Wake Forest University School of Medicine

Atrium Health Levine Cancer

NCI Comprehensive Cancer Center

Breaking Barriers: Bridging Disparities in Clinical Trials for Health Equity

11/4/2023

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Disclosures

Consulting/Honoraria **Sanofi / BMS / Genzyme**

Importance of Clinical Trials & Inclusivity

Disparities in Clinical Trials & Impact

Factors Contributing to Disparities

Addressing the Barriers in Clinical Trials

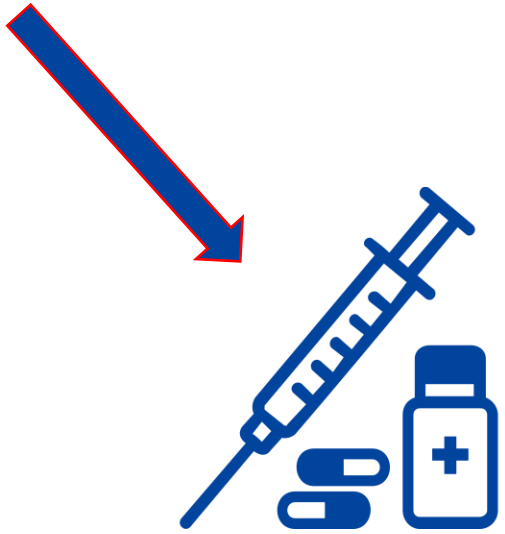
War on Cancer

The 1971 Cancer Act established the first NCI-Designated Cancer Centers

1971 Cancer Act

- Strengthened Cancer Research
- Centralized Leadership
- Expanded Cancer Control Programs
- Established the Cancer Registry (SEER Program)
- Increased Collaboration
- Organized coordination and information gathering

Clinical Trials



Innovation and Discovery

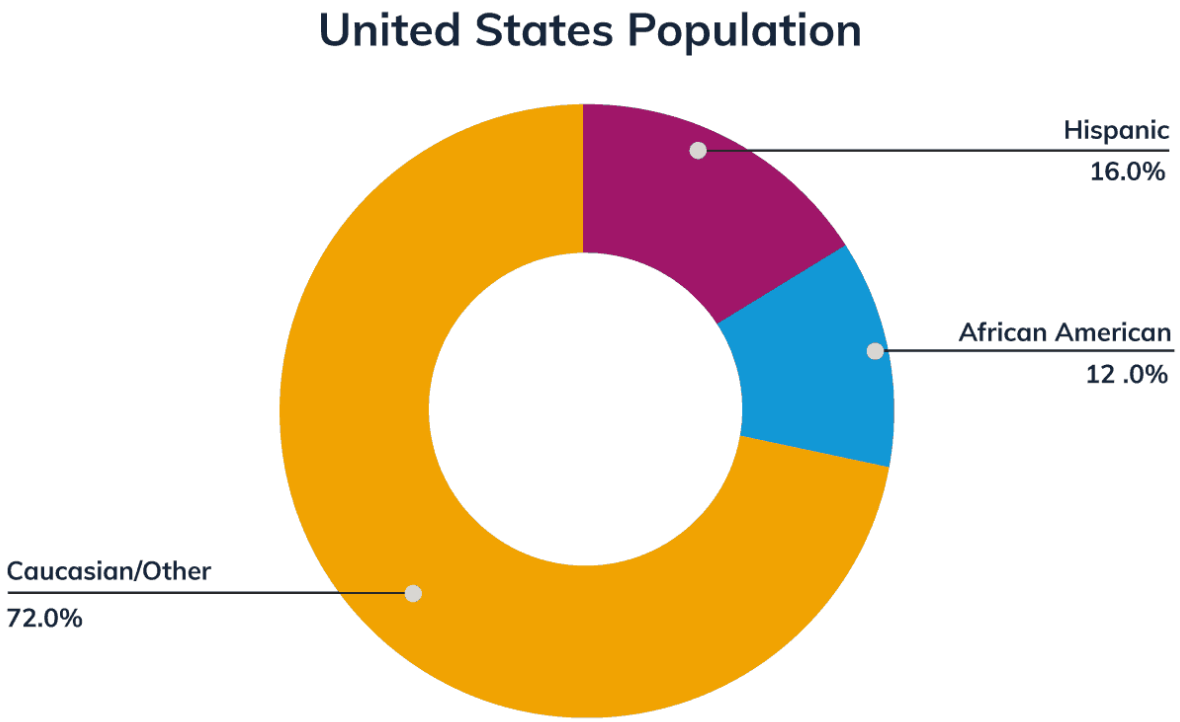
Clinical Trials

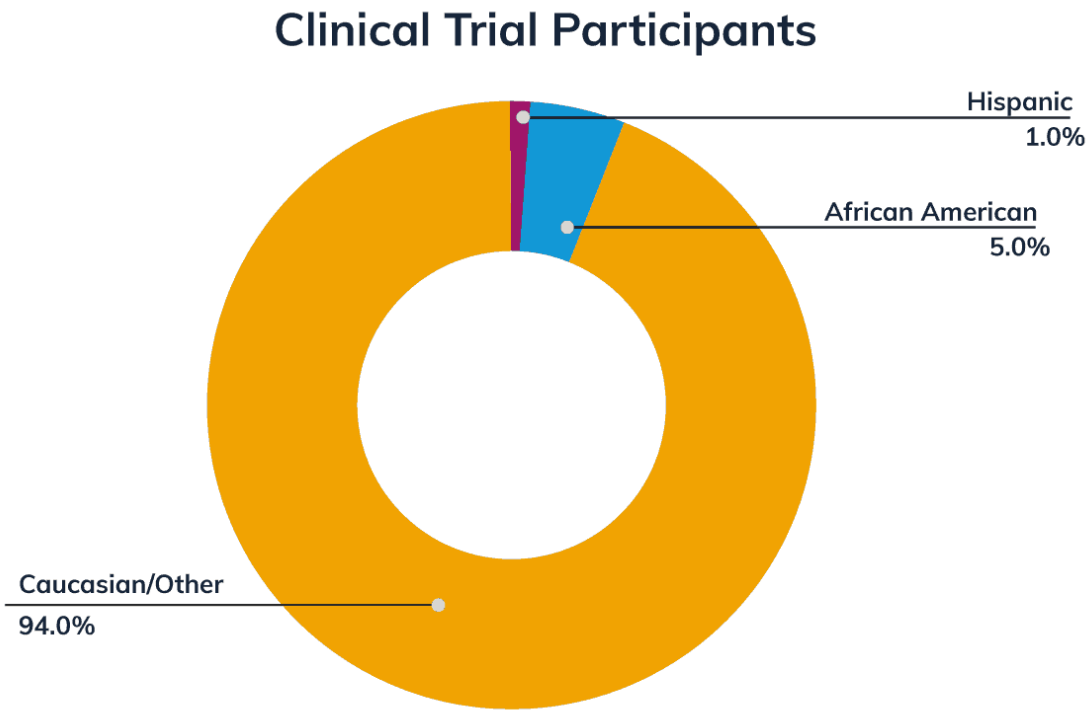
Innovation and Discovery

Clinical Trials that have Improved Cancer Care and Outcomes

- Precision oncology
- Surgical Interventions
- Radiation Therapy
- Immunotherapy

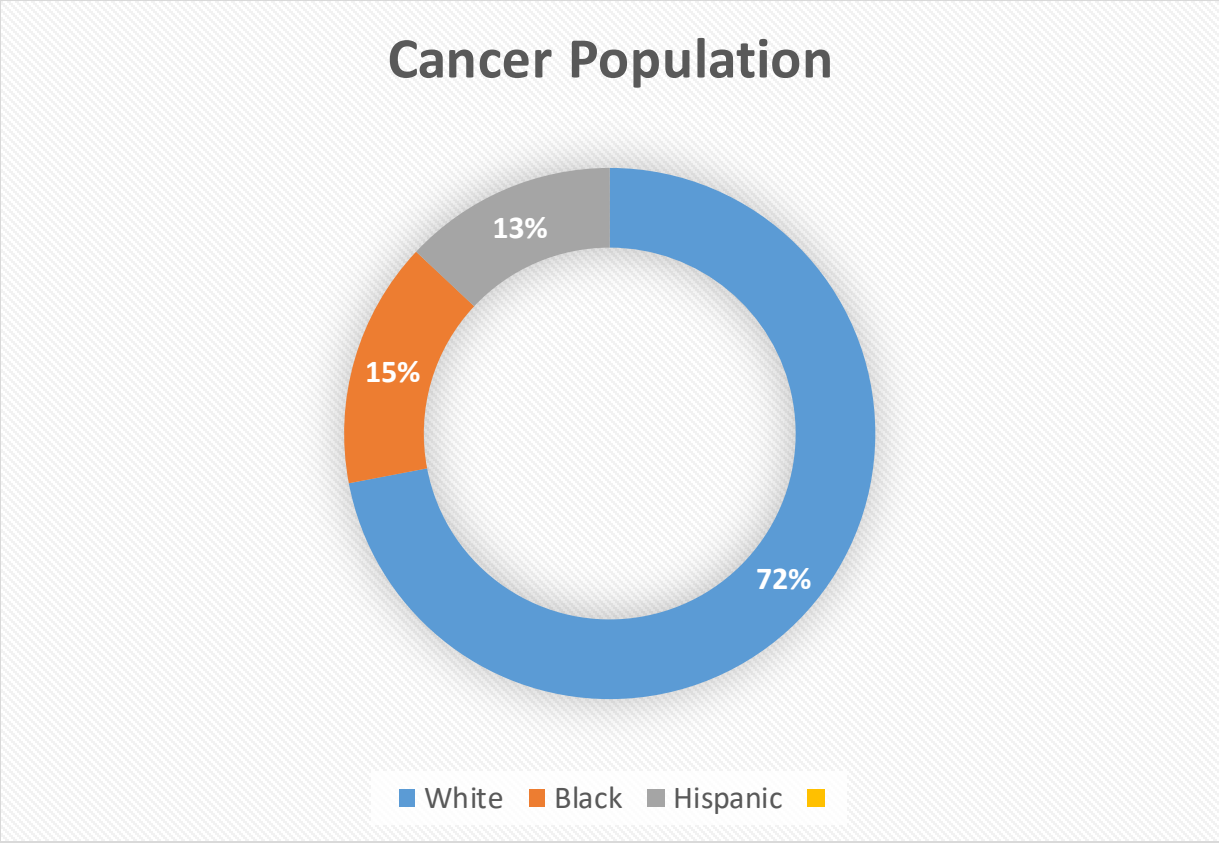
Clinical Trial Representation by Race and Ethnicity

