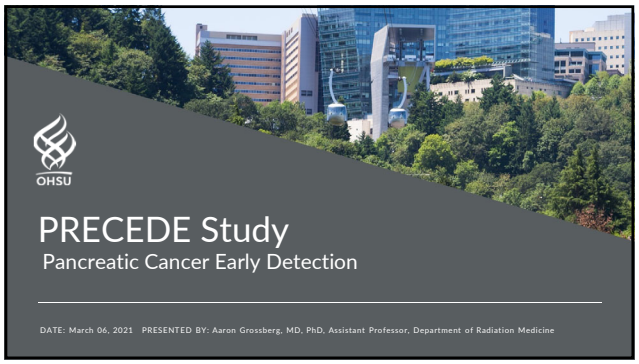
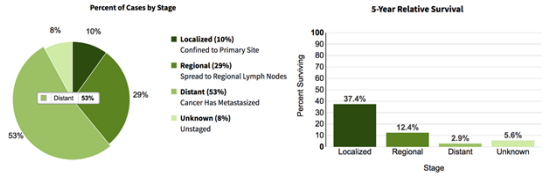


PRECEDE Study

Pancreatic Cancer Early Detection

DATE: March 06, 2021 PRESENTED BY: Aaron Grossberg, MD, PhD, Assistant Professor, Department of Radiation Medicine

Why early detection?

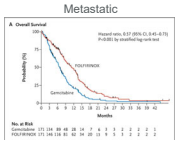


SEER 18 2009-2015, All Races, Both Sexes by SEER Summary Stage 2000

Survival dependent upon stage

Early = better

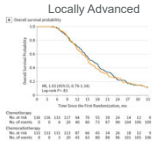
Metastatic



Median Survival = 11.1 mo
3 yr OS = 2%

Conroy *NEJM* 2011

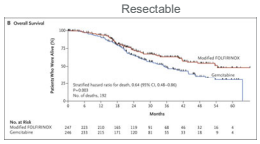
Locally Advanced



Median Survival = 12.8 mo
3 yr OS ~10%

Hammel *JAMA* 2016

Resectable



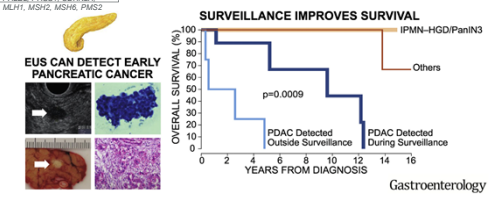
Median Survival = 54.4 mo
3 yr OS = 63.4%

Conroy *NEJM* 2018

Johns Hopkins PDAC early detection

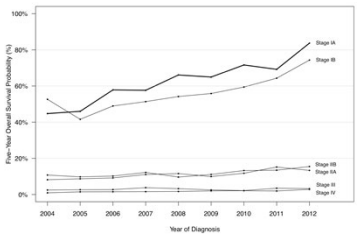
Genetic predisposition & family history
STK11, BRCA1, BRCA2, PALB2, PRSS1, CDKN2A, MLH1, MSH2, MSH6, PMS2

16-year study!!!



Canto *Gastroenterology* 2018

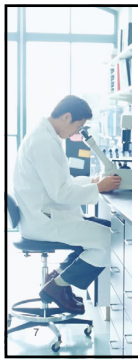
SEER Update - 2020



Blackford JNCI 2020

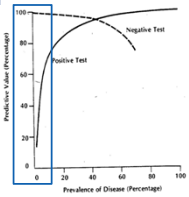
Challenges in the Early Detection of Pancreatic Cancer

- Low Prevalence
  - ~40 per 100,000 adults over age 50
- No true "high risk" population
- Early PDAC symptoms non-specific
  - Median time from presentation to dx = 2 months
- Early cancer not reliably detected by routine imaging
- Curative treatment is highly morbid
  - No de-escalated options for early disease



"Perfect" biomarker

- 99% Sensitive
- 99% Specific
- 2,500 false positive screens for each 1 case detected



NEED TO ENRICH THE POPULATION

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PRECEDE Mission

- The Pancreatic Cancer Early Detection Consortium (PRECEDE) Consortium is an international multi-institutional collaborative effort to improve survival for pancreatic cancer by improving early detection, screening, risk modeling and prevention for those with a heritable risk for pancreatic cancer. It is the largest effort of its kind, and utilizes a novel model of collaboration and data sharing.
- The mission for the PRECEDE is to transform the landscape of pancreatic cancer **risk assessment, early detection, and prevention** and to increase the 5-year survival rate from **10% to 50%** within the **next 10 years**.

