



Combining Artificial Intelligence and smart sensing
TOward better management and improved quality
of LIFE in chronic obstructive pulmonary disease

Project Full Title

Combining Artificial Intelligence and smart sensing TOward better management and improved quality of LIFE in chronic obstructive pulmonary disease

Project Acronym

TOLIFE

Grant Agreement Number

101057103

Topic

HORIZON-HLTH-2021-DISEASE-04-04

Total cost and EU contribution

EUR 5,988,859.00

Start date of the project

September 1st, 2022

End date of the project

February 28th, 2027

Project Coordinator

Università di Pisa (UNIPi)

Project Website

<https://www.tolife-project.eu>



Funded by the
European Union

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Artificial Intelligence for Chronic obstructive pulmonary disease: Europe finances TOLIFE project

1st September 2022 - TOLIFE project – acronym of “Combining Artificial Intelligence and smart sensing TOward better management and improved quality of LIFE in chronic obstructive pulmonary disease” – has just started. The aim is to improve the management and personalization of the treatment of highly complex chronic diseases such as chronic obstructive pulmonary disease (COPD). The project, funded by the European Union’s framework program for research and innovation Horizon Europe under the call Tackling diseases, is coordinated by Prof. Alessandro Tognetti of the University of Pisa; the budget is about 6 million euros for a duration of four and a half years.

TOLIFE main objective is developing and clinically validating a platform based on artificial intelligence and non-invasive sensors to improve the management and personalization of the treatment of highly complex chronic diseases. The platform will be optimized and validated in “real life” conditions on patients with chronic obstructive pulmonary disease (COPD). TOLIFE's approach to COPD management consists in analysing data taken from the patient during daily activities - thanks to a platform of wearable and non-invasive sensors - in order to predict and mitigate exacerbations and continuously evaluate the individual's state of health patient to reduce mortality, improve quality of life and mitigate healthcare costs. Exacerbation prediction and health assessment will be leveraged by clinicians through a patient management tool to implement early and personalized treatment. A software interface will also be developed for the patient to inform him about his state of health, the specific treatment plan and to provide useful information for a correct lifestyle.

The project is carried out by an international multidisciplinary consortium. In addition to UNIPI, the Consortium is composed by the CNR IFC, Istituto Superiore di Sanità and Adatec SRL (Italy), beWarrant (Belgium), Universidad Politecnica de Madrid (Spain), Techedge España (Spain), Fundacion Privada Instituto de Salud Global Barcelona (Spain), Consorcio Mar Parc de Salut de Barcelona (Spain), Time.Lex (Belgium), European Federation of Asthma & Allergy Associations (Belgium) and Pneumologisches Forschungsinstitut an der LungenClinic Grosshansdorf GmbH (Germany).

CONTACTS:

Alessandro Tognetti (UNIPI) | Project Coordinator

alessandro.tognetti@unipi.it

Isella Vicini (beWarrant) | Dissemination Manager

isella.vicini@warranthub.it

Michela Rial (CNR) | Project Manager

michela.rial@cnr.it

Marco Laurino (CNR) | Technical Manager

marco.laurino@cnr.it



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