Overview of Clinical Research and the Clinical Trials Infrastructure

Howard S. Hochster, MD April 26, 2023

RUTGERS

Cancer Institute of New Jersey
RUTGERS HEALTH











Associate Director for Clinical Research



Howard S. Hochster, MD

Associate Director for Clinical Research

Director of Oncology Research, RWJBarnabas Health

Distinguished Professor of Medicine, Rutgers RWJMS

Mission

Conduct state-of-the-art trials:

- Translating CINJ science
- Creating new standards of care

Deliver these state-of-the-art trials to the people of New Jersey

Train and mentor new generations of clinical investigators



Unify clinical trial operations at Rutgers and the RWJBH system to facilitate the conduct of clinical trials (institutional and multicenter) within the State of New Jersey

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- Promote and simplify access to and implementation of clinical trials to increase accrual and engagement at RWJBH sites.
- Work with Community Outreach and Engagement (COE) to foster interventional accruals from underrepresented populations within our catchment area.
- Train and mentor faculty, fellows, and staff on the conduct of clinical cancer research, with particular attention on investigator-initiated trials (IITs)

Clinical Research Leadership

CPDM (OHRS)

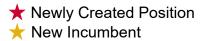
•	- /	
	Associate Director for Clinical Research	Howard Hochster, MD
	Associate Director for Translational Research	Shridar Ganesan, MD, PhD
	Medical Co-Director OHRS (CPDM) ★	Biren Saraiya, MD
	Medical Co-Director OHRS (CPDM) ★	Neil Palmisiano, MD
9	OHRS (CPDM) Executive Director	Tracie Saunders, RN, MS
	Director, System Research Operations ★	Renee Kurz, RN, DNP

PRMS (SRB)

Scientific Review Board (PRMS) Chair ★	Salma Jabbour, MD
Scientific Review Board (PRMS) Chair ★	Neil Palmisiano, MD

DSMC (HROC)

Human Research Oversight Committee (DSM) Chair	Dirk Moore, PhD
Human Research Oversight Committee (DSM) Chair ★	Patrick Boland, MD



Disease Specific Group Leaders

	Breast Cancer	Deborah Toppmeyer
1	Cancer Prevention ★	Katie Devine
	Cellular Therapies ★	Christian Hinrichs
	Gastrointestinal Cancers	Howard Hochster
	Genitourinary Cancers	Biren Saraiya
	Gynecologic Malignancies	Aliza Leiser
	Hematologic Malignancies	Matthew Matasar

Lung and SCCHN Cancers	Missak Haigentz
Melanoma/Sarcoma	Sarah Weiss
Neuro-Oncology	Michael Salacz
Pediatric Oncology	Peter Cole
Phase I	Sanjay Goel
Precision Medicine	Shridar Ganesan
Radiation Oncology ★	Salma Jabbour





Response to Prior Critique

CPDM - Exceptional to Outstanding

- Dramatic increase in enrollment
- DSG-based review
- Robust educational program
- Rapid activation process
- Increased breadth and depth of services

PRMS - Acceptable

- Leadership noted as a strength
- Robust portfolio noted as a strength
- Infrastructure/processes noted as strengths
- Addressed low quorum requirement

DSM - Acceptable

- External DSMC noted as a strength
- Structure for Adverse Event review noted as a strength
- Overlap with CPDM addressed

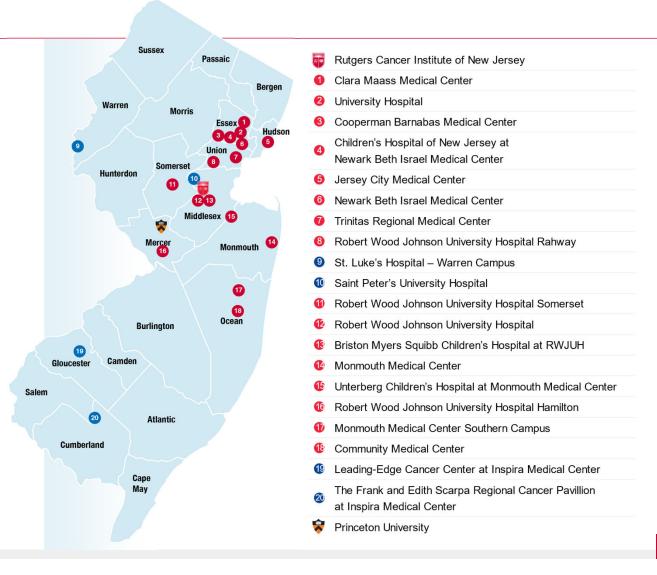
Women, Children, Minorities - Acceptable

