

Irish Research Council Collaborative Research Fellowships for a Responsive and Innovative Europe "CAROLINE" - Marie Skłodowska-Curie Actions COFUND fellowships*

Call 1 awardees (2017)

First name	Last name	Home host organisation	Main partner organisation	Project Title	Abstract
Siobhan	Airey	University College Dublin [UCD]	Transnational Institute	Financing the Sustainable Development Goals: Enhancing the role of Law in the Governance of Blended Finance	A shortfall of \$2-3 trillion per year until 2030 is needed to finance the UN's Sustainable Development Goals (SDGs). To address this gap, a central role for an international public-private finance instrument called Blended Finance (BF) is proposed by international organisations such as the OECD and World Bank. This research will map the current international governance framework for BF and analyse the effects of its juridical nature on (i) the legal subjectivities of states, international organisations and private actors involved, and (ii) the kinds of development and allocation of risk and reward that are privileged by this framework. It aims to produce new knowledge on how complex areas of transnational activity, such as new forms of international development finance, can be better governed. It also has direct policy relevant to international organisations such as the OECD, the World Bank and the IMF, and to international donors such as Ireland, the EU and Canada on how they can better use BF to achieve the SDGs.
Tara	Bedi	The University of Dublin, Trinity College [TCD]	Concern Worldwide	Understanding the Gender and Inequality Dimensions of a Leading Multifaceted Anti-Poverty Programme (the Graduation Model)	To eradicate extreme poverty by 2030, it is imperative to make anti-poverty programmes more effective. A six-country study into the 'Graduation Model', the multifaceted anti-poverty programme, showed that recipients had significantly more assets and savings, spent more time working, went hungry fewer days, experienced lower levels of stress and enjoyed improved physical health as a result of the programme. However, understanding how and why the programme works remains unknown, and question marks exist around the benefits to women and the poorest participants. Therefore the aim of this fellowship is look at how income and gender empowerment influence a household's ability to escape poverty and to use this knowledge to strengthen anti-poverty programmes.
Charlotte	Blease	University College Dublin [UCD]	Beth Israel Deaconess Medical Center	An interdisciplinary analysis of informed consent to psychological treatments	Depression is the leading cause of disability in the world. Antidepressants and psychotherapy show comparable effect sizes in treating depression; however, psychotherapy is more successful in the long-term. While the clinical effectiveness of psychotherapy for depression is well established, scant attention has been paid to informed consent processes. This project builds and extends a limited number of findings which shows that psychologists and psychotherapists undervalue the importance and relevance of informed consent to therapy. The key, overall project goal is to evaluate current ethical standards of informed consent in the treatment of depression using psychotherapy, in light of the placebo concept and evidence for common factors in therapy. The expected overarching aim is to provide innovative policy recommendations aimed at improving ethics guidelines for national psychotherapy and clinical psychology organisations (within the US, UK, and Ireland).

