

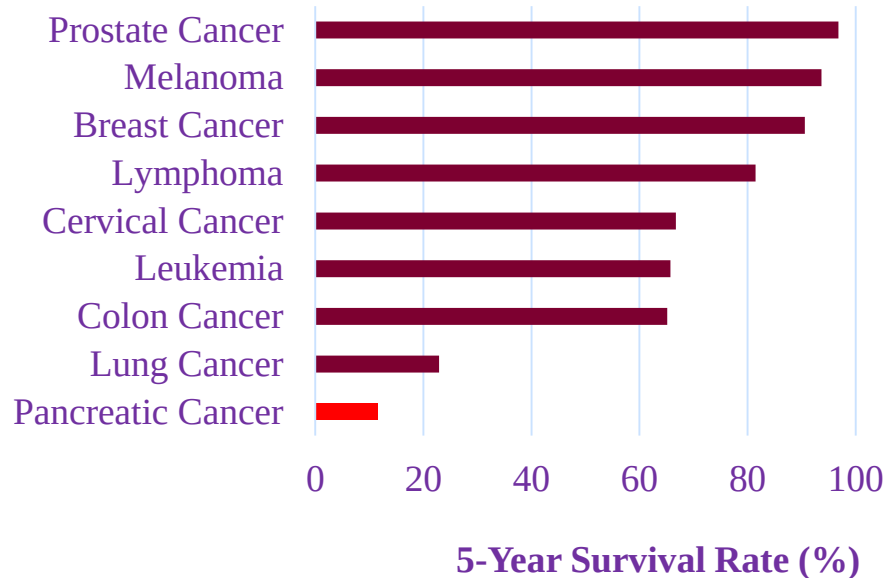
Ecosistema y oportunidades de financiación europea para Cáncer: Proyecto PANCAID: PANcreatic CAncer Initial Detection via liquid biopsy

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Health and Digital Executive Agency (HADEA). Neither the European Union nor the granting authority can be held responsible for them.

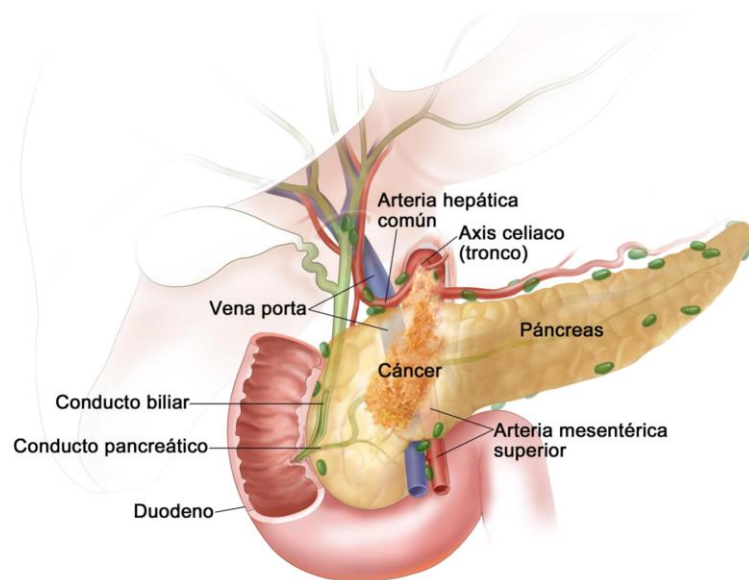
Dra. Julie Earl - Grupo de Biomarcadores y Abordaje Personalizado del Cáncer (BIOPAC), IRYCIS.

¿Por qué es importante este proyecto para nuestra sociedad?