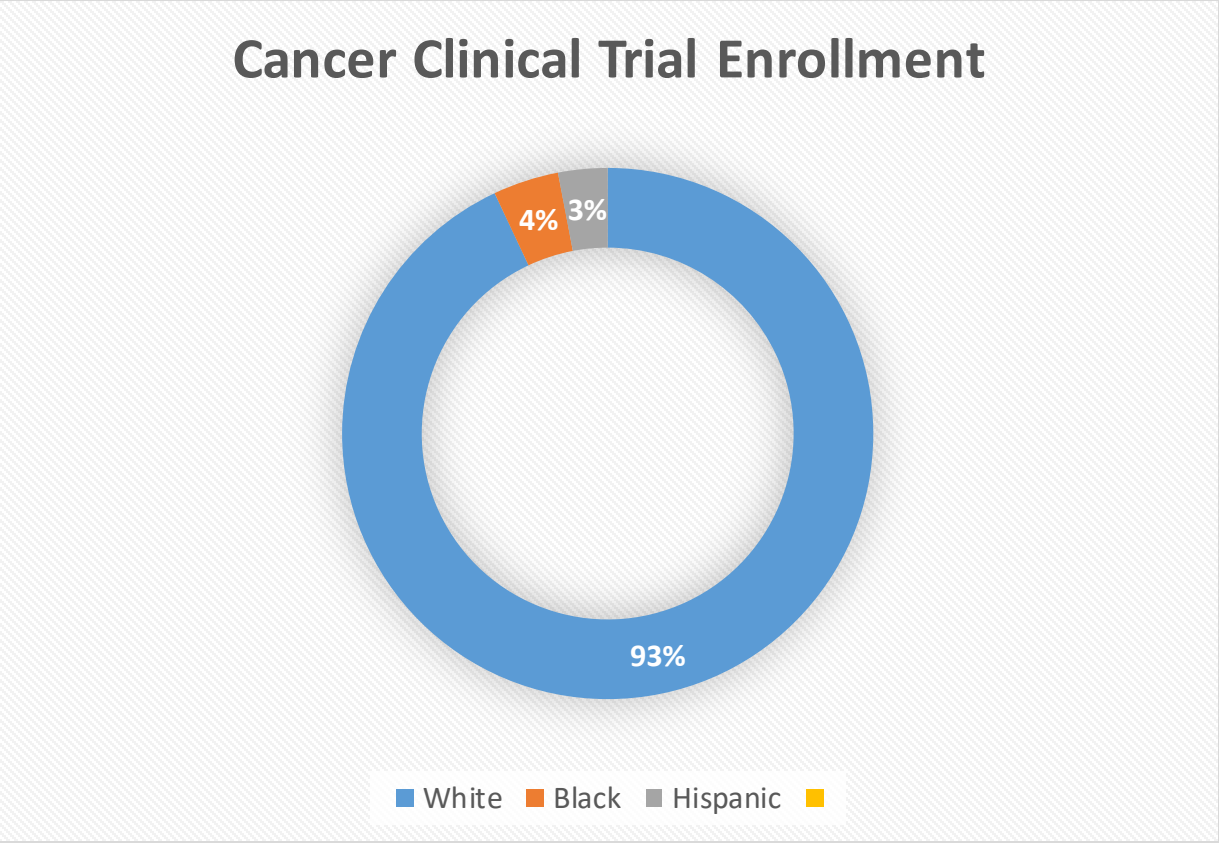




**Sourced from https://www.sciencedirect.com/science/article/pii/S0146280618301889*

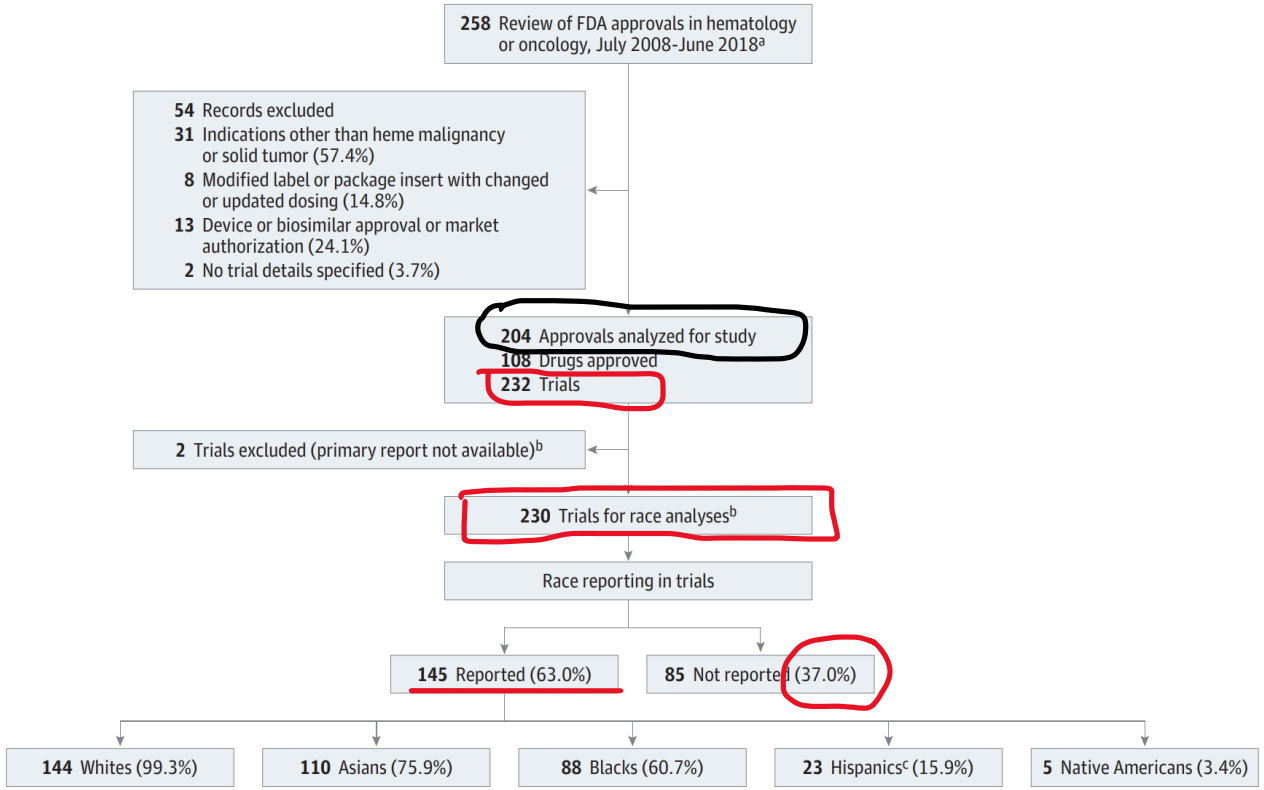
Cancer Therapeutic Trials

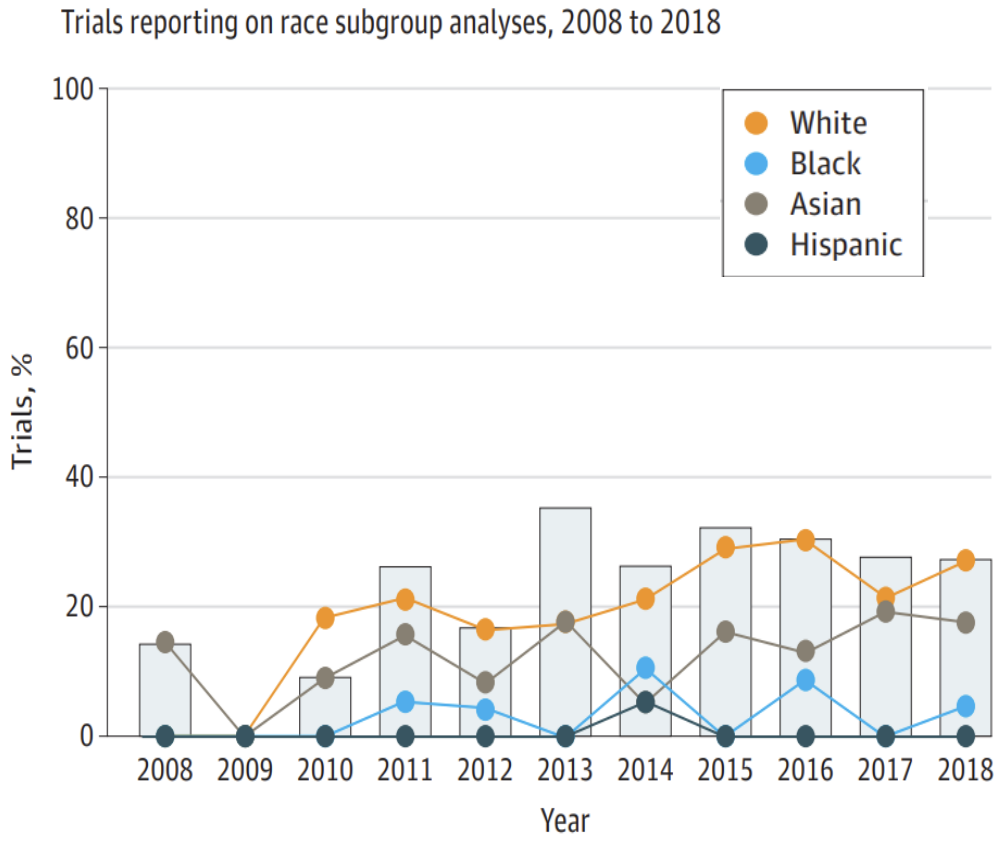




Duma N, et al. JCO Oncol Pract 14: e1-e10, 2018
Unger JM, et al. J Natl Cancer Inst 111:245-255, 2019

