

THE SU2C DREAM TEAM AS A MODEL FOR TEAM SCIENCE

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HRA Members Meeting

New York

April 1, 2016

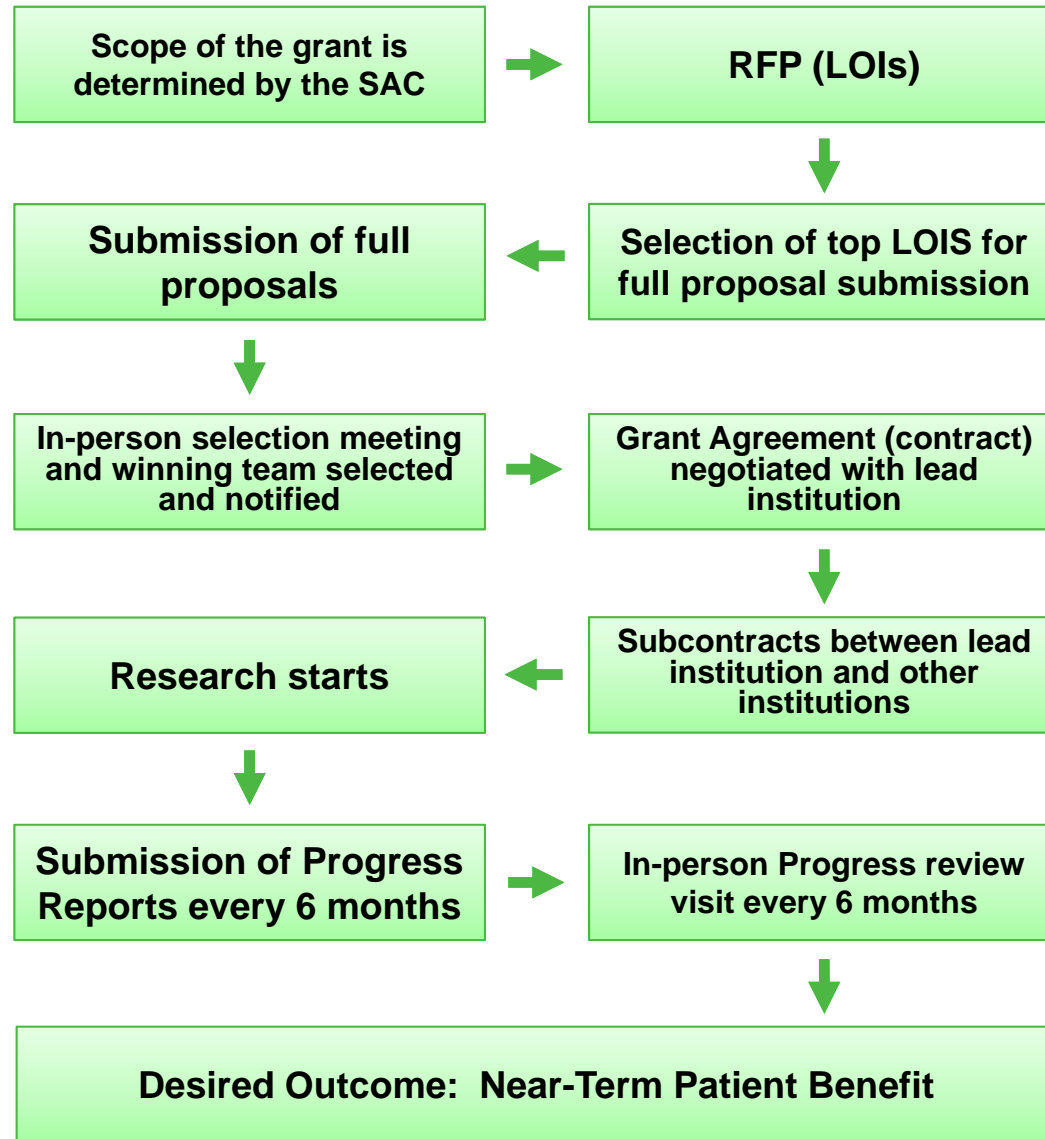
AACR AND STAND UP TO CANCER (SU2C)