Supervivencia a 5 años



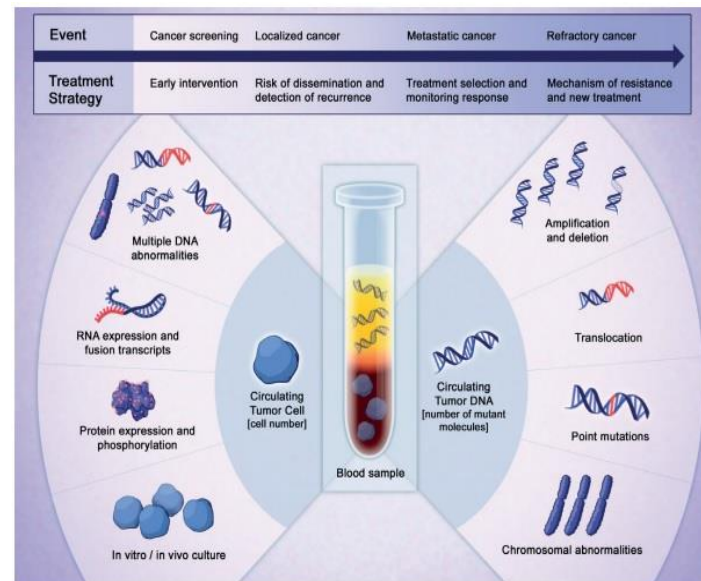
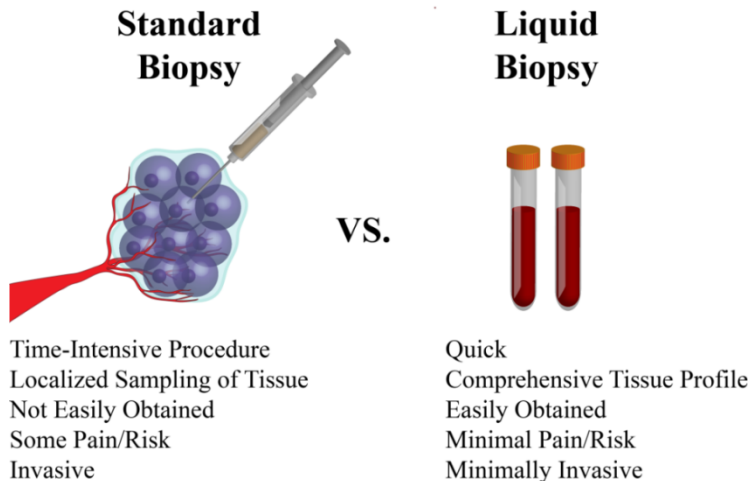
Sólo el 15-20% de los pacientes son candidatos para una resección quirúrgica



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¿Qué es la biopsia líquida y por qué es tan importante?

Detección de células o moléculas procedentes de un tumor en fluidos corporales: sangre, saliva, heces, etc.



Adenocarcinoma ductal pancreático: un reto clínico



1 de cada 64 personas
morirá de esta
enfermedad



Casi todas las
personas que padecen
cáncer de páncreas
mueren por esta
causa



Es la **tercera causa** de
muerte por cáncer y se
convertirá en la **segunda**
esta década, a menos que
cambiamos nuestra
estrategia para
combatirlo.

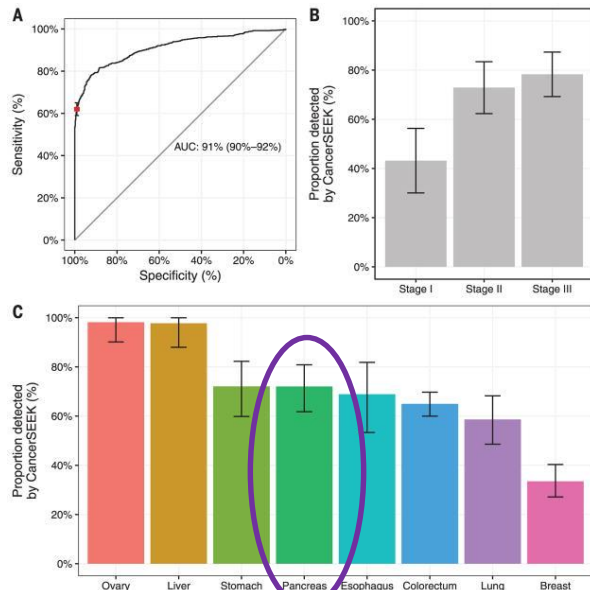


La **detección precoz** del
cáncer de páncreas es
clave

Biomarcadores para la detección precoz

Detection and localization of surgically resectable cancers with a multi-analyte blood test