 Strong record of enrolling women (greater than 50% for treatment and non-treatment trials)

Unified Clinical Trial Infrastructure Across CINJ System

CINJ System

- 12 adult hospitals across NJ
- One Oncology Service Line
- Clinical trials open and actively accruing at 10 (RWJBH) and 2 (CINJ) sites
- All System Sites with open trials
- New Affiliates



Unified Clinical Trials Infrastructure

Our Vision (2018)





One IRB



One Contract/Budget process



One EMR



One CTMS



One Pharmacy



One Clinical Trials and Quality Assurance Office

Unified Clinical Trials Infrastructure

Our Concept:

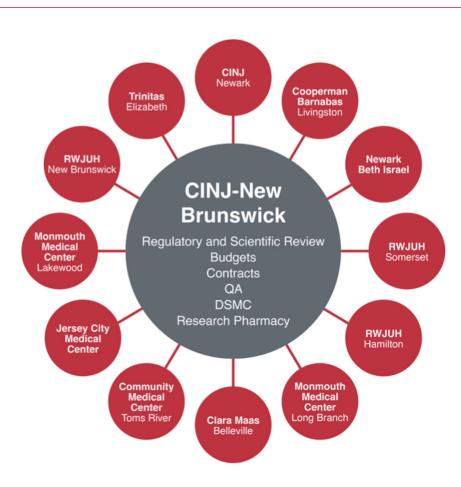
Centralized

- Operations
- Data Management



Sites Contribute

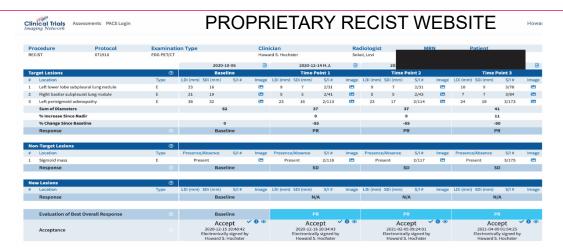
- Ideas
- Protocols
- Principal Investigators
- Patient Enrollment Data Management



Innovations in Clinical Trials Infrastructure

Creating a Single Research Operation

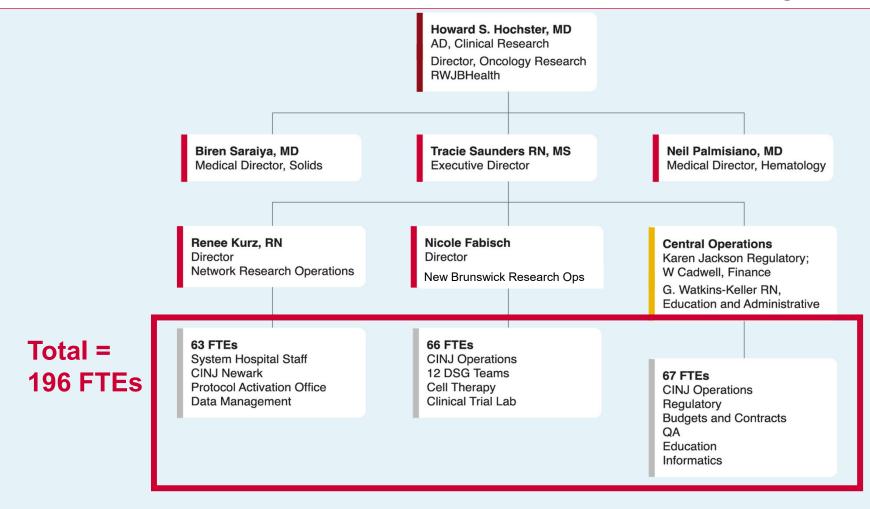
- Statewide Research Office established and staffed to manage trials at RWJBH sites
- OnCore® Everywhere
- Consolidated CTSU family (all NJ066) single system-wide PI per protocol
- Legal: Master IRB and Clinical Trials Agreements signed
- Investigational Pharmacy management (Vestigo)
- Clinical Trial Lab (jointly with BRHS)
- Revised all SOPs to cover Oncology Service Line integrated model
- Tools: Intranet Website; => Real time, web-based RECIST (and other) readings



Engaging Physicians and Staff

- Monthly research/staffing meetings and monthly accrual updates
- DSG based participation for patient monitoring
- Virtual DSG meetings
- Monthly Nursing/Staff Collaborative meetings
- Protocol Activation Office unified SIVs across system

