISc. As the Convener of the Longevity India Initiative at IISc, Dr. Saini leads efforts to understand human aging in the unique context of India.

This lecture provides a conceptual overview of aging, including key theories of aging and their evolutionary significance. It also examines fundamental features of aged cells, the methods used to study them, and the current state of research in the field. In the second part, the lecture turns to the emerging longevity industry, outlining its current landscape and evaluating its present stage of development.

Francesca Redoano is a corporate lawyer specializing in startups and venture capital. She is also an Adjunct Professor at the University of Genoa, where she teaches the course “From Labs to Enterprise” (2026). She has a strong passion for technology and innovation.

From Lab to Market: Translating AI and Robotics Research into Responsible, Regulatory-Ready Startups.

This lecture explores the transition of academic research in AI and robotics into market-ready startups, focusing on technology transfer, IP protection, idea validation, team building, company formation, and funding pathways. It highlights interdisciplinary collaboration as a driver of responsible, human-centred innovation for health and well-being, addressing ethical and regulatory challenges in real-world applications.

Francesca Odone is Full Professor of Computer Science at the University of Genova, where she leads the Machine Learning and Vision group within the Machine Learning Genoa Center (MaLGa). She received her PhD in Computer Science from the University of Genova in 2002 and was a visiting researcher at Heriot-Watt University (Edinburgh) with a Marie Curie Fellowship.

Her research lies at the intersection of Computer Vision, Machine Learning, and Human-Centred AI, with the goal of

enabling intelligent systems to perceive, understand, and interact naturally with people. Over the years, her work has evolved from visual perception and image representation learning to the analysis of human behaviour, including head pose and gaze estimation, human motion understanding, and multimodal perception for healthcare and assistive technologies. More recently, she has also contributed to biomedical image analysis, investigating learning methods that integrate domain knowledge and improve robustness and interpretability in data-limited settings.

She has coordinated and participated in numerous national and European research projects, collaborating extensively with hospitals, SMEs, and industrial partners to translate AI research into applications for healthcare, rehabilitation, and human-machine interaction.

From Seeing to Understanding: Computer Vision for Human-Centred AI and Healthcare”

Computer vision research has traditionally focused on enabling machines to perceive the world with increasing accuracy. Today, however, many of the most pressing challenges in healthcare and assistive technologies require moving beyond perception towards understanding human behaviour, intentions, and social interaction. This shift is essential for designing AI and robotic systems that can collaborate effectively with people and provide meaningful support in everyday life.

I will present a research journey from visual perception to human behaviour understanding, illustrating how topics such as action recognition, gaze estimation, engagement analysis, and assistive computing contribute to the development of human-centred technologies for health and well-being. Through examples from interdisciplinary research projects, I will discuss how technical innovation must be complemented by user-centred design, stakeholder involvement, and ethical reflection to achieve solutions that are not only accurate, but also useful, trustworthy, and accepted by the people they are intended to support.

Indya Ceroni is a post-doctoral researcher at the Rehab Technologies Lab of the Italian Institute of Technology (IIT). She holds a Bachelor’s and a Master’s degrees in Biomedical Engineering from Politecnico di Milano. She obtained her PhD in Bioengineering and Robotics in 2026 from IIT and University of Genoa after completing a visiting research period at Friedrich-Alexander-Universität Erlangen-Nürnberg.

Muscle Synergies During Robot-Assisted Reaching for the Assessment of Post-Stroke Motor Control

Reliable assessment is a fundamental step for effective neurorehabilitation, as it allows clinicians and engineers to quantify motor impairment, monitor recovery, and evaluate the effects of rehabilitation technologies. Beyond clinical scales, the analysis of muscle coordination patterns can provide useful insights into how patients organize movement during rehabilitation and how this organization changes when interacting with assistive robotic devices. In one of our recent study, we used muscle synergy analysis to characterize upper-limb reaching movements in post-stroke patients, both with and without the assistance of the Float exoskeleton, a robotic device developed at the Rehab Technologies Lab of Italian Institute of Technology.

