



*Raising Awareness. Funding Research.
Supporting Patients. Achieving the DREAM!*

www.DebbiesDream.org



Stomach Cancer Webinar Series

**Welcome to today's webinar on
Clinical Updates - Genomic Research Studies in Gastric
Cancer
Dr. Adam Bass**



Andrea P. Eidelman, Esq Executive Director

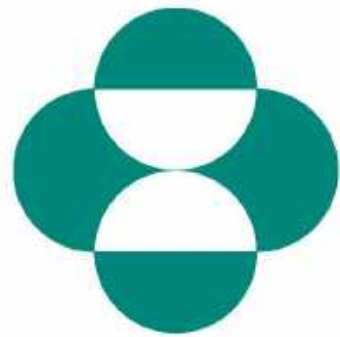


- Bachelors degree in psychology from the University of Miami
- Juris Doctor from St. Thomas University School of Law
- Spent most of her legal career advocating for the rights of underprivileged populations, specifically foster care children
- Oversaw the Jacksonville Area Legal Aid program and led Permanency Project at Legal Aid Services of Broward
- Worked as case manager for Health and Rehabilitative Services in Miami-Dade County assisting terminally ill HIV/AIDS patients
- Served on the board of the American Lung Association and Bella's Kinship Group



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Agenda

I. Introduction

Moderator: Andrea P. Eidelman, Esq.

II. Debbie's Dream Foundation: Curing Stomach Cancer

III. Clinical Updates - Genomic Research Studies in Gastric Cancer

Presenter: Adam Bass, MD

IV. Questions and Answers

Stomach Cancer Facts



- In 2018, it is estimated more than 26,000 Americans will be diagnosed with stomach cancer each year, and more than 11,000 will die from the disease.
- Many patients are asymptomatic during the early stages of stomach cancer, leading to late diagnosis.
- At Stage 4, the 5-year survival rate is 5%.
- Overall 5-year survival rate is 30%.
- Incidence rates of stomach cancer in whites aged 25-39 increased by 66% between 1977-2006. This data is significant because the expected frequency of stomach cancer overall has declined over the past 80 years in the United States.
- Most people know very little about this deadly disease.



Debbie Zelman

Founder, Debbie's Dream Foundation: Curing Stomach Cancer

- Diagnosed with stage IV stomach cancer in April 2008
- 40 years old, mother of 3 young children, married to a physician, and a practicing attorney with her own firm
- No risk factors for stomach cancer and symptoms were very vague
- Chance of being alive in five years was 4%
- Faced many recurrences and treatments over 9 ½ years
- April 2009 – founded Debbie's Dream Foundation: Curing Stomach Cancer (DDF)
- Member of Deadliest Cancers Coalition, PEAC, SPEAC, OVAC
- Patient Advocate:
 - NCI Esophagogastric Task Force
 - NCI Patient Advocacy Steering Committee
 - NCCN Gastric and Esophageal Guidelines Committee
 - CDMRP DoD PRCRP Programmatic Review Panel
 - ASCO Gastric Cancer HER2 Testing Guidelines Project
 - American Cancer Society Research Program Stakeholder



Debbie's Dream Foundation: Curing Stomach Cancer

Our Mission

DDF is a 501(c)(3) non-profit organization dedicated to raising awareness about stomach cancer; advancing funding for research; and providing education and support internationally to patients, families, and caregivers. DDF seeks as its ultimate goal to make the cure for stomach cancer a reality.

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Debbie's Dream Foundation: Curing Stomach Cancer Milestones

- 29 Chapters in the United States, Canada, and Germany
- Events across the United States and Canada
- Patient Resource Education Program (PREP) - helps hundreds of patients, families and caregivers throughout the world matching inquirers with stomach cancer survivors and caregivers using specific disease criteria
- Stomach Cancer Education Symposia and Webinars
- Website containing in-depth stomach cancer information, lecture library, clinical trial information and matching service, stomach cancer support community, blog topics, and resources which are completely translatable into more than 60 languages
- \$950,000 in Research Grant Funding
- Stomach Cancer Capitol Hill Advocacy Day and Capitol Hill Briefing
- \$50 million DoD research funding and nearly \$18 million awarded directly for stomach cancer research grants.

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CURING STOMACH CANCER

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**Raising Awareness. Funding
Research. Supporting Patients.
Achieving the DREAM!**

Debbie's Dream Foundation: Curing Stomach Cancer (DDF) is dedicated

News

September 12, 2018 – H. pylori test hints at risk factor for stomach cancer

Helicobacter pylori, a specific strain of bacteria found more often in East Asian patients may be a risk factor for...





Debbie's Dream Foundation: Curing Stomach Cancer

Upcoming Events

TITLE	LOCATION	DATE(S)
Miami Marathon and Half Marathon	Miami, FL	January 27, 2019
10th Annual Night of Laughter	Dania Beach, FL	January 27, 2019
2019 Fort Lauderdale A1A Marathon and Half Marathon	Fort Lauderdale, FL	February 17, 2019
7th Annual Stomach Cancer Capitol Hill Advocacy Day	Washington, DC	February 25-26, 2019
2019 Miami Night of Laughter	Miami, FL	March 31, 2019
10th Annual Dream Makers Gala	Fort Lauderdale, FL	May 4, 2019
DDF Newsletter T-Shirt Photo Contest	Online	December 15, 2019

<https://debbiesdream.org/upcoming-events>



Contact Information

Debbie's Dream Foundation: Curing Stomach Cancer International Headquarters

Two South University Drive, Suite 326
Plantation, FL 33324

Office Hours: Monday – Friday / 8:30 am – 5:00pm EST

Office: (954) 475-1200

Toll-Free: (855) 475-1200

Toll-Free Fax: (855) 475-1201

General Inquiries:

Admin@DebbiesDream.org

Patient Resources:

Patient.Resource@DebbiesDream.org

Events:

Events@DebbiesDream.org

Communications:

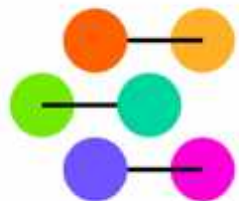
Communications@DebbiesDream.org

Adam Bass, MD

Dana-Farber Cancer Institute



- Associate Professor of medicine at Harvard Medical School
- Physician/scientist at the Dana-Farber Cancer Institute and Brigham and Women's Hospital
- Associate member of the Broad Institute
- Undergraduate degree from Amherst College and his MD degree at Duke University School of Medicine
- He pursued clinical training in internal medicine at the Massachusetts General Hospital and medical oncology at the Dana-Farber/Partners Cancer Center. At the completion of his clinical training, he was a post-doctoral fellow with Dr. Matthew Meyerson at both the Dana-Farber Cancer Institute and Broad Institute.
- Studies the genomics and biology of stomach and esophageal cancer.
- Co-led efforts to map the genomes of these diseases through The Cancer Genome Atlas.
- Currently working to define the action of specific cancer causing genes in these cancers and to develop new therapeutic approaches.
- New studies of the genome are aiming to understand correlates of genomics of these cancers with clinical phenotypes and to understand how these cancers evolve during therapy.



