

OCTOBER 7, 2019



Perspectives on
Cancer & Aging

ARTI HURRIA MEMORIAL WEBINAR SERIES

Building Infrastructure for Cancer and Aging Research

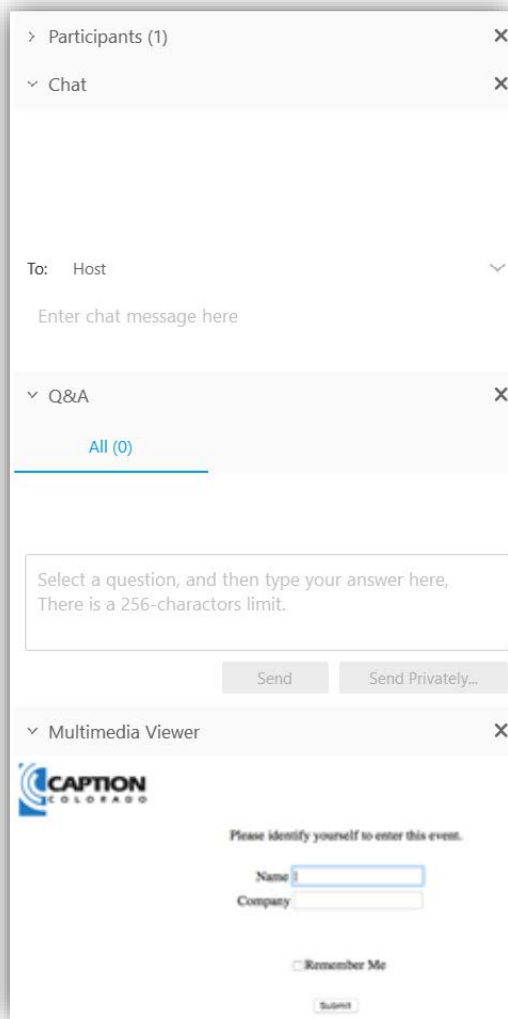
A WEBINAR TRIBUTE TO DR. ARTI HURRIA

Supriya Mohile, MD, MS

William Dale, MD, PhD

Cancer & Aging Research Group

Using WebEx and webinar logistics



- All lines will be in listen-only mode
- Make sure icons are selected for them to appear as a drop down option
- Submit questions at any time during the presentation by typing into the Q&A feature on the right hand side of the WebEx interface.
 - Select Host and a moderator will ask the questions on your behalf
- Closed captioning available by selecting the Media Viewer Panel on the right hand side of the screen
- This webinar is being recorded



Arti Hurria, M.D.

George Tsai Family Chair in Geriatric
Oncology
Vice Provost of Clinical Faculty
Director, Center for Cancer and Aging
City of Hope

1970 - 2018

**Building Infrastructure for
Cancer and Aging Research:**

A Webinar Tribute to Dr. Arti Hurria

Supriya Mohile, MD, MS

William Dale, MD, PhD

Cancer & Aging Research Group

Dr. Arti Hurria's Passion:

Integration of Geriatric Assessment into Oncology Trials and Care for Older Adults with Cancer