Office of Human Research Services (CPDM): Organization

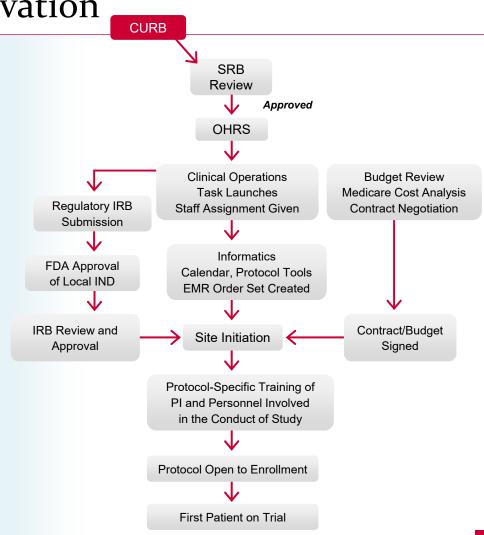


■ Major Improvement in Trial Activation

Activation Metrics

DAYS	(I	MED	IAN)

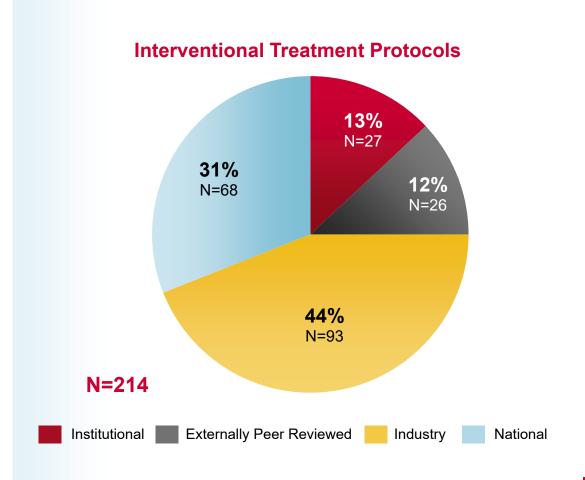
Metric	2018	2020	2021	2022	Improve- ment*
IRB Submission to IRB Approval	45	18	30	21	30%
Contract Turnaround	Not Tracked	86	80	60	25%
Budget Turnaround	Not Tracked	79	86	60	30%
SRB Submission to Open to Accrual	136	152	167	72	232%



^{*} improvement 2022 vs 2021 with Protocol Activation Office

Clinical Trial Portfolio 2022





CPDM Supports Investigator Initiated Trials and Education

RFA for Investigator Initiated Trials: November 2021

- Criteria: science, feasibility, system applicability, catchment area responsiveness
- 6 studies funded and CINJ sponsored (breast, GI, lung, H&N, RT)
- RFA issued again December 2022
 - Funded 2 trials with 3 more under revision

- Fellow and junior faculty education
 - Working together with CRTEC
 - Twice monthly <u>Research In Progress</u> seminars
 - Clinical Trials Course (offered yearly)
 - One-to-one mentoring research projects and protocol development
 - Fellow programs ASCO, FDA, Vail course



Investigator-Initiated Treatment Trials

Surgical Oncology

6 Investigator-Initiated Trials

- Ghodoussipour (4) GU
- Imanguli H&N Cancer
- Alexander GI cancer

Radiation Oncology

13 Investigator-Initiated Trials

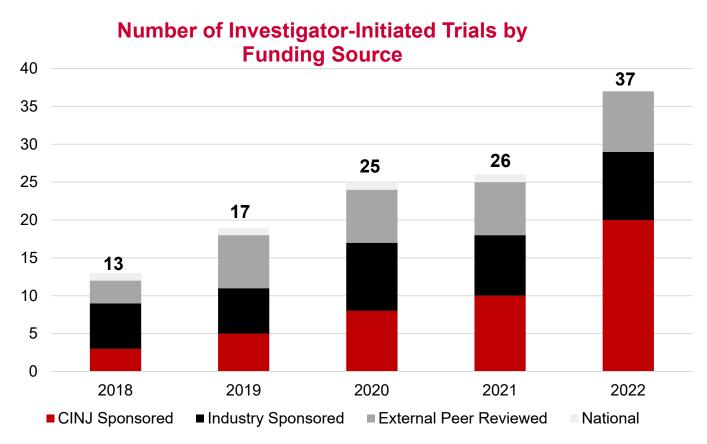
- Jabbour (7) NSCLC,
 SCLC, Gastric, Rectal,
 HCC, Hepatobiliary* (CTEP),
 Breast* (CTEP)
- Haffty (2) Breast
- Hathout Prostate
- Mattes (2) H&N,
 Services Delivery, H&N* (CTEP)

