

ERC Advanced Grants 2024

List of Principal Investigators selected for funding

The statistics and list of successful candidates are provisional. The European Commission and the Swiss Government have concluded negotiations on the association of Switzerland to Horizon Europe. The signature of the agreement is expected to take place in 2025. However, since the scope of the association agreement does not cover award procedures implementing the 2024 budget, no grant agreements will therefore be signed with host institutions established in Switzerland under the 2024 Advanced Grant call. Switzerland-based applicants may only receive EU funding if they transfer their proposed project to an eligible host institution.

Last name	First name	Host Institution name	Host Institution local name	Host country	Acronym	Title	Panel
DANZL	Johann	Institute of Science and Technology Austria	Institute of Science and Technology Austria	AT	MOLCONN	Molecularly informed dense connectomic mapping of mammalian brain tissue	LS5
JONAS	Peter	Institute of Science and Technology Austria	Institute of Science and Technology Austria	AT	CA3-SYNGRAM	Synaptic engrams in hippocampal CA3 memory circuits	LS5
KÖHLER	Alwin	Medical University of Vienna	Medizinische Universität Wien	AT	NPC-MEM	The Nuclear Pore Complex: Bridging Membrane Remodelling and Lipid Metabolism	LS1
MOISSEL-EICHINGER	Christine	Medical University of Graz	Medizinische Universität Graz	AT	ARCH-METH	Archaeal keystone species in host microbiomes: Understanding and controlling Methanobrevibacter for Environmental and Health Benefits	LS8
TRAJANOSKI	Zlatko	Medical University of Innsbruck	Medizinische Universität Innsbruck	AT	Neutros	Targeting neutrophils in colorectal cancer	LS7
WOEBKEN	Dagmar	University of Vienna	Universität Wien	AT	WinMicAct	Windows of microbial activity in deserts afforded by non-rain water	LS8
DE GEEST	Bruno	Ghent University	Universiteit Gent	BE	MATRACs	Tumor acidosis targeted delivery of immunotherapy by Marker-Agnostic TumoR-Anchoring Chimeras	LS7
DE STROOPER	Bart	Flanders Institute for Biotechnology (VIB)	Vlaams Instituut voor Biotechnologie	BE	XenoAD	Modelling the impact of aging in sporadic Alzheimer's disease	LS5
GUILLIAMS	Martin	Flanders Institute for Biotechnology (VIB)	Vlaams Instituut voor Biotechnologie	BE	LegoLiver	(Re)constructing the liver, brick by brick	LS3
JONKERS	Ilse	KU Leuven	KU Leuven	BE	OA-CONNECT	Connecting Joint Function to Chondrocyte Biology in Knee Osteoarthritis	LS7
VAN RIE	Annelies	University of Antwerp	Universiteit Antwerpen	BE	DiSrupT RR-TB	Direct on Sputum Sequencing to Interrupt Transmission of Rifampicin Resistant Tuberculosis	LS7
VANDEPOELE	Klaas	Flanders Institute for Biotechnology (VIB)	Vlaams Instituut voor Biotechnologie	BE	multiCODE	Unraveling the regulatory code of gene expression in plants	LS2
CORN	Jacob	Swiss Federal Institute of Technology Zurich (ETH Zurich)	Eidgenössische Technische Hochschule Zürich	CH	MINDGENE	Multisystem INTEGRATED DNA Repair and GENe Editing	LS2
ENGELHARDT	Britta	University of Bern	Universität Bern	CH	CNS-IP	CNS-IP: Understanding how the brain barriers orchestrate Central Nervous System Immune Privilege	LS5