Supriya Mohile, MD, MS

Philip and Marilyn Wehrheim Professor

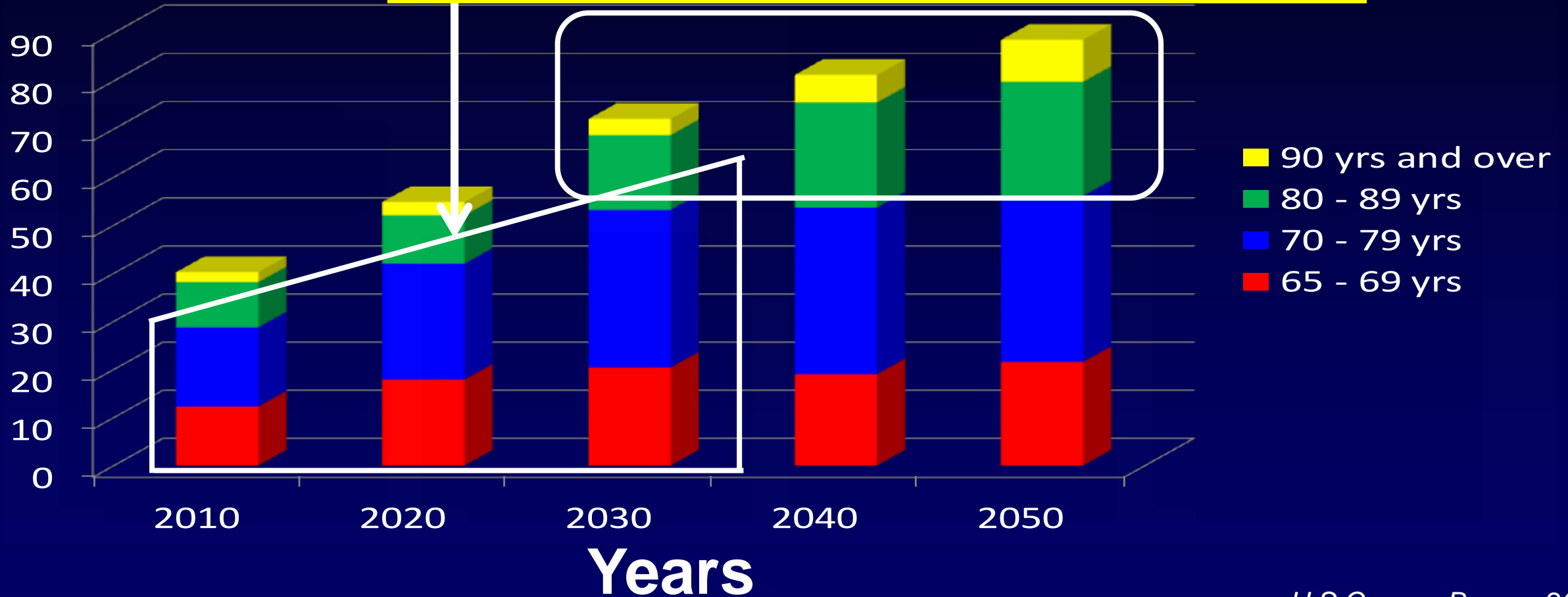
University of Rochester Wilmot Cancer Institute