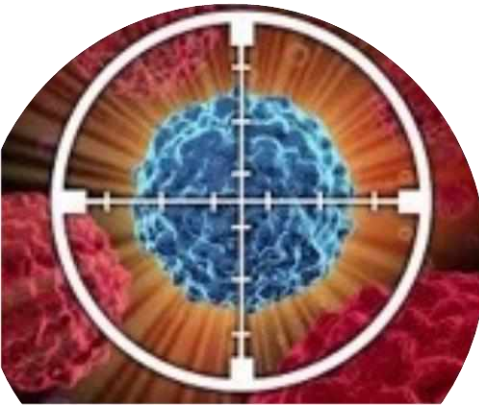
Count Me In

The Esophageal and Stomach Cancer Project: Patient-Engaged Research

Debbie's Dream Foundation Webinar
January 23, 2019

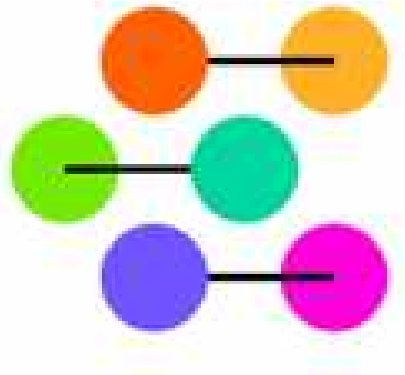
Adam Bass, MD
Associate Professor of Medicine
Harvard Medical School
Dana-Farber Cancer Institute
Associate Member; Broad Institute





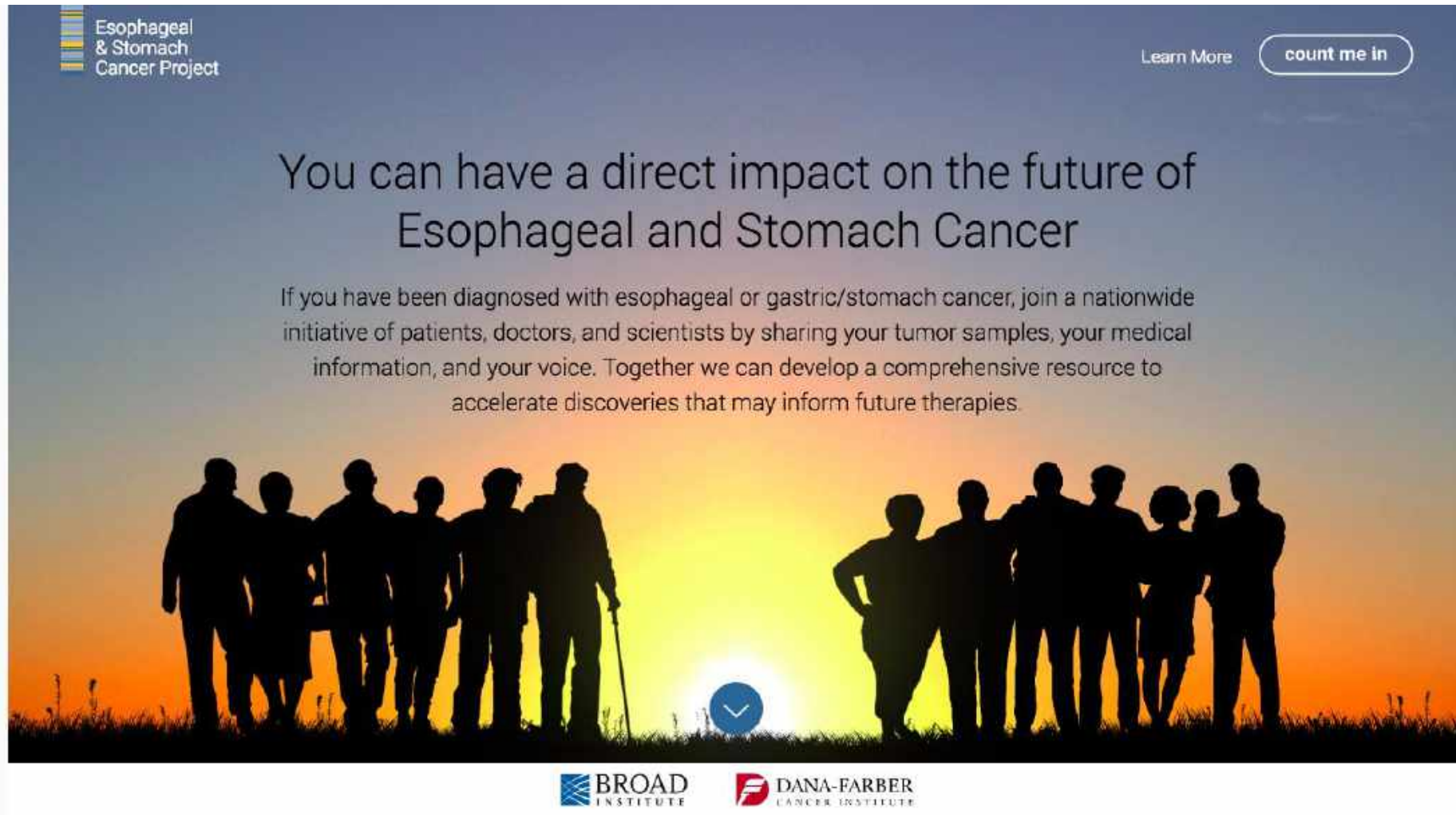
What if we could generate a public database of clinical, genomic, molecular, and patient reported data in cancer to enable researchers to find patterns in the data – and help accelerate discoveries and the development of new treatment strategies?

Count Me In



*Enable cancer patients anywhere
to share their information and
samples with researchers
everywhere*

Where we are going....



The banner features a background image of a group of people silhouetted against a bright sunset or sunrise. The text is centered and reads: 'You can have a direct impact on the future of Esophageal and Stomach Cancer'. Below this, a paragraph explains the initiative: 'If you have been diagnosed with esophageal or gastric/stomach cancer, join a nationwide initiative of patients, doctors, and scientists by sharing your tumor samples, your medical information, and your voice. Together we can develop a comprehensive resource to accelerate discoveries that may inform future therapies.' In the top left corner, the 'Esophageal & Stomach Cancer Project' logo is displayed. In the top right corner, there are two buttons: 'Learn More' and 'count me in'. At the bottom center, there is a blue circular icon with a white downward arrow. The bottom of the banner features the logos for the 'BROAD INSTITUTE' and 'DANA-FARBER CANCER INSTITUTE'.