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GÖNCZY	Pierre	Swiss Federal Institute of Technology Lausanne (EPFL)	Ecole Polytechnique Fédérale de Lausanne	CH	novoBIO	Building an organelle from scratch: deciphering de novo centriole biogenesis	LS3
SCHIER	Alexander	University of Basel	Universität Basel	CH	SELFORGANIZE	Mechanisms of self-organized axis formation in vivo	LS3
VON MEYENN	Ferdinand	Swiss Federal Institute of Technology Zurich (ETH Zurich)	Eidgenössische Technische Hochschule Zürich	CH	EpiTarget	Nanobody-assisted epigenetic editing	LS4
VORHOLT	Julia	Swiss Federal Institute of Technology Zurich (ETH Zurich)	Eidgenössische Technische Hochschule Zürich	CH	SYMBIO	Molecular mechanisms of novel endosymbioses	LS8
BUCHHOLZ	Frank	Technical University of Dresden	Technische Universität Dresden	DE	DC-PGE	DNA-binding domain Conditioned Precision Genome Editing	LS7
EDBAUER	Dieter	German Centre for Neurodegenerative Diseases - Helmholtz Centre	Deutsches Zentrum für Neurodegenerative Erkrankungen e.V	DE	epiC9repair	Targeting rogue DNA repair and genomic instability as novel toxicity mechanisms in C9orf72 ALS/FTD	LS5
EGGER	Veronica	University of Regensburg	Universität Regensburg	DE	COLUMNET	Efficient odour representations in the olfactory bulb: Flexible lateral interactions synchronize co-active columns	LS5
GARCIA SAEZ	Ana	University of Cologne	Universität zu Köln	DE	MITOPORE	MIM pores: composition, structure and function	LS1
JOAZEIRO	Claudio	University of Heidelberg	Ruprecht-Karls-Universität Heidelberg	DE	SuTra	Surveillance of Translation: From Molecular Mechanisms to Roles in Disease	LS1
KORN	Thomas	University Hospital Rechts der Isar	Klinikum rechts der Isar der Technischen Universität München	DE	Breaking Bad	B cell-orchestrated tolerization of T cell-dependent B cell-mediated autoimmune diseases	LS6
SCHEFFOLD	Alexander	University Medical Center Schleswig-Holstein	Universitätsklinikum Schleswig-Holstein	DE	ReSpecTreg	Resolve human autoantigen-specific regulatory T cell responses	LS6
SPAHN	Christian	Charité - University Hospital	Charité - Universitätsmedizin Berlin	DE	DeepRibosome	Visual Translatomics – Deep ribosomal insights by cryo-electron microscopy of actively translating ribosomes	LS1
TSIANTIS	Miltos	Max Planck Society	Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V.	DE	CLONAL	Development and diversity of root suckers	LS3

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WEBER	Christian	University of Munich (LMU)	Ludwig-Maximilians-Universität München	DE	MONOFUN-CV	Modulating non-canonical functions of microRNAs in cardiovascular disease	LS4
ANDERSEN	Ebbe	Aarhus University	Aarhus Universitet	DK	RIBOTICS	RNA Origami Technology in Cell Systems	LS9
BRODERSEN	Peter	University of Copenhagen	Københavns Universitet	DK	PLARNASENS	Sensing of cytoplasmic double-stranded RNA in plants	LS2
JENSEN	Torben Heick	Aarhus University	Aarhus Universitet	DK	NuRS	Nuclear RNA Sorting	LS1
NIINEMETS	Ülo	Estonian University of Life Sciences Emu	Eesti Maaulikool	EE	CRYPTO-AI-FUTURE	Enhanced productivity of resurrection photosynthetic organisms in a CO ₂ -richer future: tipping the global carbon and oxidant balance	LS8
TEDERSOO	Leho	University of Tartu	Tartu Ülikool	EE	PhylFun	Phylogenetic taxonomy and classification of fungi	LS8
BOLANOS	Juan P.	University of Salamanca	Universidad de Salamanca	ES	NeuroSTARS	Astrocytic metabolism-driven epigenetics at the cornerstone of cognitive aging	LS4
ENRÍQUEZ	José Antonio	Spanish National Cardiovascular Research Centre	Fundacion Centro Nacional de Investigaciones Cardiovasculares Carlos III	ES	MINTRAF	Cell-Cell Communication by Mitochondrial Intercellular Traffic	LS4
LOPEZ	Daniel	Spanish National Research Council (CSIC)	Agencia Estatal Consejo Superior de Investigaciones Científicas	ES	CLAMP	Deciphering Membrane Compartmentalization in Protein-Misfolding Bacterial Dysfunction to Re-Sensitize Multi-Drug Resistant Pathogens.	LS6
MASSANA	Ramon	Spanish National Research Council (CSIC)	Agencia Estatal Consejo Superior de Investigaciones Científicas	ES	BYGENEX	Unveiling oceanic bacterivory through gene expression	LS8
RODRÍGUEZ RAMIRO	Almudena	Spanish National Cardiovascular Research Centre	Fundacion Centro Nacional de Investigaciones Cardiovasculares Carlos III	ES	ANTI-ATHERO	Age-associated antigens in atherosclerosis immunity and immunotherapy	LS6
BENAR	Christian-G.	National Institute of Health and Medical Research (INSERM)	Institut national de la santé et de la recherche médicale	FR	OptiMEG	Non-invasive recording of deep brain activity: mobile sensors optimized with intracerebral measures	LS7