Director, Geriatric Oncology Research Program

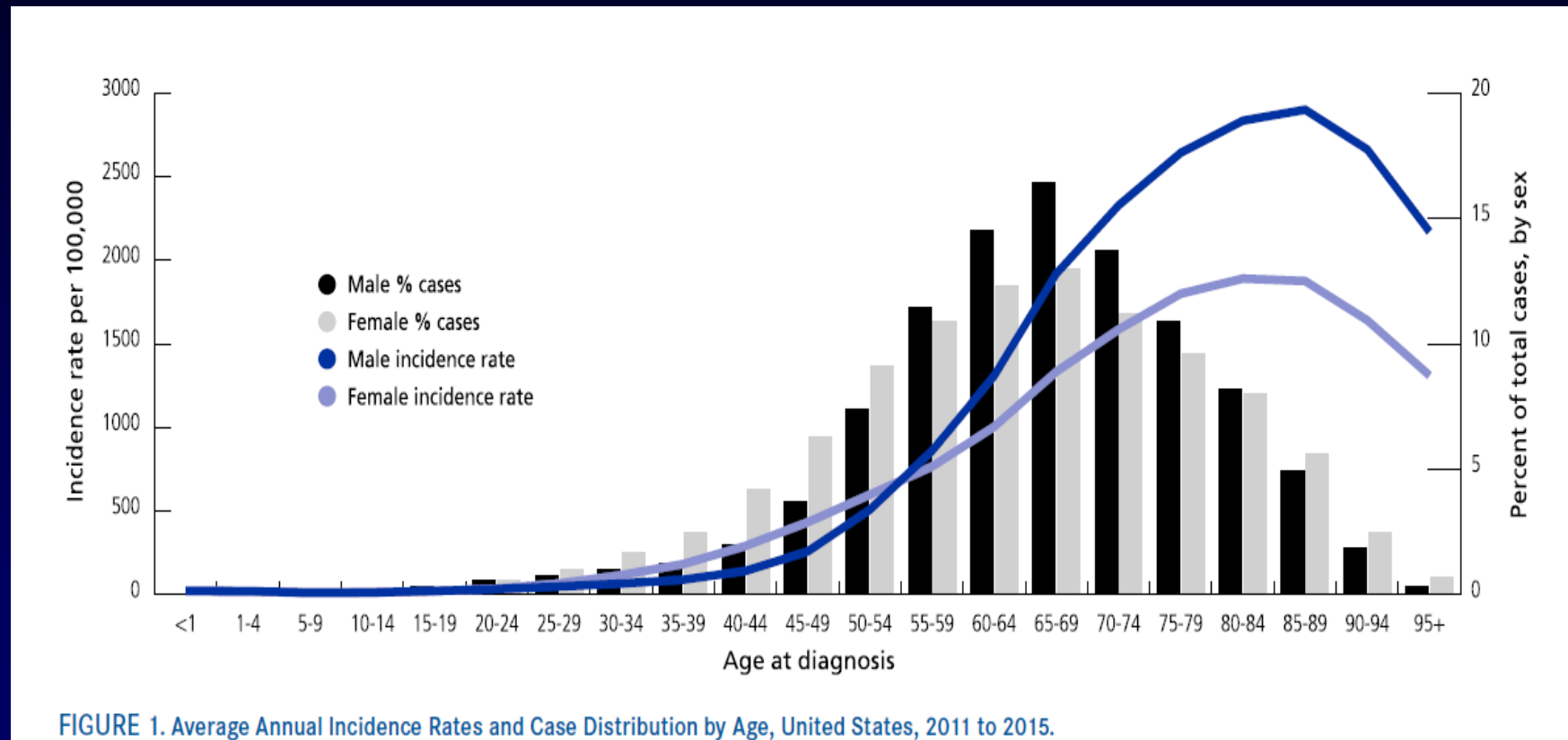
*Slides c/o Dr. Hurria and her team #DrHurriasLight

US Population Age ≥ 65 (millions)