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Andrea	Ciribuco	The National University of Ireland, Galway [NUIG]	TAMAT	Language Integration and New Communities in a Multicultural Society (LINCS)	In this project, the researcher will collaborate with an Italian NGO (TAMAT). The goal is to research the experience of migrants from a linguistic and cultural point of view. This will result in a better understanding of the links between languages and cultural identity in the modern society, in times of migration. This knowledge can be used to create and promote language practices and policies that will ultimately result in more inclusive societies and peaceful coexistence. The project will interest NGOs, local and European institutions as well as scholars, creating awareness of the ways in which we can remove linguistic obstacles to communication in a multicultural, multilingual Europe.
Luca	Coscieme	The University of Dublin, Trinity College [TCD]	European Environment Agency	Distil Sustainability Indicators (DISTINCT)	In September 2015 the Member States of the United Nations agreed upon Sustainable Development Goals (SDGs) that will drive the global political agenda to 2030. The 17 Goals go from "Eradicate Poverty" to "Gender Equality" and "Climate Action". Each goal is achievable by complying with a series of concrete targets. In order to quantify countries progresses towards these targets, a series of measures are needed. Once a measure has been associated with each target, and values for these measures have been calculated for each country, a very large amount of information is produced. The aim of this project is to identify the relationships between measures in order to understand which subset of measures is able to explain most of the overall set of measures. This can be done through the use of advanced statistical methods and will be useful to better direct this kind of initiatives, and to implement policies for reaching the goals that are easy to be monitored.
Abel	Gari	Teagasc	Gorta Self Help Africa	Towards hybrid breeding using self-incompatibility in two grasses	The project will build on the large amount of phenotypic and agronomic information on perennial ryegrass (<i>Lolium perenne</i>) generated by Teagasc and IBERS researchers in the last 20 years. In the present project, we have access to a unique genotypes that were developed by Teagasc and IBERS. This material contains a range of incompatibility alleles influencing compatibility directly or indirectly, although, to be practically useful for the plant breeders, the interesting alleles/genes need to be identified, characterized. This project, will take the research to the next level of parental selection and cultivar development and build capabilities relevant to the improved characterisation of other important forage and feed species with similar reproductive system like ryegrass.
Bryne	Gilmore	The University of Dublin, Trinity College [TCD]	Concern Kenya	How do community participatory approaches influence behaviour change communication for health?: A realist evaluation of community conversations in Marsabit, Kenya	Concern Kenya has implemented its Community Conversations (CC) programmes since 2009. CCs are a participatory exercise in which a group of community members are facilitated through a process to address health problems within their communities. Some evidence suggests that CCs contribute to transformative health behaviours through behavioural change communication strategies; however, there is little understanding of 'how, why and for whom' these work. This project therefore asks 'how do Community Conversation programmes implemented by Concern Kenya contribute to improved health behaviours in Marsabit County?'

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Annemarie	Güntsch	University College Dublin [UCD]	Cystic Fibrosis Ireland	An investigation into the role of the microenvironment in determining infectious disease progression	Antibiotic resistant microbial pathogens represent a severe and immediate threat to global human health. A coordinated effort must be made between policy makers, healthcare workers, agriculturists and the general public to overcome this serious medical concern. To compliment this, current research must focus on the development of new approaches to the treatment of infectious disease. A deeper understanding of the factors which drive infection is vital for the development of new approaches to anti-infective therapy for the post-antibiotic era. This project will use P. aeruginosa infection as a paradigm to investigate how the combined effects of diminished oxygen and elevated carbon dioxide levels in tissues impacts upon the progression of infection, a process about which we currently know virtually nothing. Developing this understanding will identify new therapeutic targets for infectious disease. Because cystic fibrosis patients are particularly susceptible to infection with P. aeruginosa, we will collaborate with Cystic Fibrosis Ireland to complement the research.
Dong Jin	Kim	The University of Dublin, Trinity College [TCD]	Corrymeela	Comparative Studies on the Peace Processes in Northern Ireland and Korea: Toward Strategic Peacebuilding	The proposed research will explore and compare the lessons and challenges of two contemporary peace processes, Northern Ireland and Korea, to increase understanding about how to create a peacebuilding strategy based on SDG Goal 16. Northern Ireland/Ireland and North/South Korea share a common history of protracted conflict, including experiences of colonization, division and war. But, the difference is that the Korean peace process faced an impasse by 2010, while the Northern Ireland peace process, despite many challenges, is now considered to be one of the most successful in the world. This research will assess and compare the impact of peacebuilding activities in Northern Ireland and Korea, identify the fragile and durable conditions of the peace processes, and develop models for sustainable peacebuilding strategies in each context.
Stephen	Mahony	University College Dublin [UCD]	Natural History Museum London	BIOGEOBARRIERS – the role and impact of biogeographical barriers on biotic diversification and distribution	One of the most common ways new species are thought to evolve is when the range of their ancestors becomes subdivided by physical barriers – such as new rivers or mountains. These biogeographic barriers cause gene flow to stop between some individuals, which over time can lead to species-level changes in inherited characteristics. BIOGEOBARRIERS is a research and training project that will generate new insights into the extent to which biogeographic barriers may constrain distributions and promote evolution of new diversity across different scales of time and space. The extent to which these barrier effects are impacted by different ecological and morphological characteristics of animals will also be investigated.

