



DAEDALUS project launches to revolutionise colorectal disease treatment

12 June 2025

The **DAEDALUS project**, funded by the **European Union's Horizon Europe** research programme, officially launched with a two-day **Kick-off Meeting** held in Pisa, Italy, on **10–11 June 2025**. The event brought together the full consortium of European partners and the Project Advisor from the European Commission, marking the official start of this four-year research.

Colorectal diseases (CRDs), including **ulcerative colitis** and **familial adenomatous polyposis (FAP)**, are chronic and debilitating conditions that significantly reduce patient quality of life. Current surgical approaches, such as **proctocolectomy**, are highly invasive and come with serious long-term complications.

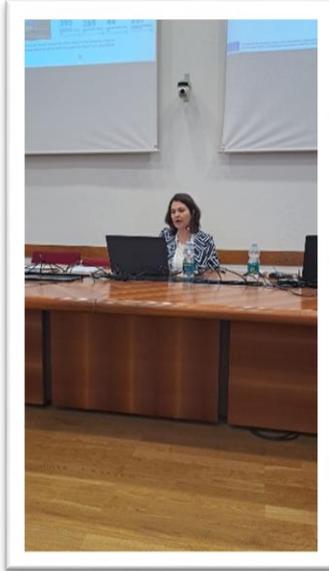
DAEDALUS (*ADvAncEd 4D biomAterialS for mucosa and sub-mUcosa treatment in patients affected by intestinal diSeases*) proposes a **breakthrough alternative**: a **minimally invasive endoscopic approach** using **injectable 4D biomaterials** capable of **shape morphing** and **controlled biomolecule release**, integrated with **patient-derived cells**. These advanced materials will enable the regeneration of the damaged **mucosal and submucosal layers** of the colon and rectum, reducing the need for radical surgery and improving clinical outcomes.

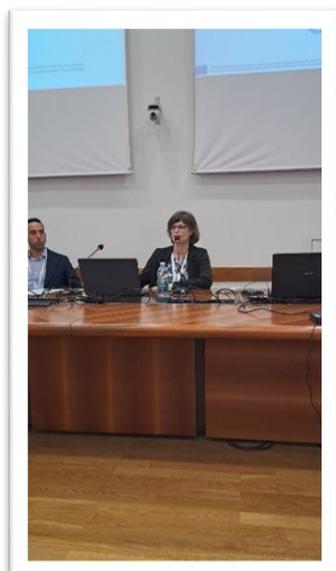
The DAEDALUS approach combines **materials engineering, medical engineering, nanotechnology, and in situ bioprinting**, supported by cutting-edge **endoscopic delivery systems**.

During the Kick-off Meeting, project partners presented each **work package**, outlined their roles, and aligned on communication, dissemination, and exploitation strategies. Discussions focused on early-phase milestones, including biomaterial formulation, in silico validation, and stakeholder engagement.

You can find some pictures of the Kick-off Meeting below.











CONTACTS:

Project Coordinator

Giovanni Vozzi | University of Pisa

giovanni.vozzi@unipi.it

Dissemination Manager

Isella Vicini | beWarrant – Tinexta Innovation Hub

Isella.vicini@bewarrant.be



PROJECT DETAILS:

Project Full Title

ADvAncEd 4D biomAterialS for mucosa and sub-mUcosa treatment in patients affected by intestinal diSeases

Project Acronym

DAEDALUS

Grant Agreement Number

101178568

Topic

HORIZON-CL4-2024-RESILIENCE-01-36

EU contribution

7 760 778.22 euro

Start date of the project

1 June 2025

End date of the project

31 May 2029

Project Coordinator

Giovanni Vozzi | University of Pisa

Project Website

<https://www.daedalusproject.eu/>



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