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LECUIT	Thomas	National Center for Scientific Research (CNRS)	Centre National de la Recherche Scientifique (CNRS)	FR	GeoMorpho	Geometric constraints and feedback during tissue morphogenesis	LS3
MORLON	Hélène	National Center for Scientific Research (CNRS)	Centre National de la Recherche Scientifique (CNRS)	FR	PlankDiv	Diversification of the Eukaryotic Plankton in the Sunlit Ocean	LS8
SCHACHERER	Joseph	University of Strasbourg	Université de Strasbourg	FR	UnMiss	Uncovering the hidden origin behind the missing heritability	LS2
GAZIT	Ehud	Tel Aviv University	Tel Aviv University	IL	Meta2Zyme	Enzyme Mimicking by Metabolite-Metal Nanozymes with Exceptional Operational Stability	LS9
ITZKOVITZ	Shalev	Weizmann Institute of Science	Weizmann Institute of Science	IL	GI-DYNAMICS	Exploring the dynamics of the gastrointestinal tract using shed cell and spatial transcriptomics	LS2
JUNG	Steffen	Weizmann Institute of Science	Weizmann Institute of Science	IL	MONOSPLIT	Deciphering Split Monopoiesis Impact on Tissue Macrophages	LS6
LEVY	Avraham	Weizmann Institute of Science	Weizmann Institute of Science	IL	NextWheat	New approaches for the analysis and utilization of wheat genetic diversity	LS9
NELKEN	Israel	The Hebrew University of Jerusalem	The Hebrew University of Jerusalem	IL	MEMORAT	Continual learning and memory for sounds in rat	LS5
ULANOVSKY	Nachum	Weizmann Institute of Science	Weizmann Institute of Science	IL	NEURO_OUTDOORS	Neuroscience in the real world: Representation of position, direction and environmental borders in the hippocampal formation of bats navigating outdoors on a remote oceanic island	LS5
BROCCOLI	Vania	National Research council of Italy	Consiglio Nazionale delle Ricerche	IT	CARGiver	Engineering the immune response in Parkinson's disease to curb its pathological progression	LS7
CHIARLE	Roberto	University of Turin	Università degli Studi di Torino	IT	A-PONTE	ALK-driven cancers: a Portfolio of ONcoimmunoTherapies to achieve tumor Eradication	LS4
DI BERNARDO	Diego	Fondazione Telethon	Fondazione Telethon	IT	DIMERCIRCUITS	Engineering Synthetic Gene Circuits through Competitive Dimerization.	LS9
PRIORI	Silvia Giuliana	University of Pavia	Università degli Studi di Pavia	IT	Nab-Heart	Nanobody-Targeted Camk2d Inhibition for Cardiac Arrhythmias	LS7

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RAFFA	Vittoria	University of Pisa	Università di Pisa	IT	GAP	Guidance of axonal pathfinding via nano-switches	LS9
SACCONI	Leonardo	National Research council of Italy	Consiglio Nazionale delle Ricerche	IT	HeartCORE	Boosting predictive concepts on arrhythmogenesis resolving and unifying cardiac electrophysiology and structural remodelling at organ-level	LS4
SANDRI	Marco	University of Padua	Università degli Studi di Padova	IT	Decode-And-Treat	Decoding and Treating Cancer-Induced Cachexia	LS7
SORANZO	Nicole	Human Technopole	Fondazione Human Technopole	IT	IMPACT	charting Immunological Maps of Populations Across Complex disease and lifetime Trajectories	LS2
SZABÒ	Ildikò	University of Padua	Università degli Studi di Padova	IT	TRANSION	Connecting Voltage-Gated Potassium Channels to Transcriptional and Translational Regulation	LS1
KOPS	Geert	Royal Netherlands Academy of Arts and Sciences	Koninklijke Nederlandse Akademie van Wetenschappen - KNAW	NL	CENTROSHAPE	Shaping up for mitosis: the origins and consequences of the 3D structure of mitotic centromeres	LS3
O ROEP	Bart	Leiden University Medical Center (LUMC)	Academisch Ziekenhuis Leiden - Leids Universitair Medisch Centrum	NL	Beta-STEALTH	From harassing to harnessing beta-cells in type 1 diabetes	LS7
SCHIFFELERS	Raymond	University Medical Center Utrecht	Universitair Medisch Centrum Utrecht	NL	AGTC	Advancing Gene Transfer Capabilities	LS7
CAREY	Megan	Champalimaud Foundation	Fundação Champalimaud	PT	SCULPTABELLUM	Sculpting cerebellar activity across timescales	LS5
SOUSA	Monica	i3S	Instituto de Investigação e Inovação em Saúde da Universidade do Porto	PT	CORDheal	The roadmap enabling spinal cord regeneration in mammals	LS3
BETSHOLTZ	Christer	Uppsala University	Uppsala Universitet	SE	Arrachnobarrier2.0	Elucidating structures and functions in the arachnoid barrier	LS4
DREW	David	Stockholm University	Stockholms universitet	SE	MEMSUGAR	Mechanism of Sugar Transporters involved in Human Health and Disease	LS1
JASTROCH	Martin	Stockholm University	Stockholms universitet	SE	EVOTHERM	Reconstructing the Molecular Evolution of Non-Shivering Thermogenesis	LS8