Hematology/Medical Oncology

18 Investigator-Initiated Trials

- Strair (2) BMT, MDS
- M. Shah Myeloma
- Omene Breast
- M. George (2) Breast
- Boland (3) Gastric, Colon, Pancreatic* (CTEP)
- Berim Pancreatic
- Gulhati Pancreatic adjuvant
- Hochster (4) Colon, HCC
- Haigentz NSCLC
- Girda solid tumors (IO)
- Hinrichs (2) Cell therapy solid tumors, HPV

Investigator-Initiated Trials



■ System-Wide Focus on Clinical Research

Expanded DSG participation across sites

- Weekly meeting with research physicians and staff
- Focus on system site needs, especially IITs
- Virtual DSG and in-person research meetings
- Biannual research conferences in New Brunswick



2nd Annual Research and Practice Summit, November 2022

Minority-focused efforts with COE

- Across the System
- Nurse Navigators
- Community Science Impact Council

Education and Training

- Universal training and competencies
- Courses for nursing and non-nursing research staff
- Micro-credentialing process with CTSA
- Training: Rutgers Schools of Public Health, Nursing

Oncology Service Line Research Summits – 2021, 2022





In-person meeting with DSG lunch breakout groups to promote interactions between CINJ and System physicians in developing clinical trials



First Annual Summit 11/13/21

Second Annual Summit 11/5/22







272

Strong Physician and Patient Engagement Efforts



Please visit this link or scan this QR code to view the current protocol trees:

https://go.rutgers.edu/t0gi9pb2



There are protocol trees for

Questions about Protocol Trees?

Please contact the Research Study Managers to be connected to a Clinical Trials Specialist at Rutgers Cancer Institute:

Research Study Manager	Disease Group	Phone	Email Address
Christian Misdary	Manager (Lung HN - GI - GU - Rad Onc)	732-735-3626	cm1344@cinj.rutgers.edu
Serban Moroianu	Manager (Peds)	732-235-8865	moroiasa@cinj.rutgers.edu
Elayne Wesolowsky	Manager (Neuro - MelSarc - Heme)	732-235-3253	wesoloel@cinj.rutgers.edu
Laura Sullivan	Manager (Phase I - Cell Tx - Breast Gyn)	732-434-8522	ls1067@cinj.rutgers.edu



Cancer Institute of New Jersey





of New Jersey



Fewer than 10% of minority patients are enrolled in clinical trials.

Ask your cancer doctor about a clinical trial treatment option.









Clinical Trials Brochure (global and patient-centered)

What is informed consent?

Before a patient can participate in a clinical trial they must first give their informed consent to participate. This is done by the patient signing an informed consent document that states that they understand the purpose of the clinical trial, what will happen during the clinical trial, the benefits and risks of the clinical trial, who to contact if they have questions, and are aware of their patient rights.

Who pays the cost of a clinical trial?

Every clinical trial is different. However, expense to the patient should be minimal the patient's health insurance will often cover any of the routine costs for participation. The costs of a clinical trial could be covered by the sponsor of the study – this could be the government, a pharmaceutical or medical technology company.



How do I find a clinical trial?

Rutgers Cancer Institute of New Jersey and RWJBarnabas Health have an extensive list of available clinical trials for all types of cancer. Clinical trials are available at Rutgers Cancer Institute of New Jersey and RWJBarnabas Health facilities across the state. To find a clinical trial visit cinj.org/clinical_trials or call 844-CANCERNJ (844-226-2376).

Locations:

- Clara Maass Medical Center
- · Community Medical Center
- · Cooperman Barnabas Medical Center
- · Jersey City Medical Center
- · Monmouth Medical Center
- Monmouth Medical Center Southern Campus
- Newark Beth Israel Medical Center
- Robert Wood Johnson University Hospital
- Robert Wood Johnson University Hospital Hamilton
- Robert Wood Johnson University Hospital Rahway
- Robert Wood Johnson University Hospital Somerset
- Rutgers Cancer Institute of New Jersey
- Trinitas Regional Medical Center



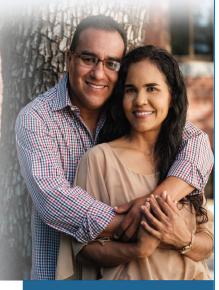
Cancer Institute of New Jersey RUTGERS HEALTH

Let's beat cancer together.

Rutgers Cancer Institute of New Jersey is the state's only NCI-designated Comprehensive Cancer Center. Together RWJBarnabas Health and Rutgers Cancer Institute offer the most advanced cancer treatment options close to home.



Clinical Trials



Today's treatments for tomorrow's cures



RUTGERS HE

Cancer Institute

Let's beat cancer together.