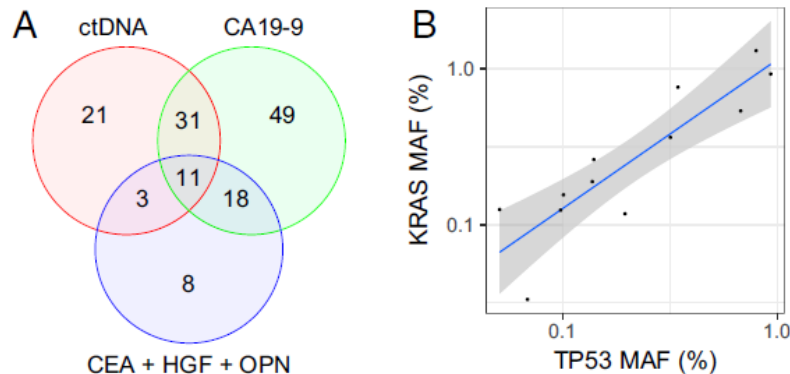
CancerSEEK



La sensibilidad media de CancerSEEK es **98%** en cánceres de ovario y el **33%** en cánceres de mama, con una especificidad **>99%**.

Combined circulating tumor DNA and protein biomarker-based liquid biopsy for the earlier detection of pancreatic cancers

Joshua D. Cohen^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, Ammar A. Javed¹, Christopher Thoburn¹, Fay Wong^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, Jeanne Tsai^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, Peter Gibbs^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, C. Max Schmidt¹, Michele T. Yip-Schneider¹, Peter J. Allen¹, Mark Schumacher¹, Randall E. Brand¹, Aatur D. Singh¹, Gloria M. Petersen¹, Seung-Mo Hong¹, Song Cheol Kim¹, Massimo Falcone¹, Claudio Dogliani¹, Matthew J. Weiss¹, Nita Ahuja¹, Jin He¹, Martin A. Makary¹, Anishan Maltra¹, Samir M. Hanash¹, Marco Dal Molin¹, Yuxuan Wang^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, Lu Li¹, Janine Plak^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, Lisa Dobbins^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, Joy Schaefer^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, Natalie Silliman^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, Maria Popadiuk^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, Michael G. Goggins^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, Ralph H. Hruban^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, Christopher L. Wolfgang^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, Alison P. 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Kinzler^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, Bert Vogelstein^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}, and Anne Marie Lennon^{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100}



KRAS + 4 biomarcadores (CA19-9, CEA, factor de crecimiento de hepatocitos (HGF) y osteopontina (OPN)) tuvo una **sensibilidad del 64%** y una **especificidad del 99,5%**.



PANcreatic CAncer Initial Detection via liquid biopsy

El objetivo principal de PANCAID es proporcionar **un análisis de sangre mínimamente invasivo** que utilice un **panel** completo de diagnósticos de **biopsia líquida (LBx)** para la **detección precoz** del cáncer de páncreas y la **conversión maligna de lesiones premalignas a invasivas**.

PI Coordinador: Klaus Pantel and Matthias Lohr.

Con 16 socios + 1 socio asociado de 8 países



Fundacion para la Investigacion Biomedica del Hospital Universitario Ramon y Cajal (FIBIRYCIS) Madrid, Spain



PI: Alfredo Carrato, MD, PhD
Profesor de Oncología Médica
**Antiguo Jefe de Servicio de Oncología
Médica del HURYC (SERMAS)*



Julie Earl PhD
Científica básica,
IRYCIS



Mercedes Rodríguez, MD
Oncóloga Médica,
HURYC (SERMAS)