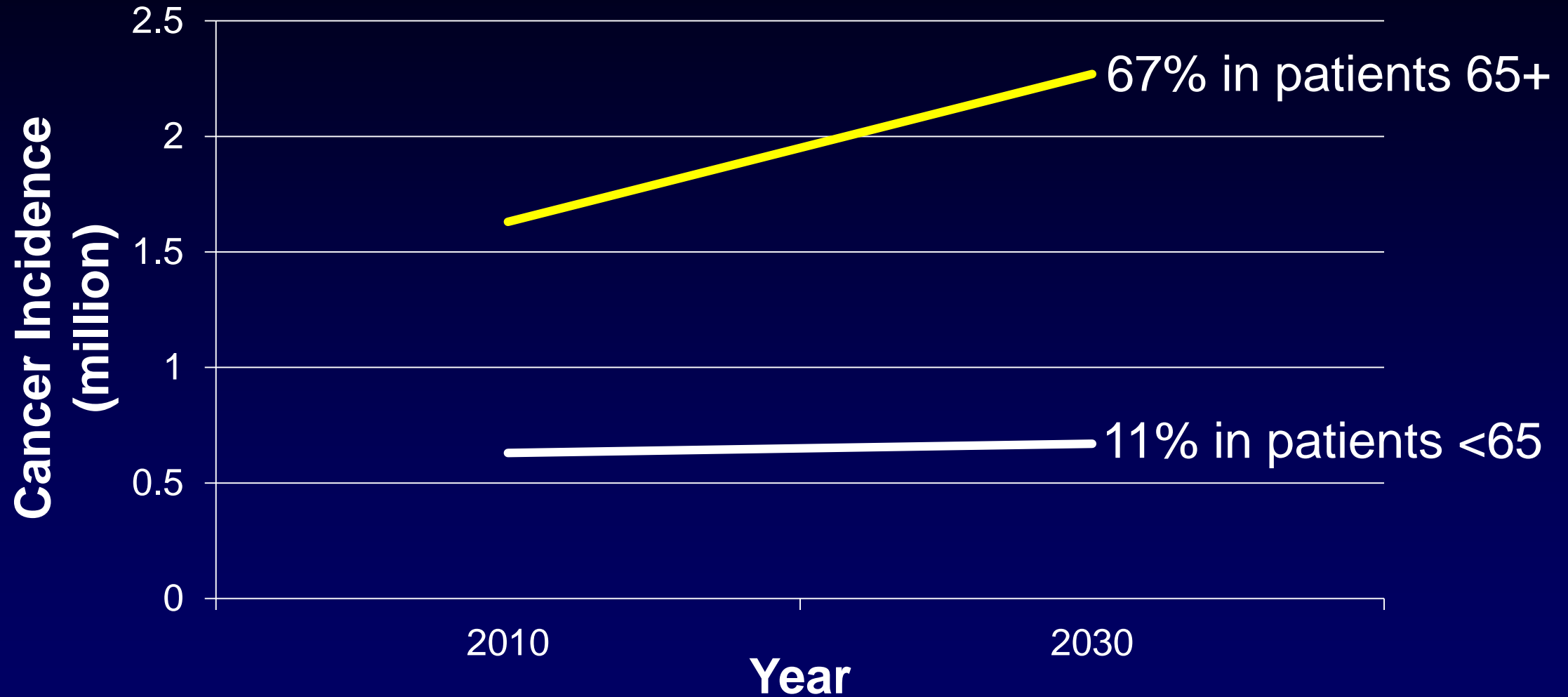
Shift in 2030:
Largest growth in the 80+ age groups



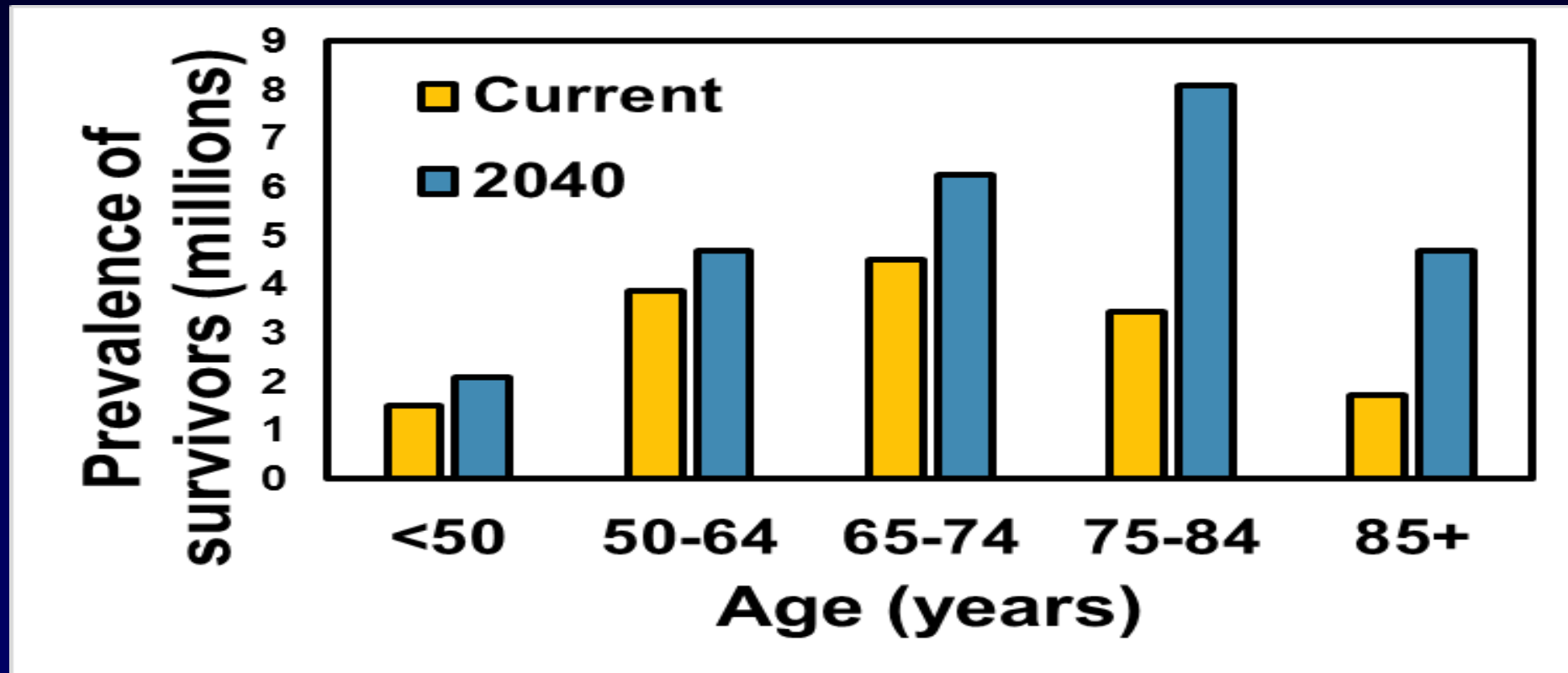
Average Annual Incidence Rates and Case Distribution by Age