Muscle synergies are coordinated patterns of muscle activations, leveraged by the central nervous system to simplify motor control. By extracting muscle synergies from electromyographic signals, it is possible to investigate whether a movement is performed through physiological coordination patterns or through altered and compensatory strategies.

Our results showed heterogeneous patterns across patients, reflecting the variability of post-stroke motor impairment. In some cases, patient synergies showed clear correspondence with healthy reference synergies, suggesting partial preservation of physiological coordination. In other cases, reduced similarity or lack of direct correspondence indicated altered or compensatory coordination strategies. The analysis of Float-assisted movements further highlighted patient-specific adaptations to the robotic device.

Overall, our findings support the idea that muscle synergy analysis can complement clinical scales by providing a quantitative and interpretable description of motor control after stroke. By combining clinical assessment with neuromuscular analysis, this approach may support a more individualized evaluation of impairment and recovery, contributing to the development of more personalized neurorehabilitation strategies.

John Rowell is a seasoned leader in scientific research and innovation, currently serving as the Deputy Director and Director of Innovation and International Collaboration at IRCAN in Nice, France. With a Ph.D. in Biochemistry from the University of Cambridge, John has cultivated a distinguished career at the intersection of cancer and aging research, biotechnology, and strategic consulting. He has held key roles in prominent institutions such as Université Côte d'Azur, Gustave Roussy, and Cancer Core Europe, where he has driven cutting-edge research initiatives and fostered international collaborations.

John's expertise spans across a diverse range of scientific fields including stem cells, epigenetics, molecular biology, and biophysics. He is particularly skilled in innovation management, market evaluation, and strategic positioning within the biotech and pharmaceutical industries. His leadership at IRCAN focuses on amplifying the institute's global impact through multidisciplinary research and comprehensive educational programs aimed at combating cancer and aging.

Can We Turn Ageing Biology into Medicine Without Falling into Hype?

Ageing biology is revealing mechanisms that may one day be targeted to delay disease, extend healthspan, and improve quality of life. But how do we responsibly turn these discoveries into healthcare?

This interactive lecture will guide students through the central challenge facing healthy longevity medicine: the biology is exciting, the clinical need is enormous, but the translation pathway remains uncertain. Together, we will examine the promise and limitations of emerging therapeutics, asking what evidence is needed before they can be used responsibly in clinical practice.

Matilde Antonj is a Post Doc in the unit COgNiTive Architecture for Collaborative Technologies (CONTACT) at the Italian Institute of Technology, carrying out her research on the perceptual and motor adaptation during human robot interaction with applications in rehabilitation. She achieved with highest honors her Bachelor's Degree in Biomedical Engineering (2019) and her Master's Degree in Bioengineering (2021) at the University of Genoa. During her university career, she was selected to attend the extracurricular program regarding topics of Economics, Science, Engineering and Soft Skills at the Superior School of the University of Genoa (IANUA), achieving a Master in Change Management (2023). In 2025, she achieved the PhD in Bioengineering and Robotics with excellent cum laude at the University of Genoa and Italian Institute of Technology, presenting her PhD thesis "Investigating and Modeling Human Perceptual and Motor Mechanisms with Application in Rehabilitation through Human-Robot Interaction". To deepen her knowledge in delivering motor rehabilitation through human-robot interaction, during her PhD Matilde spent a period abroad at Harvard Medical School, in Boston. Recently, Matilde received the award Tecnovisionaria® 2026, being recognized by the association Women&Tech® – ETS as female talent working with vision in the technological field and favoring the social impact with her work.

Towards clinical assessment and rehabilitation through the interaction with humanoid robots and a sensorized device

In case of motor or cognitive impairments, human-robot interaction could play a fundamental role in supporting patients during extensive rehabilitation sessions at home. To realize personalized clinical interventions, robots should be endowed with the ability of assessing patients' performance during the execution of the task, and suggest tailored corrections for improvements. To characterize robots for an effective interaction, first it seems crucial to quantitatively characterize how humans adapt their actions and perception during the interaction with another agent. For this reason, the talk will focus on investigating how humans adapt their perceptual and motor mechanisms during the interaction with the humanoid robot iCub. The discussion on the results of the study will lead towards the presentation of novel technological applications in clinical settings: the development of an interactive solution for home-based rehabilitation in children with cerebral palsy through the interaction with the robot NAO, and a sensorized device enabling quantitative assessment of object manipulation, both for neurotypical children and those with neurological and developmental disorders.