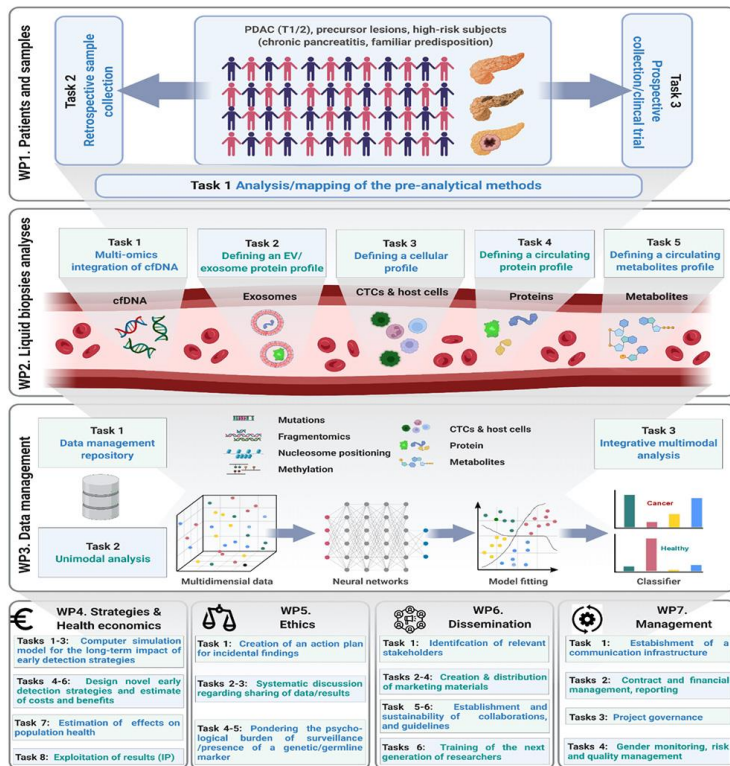


Experiencia: biopsia líquida en PDAC (ácidos nucleicos circulantes), cribado de individuos de alto riesgo para la detección precoz y genética del cáncer

Papel en el proyecto: recogida de datos y muestras (casos de PDAC y lesiones no PDAC)

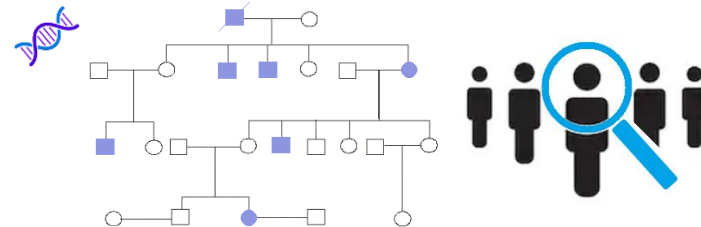
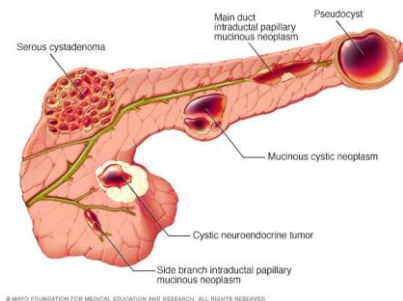
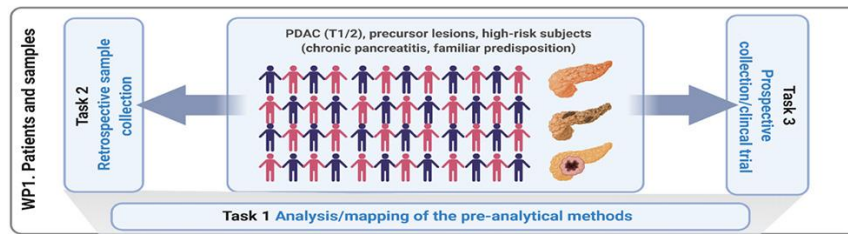
Gestión del proyecto: Ana Moreno Bofarull

Organización e impacto del proyecto



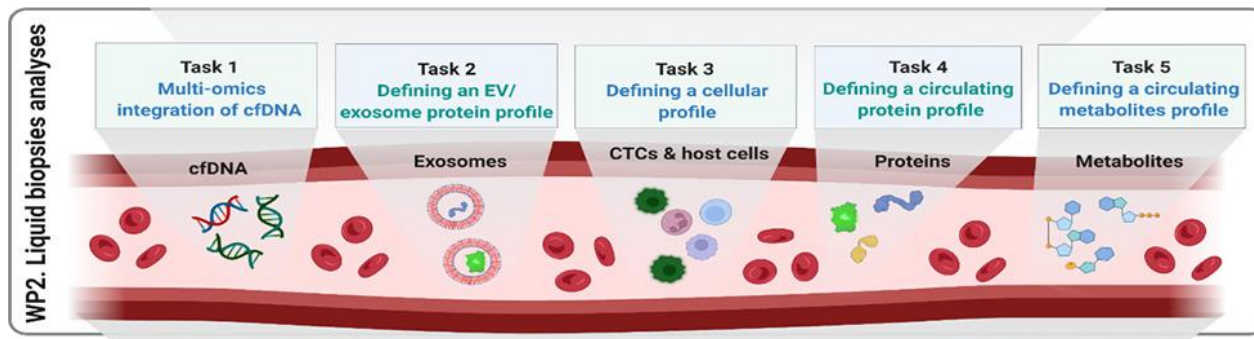
El proyecto PANCAID imagina un mundo en el que el cáncer de páncreas deje de ser una enfermedad devastadora con opciones de tratamiento limitadas para convertirse en **una enfermedad que pueda detectarse y tratarse en una fase temprana**. A través de su investigación pionera, PANCAID pretende revolucionar el diagnóstico del cáncer de páncreas mediante el **desarrollo de un análisis de sangre mínimamente invasivo que pueda detectar la enfermedad en sus fases más tempranas**. Este ambicioso consorcio internacional de investigación reúne conocimientos especializados de múltiples campos, como **la oncología, la biología molecular, la bioinformática y la investigación clínica**, para ofrecer un enfoque integral e innovador del diagnóstico del cáncer. Mediante el diagnóstico por biopsia líquida, PANCAID pretende avanzar en el conocimiento del desarrollo del cáncer de páncreas, lo que permitirá **mejorar las opciones de tratamiento y, en última instancia,**