Esophageal
& Stomach
Cancer Project

Learn More

count me in

You can have a direct impact on the future of
Esophageal and Stomach Cancer

If you have been diagnosed with esophageal or gastric/stomach cancer, join a nationwide initiative of patients, doctors, and scientists by sharing your tumor samples, your medical information, and your voice. Together we can develop a comprehensive resource to accelerate discoveries that may inform future therapies.

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What's the point?
How is this going to help?

Let's Take a Step Back

- Cancer is 'A disease of the Genome'
- Genome = the DNA in each Cell
- The DNA is the 'cookbook' for making proteins that do the work in each cell
- Genes for proteins that make cells grow can be 'activated' in cancer cells
- Genes for proteins that stop cell growth can be 'turned off' in cancer cells

Genomic Profiling and Cancer Therapy #1

- Tumors become dependent upon pro-growth genes turned on by genetic mutation
- Drugs that effectively block these activated genes can be highly effective
 - But different patients have different activated ‘genes’ so different patients with the ‘same’ cancer may need different drugs!
- Big idea: Genomic profiling of each cancer may help us select optimal targeted drugs for each tumor.
 - This is why we do HER2 testing in stomach/esophageal cancer and many patients get additional testing

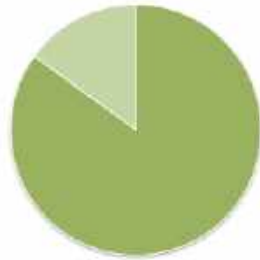
Genomic Profiling and Cancer Therapy #2

- The different genetic and molecular features of each cancer impact cancer behavior
 - How likely are specific cancers to recur after surgery?
 - How well will specific cancers respond to different therapies and how long do responses last?
- However, we do not know enough about how stomach cancers' features impact their behavior
- To address this problem, we need information on the genetics/molecular aspects of a tumor and on the clinical outcomes of the patient. And we need this information from a lot of patients

Why is all of this helpful?

- If we can find the features that predict cancer behavior, we can ultimately use these features to select optimal therapy
- If we can find the tumor features that predict resistance to therapy, we can develop new and better therapies
- All of this will allow us to better understand how stomach cancer ‘works’
 - And understanding how cancer works can lead to many advances, often unexpected

Challenges of Studying Patient Tumor Samples



85% of U.S.
cancer patients
are treated in
community
settings

**Most patients' samples
and data have not been
readily available for
study**



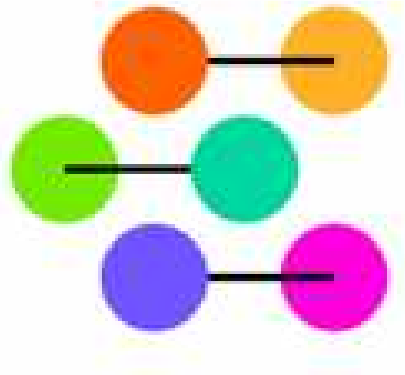
Technology, social media, and
cultural changes now provide a
new opportunity to engage
cancer patients and directly
partner with them in this
research

The Scientific Need in Cancer Research



- **Ultimate goal:** To understand what drives cancer so that we eventually can interpret every patient's cancer genome, identify the optimal treatments, and anticipate and preempt resistance before it arises
- There's been a lot of progress, but we still have much work to do
- What will it take to get there? Detailed molecular and genomic characterization of **thousands** of tumor and germline samples along with clinical, pathologic, and radiologic data

Count Me In



*Enable cancer patients anywhere
to share their information and
samples with researchers
everywhere*

<https://joincountmein.org/>



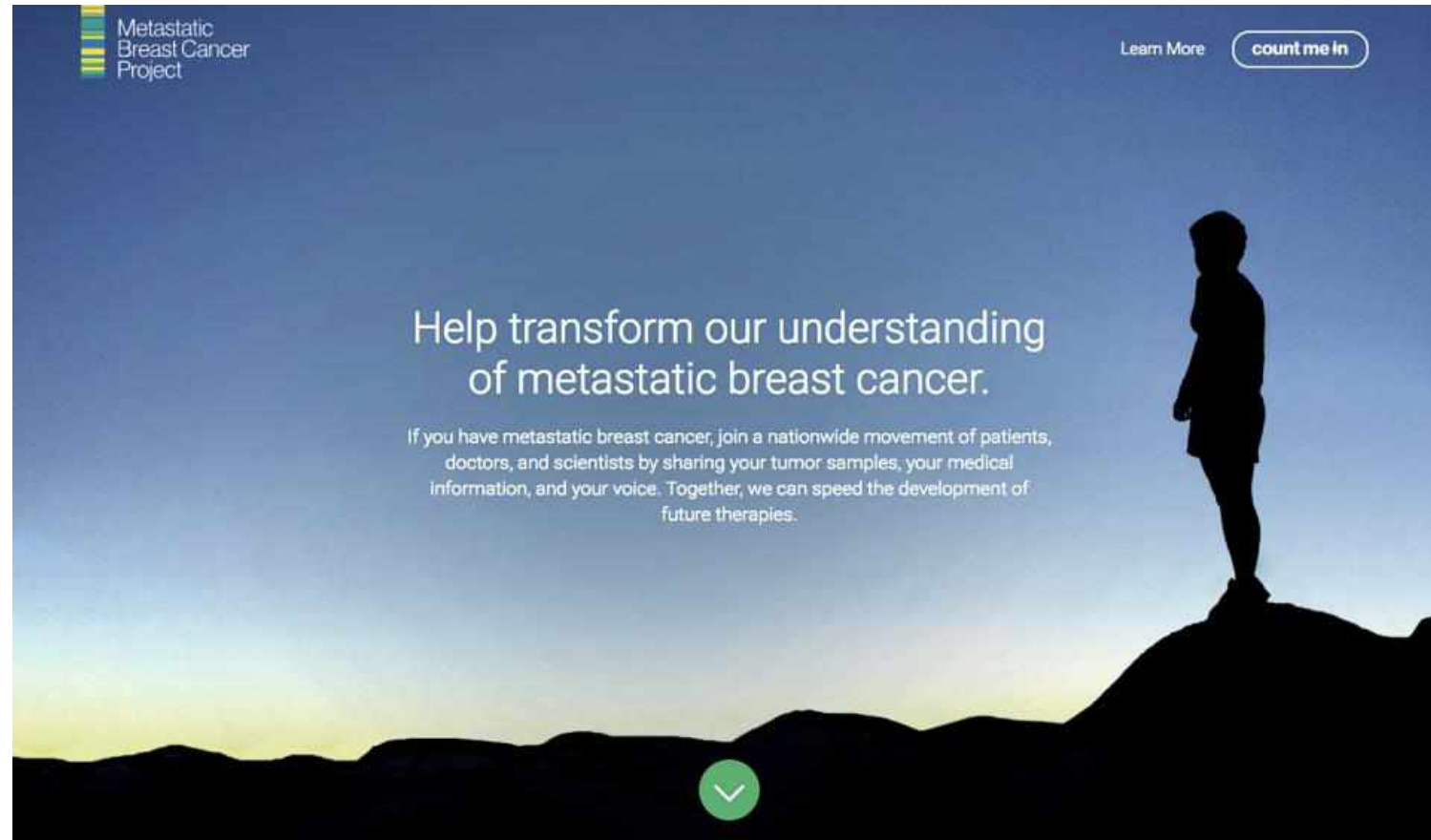
A non-profit organization aimed at making it possible for cancer patients anywhere in the United States and Canada to be partners in cancer research.