Translation in 10 Languages:

https://go.rutgers.edu/6ee1z02y

- Spanish
- Arabic
- Chinese
- Gujarati
- Haitian Creole
- Hindi
- Korean
- Polish
- Portuguese
- Russian

Inclusion of Women, Minorities,■ and Patients Across the Lifespan and Children in Clinical Research

Interventional Treatment Trials – 2022

Gender Characteristics

Interventional Therapeutic Trial Enrollment at CINJ

2022 Accrual	(n=600)

Gender	NJ %	CINJ - ALL%	%	Actual		
Female	50.1%	57.2%	54.2%	325		
Male	49.9%	42.8%	45.8%	275		

Interventional Treatment Trials – 2022

Race and Ethnicity Characteristics

Interventional Therapeutic Trial Enrollment at CINJ

20	122	Accrual
		Accida

Race/Ethnicity	NJ %	CINJ – ALL %	%	Actual
Asian/PI	5.1%	6.5%	10.9%	63
Black	11.6%	18.4%	16.8%	97
Hispanic/Latino	10.8%	13.1%	18.9%	109
More than one race	NA	NA	3.1%	18
Native American or Alaska Native	NA	0.1%	0.5%	3
White	79.3%	70.5%	68%	396

Interventional Treatment Trials – 2022

Age Characteristics

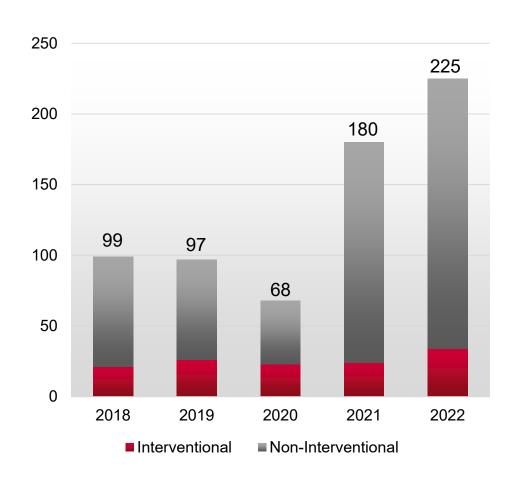
Interventional Therapeutic Trial Enrollment at CINJ

2022 Accrual (n=600)

Age Group	NJ %	CINJ - ALL%	%	Actual
Under 18	0.8%	1.0%	4.2%	26
18-39	4.0%	4.9%	5.7%	35
40-64	37.8%	39.9%	54.0%	322
65 and over	57.4%	54.3%	36.1%	217

