

List of SFI Frontiers for the Future Awards & Projects

Co-funder	Researcher	Research Body	Co-applicant	Research Body	Proposal Title	Award
	Albert A. Ruth	University College Cork	John Wenger	University College Cork	Ultra-sensitive cavity-enhanced trace gas detection for new atmospheric science and socio-economic impacts	€997,887
	Amir Khan	Trinity College Dublin			LRRK2 control of membrane trafficking in health and disease	€997,421
	Anne Moore	University College Cork			Induction of Broad Systemic and Mucosal Immune Responses by Non-injected Stable Vaccines	€886,739
	Elaine Dunleavy	NUI Galway			Mechanisms of centromere assembly and maintenance in germ cells and impacts on cell fate, fertility and early development.	€917,484
	Fiona Walsh	Maynooth University			Targeting antimicrobial resistance plasmids to resurrect antimicrobial therapies	€951,338
	James O'Donnell	RCSI, University of Medicine and Health Sciences			Defining the mechanisms through which enhanced clearance contributes to the pathogenesis of the common inherited bleeding disorder Von Willebrand disease.	€968,065
	Karen English	Maynooth University	John Laffey	NUI Galway	Removing the brake; Role of PPAR α on mesenchymal stromal cell therapeutic efficacy in ARDS	€999,265
	Kenneth Wolfe	University College Dublin			Molecular arms race between a yeast homing genetic element and its genomic target	€985,850
	Michael Peter Kennedy	University College Dublin			No Spurs After Nonlinear Distortion (NoSAND)	€937,343
	Tracy Robson	RCSI, University of Medicine and Health Sciences	Jacintha O'Sullivan	Trinity College Dublin	Breaking the Obesity-Cancer link; a theranostic role for FKBPL in modulating immunometabolism across disease progression in oesophageal adenocarcinoma	€910,324
SEAI	Valeria Nicolosi	Trinity College Dublin			Engineering of hierarchical porous structures based on novel 2D nanomaterials: towards the new generation of battery devices beyond Lithium	€971,090
	Vivek Ranade	University of Limerick			'Factory in a Box' for Personalised Products based on Emulsions [FabPRO]	€988,667
	Pavel Baranov	University College Cork			Characterisation of human mRNA decoding diversity	€986,186
	Gerard McGlacken	University College Cork			SOSEarth: Sustainable Organic Synthesis using Earth Abundant Metals for Critical Pharmaceutical Transformations	€979,586
	Peter Parbrook	Tyndall National Institute	Stefan Schulz	Tyndall National Institute	Boron Containing III-N Alloys for Next Generation Visible and UV Light Emitting Devices	€999,313
	Roger Preston	RCSI, University of Medicine and Health Sciences			New approaches to exploit coagulation protease-receptor signalling for therapeutic benefit	€732,720
	Karl Mason	NUI Galway			Effective Integration of Renewable Energy within the Agriculture Sector in Ireland using Artificial Intelligence	€744,753