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Juan Severino	Pino Ibanez	The University of Dublin, Trinity College [TCD]	Amigos da Terra	SUBACID: SUBmarine groundwater discharge (SGD) impact on coastal ACIDification processes in contrasting European Atlantic Shores: towards securing ecosystem services and food production	The global ocean acts as a sink of nearly 40% of anthropogenic CO ₂ emissions to the atmosphere, thus mitigating the impact of rising atmospheric CO ₂ levels over the global climate system. Nevertheless, this marine uptake of atmospheric CO ₂ is causing a decrease of global mean ocean pH, promoting large ecological changes in the coastal areas and particularly affecting marine calcifying organisms such as corals, molluscs or coralline algae. SUBACID aims to elucidate the impact of the water originated from the sediments, the largest source of freshwater to the global ocean, on ocean acidification processes in European Atlantic shores. The final goal of SUBACID is to favour informed coastal management plans aiming at coastal ecosystem conservation and sustainable aquaculture (UN 2030 sustainable development agenda "Responsible production and consumption" and "Life below water" goals).
Lijuan	Qian	University College Cork [UCC]	Eco-Women	Applying Cultural Heritage as a Means of Sustainable Development: Voices of Women Culture Bearers in Yunnan, China	As a global phenomenon, changing ecosystems and human lifestyles have brought about the rapid loss of many musical and other cultural traditions. A growing awareness of the importance of maintaining cultural diversity has led to actions by local, national and international agencies to promote cultural sustainability. This project will contribute fresh knowledge on the maintenance of threatened culture heritage by building on recent theoretical advances in applied ethnomusicology. This project will analyse the 'Tufeng' projects which were carried out primarily among the Pumi, Yi and Wa ethnicities. The long-term partners among these communities are by now highly experienced in reflecting why and how various projects succeeded or failed and what lessons can be drawn for future work.
Ellie	Rad	The University of Dublin, Trinity College [TCD]	Irish Cancer Society	Towards improving the outcomes for lung cancer patients through better understanding of disease mechanisms.	Lung cancer is the number one cause of mortality in both sexes combined and non-small cell lung cancer (NSCLC) is the second most common cancer in both men and women. Despite improving choices of drug therapies, the 5-year survival rate for people with NSCLC is still very poor (~17.4%). The cancer typically regrows after the cancer cells no longer respond to traditional therapy. Identification of the reasons why this occurs in NSCLC are central to the Fellowship. The Fellow will work alongside the Irish Cancer Society to analyse data collected within Ireland on all aspects of current methods of screening and treatment to develop a plan that the Irish Cancer Society can use to better support the prevention, screening and treatment of lung cancer in Ireland.

