Congress Review

Review of the European League Against Rheumatism (EULAR) 2020 E-Congress

Location: EULAR 2020 E-Congress

Date: 3rd June– 6th June 2020

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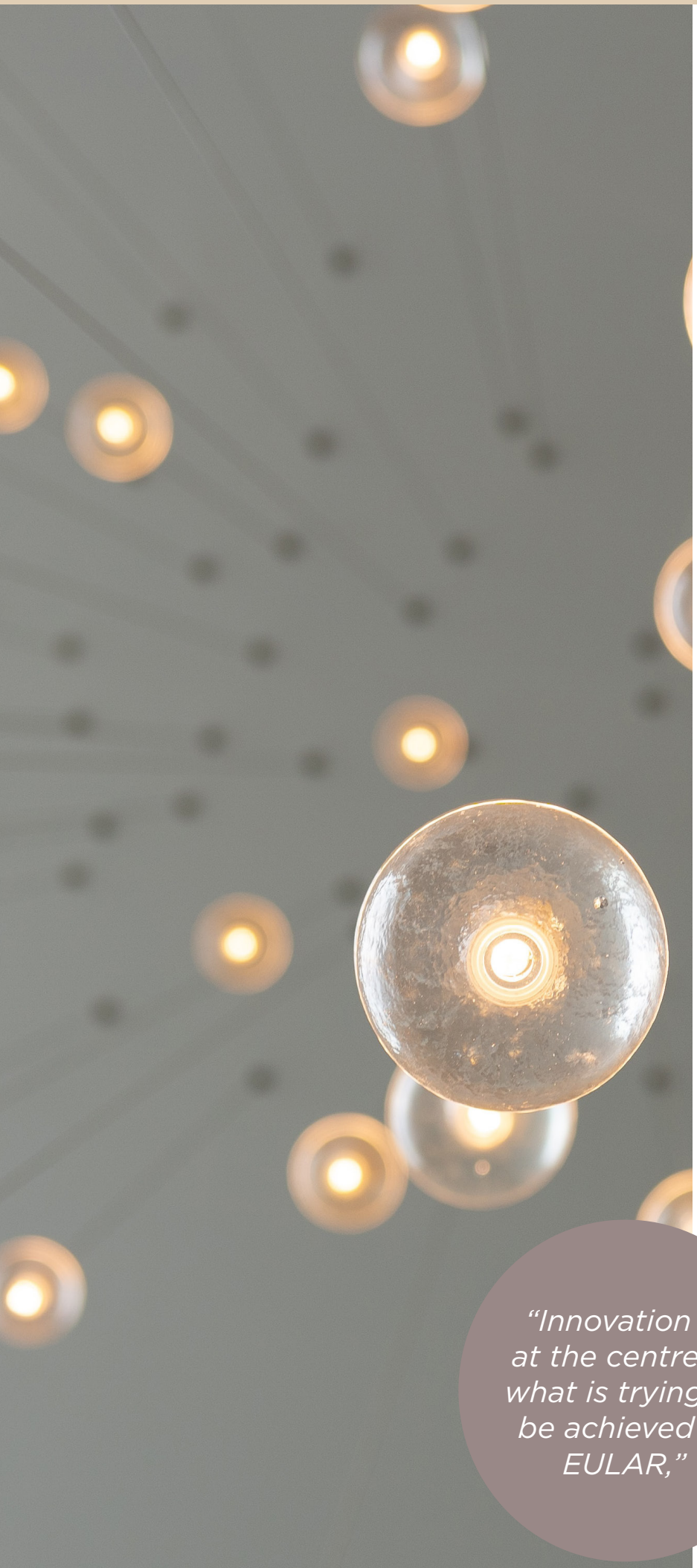
FOUNDED in 1947, The European League Against Rheumatism (EULAR) has held its annual conference since the year 2000, successively welcoming thousands of delegates from across the globe to the largest European-based meeting focussed on rheumatic and musculoskeletal disorders. The meeting was due to be held in Frankfurt, Germany on 3rd–6th June; however, no flights to Frankfurt, the largest airport in Germany, were boarded by EULAR delegates this year. The COVID-19 pandemic forced the organisation to bring the meeting to a virtual setting and saw delegates swapping their luggage and passports for headsets and computers.

