



UNIVERSIDADE
NOVA
DE LISBOA

MARIE SKŁODOWSKA-CURIE INDIVIDUAL FELLOWSHIPS 2020
EXPRESSION OF INTEREST FOR HOSTING MARIE CURIE FELLOWS

HOST INSTITUTION

NMS | NOVA Medical School
Research Unit: CEDOC

RESEARCH GROUP AND URL

EpiDoc Unit
<http://cedoc.unl.pt/epidoc-unit/>

SUPERVISOR (NAME AND E-MAIL)

Ana M. Rodrigues
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SHORT CV OF THE SUPERVISOR

Ana M. Rodrigues holds a MD and PhD in Medicine (Rheumatology) from Faculdade de Medicina, Universidade de Lisboa. In 2013, she completed the Clinical Scholars Research Training I and II from Harvard Medical School – Portugal Program, a two-year training program on clinical research. Investigator of many research projects (osteoporosis, ageing) and clinical trials, she is Group Leader of Epidemiology of Chronic Diseases and Ageing at the EpiDoC Unit, CEDOC|NOVA-NMS and Vice-President of CEDOC. She is also the head of the Rheumatology Unit at Hospital de Santo Espírito da Ilha Terceira, Azores, Assistant Lecturer of Rheumatology at Lisbon University and Assistant Professor at NOVA-NMS. She is member of the committee of drugs and pharmacy of Terceira Hospital and head of the Osteoporosis working group of the Portuguese Society of Rheumatology. She has published 100 articles in specialized magazines in the area(s) of Medical and Health Sciences with an emphasis on Epidemiology. So far, Ana M. Rodrigues has interacted with 340 collaborators (s) in co-authorships of scientific works.

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5 SELECTED PUBLICATIONS

- Rodrigues, A.M., Gregório, M.J., Gein, P., Eusébio, M., Santos, M.J., de Sousa, R.D., Coelho, P.S., Mendes, J.M., Graça, P., Oliveira, P., Branco, J.C., Canhão, H., Home-Based Intervention Program to Reduce Food Insecurity in Elderly Populations Using a TV App: Study Protocol of the Randomized Controlled Trial Saude.Come Senior. JMIR Res Protoc, 2017. 6(3): p. e40. <http://cedoc.unl.pt/wp-content/uploads/2020/04/Rodrigues-et-al-2017.pdf>

- Rodrigues, A.M., Eusébio, M., Santos, M.J., Gouveia, N., Tavares, V., Coelho, P.S., Mendes, J.M., Branco, J.C., Canhão, H., The burden and undertreatment of fragility fractures among senior women. Arch Osteoporos, 2018. 13(1): p. 22. <http://cedoc.unl.pt/wp-content/uploads/2020/04/Rodrigues-Eusebio-Santos-et-al-2018.pdf>
- Dias SS, Rodrigues A.M., Gregório MJ, de Sousa RD, Branco JC, Canhão H, Cohort Profile: The Epidemiology of Chronic Diseases Cohort (EpiDoC). Int J Epidemiol. 2018 Dec 1;47(6):1741-1742j. <http://cedoc.unl.pt/wp-content/uploads/2020/04/Dias-Rodrigues-et-al-2018.pdf>
- Vieira-Sousa E, Alves P, Rodrigues AM, Teixeira F, Tavares-Costa J, Bernardo A, Pimenta S, Pimentel-Santos FM, Gomes JL, Aguiar R, Pinto P, Videira T, Catita C, Santos H, Borges J, Sequeira G, Ribeiro C, Teixeira L, Ávila-Ribeiro P, Martins FM, Canhão H, McInnes IB, Ribeiro RM, Fonseca JE, GO-DACT: a phase 3b randomised, double-blind, placebo-controlled trial of GOLimumab plus methotrexate (MTX) versus placebo plus MTX in improving DACTylitis in MTX-naïve patients with psoriatic arthritis. Ann Rheum Dis. 2020 Apr;79(4):490-498. <http://cedoc.unl.pt/wp-content/uploads/2020/04/Vieira-Sousa-et-al-2020.pdf>
- de Barros, A.C., Leitão, R., Ribeiro, J., Design and Evaluation of a Mobile User Interface for Older Adults: Navigation, Interaction and Visual Design Recommendations. Procedia Computer Science. 2014 Feb;27:369-378. <http://cedoc.unl.pt/wp-content/uploads/2020/04/Barros-et-al-2014.pdf>

PROJECT TITLE AND SHORT DESCRIPTION

Stop broken bones – a home-based program

Osteoporotic fractures are frequent among elderly people and determine increased mortality, morbidity, and disability, thus representing a huge public health problem. Currently, osteoporosis causes more than 8.9 million fractures annually worldwide and it is estimated that this number will increase to around 200 million over the next 50 years. Following a first osteoporotic fracture, older adults have a significant loss of physical function and quality of life, 7-12% of absolute excess of mortality, and a 3 times higher risk of a subsequent fracture. Current strategies to prevent a new fracture, include effective and safe OP drugs that can reduce fragility fractures' risk between 20-83%, according to drug and fracture site. They also include non-pharmacological measures designed to promote physical function improvement and bone health, such as adequate nutrition with food rich in calcium and vitamin D, enough protein intake, sufficient sun exposure, and regular weight-bearing exercise. Unfortunately, evidence shows that almost 50% of patients who start therapy discontinue it within one year. Patients' low adherence to treatment has been mainly attributed to: 1) lack of understanding of the disease; 2) lack of perception of the benefits of treatment and; 3) lack of clinical continuum, clinical monitoring, and insufficient interactions between healthcare providers and patients. New information and communications technology (ICT) could be useful tools to overcome these treatment adherence barriers.

NOVA Medical School has successfully developed and tested a new information and communications technology (ICT) tool based on an interactive TV program to improve health in elderly people – the SAÚDE.COME TV



application. This Tv application is a multimodule, interactive, customizable app that delivers a home-based program including physical exercise, nutritional plan, patient education, and treatment reminders.

In this project, we will adapt that TV application to assist the long-term self-management of patients with osteoporotic fractures. The solution will also have a Smartphone/tablet application that the participant may use as an extra way of communicating with the system. The STRONG TV application will deliver a home-based program containing a combination of patient education, treatment reminders, and lifestyle tips specifically designed to increase health literacy and improve healthy lifestyles among patients with osteoporotic fracture. Because ICT literacy among the elderly is low, this solution will be developed according to the principles of human-centered design in order to guarantee that it will be user-friendly and humanized. Finally, we will clinically validate this tool through a pragmatic, unblinded, two-arm, parallel, randomized controlled study that will assess the cost-effectiveness and safety of a 52-week home-based program using the STRONG TV application on the adherence to anti-OP treatment in post-osteoporotic fracture community-dwelling seniors. The primary outcome will be the improvement of adherence to treatment at 12 months of follow-up. Secondary key outcomes will be the improvement of dietary habits, physical activity, balance, postural control, quality of life, and reduction of injurious falls and hospitalizations.

Our Consortium is committed to develop and to validate a home-based treatment plan delivered through an innovative digital solution to promote treatment adherence and improve physical function to seniors who have suffered a fragility fracture. If we succeed, STRONG TV app will be a universal solution to promote healthy and active aging in fragility fracture patients across the globe.

SCIENTIFIC AREA WHERE THE PROJECT FITS BEST

LIFE SCIENCES (LIF) | Clinical medicine - rheumatology