- SU2C initiative of Dream Teams was created in 2008 to accelerate innovative cancer research that has the potential to deliver new therapies to patients rapidly (in three years)
- The AACR is the Scientific Partner to SU2C, providing expert peer review, grants management, and scientific oversight
- This Program brings together top researchers worldwide and encourages **collaborations rather than competition** in its funded projects
- Since SU2C's inception, the AACR has administered over \$230 million in grants to 19 Dream Teams, 2 smaller Teams, and 36 individual young investigators

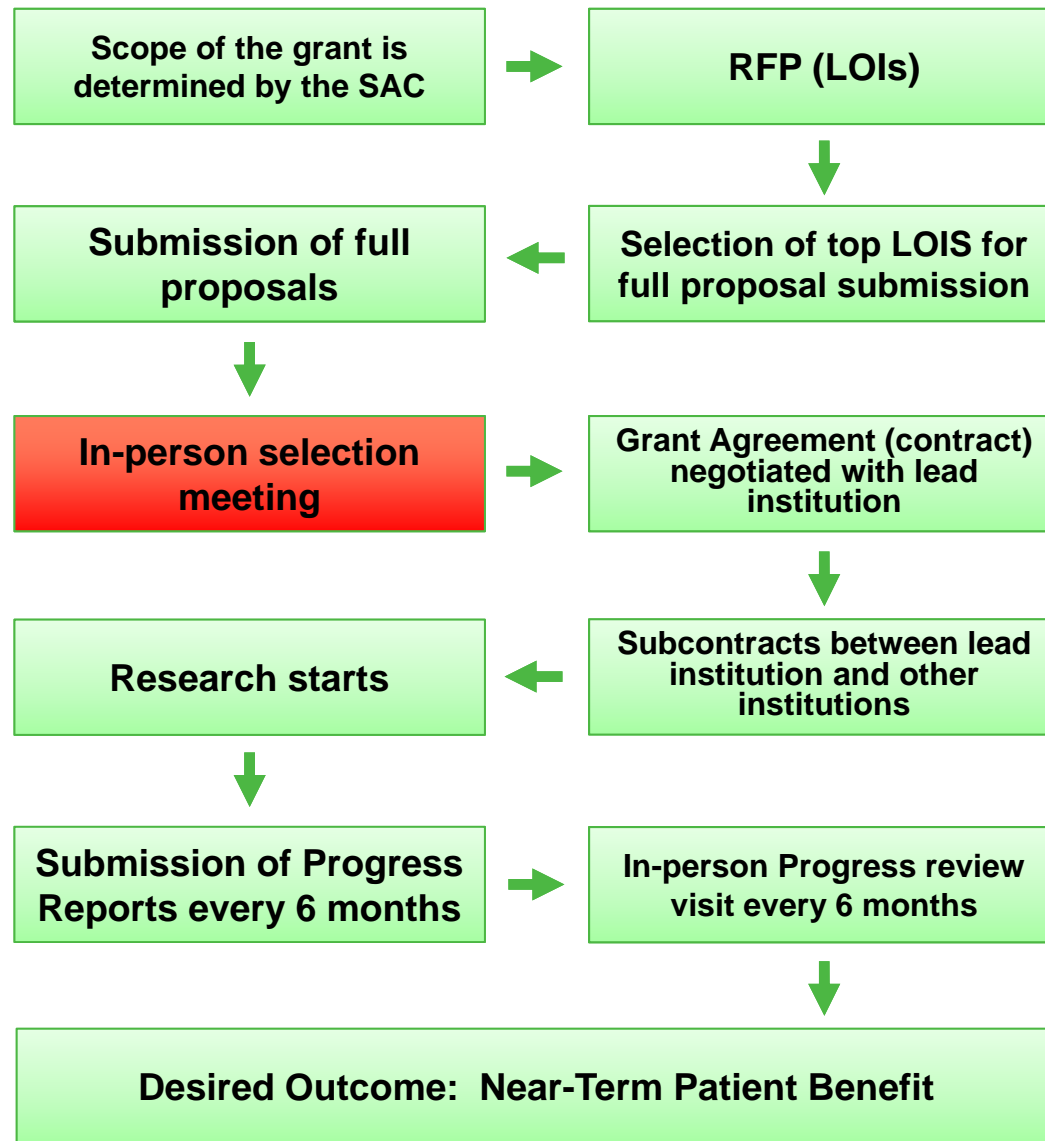


- \$6 million to \$22 million per team, over 3 or 4 years
- Translational, multi-institutional (large collaborating teams)
- One Leader and one Co-leader with several additional Investigators
- First grants awarded in 2009 (5 original Dream Teams)
- 19 Dream Teams grants have now been awarded
- Total of \$230 million have been awarded by SU2C