The meeting always has been, and this year it continued to be, a celebration of scientific advances and updates from the forefront of rheumatology. The opening plenary session was hosted by Prof Iain McInnes, EULAR President, Glasgow, UK, who began by addressing the current state of affairs, expressing his empathy for those who have lost loved ones to COVID-19 and acknowledging that rheumatologists, as healthcare professionals, have all been affected in the fight against the virus. In his introductory remarks, Prof McInnes acknowledged the challenges associated with the late cancellation and the achievements of the society in hosting this new form of meeting when introducing the E-Congress: "Bringing a virtual congress into reality is no mean feat and to the secretariat in the EULAR office, I can only offer my most sincere thanks."

Prof McInnes went on to commend the cutting-edge research that is being rapidly undertaken in the current climate. While there was no opportunity to meet colleagues in person this year, Prof McInnes confidently assured his peers that the quality of the content and learning opportunities remained undiminished, "superb, and informed." He touched on the community of three pillars in the rheumatology society: scientific societies, healthcare professionals, and patients, who together are committed to making a difference to people with



rheumatic and musculoskeletal diseases, and this year's E-Congress did not curb these achievements.

On Day 1 of the E-Congress, EULAR saw 17,500 participants in attendance and many active on social media channels such as Twitter and LinkedIn. The late-breaking abstracts were rigorously reviewed by a EULAR panel of experts, who typically receive over 4,000 abstract submissions per year. Prof Loreto Carmona, Chairperson of the Abstract Selection Committee, Madrid, Spain, gave the list of first authors of scientific abstracts submitted to EULAR who were honoured with an award for the highest quality abstracts.

Given the virtual format of the congress, all resources were made available electronically and will be accessible online until Autumn of this year. The sessions were either recorded live discussions, giving rise to virtual interaction between the speakers and the audience using questions and answer textboxes, or they were provided as prerecorded sessions. Recordings of each session were made accessible via the E-Congress platform after each session.

The congress presented the latest medical news in rheumatology on topics such as the shortages of rheumatologists in Germany, resulting in inadequate treatment for its citizens; the impact of immunosuppressants on the risk of hospitalisation with COVID-19 for patients with rheumatic diseases; and growing opioid use in Europe for pain caused by rheumatological conditions. Highlights of the scientific programme shared by Prof John Isaacs, the EULAR Scientific Committee Chair, Newcastle, UK, included the EULAR COVID-19

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recommendations, the latest advancements in IgG4 disease, treat-to-target approaches in children and adults, high-intensity interval training in patients with rheumatic and musculoskeletal diseases, and artificial intelligence and osteoarthritis.

Mr Claudiu Leverenz, cofounder of Glasschair, Munich, Germany, was invited to speak in the opening session and gave an example of an individual with decreased mobility caused by multiple sclerosis, explaining how their options for increased mobility are largely mechanical. He commented on technological advancements in this age and the importance of finding solutions based on patient engagement and needs. For example, robotic control systems, such as the exoskeleton, are exciting machines designed to allow individuals to control their home environment and perform daily tasks without using parts of the body impacted by disease. Mr Leverenz emphasised the potential of modern technology for giving more independence to people with a disability, the importance of engaging with technology in the current situation we are in, and the need to engage patients at the beginning of the innovation process.

Prof McInnes addressed his virtual audience and agreed with Mr Leverenz's plea: "Innovation is at the centre of what is trying to be achieved at EULAR," as it becomes increasingly clear this year that in medicine, "content has been brought into the electronic universe."

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Effectiveness of Rheumatology Healthcare Professional Redeployment

SHORTAGES of rheumatologists has meant that only half of patients with inflammatory-rheumatic disorders in Germany receive adequate treatment. To reduce waiting times and prevent patient health deterioration, German researchers are suggesting care of patients with rheumatic diseases by 'rheumatological assistants' is just as effective as care by specialist rheumatologists, as evidenced by a recent study.