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Study Design

- The PRECEDE Consortium is an observational longitudinal prospective cohort study, with serial biosample collection (every 12 months) and acquisition of standardized clinical and imaging data in defined high-risk groups.
- Current Requirements for Membership:
  - 75+ patients with increased risk in surveillance
  - Multidisciplinary team, incl. GI, advanced endoscopy, surgery and genetics
  - Infrastructure for biosample collection and storage
  - Staff to manage patient consent, data collection, and data entry, biosample collection

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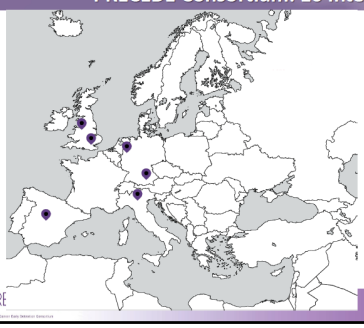
PRECEDE Consortium: 25 U.S. Sites

- Cedars Sinai – LA, California
- City of Hope, California
- Columbia University, New York
- Huntsman Cancer Institute – Salt Lake City, Utah
- Mass General/Harvard – Boston, Massachusetts
- Mayo Clinic – Jacksonville, Florida
- MD Anderson, Texas
- Moffitt Cancer Center – Tampa, Florida
- Mount Sinai – New York, New York
- NYU Langone – New York, NY
- Ohio State University – Columbus, Ohio
- Oregon Health & Science – Portland, Oregon
- Penn Medicine – Philadelphia, Pennsylvania
- University of Chicago – Chicago, Illinois
- University of Massachusetts – Worcester, MA
- University of Miami – Miami, Florida
- University of Michigan – Ann Arbor, Michigan
- University of Rochester
- University of Washington/SCCA – Seattle, Washington
- UNMC – Omaha, Nebraska
- UPMC/Pittsburgh – Pittsburgh, Pennsylvania
- UCSD – San Diego, California
- Yale – New Haven, Connecticut

PRECEDE

PRECEDE Consortium: 10 International Sites



- British Columbia Cancer Agency – Vancouver, BC
- McGill University – Montreal, QC Canada
- Medical University of Munich – Munich, Germany
- Ramón y Cajal University Hospital – Madrid, Spain
- Sheba Medical Center – Ramat Gan, Israel
- University Hospital Essen – Essen, Germany
- University of Cambridge – Cambridge, England
- University of Liverpool – Liverpool, England
- University of Toronto – Toronto, Canda
- University of Verona – Verona, Italy

Specific Aims

- To standardize the collection of demographic, clinical, imaging data, and biosamples for a large high-risk familial PDA cohort at consortium centers worldwide.
- To generate proof of the importance of high-risk surveillance programs for PDA for both clinicians and health authorities through longitudinal follow up of clinical outcomes.
- To establish evidence-based practice standards for genetic testing and surveillance in individuals with family history of PDA and/or carriers of PGVs in genes linked to PDA risk.

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Specific Aims

- To study modifiers of risk, including genetic and environmental factors, evaluate disease penetrance, and quantify cancer risk in families with PDA and/or carriers of PGVs in genes linked to PDA risk. Identify new pancreatic cancer susceptibility genes.
- To develop comprehensive risk models to estimate PDA risk and guide clinical decision making.
- To develop and/or validate biomarker assays (blood test/imaging)that detects **early stage** PDA.
- To enhance communication tools for patients and health care providers.

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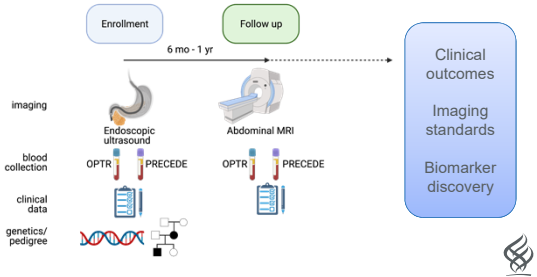
Study Design



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Cohorts

Cohort 1

- 2+ relatives with PDAC on same side of family; ≥1 is first degree relative; age 50+
- 2+ affected first degree relatives with PDAC; age 50+
- *BRCA1*, *BRCA2*, *PALB2*, *ATM*, *MLH1*, *MSH2*, *MSH6*, *PMS2*, *EPCAM* mut AND first or second-degree relative with PDAC; age 50+
- Familial Atypical Moles and Malignant Melanoma w/ *CDKN2A* mutation; age 40+
- Peutz-Jegher w/ *STK11* mutation; age 35+
- Hereditary pancreatitis w/ *PRSS1* mutation; age 40+

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Cohorts

Cohort 2

- *ATM*, *BRCA1*, *BRCA2*, or *PALB2* pathogenic variant +/- family history, age 50+
- 2+ relatives with PDAC on the same side of family, any degree of relation; age 50+
- 1 FDR with PDAC ≤ age 45; age ≤ 10 years younger than PDAC dx in family member

Cohort 3

- Individual meeting criteria for Cohorts 1 or 2 EXCEPT age

Cohort 4

- Individuals without history of PDAC presenting for evaluation who do not meet any criteria above after collection of full family history and/or germline testing

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Contacts

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  - 971-413-9244
- **Principal Investigator:**
  - Aaron Grossberg, MD, PhD

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Thank You