Race Reporting



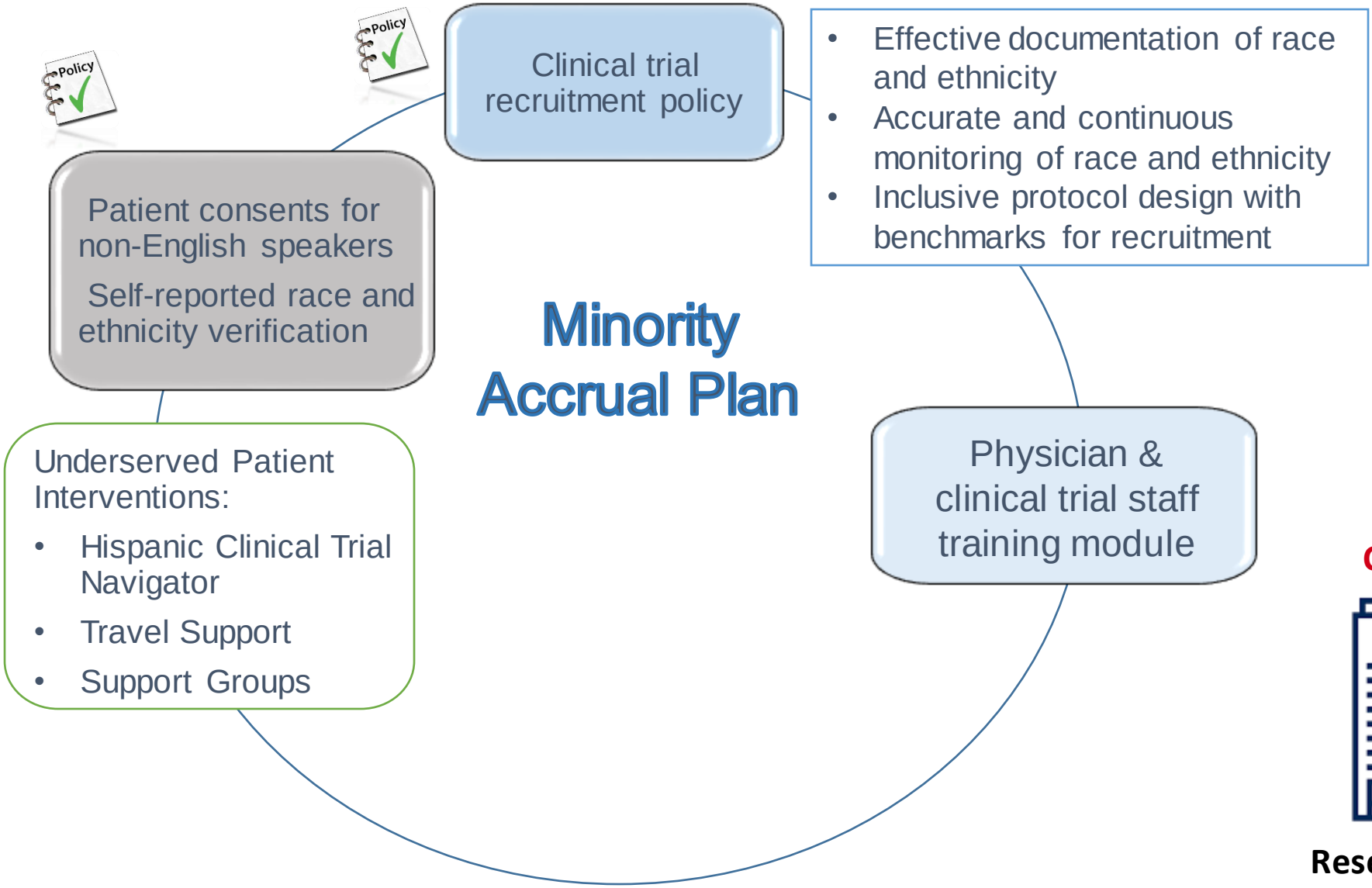


Reporting of race and diversity of race representation was poor in oncology trials that led to FDA oncology drug approvals.

The overall reporting of race and race subgroup analyses remains low even in 2018

Loree JM et al. JAMA Oncol 5:e191870, 2019

Clinical Trial Initiatives



Cancer Center

Research Institutions

Diversity in clinical trials: Why is this important?

- Drug safety and efficacy can vary across demographic sub-groups
- Trials that are less diverse raise questions about the generalizability of results for clinical decision making
- Contribute to persistent racial disparities in cancer outcomes
- Minorities have historically been underrepresented in clinical trials
- Racial/ethnic sub-group populations are growing
  - Black Americans represent 12% of the U.S. population
  - Hispanics make up 16% of the population

Multiple race. 2010 US census. Overview of Race and Hispanic Origin. Feb 15, 2016
FDA. Clinical Trials Light on Minority Health. Feb 17, 2017

Diversity in clinical trials: Why is this important?

- Paucity of information on multi-ethnic patient bases
- Segments of the population are not included in clinical trials and do not meet statistical significance

Question: Possible to determine if the therapy in question will work?

- Pharmacogenetic research in the past few decades has uncovered significant differences among racial and ethnic groups

  - Metabolism
  - Clinical effectiveness
  - Side-effect profiles

Burroughs VJ et al. J Natl Med Assoc. 2002 Oct;94
Pirmohamed, M. *Nat Rev Genet* **24**, 350–362 (2023)

Diversity in clinical trials: Why is this important?

- We are treating patients based on data derived from patients that are not like them
  - Cancer is a leading cause of death for Asian-Americans, but represent less than 3% of clinical trial participants
  - Black men are twice as likely to die from prostate cancer as whites, but represent only 4% of prostate cancer trials
- Diversity gap in clinical trials lead to sub-optimal development of new medicines
- Gap further exacerbate health disparities in outcomes among racial and cultural groups

Burroughs VJ et al. J Natl Med Assoc. 2002 Oct; 94(10 Suppl): 1–26.

Diversity in clinical trials: Why is this important?

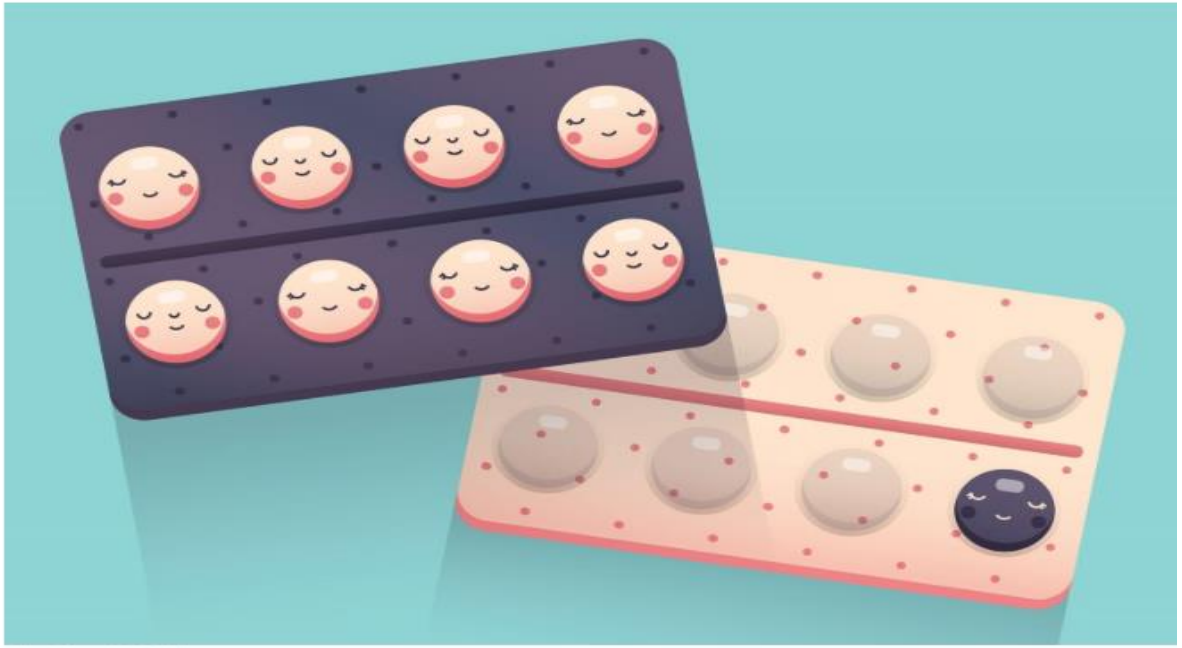
- Only 2 % of cancer studies have sufficient minorities to provide useful information in these populations
- Less than 5% of pulmonary studies have studied enough minorities to provide useful information
- Black patients made up less than 5% of the trials for 24 of the 31 cancer drugs approved since 2015
- Asians only accounted for less than 2 percent of the U.S.-based trials
- Native American participants weren't reported in nearly two-thirds of the trials
- Hispanics have limited involvement in the majority of large treatment studies

Diversifying clinical trials. Nat Med 24, 1779 (2018)

Oh SS, et al. (2015) Diversity in Clinical and Biomedical Research: A Promise Yet to Be Fulfilled. PLoS Med 12(12): e1001918.