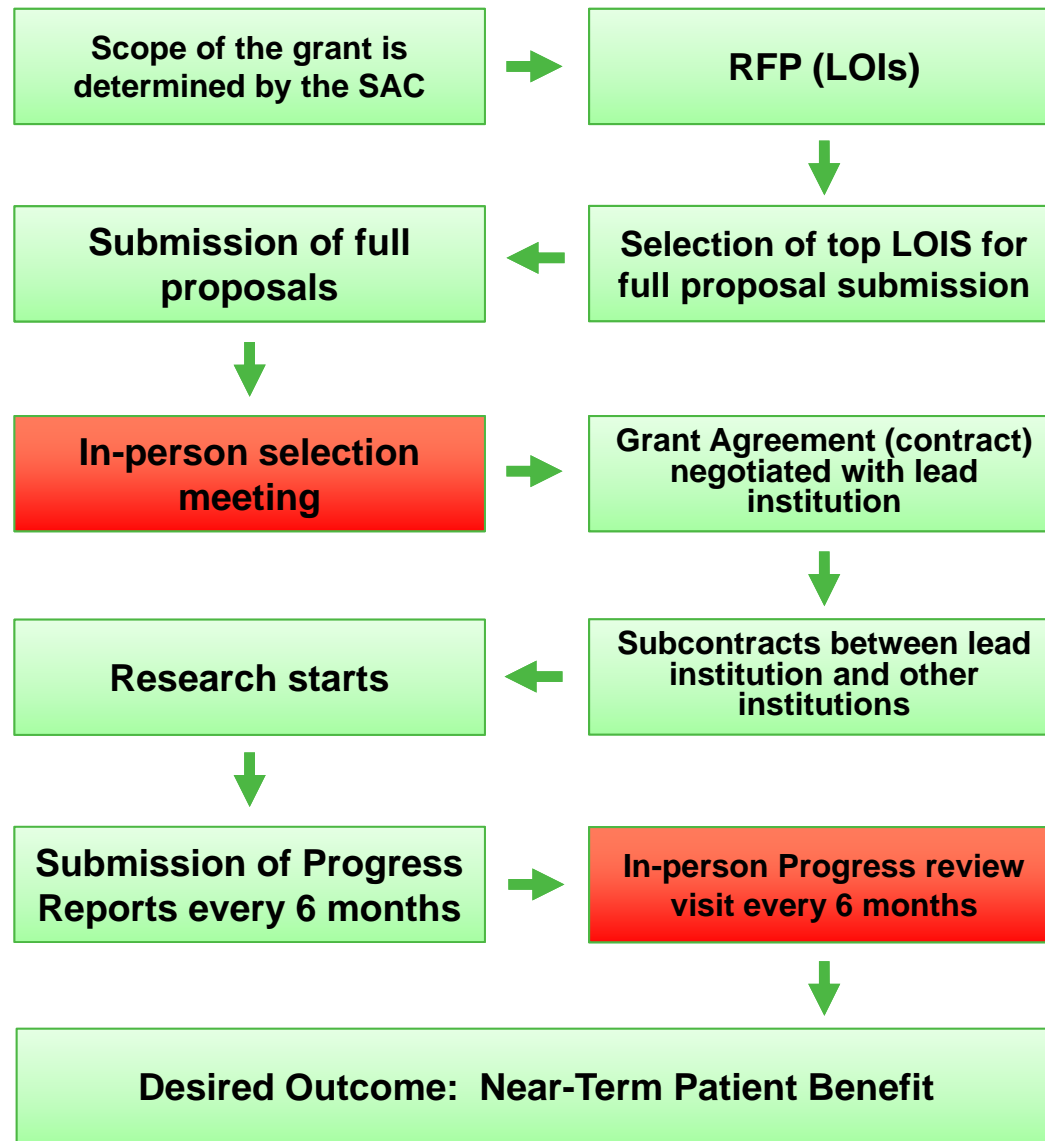
STAND UP TO CANCER DREAM TEAM PROCESS AND OUTCOME



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SU2C DREAM TEAMS SINCE ITS INCEPTION IN 2009