Projected Rise in Cancer Incidence from 2010 to 2030



Aging of Cancer Survivors



Cancer is a Disease Associated with Aging

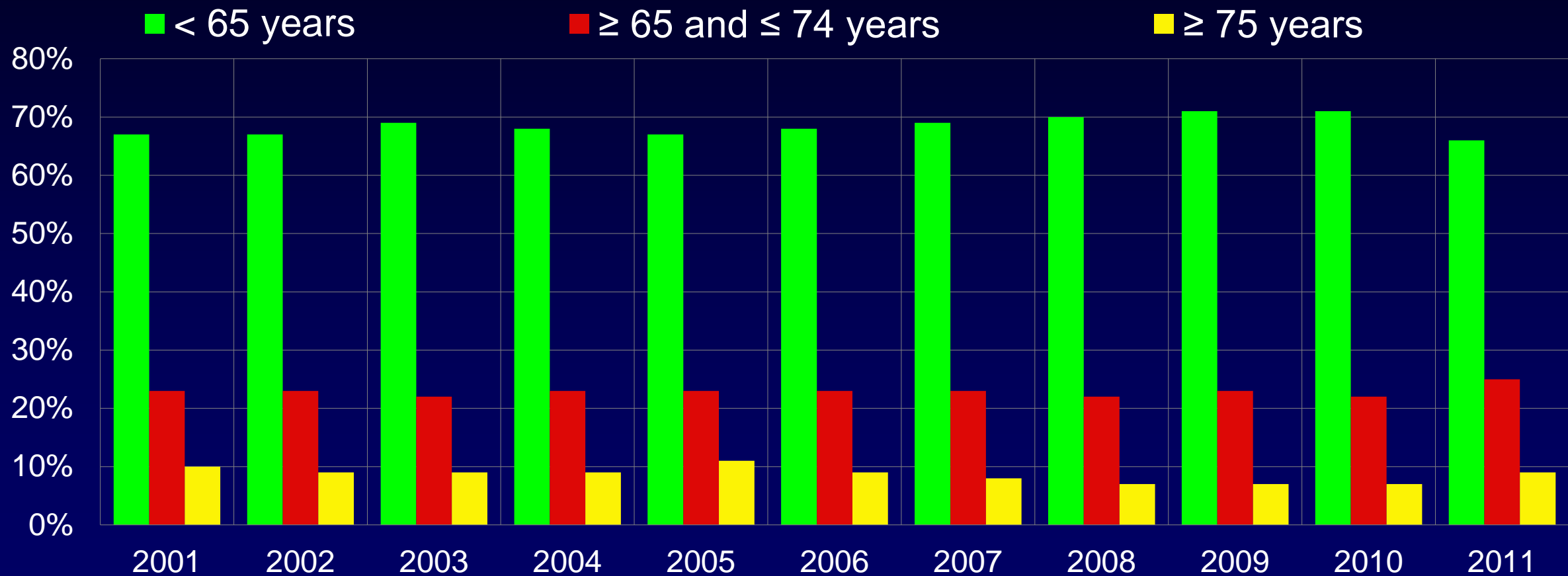
The Number of Older Adults is On the Rise