Clinical Trials Still Don't Reflect the Diversity of America. Posted December 16, 2015. Available at: http://www.npr.org/sections/health-shots/2015/12/16/459666750

PROPUBLICA TOPICS SERIES NEWS APPS GET INVOLVED IMPACT ABOUT SIGN UP



Chiara Morra for ProPublica

Black Patients Miss Out On Promising Cancer Drugs

A ProPublica analysis found that black people and Native Americans are under-represented in clinical trials of new drugs, even when the treatment is aimed at a type of cancer that disproportionately affects them.

by Caroline Chen and Riley Wong, Sept. 19, 2018, 5 a.m. EDT

This story was co-published with Stat.

It's a promising new drug for multiple myeloma, one of the most savage blood cancers. Called Ninlaro, it can be taken as a pill, sparing patients painful injections or cumbersome IV treatments. In a video sponsored by the manufacturer, Takeda

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Twitter Facebook

"Stark under-representation of Black patients is widespread in clinical trials for cancer drugs, even when the type of cancer disproportionately affects them."

Diversity in clinical trials: Why is this important?

- FDA wrote that *"meaningful differences may exist in multiple myeloma disease biology, presentation, and response to treatment in blacks compared to whites."*
- Black patients make up **20 %** of U.S. multiple myeloma diagnosis and are twice as likely as white Americans to be diagnosed
- Account for **4.5 %** of participants in multiple myeloma trials since 2003.

Bhatnagar V. et al. FDA Analysis of Racial Demographics in Multiple Myeloma Trials. Blood 2017 130:4352;

Diversity in clinical trials: Why is this important?

Impact on Scientific Innovation and Progress

"Population disparities always increase when there is scientific progress"

- Screening & treatment of breast cancer
- Screening & treatment of colorectal cancer

- Now we are seeing it again
  - Precision Medicine (Oncology)
  - Immunotherapy
  - Lung cancer screening

Dr. Otis Brawley

Delayed Medical Advances in Rural and Communities of Color

Unequal Access to Innovative Treatments

Aldrighetti CM, et al. *JAMA Netw Open.* 2021
Gupta, et al. Sci Rep 13, 8190 (2023)
Haddad DN, et al. Ann Am Thorac Soc. 2020

Factors Contributing to Disparities

- Socioeconomic
- Racial and Ethnic
- Geographic
- Barriers to Participation


Clinical Trial Participation
Site selection
Structural barriers
Racism
Medical/psychiatric conditions
Knowledge & attitudes
Social determinants of health
Trial operations
Eligibility criteria
Systematic biases
Other
Discrimination

Barriers to Enrollment into Clinical Trials

Patients

- Mistrust
- Lack of information
  - Comfort with CT process
  - CT awareness
- No local availability
- Trial dose not match disease
- Financial Costs
- Language and/or Communication

- Strict Eligibility
  - Performance status
  - Comorbidities
- Numerous trial visits
- Additional tests

Clinical Trial Protocol

Physicians

- Clinician Biases
- Logistical Reasoning
- Limited Time
- Limited Resources
- Lack of automation

- Trial Locations
- Types of Trials
- Diversity of Research and Support Staff

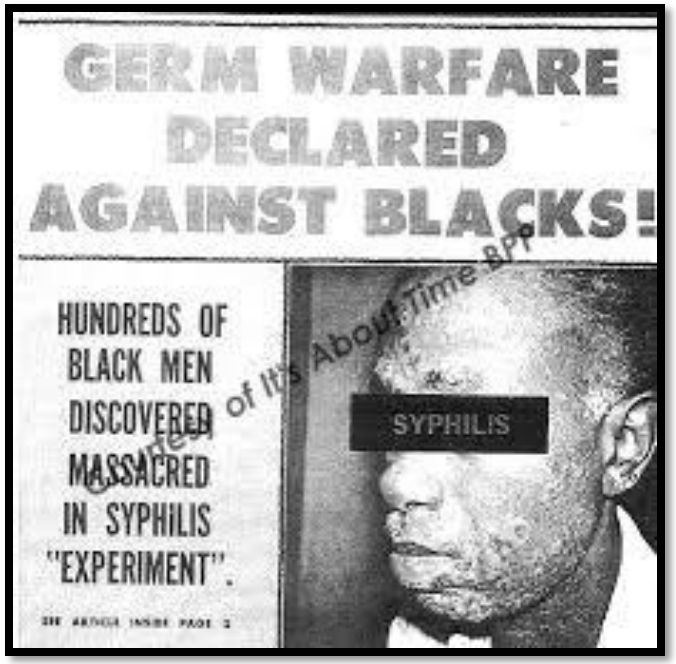
Cancer Center

Research Institutions

Patients

Mistrust

Tuskegee Syphilis study



Patients
Mistrust

Parallels with COVID-19

Los Angeles Times

CALIFORNIA

California fails to protect Latino workers as coronavirus ravages communities of color

INSIDER

Black and brown people make up two-thirds of US coronavirus deaths below age 65, a new study found

Aria Bendix Jul 11, 2020, 8:51 AM

The San Diego Union-Tribune

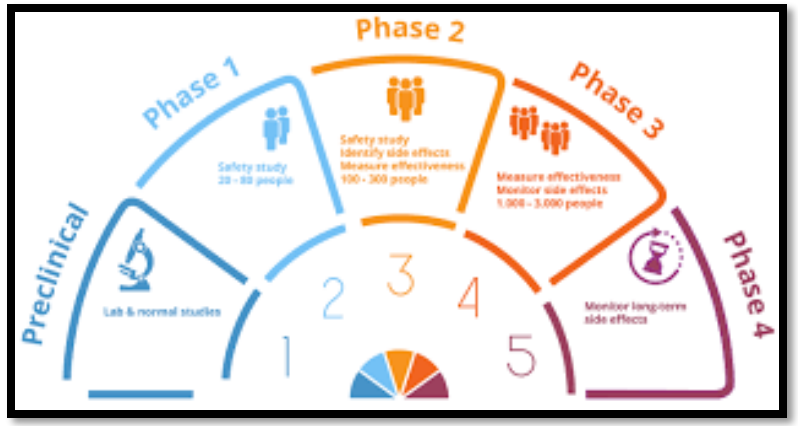
Subscribe
$4 for 4

San Diego Blacks and Latinos most likely to lose jobs and live in COVID hot spots, data shows

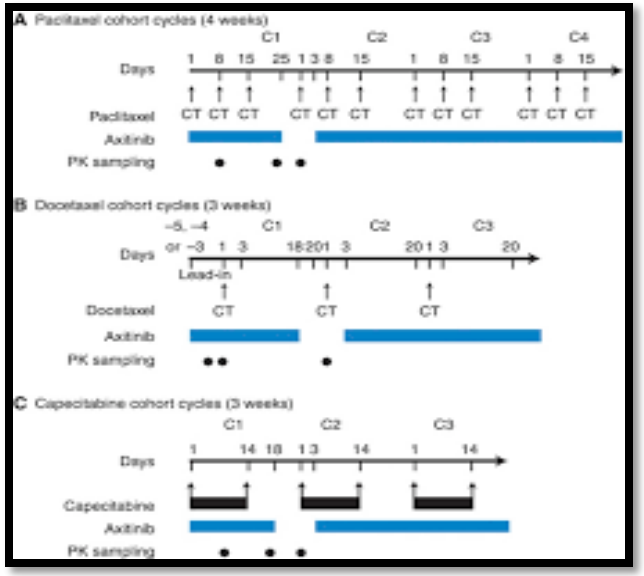
Patients

Language and/or Communication

Meaning of “Trial”



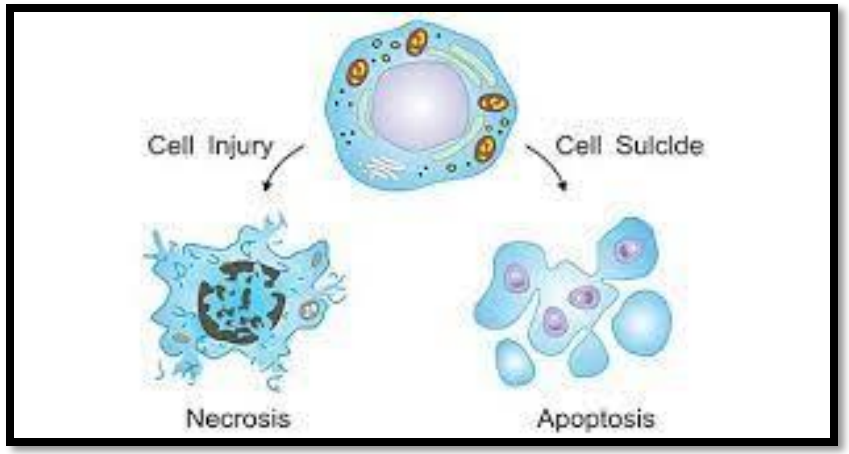
Meaning of Treatment “Cycle”



