

European Project SHIELD Launches to Reduce Deaths from Europe's Most Lethal Cancer

A European consortium has launched SHIELD, a pioneering Horizon Europe-funded project set to transform pancreatic cancer detection and considerably improve survival rates across the continent.

The project SHIELD (Comprehensive Surveillance of High-risk Individuals and Health Integration for Early detection of Pancreatic cancer utilising innovative multiplex immunoassays) represents a collaborative effort of 26 partners across 13 European countries. This consortium is focused on addressing the challenge of pancreatic cancer mortality through the development and implementation of innovative early detection strategies. The project specifically targets individuals identified as having a significantly elevated genetic risk for the disease, with the aim of improving early diagnosis and patient outcomes.

Pancreatic cancer remains a devastating disease, with a mortality rate of over 90%, due to late-stage diagnosis and limited treatment options ^{[1],[2]}.

In Europe, pancreatic cancer is the third leading cause of cancer death, claiming 132,134 lives in 2020 alone. It is also projected to become the second leading cause of cancer-related deaths in the United States by 2030^{[1],[2]}.

The SHIELD project directly confronts this present public health emergency by targeting individuals with high elevated genetic risk, who face up to a 132-fold increased chance of developing the disease depending on their genetic makeup.

"Our goal is ambitious but within reach," says Professor Roland Andersson, project SHIELD's clinical coordinator and a globally recognized pancreatic cancer expert. *"Through systematic early discovery in high-risk individuals, we aim to reduce late-stage diagnoses and elevate the five-year survival rate from under 10% to 30% by 2035 within this group."*

The cornerstone of the project is the clinical validation of an innovative blood test has demonstrated promising initial results, achieving an overall sensitivity of 91% and specificity of 96%.

SHIELD's comprehensive strategy includes:

- Systematic identification of high-risk individuals based on genetic testing and comprehensive family history assessment.
- Pilot an early detection programme across 7 EU countries.
- Integrate low-cost yearly blood tests into local cancer screening programs.

"Currently, over half of all pancreatic cancer cases are diagnosed at an advanced, metastatic and inoperable stage," explains Professor Andersson. *"SHIELD has the potential to turn this around by making early diagnosis routine and accessible for all who are at high risk."*

Cancer screening administrative bodies covering the regional areas of Slovenia and Greece, and the Institute of Clinical Medicine in Lithuania, have already pledged their commitment to

the SHIELD program. The project addresses an unmet pressing clinical need, since there are no FDA-approved or CE-IVD biomarker tests for the early diagnosis of pancreatic ductal adenocarcinoma (PDAC), which is the most prevalent form of pancreatic cancer.

"This powerful multidisciplinary collaboration gathers together leading clinician-scientists, technical innovators, and biological scientists," emphasizes Izidor Mlakar, Coordinator of SHIELD. "By consolidating our differing expertise, we are in the position to contribute significantly and positively to the treatment outcome for pancreatic cancer."

The SHIELD project began in May 2025 and has a duration of four years.

About SHIELD:

SHIELD is a partnership of 27 leading research centers, clinical sites, patient groups, and industry partners in 13 European countries. With a shared vision to tackle pancreatic cancer, SHIELD develops and implements a non-invasive blood test for early detection in individuals with high genetic risk, ultimately improving patient outcomes and survival in Europe and in the rest of the world.

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REFERENCES

- [1] Partyka, O.; Pajewska, M.; Kwaśniewska, D.; Czerw, A.; Deptała, A.; Budzik, M.; Cipora, E.; Gąska, I.; Gazdowicz, L.; Mielnik, A.; et al. Overview of Pancreatic Cancer Epidemiology in Europe and Recommendations for Screening in High-Risk Populations. *Cancers (Basel)*. 2023, 15, 1–11, doi:10.3390/cancers15143634.
- [2] Klein, A.P. Pancreatic Cancer Epidemiology: Understanding the Role of Lifestyle and Inherited Risk Factors. *Nat. Rev. Gastroenterol. Hepatol.* 2021, 18, 493–502, doi:10.1038/s41575-021-00457-x.