

The application of genomic-based drug discovery to pancreatic cancer

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The fight





leading cause of cancerrelated death in U.S.



Our goal

Double SURVIVAL by 20120

PANCREATIC Cancer Action Network

Comprehensive approach



PANCREATIC Cancer Action Network

Patient Central



12,000 contacts per year for one-to-one support

- Disease & treatment information
- Specialized information search
- Clinical trials search
- Support resources

Future calls connect directly to same Patient Central Associate



Education

packet mailed

within 24 hours



CLINICAL TRIAL FINDER



Find clinical trials faster using the most comprehensive database of U.S. trials.

clinicaltrials.pancan.org



Increasing clinical trial enrollment rate

Percentage pancreatic adenocarcinoma patients enrolled in clinical trials

Patient Central callers 15.5% National average 3.9% in 2011 to 4.2% in 2014

Patient Central numbers are from 2015. ASCO Education Book 2016, in press



ACCELERATE RESEARCH WITH THE PATIENT REGISTRY



Patients record experiences and outcomes so researchers can learn from the data.

pancan.org/patientregistry

KNOW YOUR TUMOR*



A groundbreaking precision medicine service that may lead to better treatment options.

pancan.org/knowyourtumor

Oct 2013: "Precision medicine is not possible in pancreatic cancer"

Know Your Tumor June 2014 – March 2016



ACTION Network

Know Your Tumor

KRAS

80

343 gene panel (all solid tumors)23 proteins (pancreatic cancer)



Pancreatic Cancer "actionable genome"



ACTION Network

Courtesy of A. Biankin, Australian Pancreatic Cancer Genome Initiative, International Cancer Genome Consortium

Know Your Tumor results As of March 2016

CDK inhibitor (20%)	PARP inhibitor (18%)	mTOR inhibitor (15%)	FGF inhibitor (7%)	Anti-HER2 (4%)	1-2% prevalence
CND1 (2%)	BRCA2 (5%)	STK11 (7%)	FGF 3/4/6/19 or 23 (12%)	ERBB2 (4%)	cKIT/PDGFR i: KIT (1%), PDGFR (1%)
CCND2 (4%)	ATM (4%)	AKT2 (3%)	FGFR (2%)		AXL inhibitor: AXL (1%), AXL amp (1%)
CCND3 (2%)	BAP1 (3%)	PTEN (3%)			SRC inhibitor: CRKL amp (2%)
CCNE (4%)	SMARCA4 (3%)	PIK3CA (2%)			BRAF/MEK i: BRAF V600 (1%)
CDK6 (1%)	PALB2 (1%)				TRK i: NTRK1 (1%), NTRK3 (1%)
MYC (8%)	FANCA, FANCC, CHEK2 (<1% each)				RET kinase i: RET fusion (2%)

40% with actionable alterations (primarily NGS)

- 42% clinical trial options
- 53% off-label treatment options



PATIENT 365

History and Molecular Findings

- 72 year old male met panc diagnosed in 2013
 - > FOLFORINOX, Stopped for intolerance
- Started gemcitabine/nab-paclitaxel
- Know Your Tumor molecular analysis
 - BRCA2 mutation, ALK Amplification, STK11 mutation, ARID1A mutation, KRAS mutation

Potentially Actionable Therapy

- PARP inhibitor- based on the BRCA2 mutation
- Crizotinib or ceritinib based on the ALK overexpression
- mTOR inhibitor based on the STK11 mutation and ARID1A mutation Outcomes
- Patient enrolled in a Phase II ceritinib trial \rightarrow progression
- Patient then enrolled in a Phase II trial of FOLFOX + veliparib PARPi
 - > Confirmed PR, still on therapy
 - > "First time my lung lesions have ever actually shrank"



Know Your Tumor Preliminary results



NETWORK

PRECISION PROMISE

Provide the right treatment for every pancreatic cancer patient.

Not possible without large-scale genomic analysis and targeted therapies