Patients

Language and/or Communication

Meaning of "Cell"



Meaning of "Study or Experiment"

Addressing Disparities in Clinical Trials

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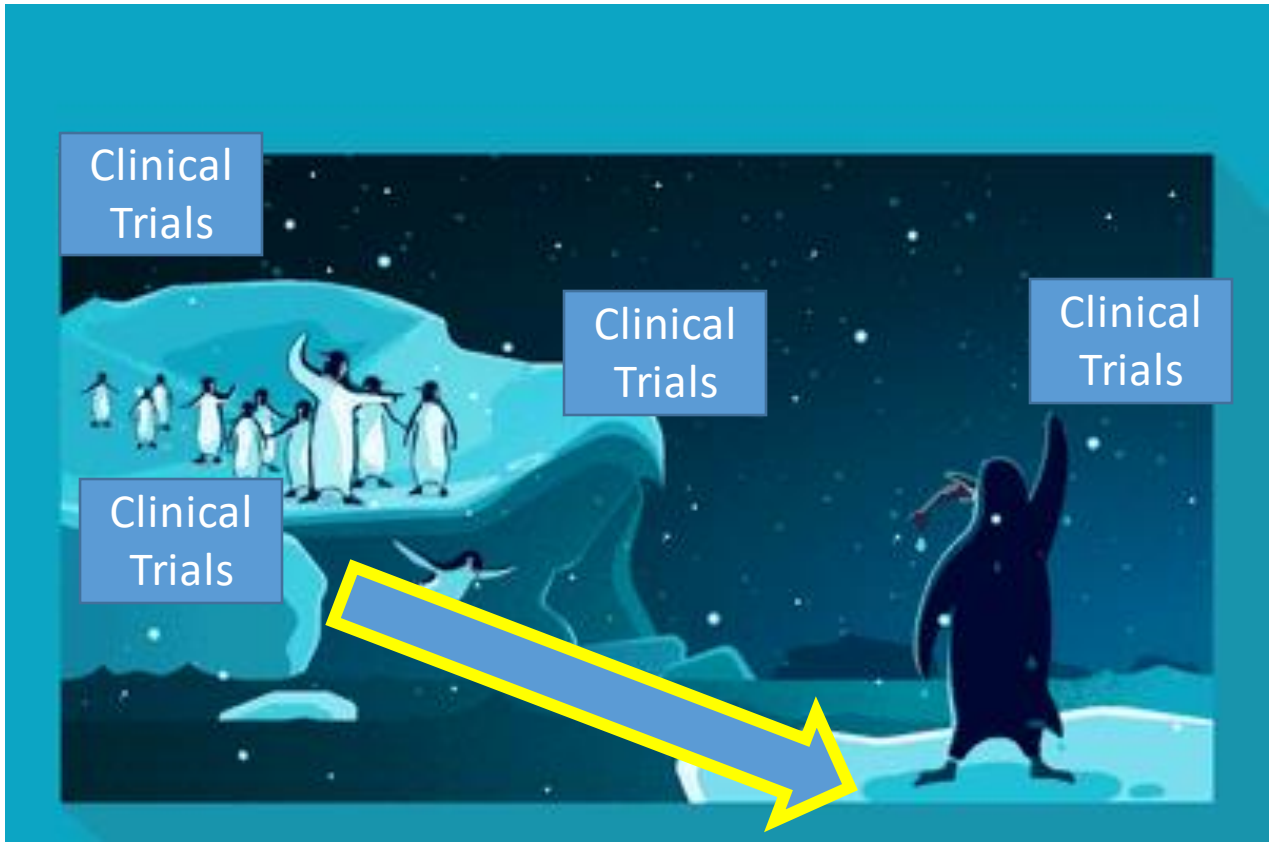
- Trial Locations
- Types of Trials
- Diversity of Research and Support Staff
- Accountability

Cancer Center

Research Institutions

Addressing Disparities in Clinical Trials

- Distance
- Centralized Approach to Clinical Trials



Addressing Disparities in Clinical Trials

CATCH-UP.2020 Overview
(*Create Access to Targeted Cancer Therapy for Underserved Populations)*

- **AIMS:**
  - **Offer and enroll patients to Experimental Therapeutics Clinical Trials Network Studies**
  - **Specific goals**
    - **24 patients**
    - **12 from underserved populations**
  - **Focus on minority/underserved populations (includes rural populations)**
  - **Develop earlier career faculty**

Addressing Disparities in Clinical Trials

Experimental Therapeutics Clinical Trial Network (ETCTN)

CTEP
(Clinical Trials Evaluation Program)

ETCTN
Phase I/II
Investigational Drug Branch

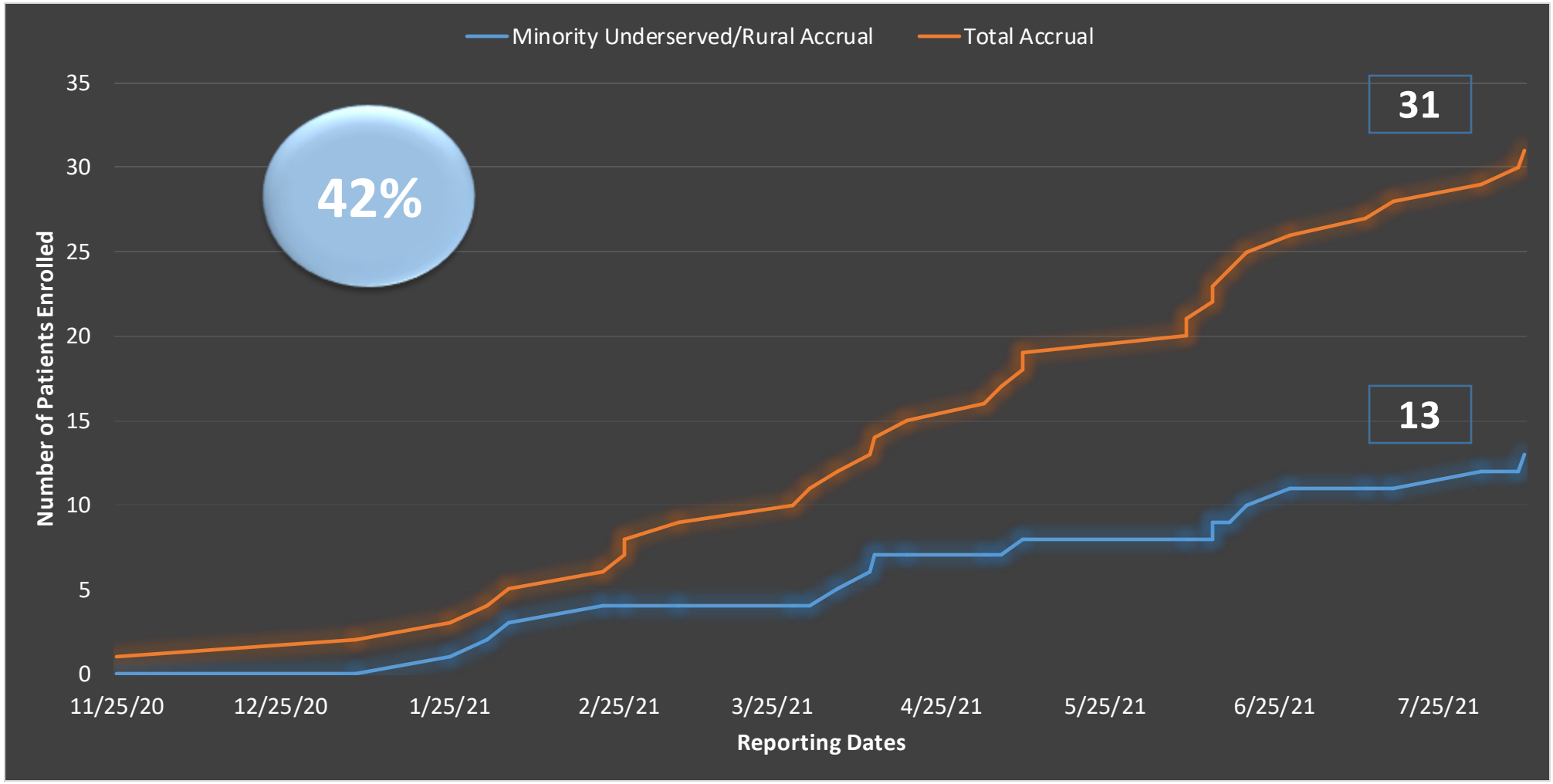
NCTN
Phase III
Clinical Investigations Branch

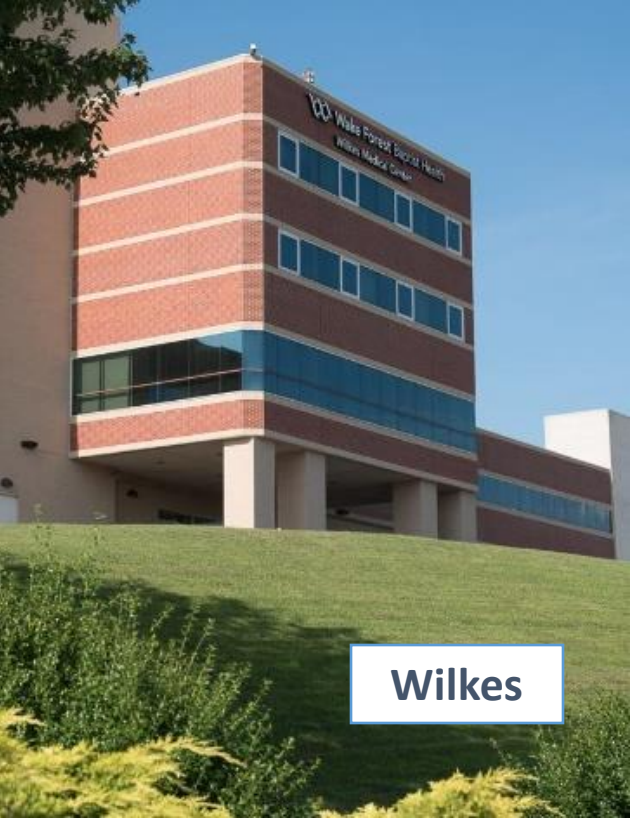
WFBCC: CATCH-UP.2020 Activation

- WFBCCC has opened 19 ETCTN trials
  - Activated in 3 waves
  - Average time to opening ***44 days***
  - 5 trials opened by mid-December

- First patient on study: November 25, 2020

WFBCCC: CATCH-UP ACCRUAL





and beyond. .