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Ana Maria	Sanchez Rodriguez	Maynooth University	Handicap International	Scaling community social innovation to promote inclusion in the implementation of the SDGs: An international, interdisciplinary and intersectoral perspective on women and girls with disabilities	This project will explore, analyze and promote effective community level innovations that can be scaled up and inform the development or revision of government policy to enforce the SDGs for persons with disabilities with a particular focus on women and girls with disabilities. It builds on the observation that good practices exist on inclusion of marginalized groups in the SDG areas, but too often take the form of one-off pilot projects or confined social innovations. As such their potential to impact to make a real difference for marginalized groups beyond the locality is not tapped.
Hailemariam Ayalew	Tiruneh	The University of Dublin, Trinity College [TCD]	International Maize and Wheat Improvement Center (CIMMYT)	Site-specific Agronomic Information, Technology Adoption and Farm Productivity: A Field Experiment in Sub Saharan Africa	Modern agricultural practices and the use of improved inputs are crucial for agricultural productivity and structural transformation. However, the existing literature shows that adoption rates for such practices and improved inputs in developing countries have remained persistently low. Using a randomized control trial approach, this project will test whether agronomic information is a limiting constraint for adopting modern agricultural practices. It will examine whether lack of agronomic information is a more binding constraint to technology adoption than credit and insurance. It will also investigate the effect of site-specific optimal fertilizer recommendation on farm productivity, and assess the interactive effects of agronomic information with credit and insurance on technology adoption and farm productivity.
Slobodan	Tomic	University College Dublin [UCD]	Think-tank for Action on Social Change (TASC)	Exploring Reputational Battles between Controllers of Government and Government: A Comparative Analysis of Ombudsmen, Audit Offices, and Data and Information Commissioners in Ireland, Uruguay, Jamaica and Costa Rica	Despite the worldwide spread of independent institutions which control government (e.g. supreme audit offices, ombudsmen, data and information commissioners, anticorruption agencies, fiscal expenditure watchdogs, and so on), our knowledge about why those controllers sometimes behave assertively and at other times 'retreat' when faced with assertive government action - is still limited. This project will look into how several species of controlling institutions (so called regulators of government) interact with government, asking which of the two sides has a bigger impact on the other side, and through what patterns of behaviour this impact gets realised in practice. To answer these questions, the research will analyse the work of ombudsmen, supreme audit offices, and data/information commissioners, from four countries – Ireland, Uruguay, Jamaica, and Costa Rica. The findings will help better understand paths to assertive controllers' conduct, and, relatedly, how to build stronger institutions and enhance government control.

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Martin	Wall	University College Cork [UCC]	adelphi	Exploring New Dynamics in Civil-Military Cooperation and Emergency Humanitarian Aid in the Context of Climate Change	Consensus is emerging that climate change exacerbates humanitarian crises globally through increased frequency of freak weather incidences, resource conflict and migration. Governments are responding to climate change as a security issue and states are deploying their armed forces for humanitarian purposes as a reaction to crises. Knowledge of how this new complex paradigm is influencing responses to humanitarian crises is critical to guide best practice in dealing with these scenarios. This project will explain how military resources are being used to deal with emergency humanitarian crises that are increasingly familiar as a result of climate change. It will assess if all factors are accounted for by assessing the cooperation from the perspectives of (i) the state, (ii) human rights based approach and (iii) gender, religion and race.
Bing	Wu	Royal College of Surgeons Ireland	European Synchrotron Radiation Facility (ESRF)	Novel pOlymeric materials DEsigNed for drug delivery System (NODENS)	The aim of this project is the development of better drug delivery hydrogel materials through a better understanding of the underlying scientific principles. It applies principles of polymer and material science, biomedical science and physics. This is possible through the unique collaboration of the Royal College of Surgeons in Ireland (RCSI), the European Synchrotron Radiation Facility (ESRF) in Grenoble (France), Universities of Halle (Germany) and RWTH University Aachen (Germany).
Dezhong	Zhou	University College Dublin [UCD]	EB House Austria	A stem cell hydrogel skin substitute for the treatment of Recessive Dystrophic Epidermolysis Bullosa (RDEB)	Recessive dystrophic epidermolysis bullosa (RDEB) is an inherited disease affecting the skin. Children born with the disease are called 'butterfly children' as their skin is seen to be as delicate and fragile as that of a butterfly. RDEB results from an abnormality in one of the genes responsible for collagen production. Collagen is the most abundant protein made by mammals and is a major component of skin. Without collagen, the layers of skin separate from each other and the result is severe blistering of the skin which can be excruciatingly painful. This project is to prepare a skin mimic to help heal the RDEB wounds. To prepare this skin mimic, functional genetic materials will be introduced to a type of skin cells called adipose-derived stem cells (ADSCs) to promote the production of collagen. And then the ADSCs will be put into a scaffold made by polymers. The scaffold will provide a comfortable environment for ADSCs to grow, produce collage and gradually differentiate to the healthy skin.

**This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 713279.*