<u>Grants (Leaders) (Partners)</u>	<u>Funding</u>	<u># of Scientists</u>	<u># of Institutions</u>
Pancreatic Cancer (Thompson/Von Hoff)	\$22,250,000	52	13
Lung Cancer (Engelman/Wolchok) (SU2C-ACS)	\$20,000,000	38	8
Breast Cancer (Slamon/Gray)	\$17,500,000	111	18
PI3K (Cantley/Mills)	\$14,900,000	73	16
CTC Chip (Haber/Toner)	\$15,000,000	54	9
Pediatrics (Maris/Mackall) (SU2C-St. Baldrick's)	\$14,500,000	83	10
Pancreatic Cancer (VonHoff/Evans/Evan)	\$12,000,000	-	-
Immunotherapy (Allison/Ribas) (SU2C-CRI)	\$11,000,000	80	11
Epigenetics (Baylin/Jones)	\$10,220,000	55	12
Prostate (Small/Witte) (SU2C-PCF)	\$10,000,000	79	12
Prostate (Chinnaiyan/Sawyers) (SU2C-PCF)	\$10,000,000	100	13
Cancer Stem Cell CANADA (Dirks/Weiss)(SU2C-GC-CIHR)	*\$9,000,000	-	-
Pancreatic Immune (Jaffee/Vonderheide) (SU2C-LF)	\$8,000,000	58	11
Tumor Organoids (Clevers/Bos) (SU2C-KWF)	*\$7,500,000	14	4
Colorectal Cancer (Meijer/Velculescu) (SU2C-KWF)	*\$7,500,000	25	9
Epigenetics II (Jones/Baylin) (VARI-SU2C)	\$7,500,000	7	7
Breast Cancer CANADA (Mak/Aparicio)(SU2C-CBCF)	*\$6,750,000	-	-
Melanoma (Trent/LoRusso) (SU2C-MRA)	\$6,000,000	64	24
Ovarian Cancer (D'Andrea/Swisher) (SU2C-OCRF-OCNA-NOCC)	\$6,000,000	35	7

*Approximate

SU2C-INDUSTRY DREAM TEAM COLLABORATIONS (57 COMPANIES)



Industry Partners	Epigenetics	PI3K	Breast Cancer	CTC Chip	Pancreatic	Melanoma	Prostate (1)	Prostate (2)	Immunology	Pediatric	KWF-1	Organoids (KWF-2)	Immuno-Panc	Colon (KWF-3)	Lung	Ovarian	FFF - HPV	VARI
Abbott			X															
AbbVie																X		
ABfinity										X								
Adaptive Biotechnologies									X									
Aduro Bioetech													X		X			
Amgen (incl. Dompe s.p.a.)			X	X		X												
AnnaI Systems								X										
Astellas								X										
Astex Pharmaceuticals	X																	X
AstraZeneca		X	X	X			X	X							X	X		
Bayer Pharmaceuticals				X														
BIND Therapeutics													X					
Biomarin			X															X
BioNTech										X								
Biopep								X										
Bristol-Myers Squibb	X							X	X	X			X		X			
Celgene	X					X												
Clovis Oncology																	X	
Color Genomics																X		
Concordia Pharmaceuticals										X								
Eli Lilly & Company			X	X														
Exelixis		X				X												
Ganymed										X								
Genentech															X			
Gilead								X					X					
Glactone Pharma								X										
Google								X										
GSK		X	X	X	X	X			X						X			
Hitachi American Ltd								X										
IBM Research								X										
ImmunoGen										X								
Immunovaccine																	X	
Janssen (Incl Aragon)				X			X	X	X						X			
Jounce									X						X			
Juno Therapeutics										X								
Life Technologies										X								
MacroGenetics										X								
MedImmune									X									
Medivation								X										
Merck		X		X				X	X						X			
Mosaic															X			
Myriad Genetics		X																
New B Innovations								X										
Novartis		X		X		X	X			X	X							
OncoGenex Pharmaceuticals							X	X										
OSI Pharmaceuticals				X														
Pfizer			X			X			X		X							
Pharmacyclics													X					
Plexikon						X												
Roche (Genentech)		X	X	X	X				X				X					
Sanofi-Aventis		X											X					
Syndax Pharmaceuticals	X																	
Takeda/Millennium						X	X											
Tesaro																	X	
Tokai								X										
TrOn										X								
Wellspring biosciences															X			