Pediatric Accrual

Interventional vs. Non-Interventional Accrual by Year



Community Outreach and Engagement

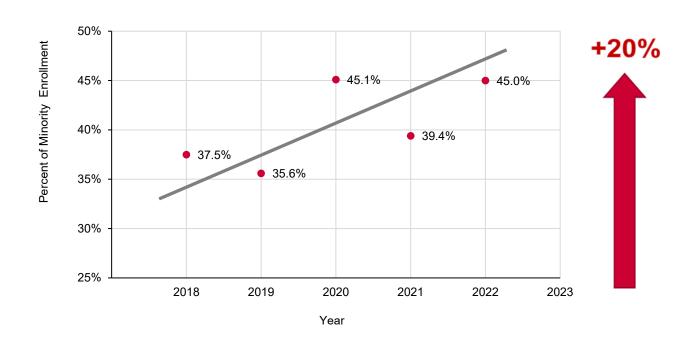


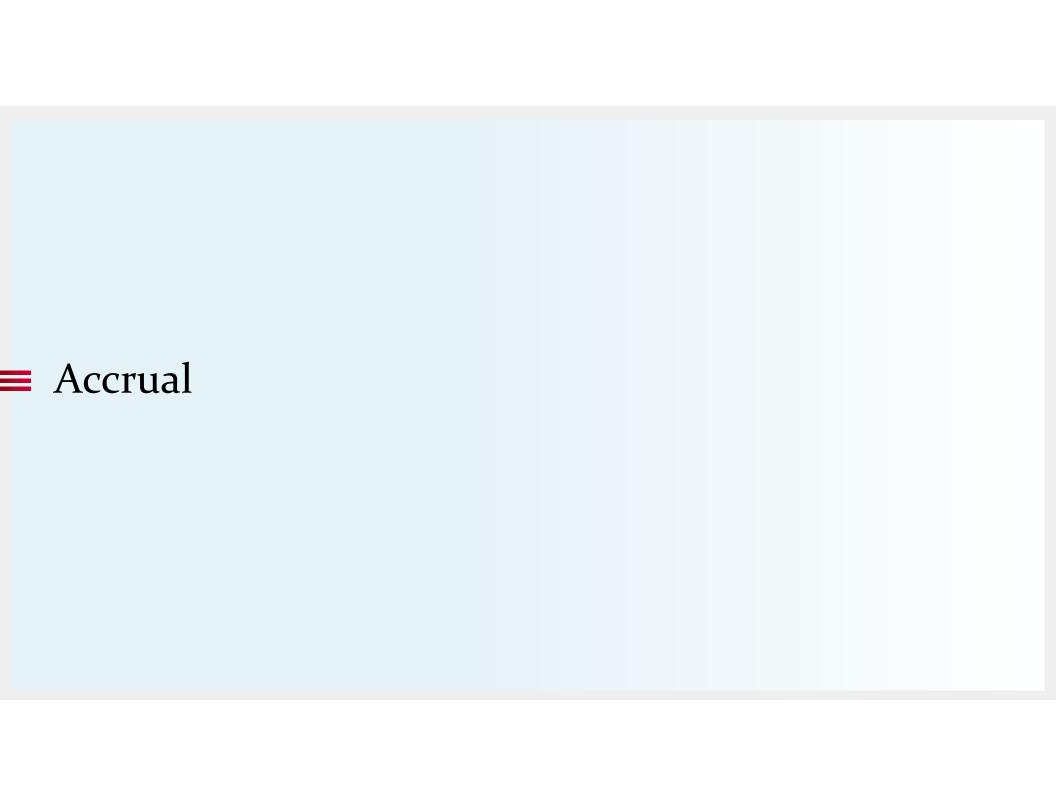
Partner with COE to engage DSGs and address catchment area priorities

- Participation with Community Cancer Action Board
 - Presentations and membership
- Monthly meetings to review accrual of various populations
- COE representation at SRB and HROC meetings
- SRB-approved minority/outreach plans for all protocols
- Treatment informed consents available in English and Spanish for all open trials
 - Additional short forms available in 20 translated languages
- Strategies to increase accrual in Black populations
 - Materials for recruitment
 - Outreach to community leaders
 - Bilingual Educators and Clinical Trial Navigators throughout system

Accrual of Minorities to Therapeutic Trials

Minority Enrollment to Interventional Therapeutic Trials (2018-2022)