This was announced in a press release at the EULAR 2020 E-Congress on 3rd June 2020.

It is already a well-established practice in other European countries for rheumatological assistants, such as paramedics, nurses, and student nurses, to be redeployed to rheumatic care. To examine its viability in the German healthcare system, a prospective, randomised, controlled, multicentre study was conducted. 236 patients participated in the study after confirmation of rheumatoid arthritis was confirmed via a blood test. The average age was 58 years, the average number of months since diagnosis was 130, and >70% were female.

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The participants were treated for a 12-month period, whereby one group were treated exclusively by rheumatologists and the other group by a combination of rheumatologists and rheumatological assistants. The patients' condition was measured using the Disease Activity Score at 28 joints (DAS28); those who were treated by rheumatological assistants scored an average of DAS28 2.43, whereas the group treated by rheumatologists was DAS28 2.29.

EULAR President Prof Ian McInnes from Glasgow, UK, declared that "this difference is not clinically or statistically significant."

Approximately 2% of the adult German population is affected by chronic inflammatory rheumatic diseases, equating to at least 1.5 million people. Patients often present with severe pain, fatigue, stiffness, and lack of strength, which can have a significant impact on their daily activities, education, career, and family.

Dr Kirsten Hoeper of the Hanover Medical School, Hanover, Germany, and lead author of the study, explained that "the existing medical resources do not suffice to provide early, patient-centred, and guideline-based care."

Dr Hoeper and Prof McInnes both conclude that rheumatological assistants will ultimately lead to better patient care in a very cost-effective way.

Hospitalisation Vulnerability Caused by Immunosuppressants for Rheumatic Diseases

"The study shows that most patients with rheumatological conditions recover from COVID-19 – independent of the medication they receive"

VULNERABILITY to severe and opportunistic infections, such as COVID-19, is a risk of immunosuppressive therapies. A study has determined the impact of these immunosuppressants on the risk of hospitalisation with COVID-19 for patients with rheumatic diseases.

The Swiss study, presented at the EULAR 2020 E-Congress on 3rd June 2020, considered case data of 600 patients with rheumatic disease and COVID-19 from 40 countries, using the combined EULAR and Global Rheumatology Alliance COVID-19 registries. The cases from 24th March to 20th April 2020 included details of age, sex, smoking status, rheumatic disease diagnosis, comorbidities, and antirheumatic therapies taken immediately prior to infection.

Conventional disease-modifying antirheumatic drugs (DMARD), including antimalarials and methotrexate, and nonsteroidal anti-inflammatories (NSAID) were not associated with hospitalisation, including DMARD treatment in combination with biologics, such as TNF-α inhibitors. Monotherapy with TNF-α inhibitors was associated with a reduced risk of hospitalisation. Treatment with prednisolone >10mg daily increased the probability of hospitalisation.

The study analysed cases of known COVID-19 in patients with rheumatic diseases; it does not describe the risk of contracting COVID-19 infection and, because of likely increased reporting of severe cases, is biased toward reflecting these more-severe cases. Overall, 46% of patients studied required hospitalisation, with a total mortality rate of 9%.

"The study shows that most patients with rheumatological conditions recover from COVID-19 – independent of the medication they receive," says Prof Dr John Isaacs, Scientific Chair of the EULAR Scientific Committee. "It is necessary, however, to gather more knowledge about the course of an infection with the novel coronavirus in patients with inflammatory rheumatic conditions."

To address this need for insight, the global rheumatologist community rapidly set up an international COVID-19 registry (www.rheum-covid.org), which was then mirrored by a EULAR COVID-19 registry; these registries were the source of data for this study. Ongoing global engagement with, and analysis of, these registries will support the ongoing care of patients with rheumatic diseases during the current COVID-19 pandemic.