SELECTED DREAM TEAM ACCOMPLISHMENTS

- **Gemcitabine plus Abraxane** received FDA approval for advanced pancreatic cancer, based on [FDA Approves a Drug for Late-Stage Pancreatic](#) team also

Pfizer Breast Cancer Drug Gets Early FDA Approval

By THE ASSOCIATED PRESS FEB. 3, 2015, 5:56 P.M. E.S.T.

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WASHINGTON — Federal health regulators on Tuesday approved a highly anticipated medicine from Pfizer Inc. to treat postmenopausal women with a certain type of advanced breast cancer who have not already taken other drugs.

The Food and Drug Administration approved Ibrance for women who have tumors that do not contain a protein known as HER-2 and have receptors for the hormone estrogen. Ibrance, known generically as palbociclib, works by blocking molecules linked to cancer cell growth.

Pharmaceutical industry analysts expect Ibrance to grow into a mega-blockbuster, with annual sales as high as \$4 billion by 2020.

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progressed following surgery, options like Abraxane can help prolong a patient's life.”

and other,

- **Inconsistencies in Contract Language and Submission of Reports**
 - Some institutions are state agencies with very specific laws regarding liability insurance, indemnification, etc. (e.g., Some institutions may not submit their financial reports until 90 days after the due date, while others may submit in 60 days)
- **Intellectual Property**
 - Intellectual property issues have the potential to be a major impediment to progress because the involved parties/institutions often have differing viewpoints on how intellectual property rights should be resolved
- **Delays in Contract Execution**
 - These are often due to a major lack of communication between the investigators on the team and their institutions' contract administration and technology transfer staffs during the contract negotiation phase. This presents frustration on the part of the funders of the team

■ **Discrepancies in Progress Reports and Financial Reports Across Institutions**

- There may be challenges related to the institutional review and approval of progress and/or financial reports by Dream Team Leaders prior to submission

■ **Communications**

- It is difficult for all the Team members to communicate effectively and be on the same page. A plan must be in place.
- It may be difficult to coordinate press releases, publications, or any other general press issues related to a Dream Team
- Public Information Officers from each investigator's institution do not always communicate with each other proactively

■ **Project Management**

- A dedicated project manager is absolutely essential to the success of the team

CHALLENGES TO TEAM SCIENCE

Scientific

- Team communication
- Differing opinions

Institutional

- Institutions are resistant to making changes in their internal systems
- Policies and procedures for recognition, review, and reward of collaborative scientific either do not exist or are not being implemented
- There is a lack of commitment of space, time, and support to the collaborative process

Educational

- There is a lack of training on how to foster collaborations and team science

Cultural

- Career paths that support a scientific vision which embraces the concept of team science have not been fully defined; promotion, tenure –track.
- Lack of major Prizes for team science

IMPORTANCE OF A STRONG TEAM LEADER

- Team leaders must:
 - Provide scientific leadership
 - Build and foster trust among team members
 - Unambiguously assign or negotiate roles and responsibilities for the various team members
 - Establish as early as possible a process and criteria for determining how authorship and other forms of credit will be decided
 - Create an approachable mechanism by which team members can raise concerns about how credit is being or will be determined
 - Agree early on who will be responsible for answering questions and responding to outside inquiries
 - Explicitly acknowledge the contributions of team members to the research endeavor

HOW TO BUILD A HIGH-PERFORMANCE TEAM OF ANY TYPE

- Cultivate openness, involvement, togetherness, and trust
- Establish urgency and direction in the name of pragmatism
- Select members based on skill or skill potential, not based on personality
- Set clear rules for team behavior
- Identify immediate performance-oriented tasks and set specific outcome-based goals
- Challenge the group regularly with fresh data
- Spend a lot of time together
- Increase motivation through positive feedback recognition, and reward mechanisms



Katzenbach, J.R., and Smith, D.K., The Wisdom of Teams.
New York: McKinsey & Company, 2003, 1999, 1993