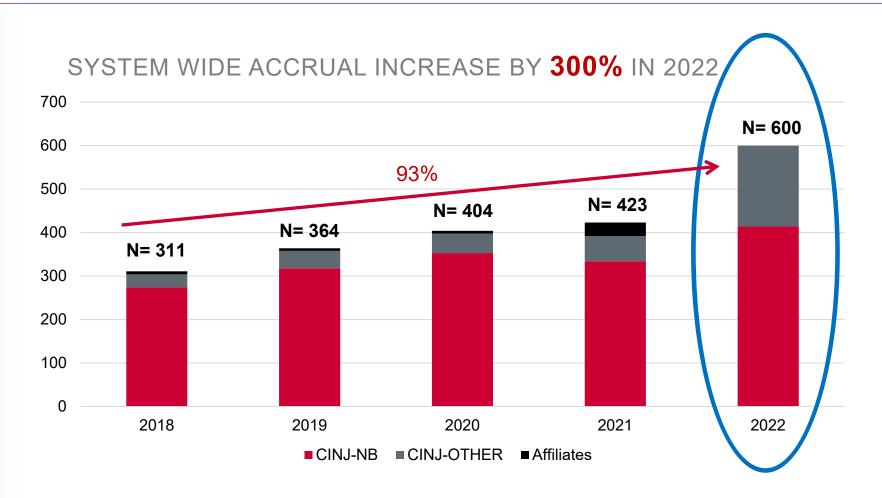




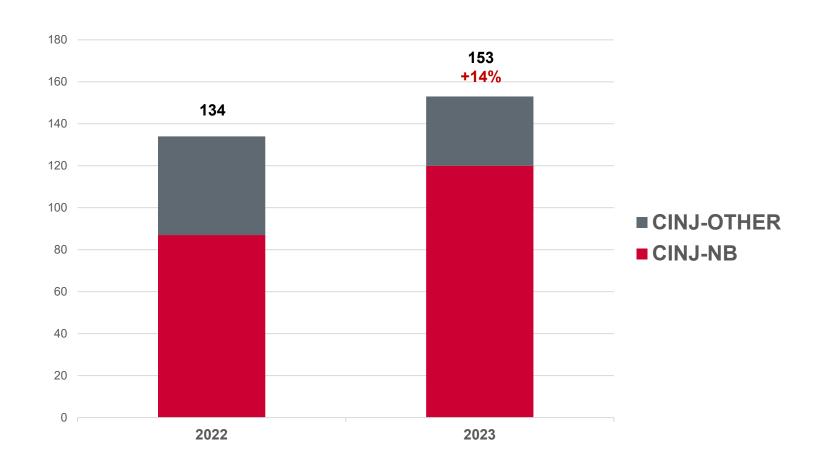
Overall Accrual 2018-2022

Accrual to Interventional Treatment Research Protocols	2018	2019	2020	2021	2022
Rutgers Cancer Institute of New Jersey	274	318	349	334	414
RWJBarnabas Health	30	40	49	58	186
Affiliates	7	6	6	31	0
Total Interventional Treatment Accrual	311	364	404	423	600
Accrual to Interventional Non-Treatment Research Protocols					
Rutgers Cancer Institute of New Jersey	440	2581	596	992	590
RWJBarnabas Health	1	18	2	11	1
Affiliates	18	105	14	0	0
Total Interventional Non-Treatment Accrual	459	2704	612	1003	591
Total Interventional Accruals at Rutgers Cancer Institute	770	3068	1016	1426	1191
Accrual to Non-Interventional Research Protocols					
Rutgers Cancer Institute of New Jersey	3371	3377	3337	2055	11812
RWJBarnabas Health	114	299	266	121	88
Affiliates	11	16	0	0	0
Total Non-Interventional Accruals at Rutgers Cancer Institute	3496	3692	3603	2176	11900
Total Interventional and Non-Interventional Accrual at Rutgers Cancer Institute	4266	6760	4619	3602	13091

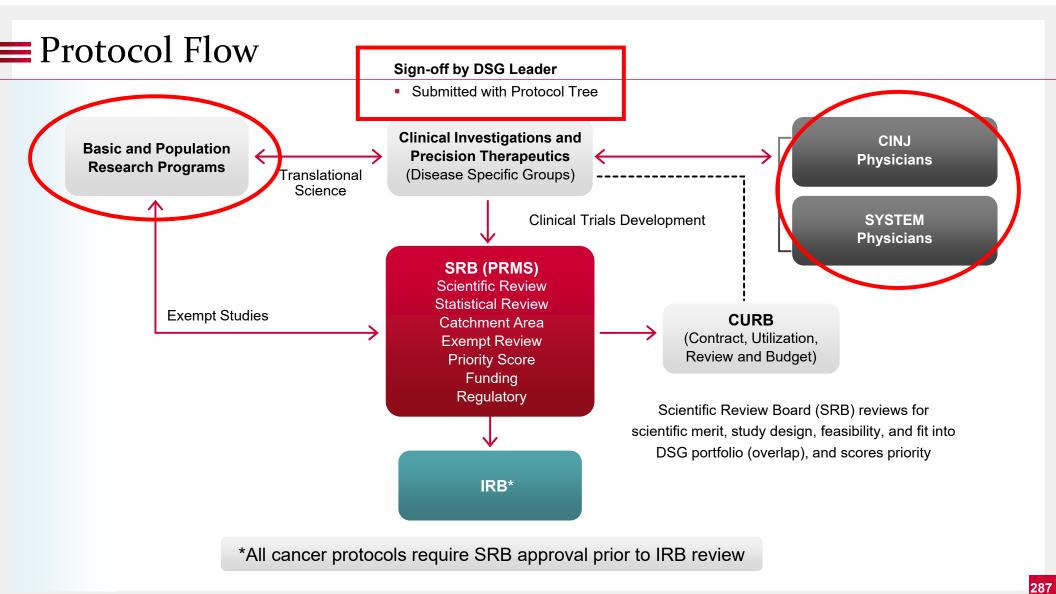
Increasing Treatment Trial Enrollment (2018-2022)



ACCRUAL YTD (through 3/31/23): 2022 vs 2023







■ PRMS: Scientific Review Board

Member	Area of Expertise
Chair and Co-Chair	Clinical/translational research, clinical trials, medical oncology, radiation oncology
2 Members	Population research
1 Member	Basic research
2 Members	Biostatistics
2 Members	Radiation Oncology
1 Member	Community Outreach and Engagement
1 Member	Surgical Oncology
4 Members	Medical Oncology, clinical/translational research (1 member from RWJBH)
2 Members	Patient Advocacy
1 Member	Oncology nursing; clinical research administration
Ad hoc	Scientist or clinician
Ad hoc	IRB representative