Michal Takáč is co-founder and CEO of DimensionLab, a Slovak deep-tech company applying AI to scientific and engineering simulation. He holds a PhD in Cybernetics from the Technical University of Košice, where his research accelerated computational fluid dynamics using the lattice-Boltzmann method. A software engineer with 13+ years of experience and three prior startups as CTO, he has been a Visiting Scholar at UC Berkeley and a Falling Walls "Emerging Talent." He is based in Košice, Slovakia.

From Simulation to Agents: DimensionLab's Journey in Human-Centred AI for Bioengineering

DimensionLab builds AI for science and engineering. This talk traces our journey — from Siml.ai, our NVIDIA-powered platform for AI physics simulators, to CrAlniai, an agentic AI for designing patient-specific cranial implants, from a defective-skull scan to a 3D-print-ready model. We share candid lessons on building, sunseting, and reinventing deep-tech, and reflect on what human-centred, ethical AI can mean for safer, more equitable care.

<https://dimensionlab.org> - <https://michaltakac.github.io/dimensionlab-ulysses/>

Nicoletta Noceti is an Associate Professor in Computer Science at UniGE. She is a co-founder of MaLga (Machine Learning Genoa center) and PI in the Machine Learning and Vision research unit. Her research activity is focused on Computer Vision and Machine Learning, with particular interest in methods for the representation and understanding of human motion. She applies her research to different application domains, from robotics to videosurveillance and assistive living. She is a member of ELLIS.

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Pascal Staccini, MD, PhD, is a Professor of Public Health (PU-PH) at Université Côte d'Azur and Nice University Hospital (CHU de Nice), where he has worked since 1999, specializing in medical informatics and biostatistics. He directs the RETINES research unit and the "Ingénierie de la Santé" (Health Engineering) Master's programme. He heads the IRIS department (risk engineering and health informatics) and created France's first programme dedicated to serious games and simulation for medicine and healthcare (SeGaMed and Gamathon in Healthcare). He leads the digital transformation of medical studies, contributes to the medical simulation centre in Nice, and oversees medical and economic evaluation of hospital activity for the Alpes-Maritimes territory. He was also elected president of the French Association for Medical Informatics (AIM) in 2019. His research spans health information systems, risk analysis and management, e-health, and the responsible use of AI in health education.

HEALTHCARE AVATARS AND DIGITAL HUMANS. An Engineer's Decision Guide to Embodied AI

This lecture is a structured engineering decision guide on healthcare avatars, digital humans, and embodied AI, designed for computer-engineering students. It is organized into five connected parts. Part A introduces the embodiment paradigm — why giving an AI system a face, voice, or body changes how patients and clinicians interact with it. Part B walks through seven sequential engineering decisions, from representation and rendering to dialogue, latency, and integration. Part C maps these choices onto six families of clinical applications, showing how context reshapes design priorities. Part D examines human factors, equity, and sustainability, arguing that acceptability and fairness are engineering constraints, not afterthoughts. Part E closes with a research agenda and open questions. Throughout, evidence quality is explicitly tiered, and fragile claims (uncanny-valley data, latency thresholds, reimbursement figures) are flagged so they are not reused uncritically in regulatory or grant contexts.

Paula Pousinha holds a Bachelor's degree in Biology from the University of Coimbra and a PhD in Biomedical Sciences from the University of Lisbon, where she worked in the team of Professor Ribeiro. Recruited in 2017 as an

Associate Professor at Université Côte d'Azur, she is now Professor of Animal Physiology and Neuroscience and conducts her research at the Institut de Pharmacologie Moléculaire et Cellulaire (IPMC). Her work focuses on brain ageing and Alzheimer's disease, aiming to identify early neuronal predictors of cognitive resilience or decline. She also serves as Director of the Institute for Innovation and Partnership Ageing and Well-being and Co-Director of the Erasmus Mundus Joint Master's on the Biology of Ageing.