CATCH-UP.2020: Expanding network accrual tools

- ETCTN trials open at Clemmons, Wilkes, and Statesville
- Co-management of trial patients with outreach providers (10302)
- On-going:
  - Population Health Navigation
  - Weekly Newsletter to Outreach sites and local providers
  - Schedule “screening” of Outreach Clinics
  - Systematic identification with Wake Forest Precision Oncology Initiative

What about the VA? *https://www.census.gov*

- 17 percent are women
- 15.3 percent are black
- 12.1 percent are Hispanic
- Almost half (47.6%) are still under the age of 35

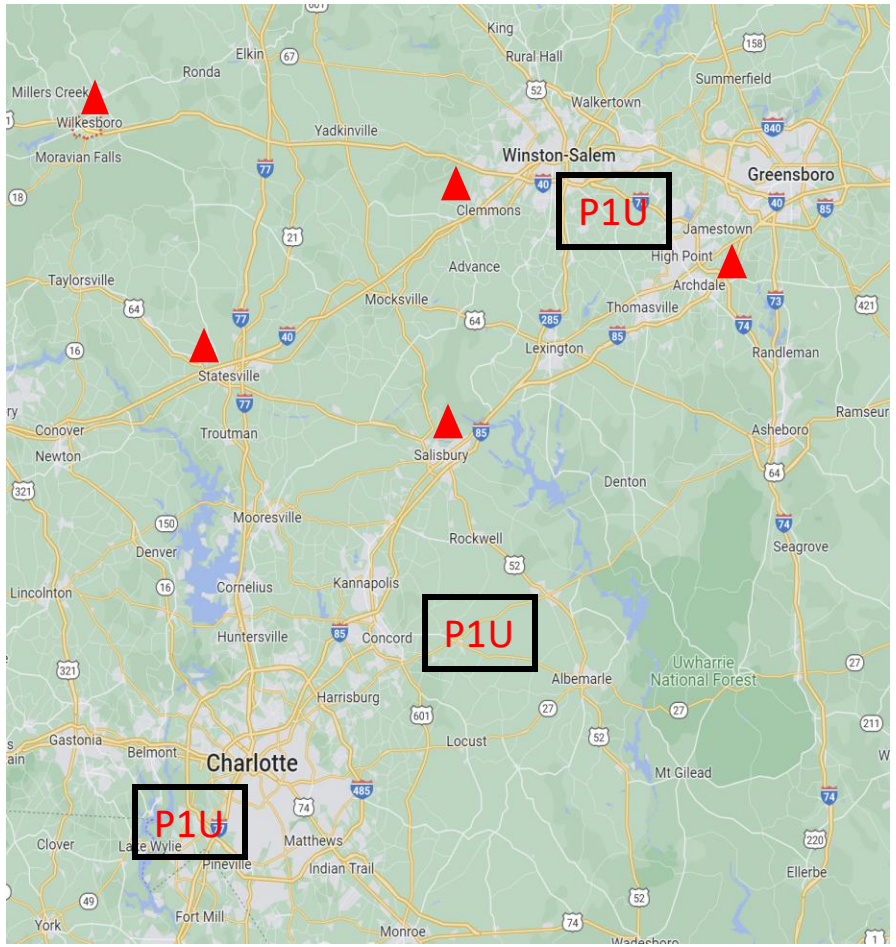
ETCTN

Experimental Therapeutics Clinical Trials Network

Team Driven. Cancer Therapy Focused.

National Cancer Institute at the National Institutes of Health

Accrual to early phase trials and expanded access to this therapeutic option for underserved populations



Atrium Health Levine Cancer

Phase 1 Unit

Charlotte

Phase 1 Unit

Winston-Salem

Phase 1 Unit

Concord

Addressing Disparities in Clinical Trials

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Cancer Center

Research Institutions

Patient Health Navigators

Population Health Navigators included in:

- Research team meetings
- Patient workflow both at Main Campus and Outreach sites

Alexis Daniels, MS

African-American Patient Navigator

aadaniel@wakehealth.edu

Maria Combs, JD, OPN-CG

Hispanic Patient Navigator

marcombs@wakehealth.edu

Emily Copus, MSW, OPN-CG

Rural Patient Navigator

eabritt@wakehealth.edu

Patients

Lack of information: Provide comfort with CT process through education, provide CT awareness, pull resources for financial costs, and provide the needed cultural touch (diversity of research staff).

Epic | Dragon | Home | In Basket | Patient Station | Chart | Today's Pts | Remind Me | Culture Vision | RL6 | Handwashing | AUTH RPT | Print | JIMMY R. | Beacon

Oncology Clinical Trials

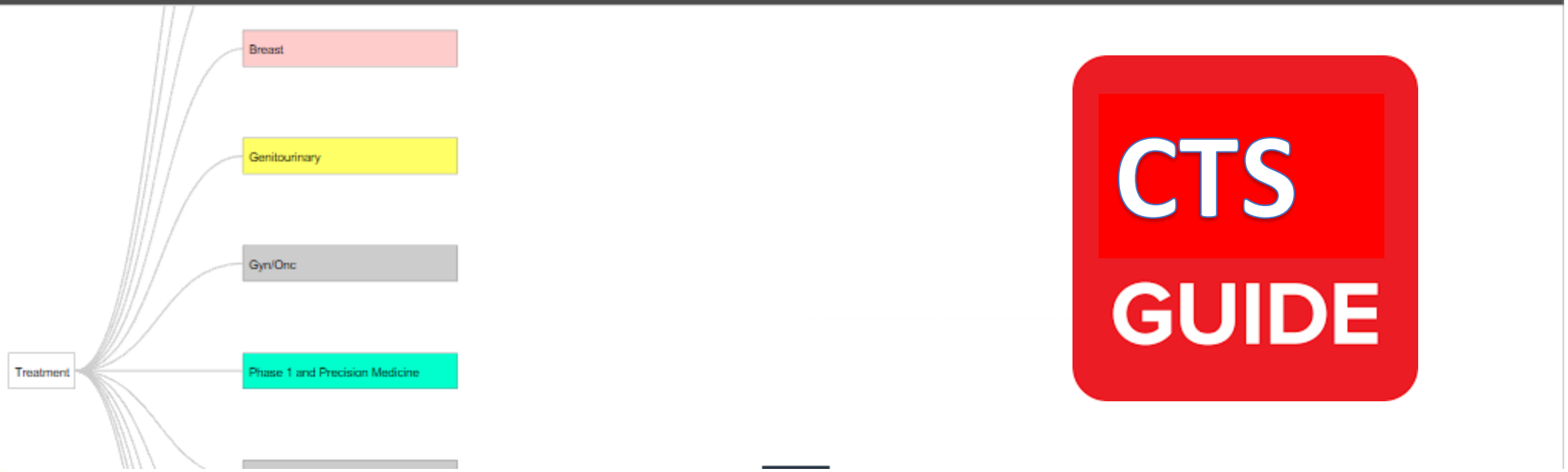
CTSGUIDE: Clinical Trial Selector GUIDE

Wake Forest Baptist Health | School of Medicine | Innovations | Explore Our System

Wake Forest® Baptist Health

This site is intended for health care providers to identify open clinical trials. If you are a patient or a member of the community, please visit BeInvolved for clinical trial information and search options.