Over the next few years, Count Me In aims to launch projects in every major cancer type as well as pediatric and rare cancers.



The Metastatic Breast Cancer Project

MBCproject.org



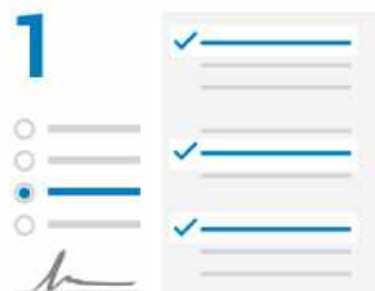
What is this?

- A research study approved by the Dana Farber Cancer Institute IRB (Ethics Board)
- Patients anywhere in country can sign up online and share basic clinical information and give consent for:
 - Count Me In team to obtain clinical records to collect data
 - Count Me In team to obtain extra tumor samples from hospital/clinics and get DNA and perform genomic and molecular analysis on the tumor
 - Us to share the data (not identified to patients) across research community

Become part of the research movement. Have a direct impact on the future.

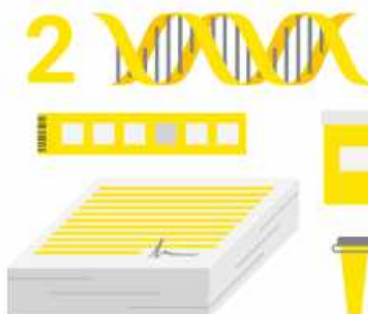
By saying "Count Me In", you will partner with leading research institutes, hospitals, and patient advocacy groups by sharing part of your stored tumor tissue and copies of your medical records.

Here's how you can participate



Step 1. Tell us about yourself

Click "[Count Me In](#)" and complete a simple online form to tell us about yourself and your cancer. Our goal is to perform many different studies within the metastatic breast cancer community, so allowing us to know a little bit about your experience will help us design future



Step 2. Give us permission to collect your samples and data

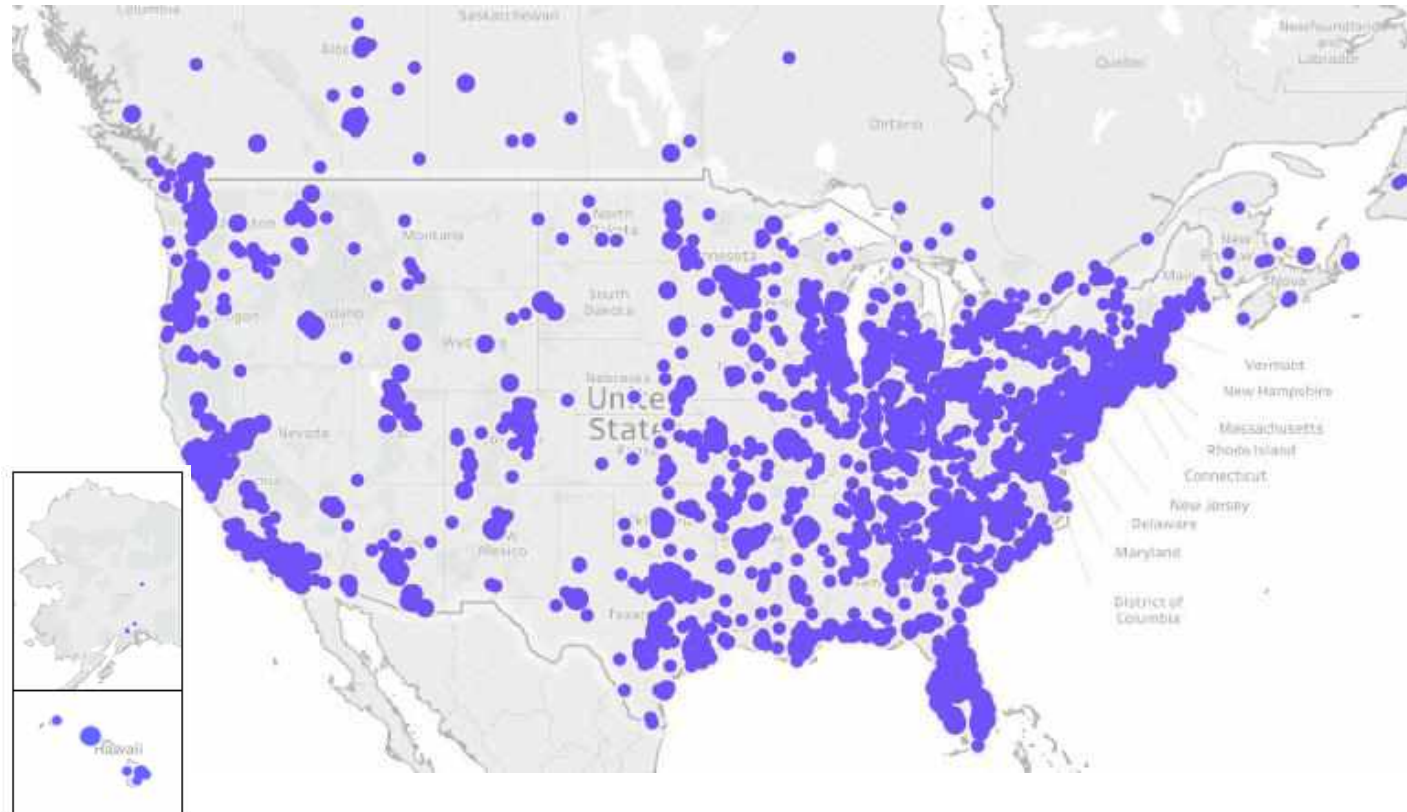
When we start a study that matches what you have told us about yourself, we will ask you to fill out an online consent form that requests your permission to obtain copies of your medical records and some of your stored tumor tissue. We will do the rest - we'll contact