Increasing Opioid Use in Patients with Osteoarthritis

GROWING opioid abuse in Europe calls for measures to use these analgesics more safely. That is according to findings from a study presented at the EULAR 2020 E-Congress in a press release dated 3rd June 2020. A growing number of individuals have been found to take opioid drugs such as fentanyl, tramadol, or tilidine for pain caused by rheumatic and musculoskeletal disease.

The researchers used the Information System for Research in Primary Care (SIDIAP) health database with records from approximately 6 million people in Catalonia, Spain, to provide information on opioid consumption in patients with osteoarthritis and the associated growing risks in Europe. Opioids are strong analgesics that cause side effects such as nausea, vomiting, chronic constipation, dizziness, and fatigue, and affect the central nervous system, posing a large risk for the individual. The effect on the nervous system accounts for their strong addiction potential and difficulty with withdrawal from the drug.

The study showed that opioid consumption increased from 15% to 25% between 2007 and 2016. The groups associated with greater risk included females, who were shown to be 4% more affected than males; older patients, who were 10% more affected than younger patients; people living in rural areas, who had a 1% increased risk compared to those from urban areas; and individuals at a 'social disadvantage,' who had a higher risk than those with a higher socioeconomic status. The lead author of the study, Dr Junqing Xie from the University of Oxford, Oxford, UK, commented: "Taking opioids, in particular strong opioids, has substantially increased in recent years in patients newly suffering from osteoarthritis." The researchers highlighted the need for urgent precautions to ensure safe prescribing and administration of this type of medication.

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Increased Risk of Thrombosis in Rheumatoid Arthritis Patients

THROMBOSIS poses a significant medical problem, particularly in the case of venous thromboembolism (VTE) where clotting inside blood vessels affects the blood flow. According to findings from two studies presented in a press release at the EULAR E-Congress 2020, on 5th June, individuals affected by rheumatoid arthritis (RA) with increased disease activity have a higher risk of thrombosis. However, this risk can be reduced by treatment with biological disease-modifying antirheumatic drugs (bDMARD).

The risk of deep vein and pulmonary thrombosis is 2–3 times higher in patients with RA as a result of the immune system turning against the body and causing chronic inflammation, which in turn can have a disruptive effect on coagulation.

A Swedish Cohort study explored whether the degree of disease activity correlated with the risk of thrombosis by analysing data of 46,311 patients with RA taken from the Swedish Rheumatology Quality Register (SRQ) over a period of 12 years. The Disease Activity Score 28 (DAS28) describes the severity of RA based on the assessment of 28 defined joints. Results indicated a close connection between RA disease activity measured by DAS28 and the risk of VTE. Viktor Molander, PhD student, Karolinska Institutet, Stockholm, Sweden, stated: "Among patients with high disease activity, 1 in 100 is going to develop VTE within the following year, a more than two-fold increase compared to patients in remission."

Because the risk of thrombosis may also be influenced by the medication used to treat RA, a German study investigated whether the risk of thrombosis is reduced when using a bDMARD such as TNF inhibitors in comparison to conventional synthetic DMARD (csDMARD). Analysis of data from >11,000 RA patients from the German RABBIT1 register who were treated with another csDMARD after at least one csDMARD failure, or whose treatment was switched to bDMARD, showed that treatment with TNF inhibitors reduced the risk of VTE by half compared to csDMARD treatment.

Further RABBIT data showed an association between increase in inflammatory activity and risk of VTE. These results showcase the importance of regular check ups by a rheumatologist to monitor the condition and adjusting treatment accordingly.