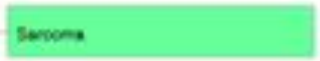
Treatment | Interventional | Non-Interventional | Search | How to



CTS GUIDE

Physicians

Address Limited Time and Lack of automation



IRB Number: IRB00053194
OnCore No: CTSUEA6134
NCT Number: NCT02224781
Title: A Randomized Phase III trial of Dabrafenib + Trametinib followed by Ipilimumab + Nivolumab at Progression vs. Ipilimumab + Nivolumab followed by Dabrafenib + Trametinib at Progression in Patients With Advanced BRAFV600 Mutant Melanoma
Therapeutic Level: interventional

Email

Principal Investigator

Pierre Triozzi
ptriozzi@wakehealth.edu

Study Contact

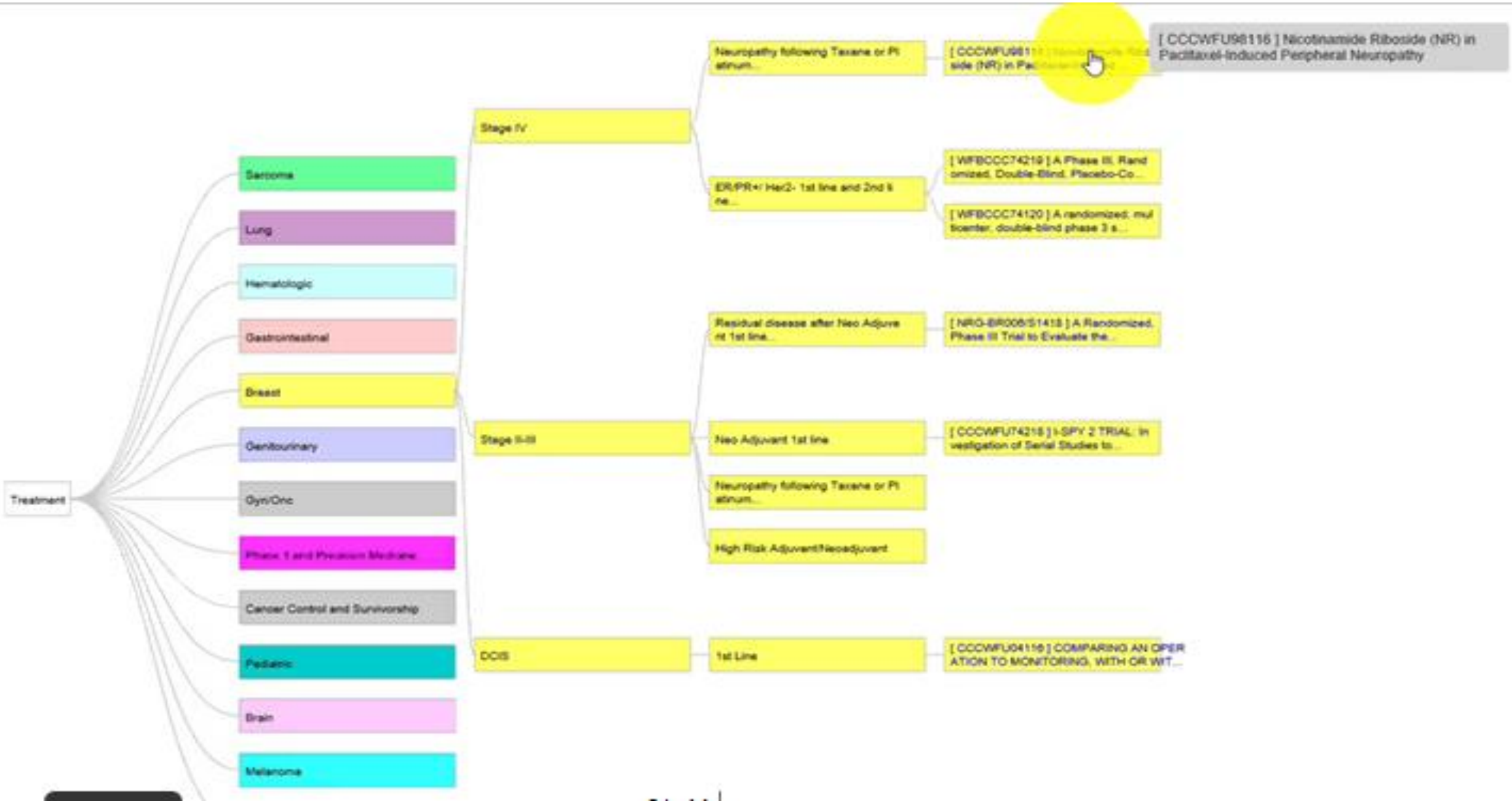
Angela Howell anhowell@wakehealth.edu
Rebecca Dellinger-Johnston radellin@wakehealth.edu
Matthew Eber meber@wakehealth.edu

Co-Investigator(s)

Treatment

Description

Primary Objective
To determine whether initial treatment with either combination ipilimumab + nivolumab (with subsequent dabrafenib in combination with trametinib) or dabrafenib in combination with trametinib (with subsequent ipilimumab + nivolumab) significantly improves 2 year overall survival (OS) in patients with unresectable stage III or stage IV BRAFV600 mutant melanoma
2.2 Secondary Clinical Objectives
2.2.1 To evaluate the impact of initial treatment on median OS and Hazard Ratio for death.
2.2.2 To determine whether initial treatment choice significantly improves 3 year OS.
2.2.3 To evaluate the anti-tumor activities (RECIST-defined response rate, median PFS) and safety profiles of ipilimumab + nivolumab and dabrafenib-trametinib in a Cooperative Group trial of patients with V600 mutant melanoma.
To evaluate the activity (RECIST-defined response rate, median PFS) and safety of dabrafenib + trametinib in patients who have had disease progression on ipilimumab + nivolumab and in comparison to its activity and safety in ipilimumab + nivolumab naive patients.


Treatment
Sarcoma
Lung
Hematologic
Gastrointestinal
Breast
Genitourinary
Gyn/Onc
Cancer Control and Survivorship
Pediatric
Brain
Melanoma
Stage IV
Neuropathy following Taxane or Pl atinum...
[CCCWFU98116] Nicotinamide Riboside (NR) in Paclitaxel-Induced Peripheral Neuropathy
ER/PR+/ Her2- 1st line and 2nd li ne...
[WFBCCC74219] A Phase III, Rand omized, Double-Blind, Placebo-Co...
[WFBCCC74120] A randomized, mul ticenter, double-blind phase 3 s...
Stage II-III
Residual disease after Neo Adjuva nt 1st line...
[NRG-BR006/S1418] A Randomized, Phase III Trial to Evaluate the...
Neo Adjuvant 1st line
[CCCWFU74218] I-SPY 2 TRIAL: In vestigation of Serial Studies to...
Neuropathy following Taxane or Pl atinum...
High Risk Adjuvant/Neoadjuvant
DCIS
1st Line
[CCCWFU04116] COMPARING AN OPER ATION TO MONITORING, WITH OR WIT...

IRB Number: IRB00053194
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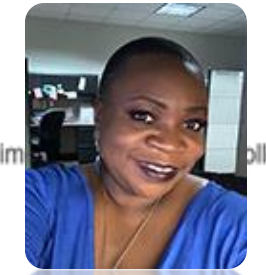
Therapeutic Level: interventional

Email Sent to Patient Health Navigator



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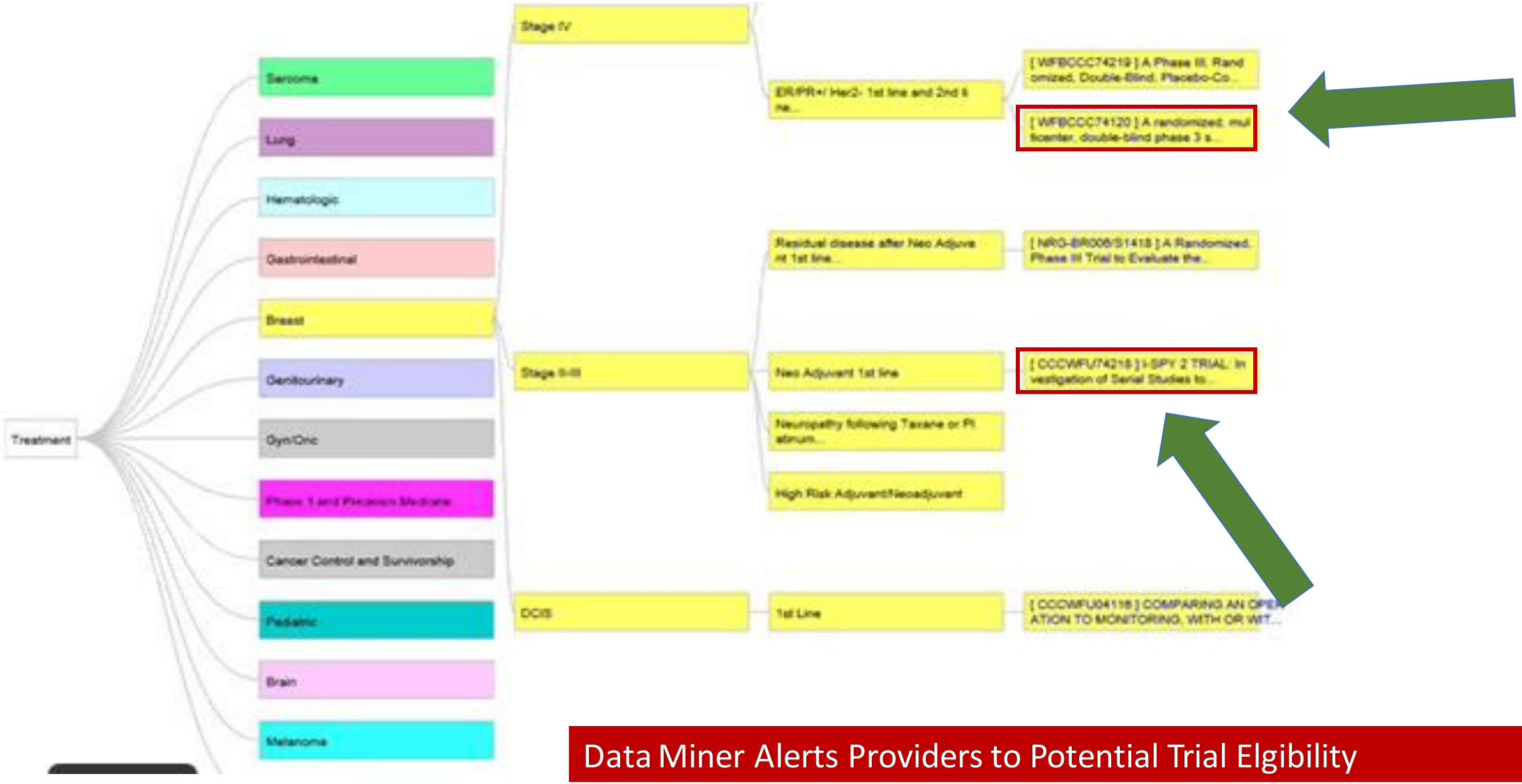
Email Sent to Study Coordinator Pool

Automation is KEY !