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JOHANNESSON	Hanna	Stockholm University	Stockholms universitet	SE	FunGerm	The early sequestered germline of fungi - spatial distribution, mechanism and generality across the kingdom	LS8
MALMSTRÖM	Johan	Lund University	Lunds universitet	SE	NANOBAC	Antibody-guided design of multivalent nanoparticle vaccines against bacterial pathogens	LS2
WARRANT	Eric	Lund University	Lunds universitet	SE	IncredibleJourneys	Incredible journeys: How do multiple sensory cues allow animal migrants to precisely navigate to a distant goal?	LS8
WILLIAMS	Pete	Karolinska Institute	Karolinska Institutet	SE	TARGET-NMNAT2	Pharmacological and gene therapy targeting of NMNAT2 for neuroprotection in glaucoma	LS7
AYE	Yimon	University of Oxford	University of Oxford	UK	mt-REMs	Deconvoluting Signaling Activities of Mitochondrial-derived Reactive Metabolites with Unparalleled Depth and Spatiotemporal Precision	LS9
BASS	Chris	University of Exeter	University of Exeter	UK	HYMOTOX	Unravelling the molecular determinants of insecticide sensitivity in the Hymenoptera HYMOTOX	LS9
BRYANT	Clare	University of Cambridge	University of Cambridge	UK	AviCeD	Human and avian Pattern Recognition Receptor activation of cell death pathways: impact on the host inflammatory response to zoonotic infections.	LS6
DOMINGOS	Ana	University of Oxford	University of Oxford	UK	SympNetO	Sympathetic Neural Networks protecting against Obesity	LS4
FOSTER	Kevin	University of Oxford	University of Oxford	UK	MetaMicro	A Metabolic Theory of Microbial Ecology	LS8
HIRST	Judy	University of Cambridge	University of Cambridge	UK	ModularBioMachine	The energy-converting mechanism of a modular biomachine: Uniting structure and function to establish the engineering principles of respiratory complex I	LS1

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HOLLINGSWORTH	Deirdre	University of Oxford	University of Oxford	UK	CoCoDyMo	Co-morbidity and co-infection dynamic modelling to optimize the control of neglected tropical diseases, tuberculosis, malaria and HIV across vulnerable populations	LS7
KHALED	Walid	University of Cambridge	University of Cambridge	UK	PreBRCATx	Understanding Precancerous changes in BReast CANcer for the development of Therapeutic interceptions	LS4
LISTON	Adrian	University of Cambridge	University of Cambridge	UK	TregCode	Dissecting the code for regulatory T cell entry into the tissues and differentiation into tissue-resident cells	LS6
RAWLINS	Emma	University of Cambridge	University of Cambridge	UK	LungDeCode	Reprogramming lung epithelial cell lineages for regeneration	LS3
TON	Jurriaan	University of Sheffield	University of Sheffield	UK	PlantMemo	Decoding the Internal and External Drivers of Plant Defence Memory	LS9
VAN DEN BERG	Bert	Newcastle University	Newcastle University	UK	IN and OUT	In with the good, out with the bad: understanding small molecule influx and efflux in gut Bacteroides.	LS1
VISSCHER	Peter	University of Oxford	University of Oxford	UK	Dimension	Dimensionality of the human phenome	LS2
ZLATIC	Marta	University of Cambridge	University of Cambridge	UK	SMART	Discovering the circuit and molecular basis of inter-strain and inter-species differences in learning	LS5