Step 3. Learn with us along the way

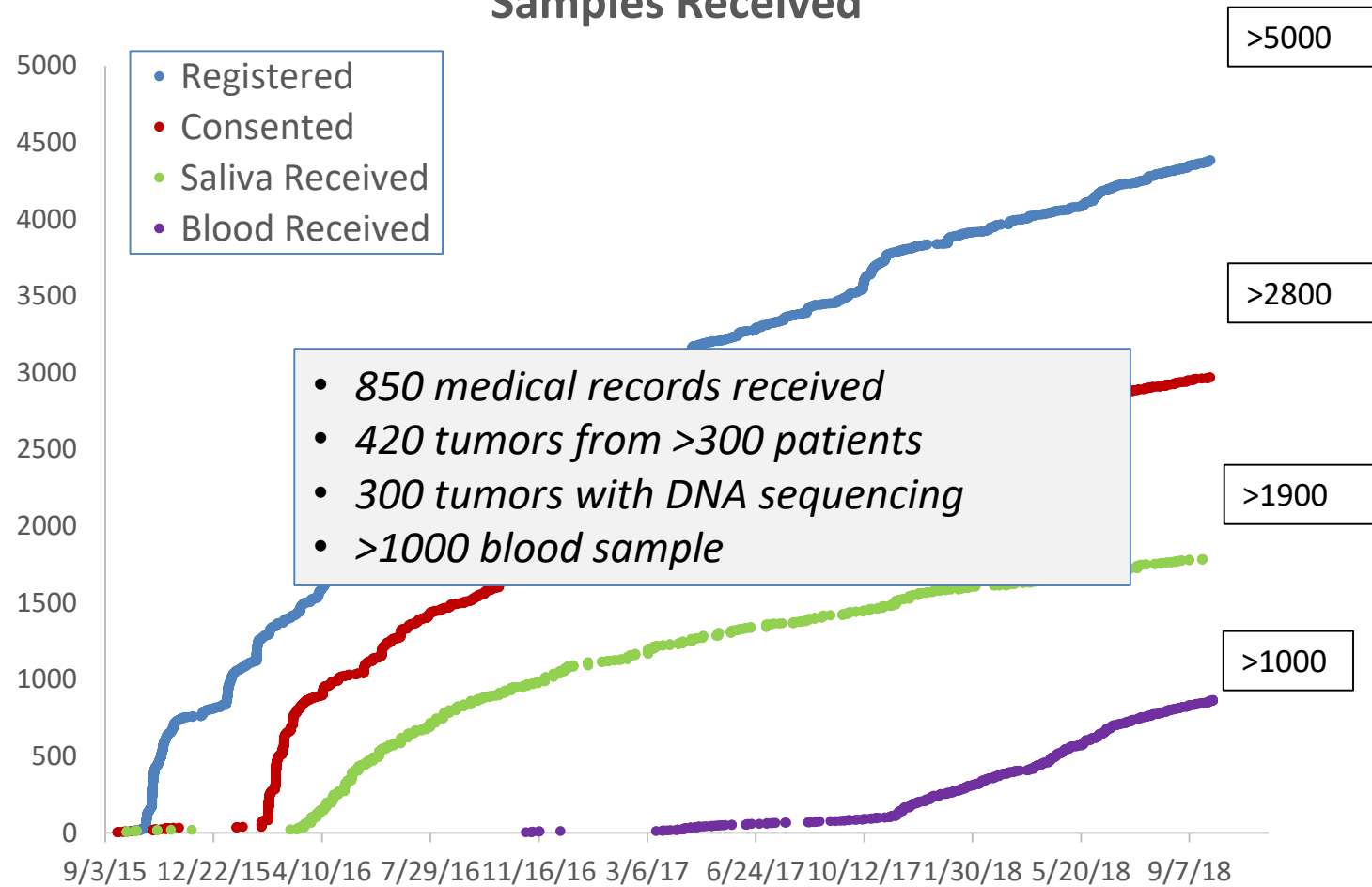
We are excited to learn with you! Throughout the project, we will provide you with regular updates about the status of the project and share any discoveries that you have enabled us to make. We also may ask you additional questions about your experience to help with

The Metastatic Breast Cancer Project
MBCproject.org

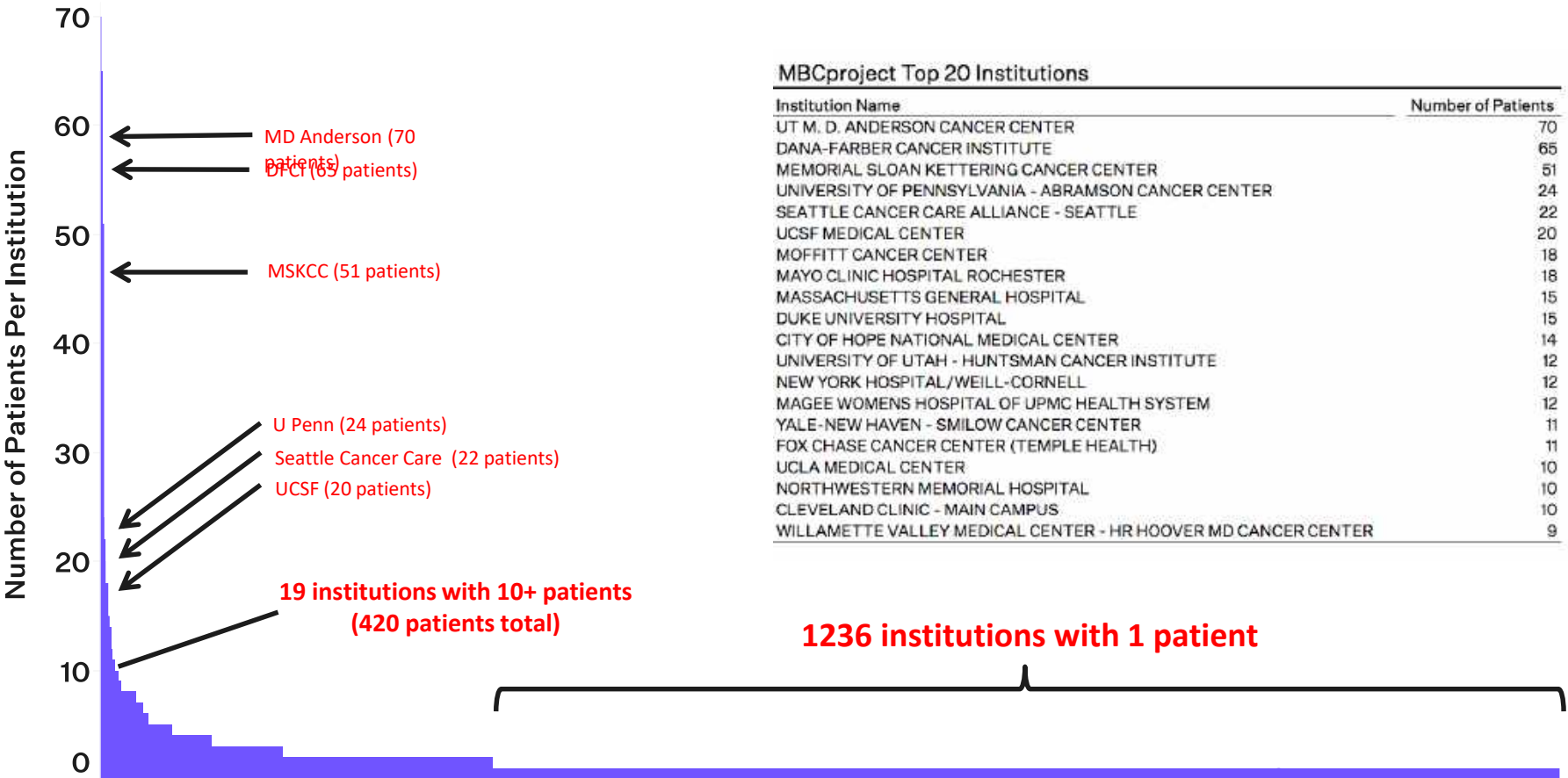


Over 5000 women and men with metastatic breast cancer from all 50 states have joined the MBCproject since our launch in October 2015