Are We Prepared?

Clinical Trial Data Limited in Older Adults

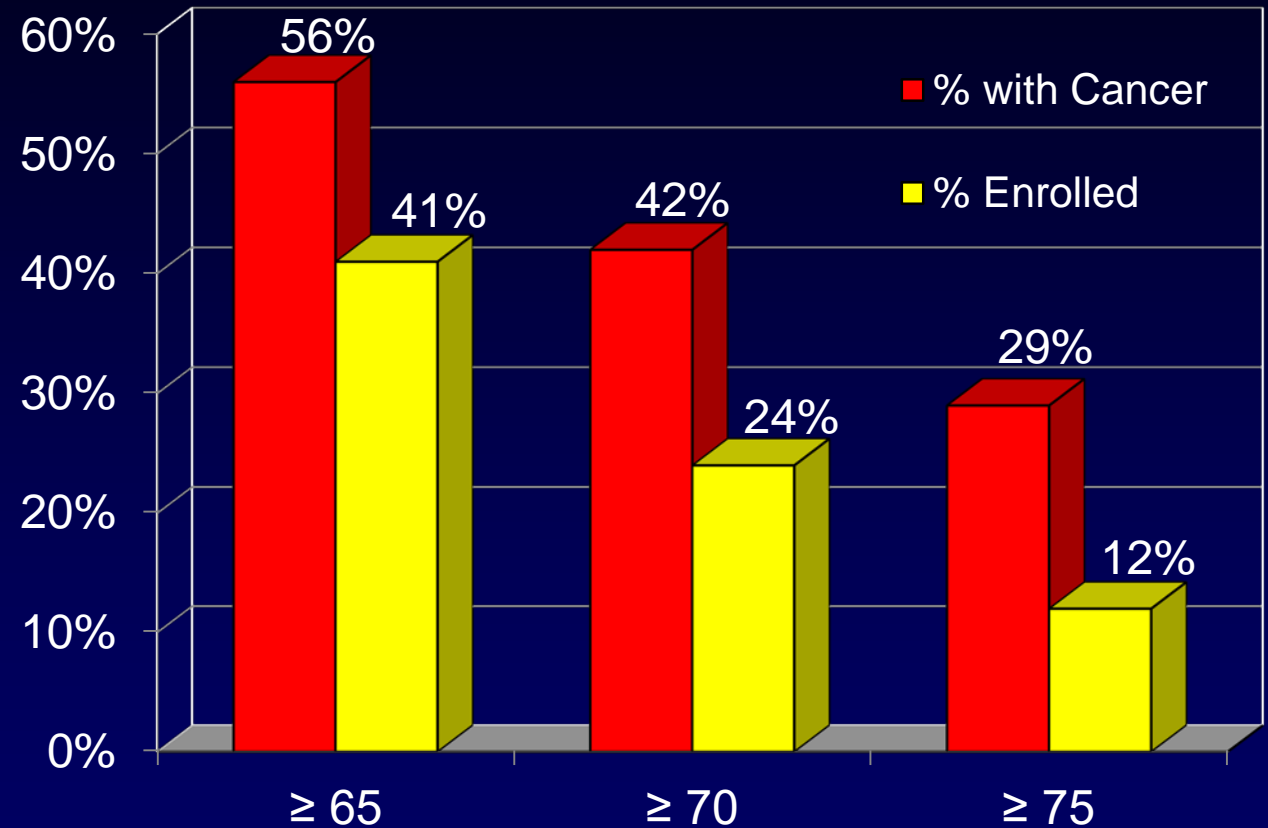
No Change in Age Distribution of NCI Cooperative Group Clinical Treatment Trials (Phase 2 and Phase 3)