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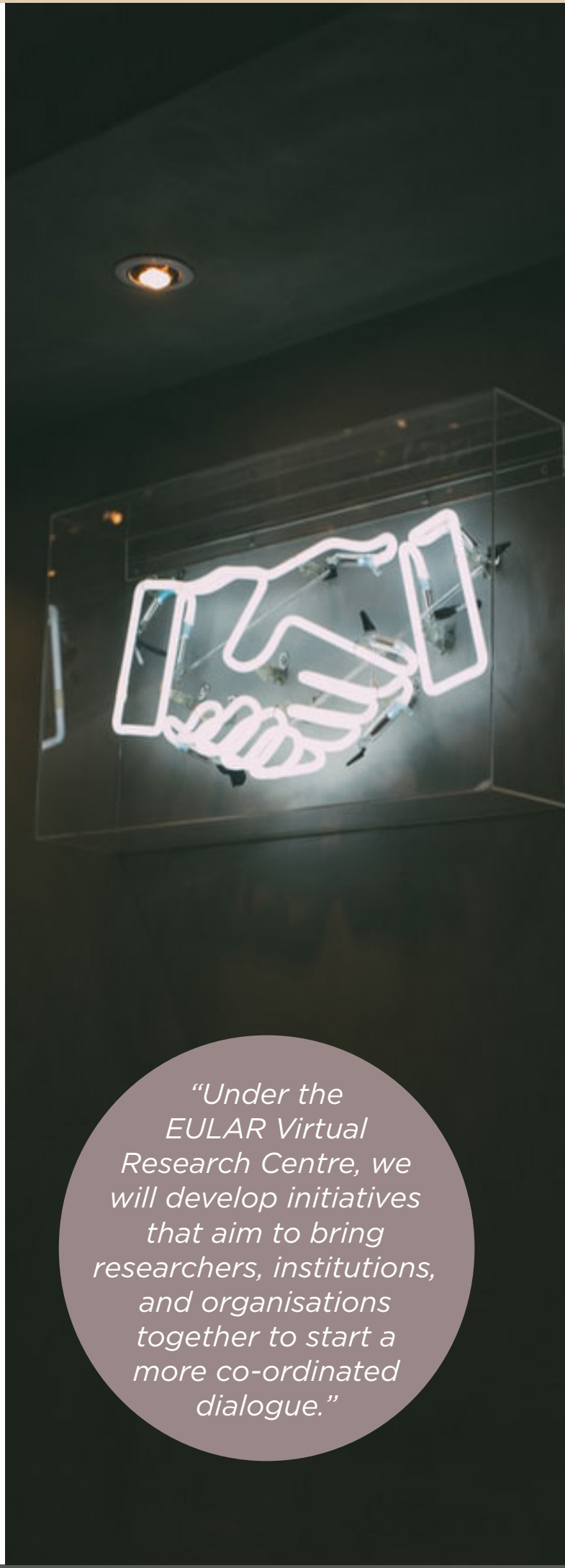
EULAR Virtual Research Centre Launched to Accelerate Rheumatic Disease Research

RESEARCH and innovation are integral to the progression of disease characterisation and the development of prevention and treatment strategies. With millions of people worldwide living with rheumatic diseases that severely affect their everyday life, many of which the cause is unknown and without curative therapies, it is important to develop effective treatment approaches. In addition to their many contributions to achieving this goal, in a press release from EULAR 2020, dated 9th June 2020, it was announced that EULAR have launched the Virtual Research Centre.

Many barriers exist in the research landscape of rheumatic and musculoskeletal diseases, meaning that comprehensive and co-ordinated actions at the European Union (EU), national, and regional level are required, in addition to policy areas such as public health, healthcare, and employment and social affairs, commented EULAR President Prof Iain McInnes, University of Glasgow, Glasgow, UK. The new EULAR Virtual Research Centre will provide the platform to overcome such barriers and facilitate collaboration between basic, clinical, and translational research in rheumatology.

Specifically, unmet needs in research are highlighted in the centre's research roadmap. Additionally, research resources, infrastructure, services, and training will also be incorporated, promoting the opportunity to conduct first-rate, interdisciplinary rheumatic and musculoskeletal disease research.

Prof McInnes explained: "Under the EULAR Virtual Research Centre, we will develop initiatives that aim to bring researchers, institutions, and organisations together to start a more co-ordinated dialogue." In addition to facilitating the identification of prevention strategies, risk factors, methods of early diagnosis, and potential therapies in rheumatology, the platform also has the ability to alleviate disease burden of conditions that often concur with rheumatic diseases, such as heart disease, diabetes, cancer, Alzheimer's disease, and depression.



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