MBCproject: Patients Registered, Consented, and Samples Received



Over 1700 Institutions Represented



An Open Clinico-genomic Database



NATIONAL CANCER INSTITUTE
GENOMIC DATA COMMONS



PATIENT AND RESEARCHER
SPECIFIC PORTALS

*All somatic and
germline genomic
data and linked
clinical data
deposited every 6
months*

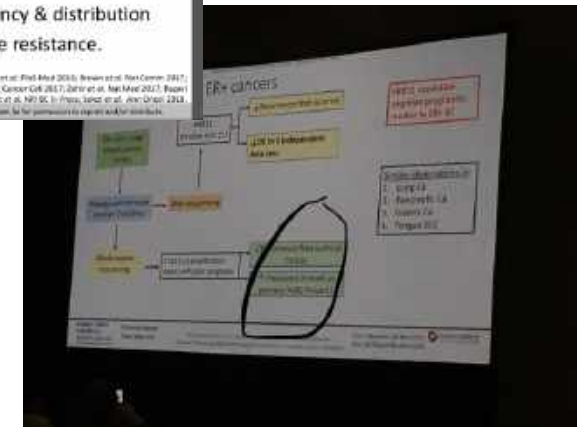
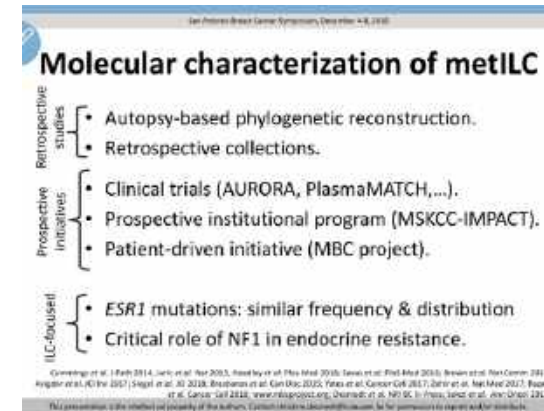
An Open Clinico-genomic Database

5500 downloads from cbioportal.org

Viewed over 80,000x



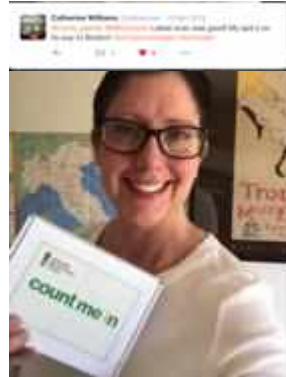
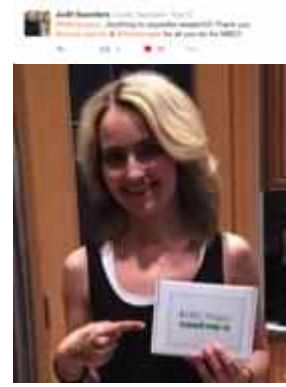
Clinically annotated WES of 237 tumors from 180 patients (132 mets, 105 primaries; 42 matched pairs/series) available cbioportal.org



Why is this different?

- Patient centered – including patients treated in the community
- Enables more diversity in research
- Potential to enroll large numbers of patients – allows study of questions that require large numbers plus studies of rare subgroups
- Convergence of clinical, genomic, patient reported – all linked and able to be linked to other data sets
- Data is shared publicly as it is generated
- ***Patient-researcher partnership: patients can be re-contacted based on our learning***

Patient-Driven Research



“I want to live and watch my children grow up, but if I can’t, then I want to leave a legacy and a cure.”

—Houston, TX

“As someone who does not live near a research center and therefore cannot easily participate in trials, I finally feel like I can contribute.”

—Lake Tahoe, CA

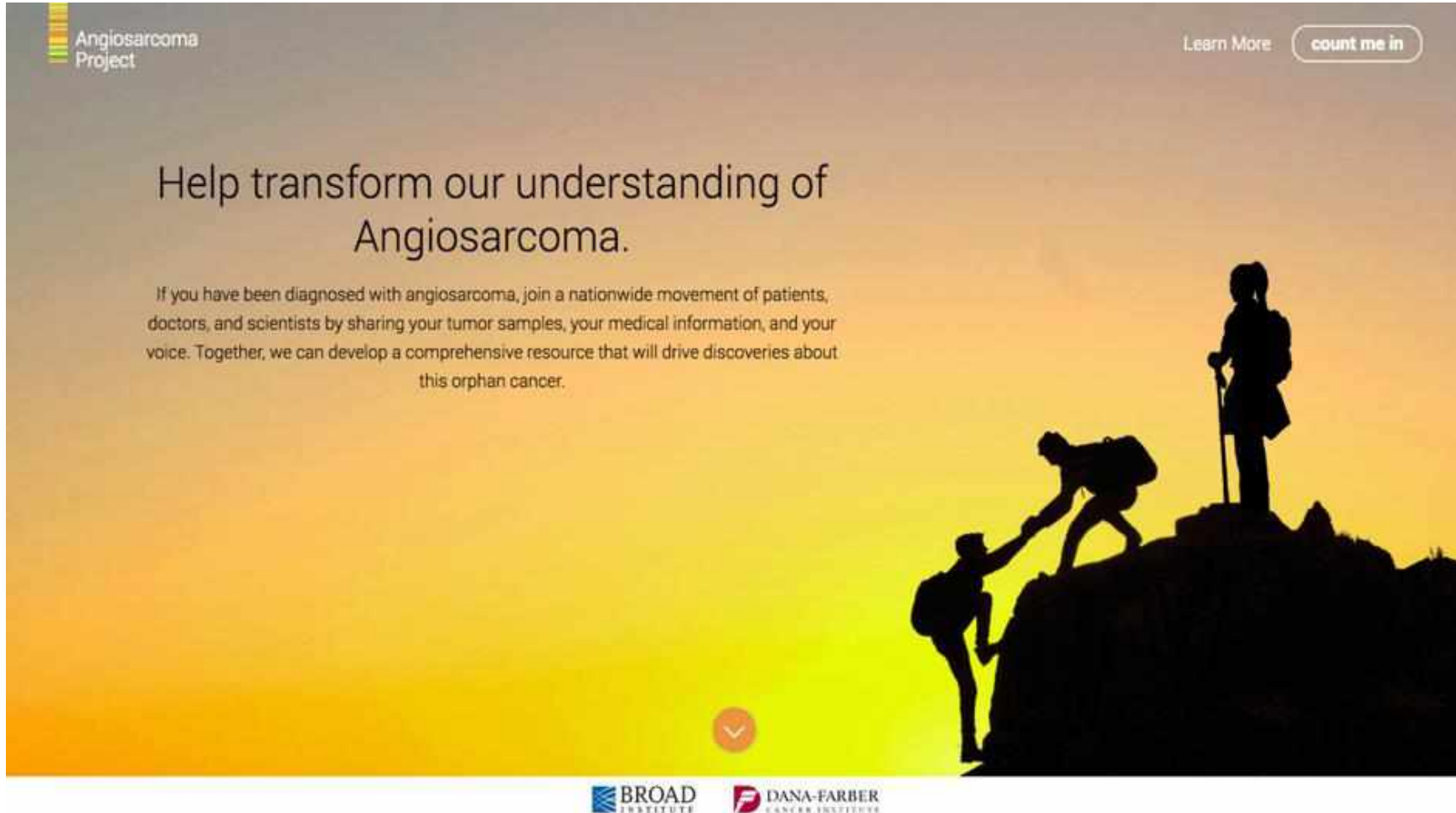
“Amazing how happy that little box makes you feel! I felt like a 2 year old. Let me help! I feel a sense of pride and belonging because of this.”