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	Vinny Cahill	Trinity College Dublin	Ivana Dusparic	Trinity College Dublin	ClearWay: Advancing Deep Reinforcement Learning and Swarm Intelligence to Optimize Travel-Time Reliability in Mixed Traffic	€998,170
	Abdollah Malekjafarian	University College Dublin			Automated and Rapid Fault Diagnosis of Railway Tracks using In-service Train Measurements	€376,313
	Adam Kane	University College Dublin			Noisy Neighbours - the movement ecology of urban gulls	€265,280
SEAI	Alexey Lastovetsky	University College Dublin			Models, Algorithms and Software for Energy-efficient Parallel Computing in Heterogeneous Hybrid Multicore Era	€479,959
	Angela Feechan	University College Dublin			RECEPTAR PATH: Removing susceptibility RECEPTors in wheat and barley TARgeted by fungal leaf blight PATHogens	€479,936
	Annette Byrne	RCSI, University of Medicine and Health Sciences			Leveraging chromosomal instability for improved diagnosis and treatment in bevacizumab resistant metastatic colorectal cancer	€473,190
	Annie Curtis	RCSI, University of Medicine and Health Sciences			Chrono-Vac : Harnessing the chronobiology of skin dendritic cells to boost vaccine efficacy	€476,383
	Anthony Ventresque	University College Dublin			RobuSTests: Robust Software Tests	€479,935
SEAI	Breiffni Fitzgerald	Trinity College Dublin			Machine Learning for Wind Farm Aerodynamics and Control (MeLodiC)	€401,871
	Brendan Kennedy	University College Dublin			Investigating fundamental biological processes underpinning vision, to understand disease and develop therapeutic interventions for blindness.	€332,676
	Brona Murphy	RCSI, University of Medicine and Health Sciences			GLIOTREAT-Novel treatments for Glioblastoma Patients	€428,739
	Carmel Breslin	Maynooth University	Eithne Dempsey	Maynooth University	The fabrication of conducting 2D layered graphene-like materials and their applications as environmental sensors and as electro-catalysts for electro-Fenton: Improved sensing and removal of emerging pollutants from water	€479,742
	Christophe Silien	University of Limerick			Illumination Diversity for Label-Free super-resolution Biological Multimodal far-field microscopy	€440,497
	Claire Conway	RCSI, University of Medicine and Health Sciences			Digital Models for Next Generation Mitral Prostheses	€470,923
	Clare Kelly	Trinity College Dublin	Andrew Harkin	Trinity College Dublin	Sex matters: Identifying the neurodevelopmental origins of sex differences in depression	€479,979
	Colm Ryan	University College Dublin			Understanding and predicting context-specific synthetic lethality in cancer	€421,572
	Damien Woods	Maynooth University			Active DNA tiles for programmable nucleation of robust DNA nanostructures	€479,935
	Damir Vareslija	RCSI, University of Medicine and Health Sciences			Epigenetic and microenvironmental regulation of brain metastases	€375,346
	Eddie Myers	NUI Galway			Photoinitiated Transformations of Peptides and Protein for Biopharmaceutical and Biomaterial Application	€479,747

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	Elisa Fadda	Maynooth University			GlycoShape: A database/toolbox for structural glycomics and glycoanalytics	€437,737
	Emmanuelle Graciet	Maynooth University			Future-proofing our crops by increasing their resilience to flooding (hypoxia) and pathogens	€479,919
	George Barreto	University of Limerick			Coupling neurosciences and artificial intelligence to potentiate pharmacological actions of tibolone over neuroglobin signalling in traumatic brain injury	€479,713
	Grace McCormack	NUI Galway			Investigating diversity and adaptation in wild honey bees in Ireland	€478,845
	Hongzhou Zhang	Trinity College Dublin			Controllable Resistive Switching in Two-dimensional Molybdenum Disulphide via Site-specific Helium Ion Irradiation	€479,945
	Hugh J. Byrne	TU Dublin			Shedding light on cellular function: Combining kinetic, mechanistic modelling approaches with label free microspectroscopic imaging (CYTOMECHSPEC)	€477,979
	Ioscani Jimenez del Val	University College Dublin			Dial-A-Sugar: Model-Predictive Control of biopharmaceutical glycosylation	€477,658
	Isabel Rozas	Trinity College Dublin			Towards an antiviral drug to treat Covid-19 infections	€454,018
	Jennifer Mahony	University College Cork (UCC)			The sweet tooth of a bacterial virus: Unravelling Phage-Host Attachment and Recognition Modalities (PHARM) in the dairy bacterium Streptococcus thermophilus	€478,945
	Joanne Lysaght	Trinity College Dublin (TCD)			Identifying novel aspects of immune checkpoint pathways to improve response rates in upper gastrointestinal cancer.	€297,844
	John Dooley	Maynooth University (MU)			ORCHESTRA 6G: Orchestrating Arrays for 6G	€322,040
	John Mackrill	University College Cork (UCC)			Inositol trisphosphate signalling in potato blight: a pathway to the elimination of a plant destroyer?	€303,815
	Jonathan Bond	University College Dublin (UCD)			Unravelling epigenetic systems disruption in cancer	€479,985
	Maeve Caldwell	Trinity College Dublin (TCD)			Apolipoprotein-E genotype influences inflammation in Alzheimer's Disease	€479,995
	Marcus Baumann	University College Dublin (UCD)			Continuous Flow Biocatalysis for High Value Products Exploiting Enzyme Cascade Processes	€419,916
	Maria McNamara	University College Cork (UCC)			The Evolution of Melamin in Vertebrates: Using taphonomy to record the history of metal-melamin functions through deep time.	€472,995
	Mark Cunningham	Trinity College Dublin (TCD)			Gene therapy approaches for brain tumour related epilepsy	€434,875
	Max Garcia-Melchor	Trinity College Dublin (TCD)			Accelerated rational design of cost-effective hybrid materials for water splitting using machine learning	€476,158
	Mert Celikin	University College Dublin (UCD)	Eoin O'Cearbhaill	University College Dublin (UCD)	Additive Manufacturing of Bioresorbable Magnesium Implants	€392,059
Geological Survey Ireland	Michael Stock	Trinity College Dublin (TCD)			Developing a process-based understanding of platinum group element mineralisation: a natural laboratory in Ireland (Critical-Ireland)	€479,055