■ PRMS (SRB) Activities 2022

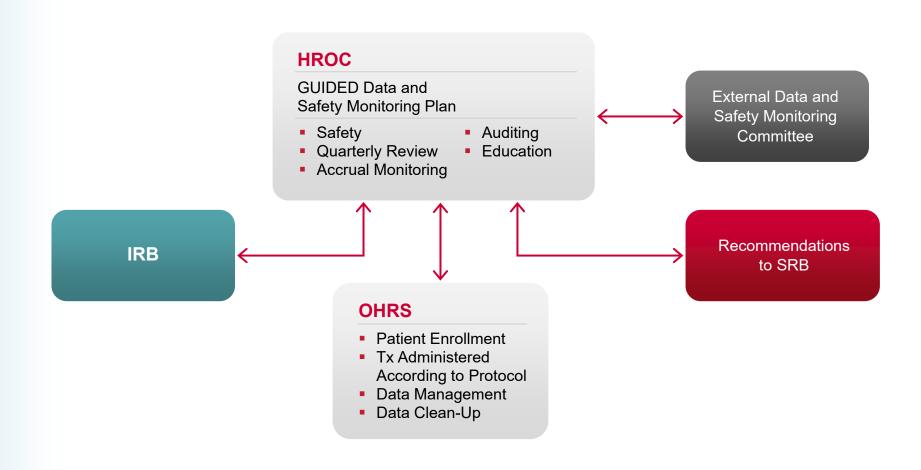
	Investigator Initiated	Externally Peer-Reviewed	National	Industry	Total
Protocols Submitted and Reviewed	64	19	16	60	159
Approved as Submitted	38 (59%)	16 (84%)	16 (100%)	55 (92%)	125 (79%)
Conditionally Approved (Needs Only Admin Review)	18	0	0	4	22
Deferred/Disapproved	2	0	0	0	2
Exempt	6	3	0	1	10

Protocol Closures Completed Accrual		Slow Accrual	Research Canceled	Interim Analysis Other		
8	35	9	4	1	9	

^{*}Total closed in 2022 in response to HROC/SRB reviews = **21**



DSM Process: Human Research Oversight Committee (HROC)



■ DSM: Human Research Oversight Committee

Member	Area of Expertise			
Chair	Biostatistics			
Co-Chair	Clinical/translational research, clinical trials, Medical Oncology			
4 Members	Medical Oncology (1 member from RWJBH)			
2 Members	Surgical Oncology (1 member from RWJBH)			
1 Member	Quality Assurance			
1 Member	Regulatory			
Ad hoc	Scientist or clinician			
Ad hoc	IRB representative			

■ DSMC (HROC) Activities 2021, 2022

2021 HROC Review Activities

Protocols Audited (Quality)	CAPs	Major Findings	Minor Findings	Deviations with Resulting CAPs	Protocol Reviews (Enrollment)	Recommended for Closure (Enrollment)
13	9	5	29	317	230	6

2022 HROC Review Activities

Protocols Audited (Quality)	CAPs	Major Findings	Minor Findings	Deviations with Resulting CAPs	Protocol Reviews (Enrollment)	Recommended for Closure (Enrollment)
54	10	4	21	440	289	9

Unified Clinical Trials Infrastructure: QA/Oversight

Quality Assurance Innovations



Revised to include system sites



SAEs

Global use of OnCore® for all SAEs



Access

All meetings available via WebEx



Add'l QA Specialists monitor increased enrollment activities



Revised Site Management Plan

- PI oversight of all patients at all sites
- Investigational agent management
- QA/monitoring of accrual at all sites; focus on initial accruals

≡ In Summary:

Accomplished



One Site Model

Legal and Regulatory barrier superseded

Completed



Site Integration

- Open trials simultaneously throughout system
- Consolidation and Integration of all NCTN sites
- System wide Pls including from system sites

Over Current Grant Period



Accrual Gains

- Total 600 treatment trial accruals
- Nearly double from last renewal
- 300% increase in system site accrual
- "Benchmark" minority accrual = 45%

■ Future Directions

- 1 Continue to integrate system physicians
- EPIC everywhere
- Increase DSG integration and system research meetings
- Training Center for physicians (and staff) – uniform onboarding

- 2 Increase recruitment match patients to existing trials
- New recruitment office
- CRDW joint CINJ and CTSA effort under David Foran, PhD
- Deep6 Al software and other digital efforts to aid in patient identification

- 3 Continue efforts with COE for diversity, minority, women, and across the lifespan accrual
 - Increase in diversity, minority and URG accrual
 - Focus on Black Community
 - Focus on increasing older patient accrual

- 4 Continue to support and expand Investigator-Initiated Research
 - Translational, cellular and novel therapies

- 5 Continue to promote and develop a "culture" of clinical research at all sites
- 6 Increase Treatment Trial Accrual → Toward GOAL of 800-1000

Thank You

Q&A Segment

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