—Minneapolis, MN

“Giving us HOPE for the future and if not for some of us, for our families.”

—Scottsdale, AZ

Can we do this in other cancers?


A banner for the Angiosarcoma Project. The background is a gradient from light yellow to orange, with silhouettes of three hikers on a rocky peak. The hiker at the top is standing with a cane, while the other two are helping each other up. The text is centered and reads: "Help transform our understanding of Angiosarcoma." followed by a paragraph: "If you have been diagnosed with angiosarcoma, join a nationwide movement of patients, doctors, and scientists by sharing your tumor samples, your medical information, and your voice. Together, we can develop a comprehensive resource that will drive discoveries about this orphan cancer." In the top left corner is the "Angiosarcoma Project" logo. In the top right corner are links for "Learn More" and "count me in". At the bottom center is a small orange circle with a white downward arrow. At the bottom are the logos for the Broad Institute and Dana-Farber Cancer Institute.


Angiosarcoma Project

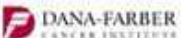
Learn More [count me in](#)

Help transform our understanding of Angiosarcoma.

If you have been diagnosed with angiosarcoma, join a nationwide movement of patients, doctors, and scientists by sharing your tumor samples, your medical information, and your voice. Together, we can develop a comprehensive resource that will drive discoveries about this orphan cancer.



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The Angiosarcoma Project *ASCproject.org*



371 women and men with angiosarcoma have joined the ASCproject since March 2017. Over 125 people have filled out information on behalf of a loved one who died from angiosarcoma

48 samples from 36 patients publicly shared



Over 4,000 views in the past 6 months; ~ 30 pageviews per weekday

Initial studies using this data are in progress

The Metastatic Prostate Cancer Project

MPCproject.org

A banner for the Metastatic Prostate Cancer Project. The background is a blue sky with a bright sun low on the horizon, creating a silhouette effect. In the foreground, a group of diverse people are silhouetted against the bright light. One person in the center is standing with their arms raised in a gesture of triumph or hope. The overall mood is hopeful and community-oriented.

Metastatic Prostate Cancer Project

Learn More [count me in](#)

You can have a direct impact on the future of men with prostate cancer

The Metastatic Prostate Cancer Project is a nationwide genomic research study for men with advanced or metastatic prostate cancer. We seek to generate the most comprehensive database that will be shared with the entire research community to accelerate discoveries.