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Geological Survey Ireland	Niamh Cahill	Maynooth University (MU)			Predicting Sea Levels and Sea-Level Extremes for Ireland	€200,022
	Nicola Fletcher	University College Dublin (UCD)			A One Health approach to investigate hepatitis E virus in humans, animals and the environment	€457,868
	Olivia O'Leary	University College Cork (UCC)			Unlocking the mechanisms underlying gut microbial regulation of adult hippocampal neurogenesis: Implications for cognitive and stress-related brain disorders.	€479,720
	Patricia Scully	NUI Galway			Laser Functionalisation of Flexible Polymer-Carbon Composites for Medical Sensing	€476,970
	Patrick Harrison	University College Cork (UCC)			CRISPR Prime-XL and HDR-XL to repair cystic fibrosis mutations across an entire exon using a single guide RNA; an essential step towards clinical translation	€341,125
	Paul Young	University College Cork (UCC)			Investigation of LNX proteins as novel regulators of synaptic function and potential drug targets in neurological disorders.	€410,716
	Peter Byrne	University College Cork (UCC)			Catalytic Wittig CO2 Utilisation Methodology for Sustainable Production of Carboxylic Acids Derivatives	€477,979
	Robert Johnson	University College Dublin (UCD)			DNA Amplification and Detection within a Confined Nanospace	€457,455
	Robert Whelan	Trinity College Dublin (TCD)	Jane McGrath	Trinity College Dublin (TCD)	Predicting who will respond to stimulant medication in ADHD: A precision medicine approach using neurally informed computational models	€478,069
	Rosemary Monahan	Maynooth University (MU)	Barak Pearlmutter	Maynooth University (MU)	MAIVV: Modular AI Verification and Visualisation	€479,982
	Sara Farrona	NUI Galway			Inter-PWOs: Investigation of how chromatin-associated PWOs and their interacting molecules regulate plant development	€474,838
	Shuo Yin	Trinity College Dublin (TCD)			Novel digital holographic and modelling technologies for unlocking the metal-ceramic co-deposition mechanism during supersonic cold spray	€479,278
	Siobhan McClean	University College Dublin (UCD)			AdaptaLox: Adaptation of bacteria to the low oxygen environment in chronic lung diseases - a target for a single treatment modality.	€479,756
	Stefan Oscarson	University College Dublin (UCD)			Towards novel therapies; Development of a glycoconjugate fungal vaccine targeting Cryptococcus neoformans infections	€315,167
Susan Kelleher	Dublin City University (DCU)			EMMA - Electrospun membranes with micro and nanoscale surface patterns for anti(bio)fouling and antibacterial applications	€471,015	
Suzanne Martin	Technological University Dublin (TU Dublin)			Low-cost, InteGrated Holographic Technology for Specialized, Highly Adapted, Photopolymer beam shaping Elements (LIGHTSHAPE)	€405,143	
Tancredi Caruso	University College Dublin (UCD)	Jonathan Yearsley	University College Dublin (UCD)	Delivering food security from grasslands by understanding the link between root microbial networks and resilient agriculture	€387,845	

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	Teerachot Siriburanon	University College Dublin (UCD)			Massive Array of mm-Wave Transmitters with Digital Pencil Beam Steering for 5G Communications and Radars	€479,980
	Ursel Bangert	University of Limerick (UL)			Pushing the frontiers of next generation nanoelectronics and energy storage by establishing, tailoring and exploiting the functionalities of novel materials: 2-D ferroelectrics and their domains and dynamic 1-D domain walls	€351,292
	Ursula Fearon	Trinity College Dublin (TCD)			Molecular signatures that distinguish RA and PsA pathotypes - impact for disease progression and response.	€474,671