Reinforced Hippocampus-Accumbens pathway marks a shift towards cognitive decline in aging

Aging causes changes in brain function long before noticeable memory loss or cognitive decline appears. Among the first abilities affected are memory and spatial navigation—the capacity to orient ourselves and move through our environment. These functions rely on the hippocampus, a brain region that plays a key role in forming and retrieving memories. In this study, we found that aging increases the activity of specific connections between the hippocampus and the nucleus accumbens, a region involved in motivation and decision-making. Using complementary approaches in mice, we showed that this excessive activity disrupts the normal balance of brain circuits and contributes to age-related memory difficulties. Importantly, reducing the activity of this pathway improved memory performance in older animals. We also observed similar changes in humans, where these brain regions showed stronger activity and communication during navigation tasks. Together, these findings identify an early brain mechanism involved in cognitive aging and suggest new opportunities to preserve memory and cognitive health as we grow older.

Stéphanie Lopez is an AI expert specialized in medical applications at Université Côte d'Azur (Nice, FRANCE). She earned her engineering degree from Polytech Nice Sophia in 2013 and completed a PhD in computer Science in 2017.

Since 2018, Dr. LOPEZ has led LungScreenAI, an AI platform dedicated to early lung cancer screening using chest CT scans, developed in collaboration with Nice University Hospital (CHU de Nice) and Therapixel. She shaped clinical requirements alongside radiologists and managed all stages of the project, including proof-of-concept development, funding, multidisciplinary team coordination, CNIL data compliance, anonymization and annotation processes, and deployment into a prospective clinical trial approved by the French National Ethics Committee. In 2020, the project received a €200,000 grant from AstraZeneca.

Under her direction, LungScreenAI progressed toward clinical integration and SATT (transfer technology organism) negotiations for technology transfer. Dr. LOPEZ is also actively involved in education and knowledge transfer activities. She teaches healthcare professionals about the fundamentals in AI, opportunities and challenges of AI in healthcare, and trains students in the management of AI projects in healthcare.

A speaker at SantExpo 2025, she currently contributes to interdisciplinary projects on AI-driven health transformation, including Agentic AI and digital twins. She also mentored students with the CURATE-Ulysseus program in 2025, hosts a French podcast dedicated to AI applications, and leads a women-in-AI community.

Technology Transfer for Ageing and Well-Being: Policies and Best Practices

The transfer of artificial intelligence (AI) technologies from academic research to clinical practice remains a major challenge, particularly in the fields of aging and well-being. Despite the abundance of promising R&D projects led by universities, many fail to progress beyond the proof-of-concept stage due to barriers related to regulation, data access, and market integration. Drawing on eight years of experience with the LungscreenAI project, partnership between UniCA, the hospital of Nice and a French start-up, this presentation highlights key strategies for supporting successful technology transfer in the field of AI applied to healthcare.

One of the main obstacles is access to sensitive hospital data and annotations. The lack of sustainable collaboration between university teams and clinical partners, could slow down the tough process related to regulations such as the GDPR. Academic projects often need help establishing multidisciplinary partnerships. How can such partnerships be effectively established and maintained in order to align technical development with clinical needs and institutional requirements?

The role of SATTs (Technology Transfer Acceleration Companies) is essential in bridging the gap between academia and industry. SATTs help university teams overcome barriers to commercialization. What are the best practices to be learnt from SATT involvement in accelerating AI projects, from laboratory prototypes to marketable solutions? In addition, technology transfer, which requires significant resources, demands clear project governance, dedicated data management teams (including GDPR compliance and data annotation), and early involvement in regulatory processes (ISO standards, CE marking). How can universities benefit from European collaborations, in order to structure these internal capabilities, and when should external actors such as SATTs be involved to maximize impact?

This lecture will address concrete arguments and lessons learnt to help academic projects based on AI successfully navigate the complex stages of technology transfer. By fostering effective partnerships and leveraging specialized transfer mechanisms, it is possible to accelerate the deployment of AI solutions that promote healthy aging and well-being, thereby transforming academic innovation into practical clinical tools.