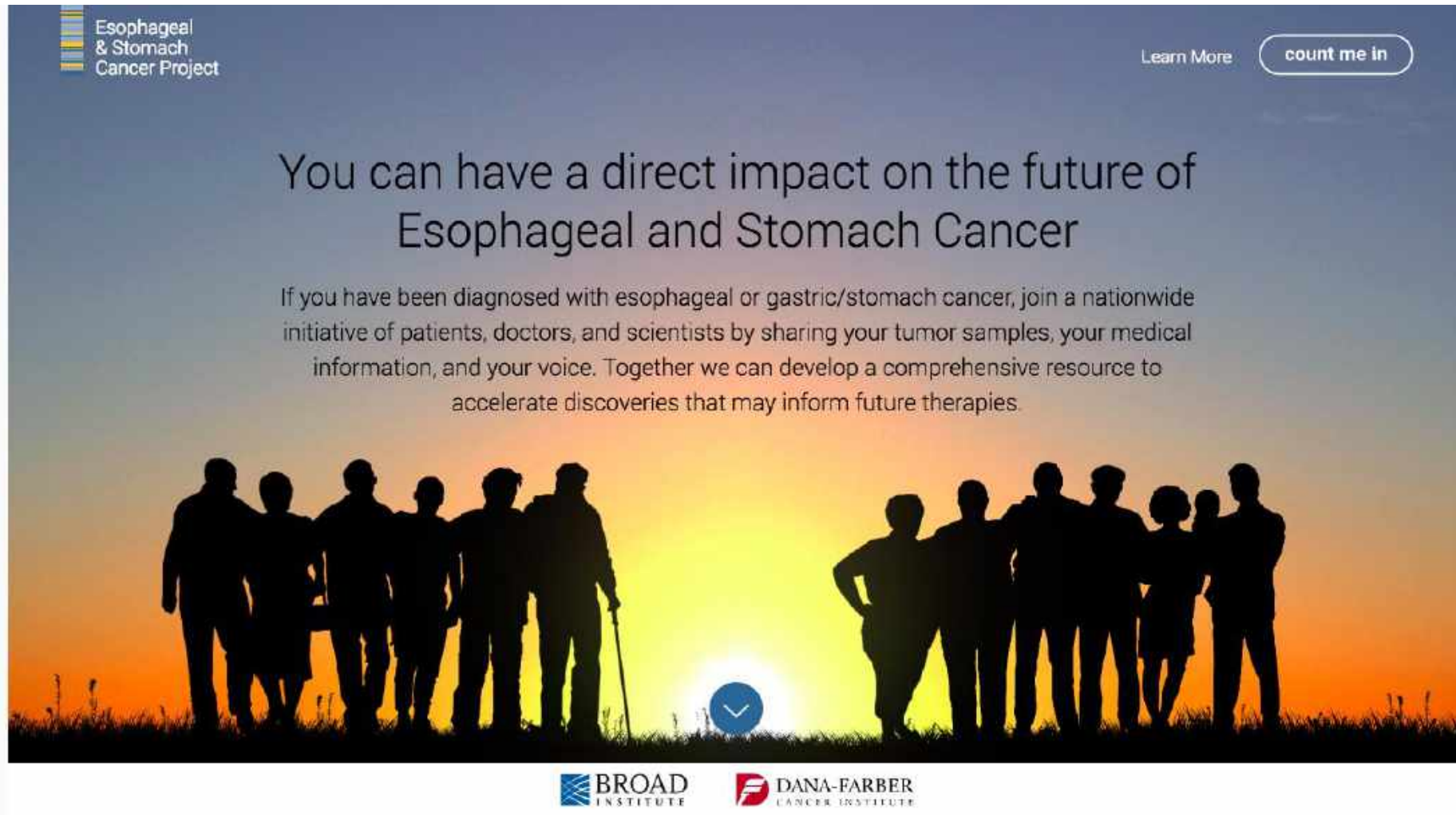


The Esophageal and Stomach Cancer Project

GECproject.org: Launch October 2018



Renamed This Week....





The banner features a background image of a sunset with silhouettes of two groups of people standing on a grassy field. The sun is a bright yellow circle in the center, with a blue circular icon containing a white downward arrow positioned just below it. The overall tone is hopeful and collaborative.

Esophageal & Stomach Cancer Project

[Learn More](#) [count me in](#)

You can have a direct impact on the future of Esophageal and Stomach Cancer

If you have been diagnosed with esophageal or gastric/stomach cancer, join a nationwide initiative of patients, doctors, and scientists by sharing your tumor samples, your medical information, and your voice. Together we can develop a comprehensive resource to accelerate discoveries that may inform future therapies.

 **BROAD** INSTITUTE  **DANA-FARBER** CANCER INSTITUTE

How Does This Work?

- Any patient with a diagnosis of (or history of) stomach or esophageal cancer can signup
 - Enroll at escproject.org
- Take a ~5-10 minute online survey detailing treatment history
- Choose if they want to consent to additional studies
 - Allowing team to obtain and medical records and to obtain and profile tumor tissue samples (from old surgery or biopsy)
 - Provide samples of blood and saliva

Saliva?

- We send a 'kit' with container for saliva/spit.
- You fill it and mail it back to us in the package we provide
- Saliva is used as source to get normal DNA
 - Normal DNA is used as a comparison to cancer DNA
 - Normal DNA is also way to identify the genetic variations that we all inherit, some of which may associate with cancer behavior

Blood??

- Burgeoning field of cancer DNA that is ‘shed’ into blood from tumors
 - New exciting method to study cancer DNA
- We send you blood collection kits with special blood tubes for getting circulating tumor DNA
- You bring the tube to clinic during regular blood work or can get blood drawn at special participating labs (our team can help)
- Mail the tube back in the provided special envelop/kit

How do I provide records and tumor samples??

- You don't have to do anything
- If you consent, our team handles everything
 - Requesting records from the clinic/hospital
 - Extracting information from records
 - Identify if there is a sample from which we can collect material for research
 - Note, we will not deplete samples in case material is needed for future clinical testing

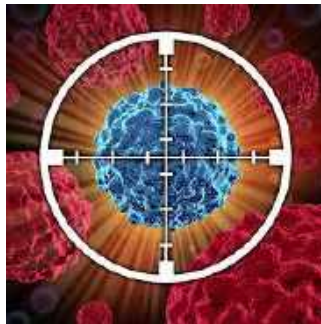
Where are we now?

- 109 stomach/esophageal cancer patients have signed up.
- 81 saliva kits sent; 47 received back
- 71 blood kits sent; 34 received back
- 27 med records requested; 20 received

Where are we going?

- Goal to expand to many more patients
- Goal to make this project study patients during the course of their cancer care
 - Additional surveys to track how treatments change and how tumors respond
 - Serial blood collections so we can study how the tumor DNA evolves during therapy, especially to learn how tumors become resistant to therapy
 - Additional ways to study tumors, such as looking at features of the immune system

Objective: To generate a publicly available database of clinical, genomic, molecular, and patient reported data in cancer to accelerate discoveries and the development of new treatment strategies



A Few Potential Questions

- Will my identity be revealed?
 - No, patients are listed by code number
- Will I get my data back?
 - As this is research, we are not legally allowed to report back data
- Can I withdraw consent?
 - Yes, at any time

More Potential Questions

- Will my data be sold?
 - No, data will be placed on public repositories that are used by researchers (across world, including working for government, academics and industry)
- Who is paying for this?
 - This is funded by philanthropic donations

Ways to Help

- Sign Up
 - And post on social media
- Become a patient ambassador
 - Help reach/recruit additional patients, including on online patient communities
- Participate in our working group to help develop new questions, shape how we engage with patients

joincountmein.org/

escproject.org

Acknowledgements

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- Samantha Singer
- Jesse Souweine
- Justine Levin-Allerhand
- Todd Golub
- Eric Lander
- **Advocacy Partners**
- **All Participating Patients**



Questions and Answers



www.DebbiesDream.org



Speaker Information and Link to Slides

Andrea Eidelman, Esq. – Executive Director

Debbie's Dream Foundation:

Curing Stomach Cancer

www.DebbiesDream.org

Adam Bass, MD

Dana-Farber Cancer Institute

Boston, MA

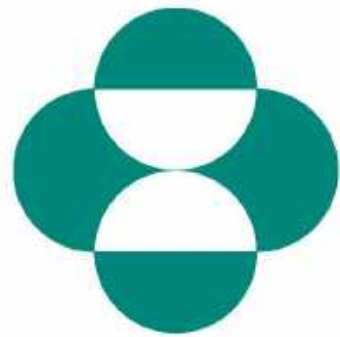
URL Link to Today's Slide Presentation:

<https://debbiesdream.org/lecture-library/>



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Debbie's Dream Foundation: Curing Stomach Cancer

Upcoming Events

TITLE	LOCATION	DATE(S)
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10th Annual Night of Laughter	Dania Beach, FL	January 27, 2019
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2019 Miami Night of Laughter	Miami, FL	March 31, 2019
10th Annual Dream Makers Gala	Fort Lauderdale, FL	May 4, 2019
DDF Newsletter T-Shirt Photo Contest	Online	December 15, 2019

<https://debbiesdream.org/upcoming-events>



Stomach Cancer Webinar Series

Thank you for participating in today's webinar on

**The Esophageal and Stomach Cancer Project:
Patient-Engaged Research**

We'd love to hear from you with questions for our upcoming webinar

Patient.Resource@DebbiesDream.org

For more information regarding this webinar and other activities, contact:

Debbie's Dream Foundation: Curing Stomach Cancer

www.DebbiesDream.org