Data Miner Alerts Providers to Potential Trial Elgibility

Addressing Disparities in Clinical Trials

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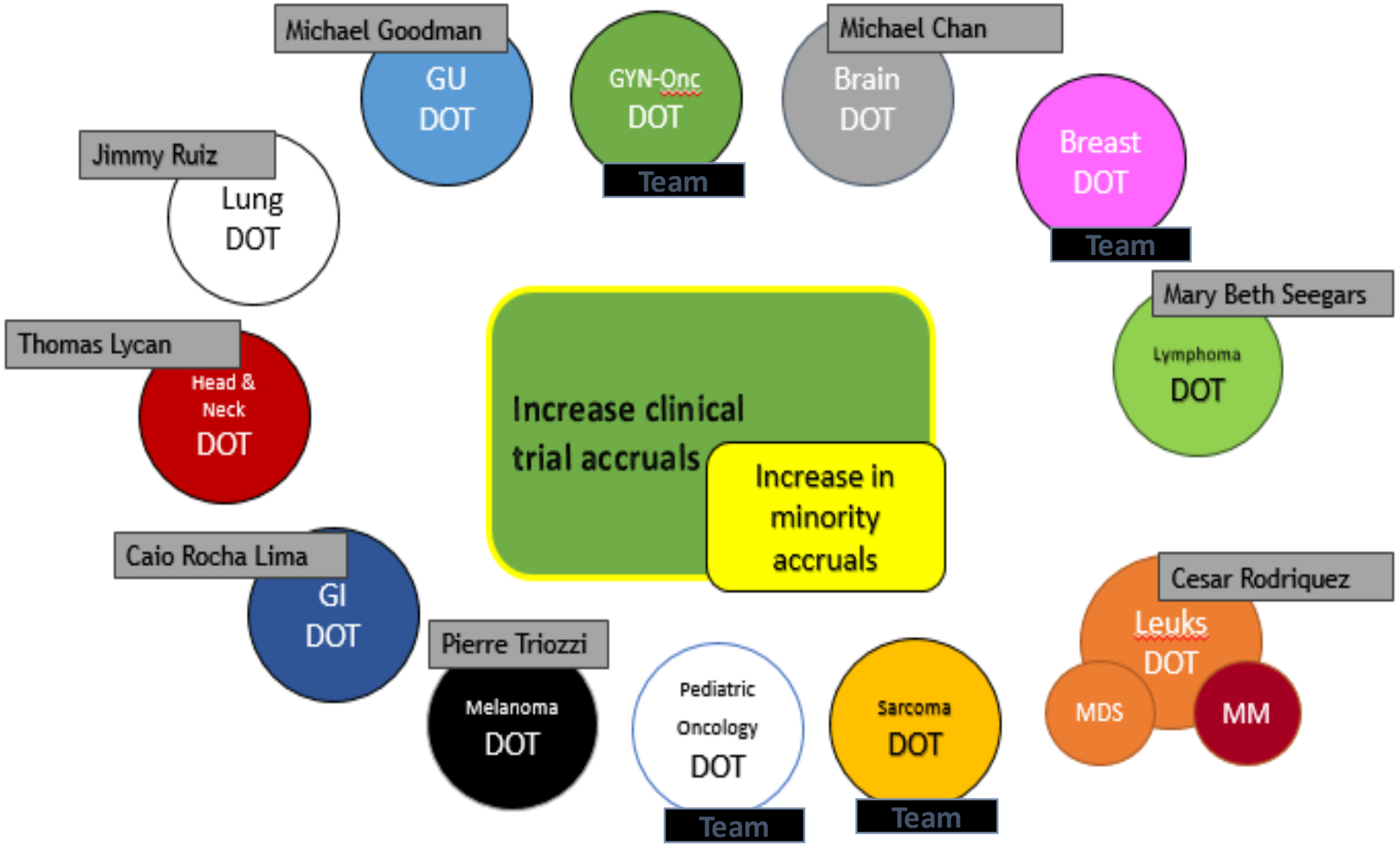
Cancer Center

Research Institutions



- Review clinical trial accruals
- Expectations for minority, women, and rural enrolled subjects
- Barriers to enrollment

Cancer Center

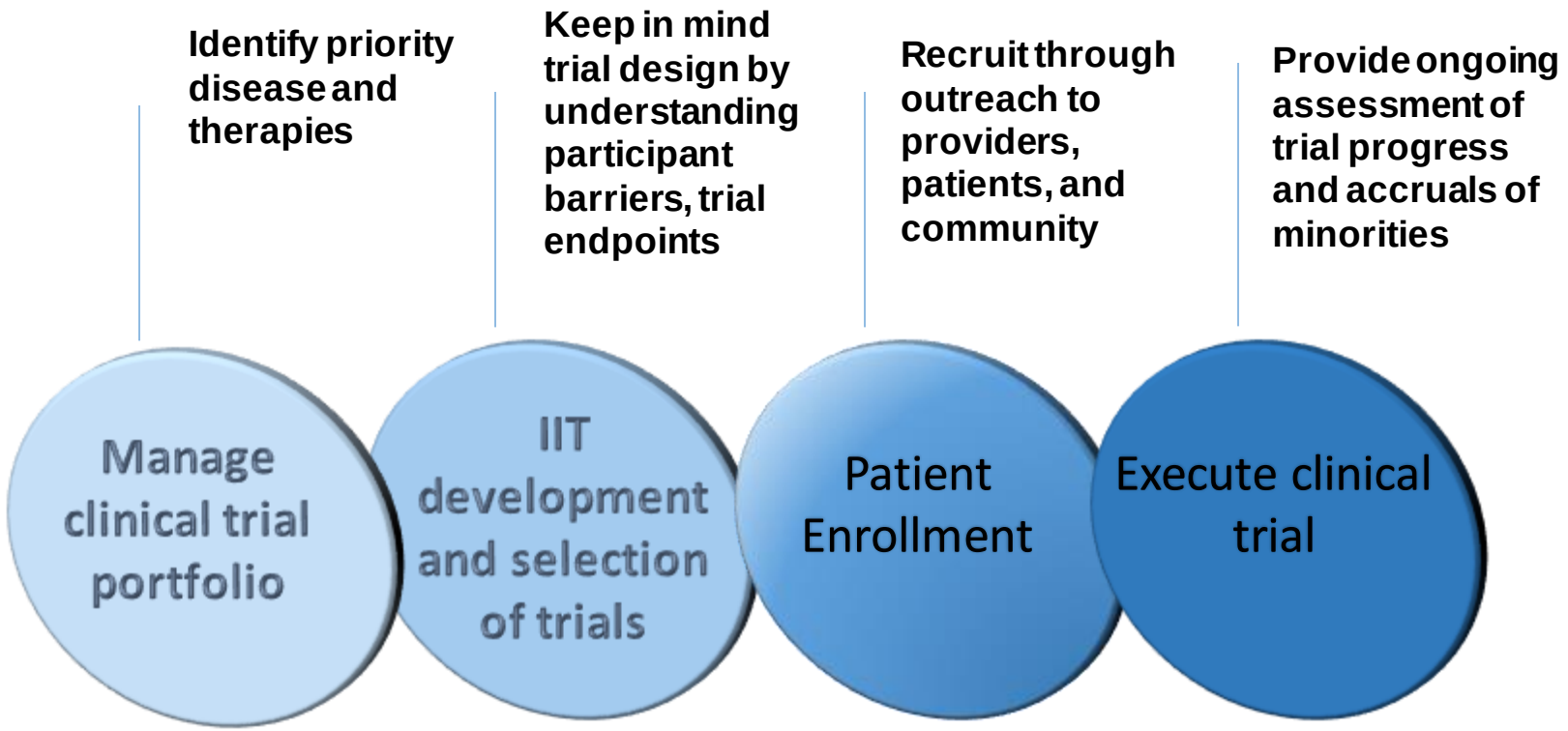
Research Institutions

DOT - Champion for Diversity

- One member of DOT assigned to role of Champion for Diversity (CD)
- Each DOT CD invited to participate in the OCHE Advisory Group
- Dr. Micheal Chan

Neuro-Onc DOT
Champion for Diversity

DOT - Champion for Diversity



- Improve completeness and quality of subgroup data collection, reporting, and analysis
- Make demographic subgroup data more available and transparent
- Identify barriers to subgroup enrollment in clinical trials and employ strategies to encourage greater participation


Office of Cancer Health Equity
Cancer can affect anyone, at any time. We believe that everyone should have an equal chance of surviving cancer.

Collaborating in the Hispanic Community

The Office of Cancer Health Equity partners with Cancer Services, Inc. to support the Hispanic community. Maria Combs, our Hispanic Patient Navigator, works closely with Gloria Galeano Hall, bilingual Patient Advocate at Cancer Services. They attend Hispanic community outreach events and serve as facilitators of the Hispanic cancer support group as well as the Cancer Transitions survivorship program.

Gloria Galeano Hall and the entire Hispanic Support Group

Dr. Jimmy Ruiz, Assistant Director of OCHE, leading the discussion at Cancer Transitions.

Goals for improved access and minority enrollment to clinical trials

- CTs are accessible, affordable, and equitable for patients
- Design efficient CTs that are integrated into clinical care
- Simplify, streamline, and standardized protocol requirements
- Recruit, retain, and support a well-trained diverse clinical trial team
- Institute oversight and review clinical trial results


QUESTIONS