WP1: Cohortes de alto riesgo



Páncreas Neoplasias mucinosas intrapapilares (TPMI) y pancreatitis crónica

WP2: Panel de marcadores múltiples en la biopsia líquida



Prof. Dr. med. Klaus Pantel
Director / Professor of Medicine



Héctor Peinado, PhD
Principal Investigator

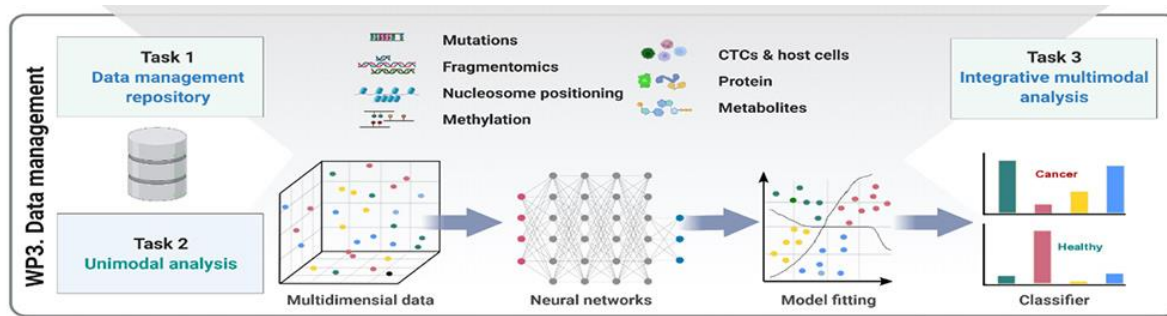


Pr Catherine Allix-Panabières
Professor



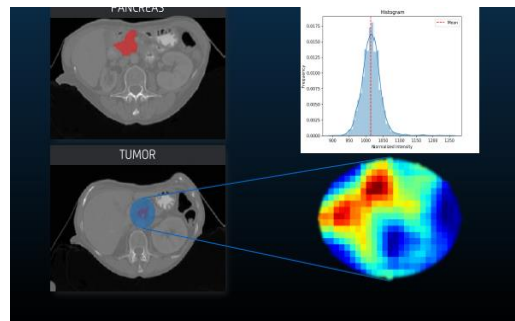
Dr. med. Dr. rer. biol. hum. Daniel J. Smit
Research group leader

WP3: Gestión de datos



Radiómica: el análisis de imágenes de RM y TAC

Inteligencia Artificial para predicción de cáncer



WP4-7: Gestión, implementación y ética.



Implementación en el sistema sanitario

Cumplir con las normas de protección de datos

Stake holders, pacientes.....

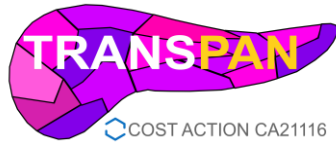
Gestión del proyecto



EU General Data Protection Regulation



Colaboración con consorcios y plataformas de investigación nacionales e internacionales



Identification of biological markers for prevention and translational medicine in pancreatic cancer



Biomodels and biobank Platform
Hospital Ramón y Cajal-IRYCIS

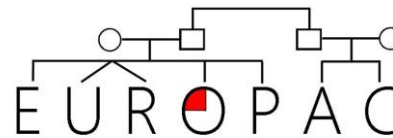
- The Dutch familial pancreatic cancer, Leiden University Medical Center, Netherlands
- The German familial pancreatic cancer



The pancreatic cancer early detection consortium



Spanish Society of Digestive Pathology



The European Registry of Hereditary Pancreatic Diseases



Pancreatic Cancer Research Alliance



Liquid Biopsy working Module
The Biomedical Research Network in Cancer (CIBERONC)

