between proteins and genes in biologic samples from highly selected patient cohorts and following their outcomes. This research will facilitate the stratification of patients so that the patient receives the right treatment from the outset and response to therapies can be accurately monitored. This is essential to create the appropriate research environment to find preventative and curative strategies for arthritis.

Professor Fearon is a member of a several National and International research consortia: Be-The Cure JU IMI consortium, the European Synovitis Study Group and Outcome Measures in Rheumatoid Arthritis Clinical Trials (OMERACT). Her research has resulted in numerous awards from The Irish Society for Rheumatology, The Irish Journal of Medical Science Healthcare awards, Arthritis Ireland, The British Society for Rheumatology, EULAR and The European ASPIRE programme. In 2014, The Centre for Arthritis and Rheumatic Diseases was awarded a 'European Centre for Excellence' award by EULAR, the first rheumatology group in Ireland to receive this award based on research outputs and educational excellence. One of Professor Fearon's key goals now is to achieve this award for Rheumatology in Trinity within the next five years. In addition to teaching undergraduates, she has mentored PhD,MD MSc and 4th level postgraduate students over the past fifteen years, and counts among her proudest moments when her students graduate or achieve success in their own research careers.

Finally, Prof Fearon working closely with Arthritis Ireland creates public awareness of the research results and their potential benefit to treatment strategies. It would be impossible to perform these studies without patient involvement, so it is important that the patients understand how their consented contribution and continued support to such studies can actually change therapeutic strategies of disease management ultimately benefiting patient care in the future.

Professor Fearon lives in Mount Merrion, Co. Dublin, with her husband Doug and children Sorcha, James and Hannah.



Trinity College Dublin Coláiste na Tríonóide, Baile Átha Cliath The University of Dublin

The Faculty of Health Sciences presents the Inaugural Lecture of

Professor Ursula Fearon

New Horizons in Molecular Rheumatology

Thursday 23rd February 2017

Inaugural Lectures

Inaugural lectures provide newly appointed professors with the opportunity to showcase their academic activity to the College community and members of the public. An inaugural lecture is a significant event in an academic staff member's career. At Trinity College, inaugural lectures are a ceremonial occasion, which is why academic robes are worn by the inaugural professor and the rest of the platform party.

The Faculty of Health Sciences is proud to present the inaugural lecture of Professor Ursula Fearon.

Introduction

Professor Ursula Fearon was appointed Professor of Molecular Rheumatology, School of Medicine, Trinity Biomedical Sciences Institute, Trinity College Dublin in December 2016. She is an international leader in Translational Rheumatology with a focus on preclinical development of biotherapeutics for the early treatment of arthritis and systemic rheumatic diseases. In recognition of this, Professor Fearon and colleagues received the award of European Centre of Excellence in rheumatology by the European League against Rheumatism (EULAR) in 2015.

The Professor of molecular rheumatology is one of two new protected chairs of rheumatology in Ireland. Seven years ago Arthritis Ireland obtained funding from Atlantic Philanthropies, and created two chairs of rheumatology to advance arthritis research and education to a new level. The two chairs are based in TCD and UCD, and the goal is to develop a Dublin centre of excellence, which will involve the Schools of Medicine in both universities, the TBSI TCD, the Conway Institute in UCD, and the teaching hospitals - Tallaght, St. James's, St. Vincent's University Hospital, Our Lady's Hospital, Crumlin – all working together.

"This is a vibrant time for Rheumatology and Immunology, as advances in clinical therapeutic strategies are developing rapidly. The major challenge now is early treatment, induction of remission and ultimately finding a cure for arthritis".

Professor Fearon was born in Dublin and educated at Muckross Park College, Dublin. She completed her initial degree in University College Dublin, graduating with honours in Biochemistry. Following this she commenced a PhD in UCD, under the mentorship of Professor T.J. McKenna, who is a world renowned endocrinologist and clinician scientist. This experience further reinforced her desire to work in translational research applying cutting-edge science to real world disease. Then she was appointed as a post-doctoral fellow at Institute of Rheumatic & Musculoskeletal Medicine, Musculoskeletal Biomedical Research Unit, University of Leeds, the premier clinical research unit in Europe and one of the leading centres of excellence globally. It was at Leeds that she developed a passion for rheumatology research which at that time was on the cusp of an immunological revolution with advent of monoclonal antibody therapies.



She returned to Ireland in 2002 to the Centre for Arthritis and Rheumatic diseases, UCD where she established her own translational research group, forging close links with the clinical rheumatology team. During this time Professor Fearon gained an international reputation for excellence in research and education and is widely respected as a leading researcher in her field. Professor Fearon, has been awarded significant research funding from Arthritis Ireland, the Health Research Board of Ireland, Science Foundation Ireland, IRCSET, European ASPIRE, JU Innovative Medicines Initiative (IMI) and Maeve Binchy Funding for Arthritis Research, in addition to industry collaborative partnerships with leading pharma companies globally. She has developed several novel models for the study of innovative medicines in the field of rheumatology and immunology that she has published successfully and extensively in high impact peer-reviewed international journals. She is frequently an invited keynote speaker at plenary and concurrent sessions at national and international meetings. This research has also lead to the successful graduation of numerous PhD, MD and MSc students who have in turn achieved successful careers in health, science, academia and industry.

She was appointed as a Professor of Molecular Rheumatology in 2015, a new discipline within the School of Medicine and established her unit in January 2016, at Trinity Biomedical Sciences Institute (TBSI) TCD. Professor Fearon's research is a bench-beside translational approach, focusing on understanding the underlying mechanisms that drive disease pathogenesis; her team specifically examine components of joint inflammation at a cellular and molecular level to dissect the signalling and gene pathways that are disturbed in patients who have inflammatory arthritis and rheumatic diseases. She has developed a number of in-situ, in-vitro and ex-vivo models of arthritis using cells/tissue from patients with inflammatory arthritis. These models closely reflect the in-vivo joint environment and are utilised in collaboration with several industry partnerships to examine potential new therapeutic targets. Using these 'pre-clinical proof of concept models' it is possible to dissect the complex signaling pathways involved in inflammation including immune cell dysfunction, metabolism and synovial invasion. She has established strong collaborative research networks across Europe with links to groups in Zurich, Leiden University, the Karolinska Institut, as well as in the UK and Singapore. In Ireland, she is part of an active nationwide collaboration, the Arthritis Research Coalition (ARC) that coordinates clinics and hospitals across the country to develop biological registry and biobank of all patients in Ireland with a rheumatic illness. This work involves investigating complex interactions