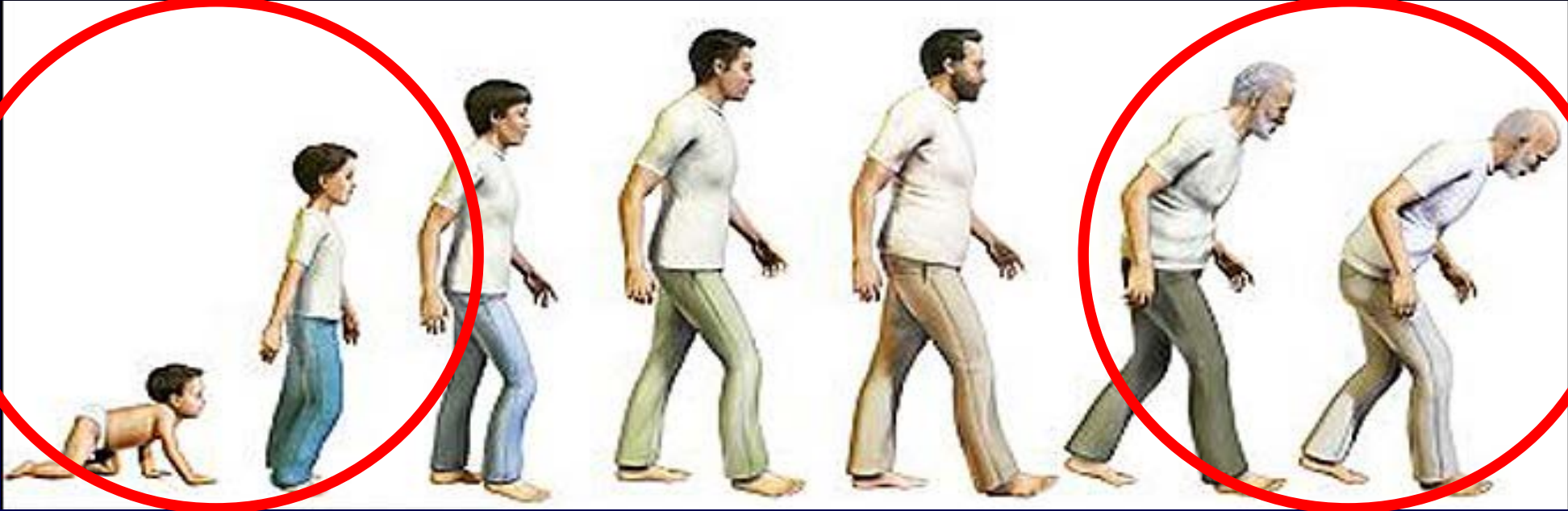
Under-representation of Older Adults on FDA Registration Trials (ASCO 2017)

- 10-yr perspective
 - 2005-2015
- 105 FDA registration trials
- 224,766 patients

Disparity is Greatest for Patients Age ≥ 75



Pediatrics ≈ Geriatrics



Pediatrics

Geriatrics

Population Requires Unique Skill Set:

- Age-related change in physiology
- Vulnerable to toxicity
- Dependent in daily activities
- Concern regarding long-term effects of therapy

Chronological Age ≠ Functional Age

Johanna Quaas
Top Senior Gymnast



Age 86

“Banana George” Blair
Barefoot Water Skier



Age 92

Fauja Singh
Marathon Runner



Age 100

What Many Patients Look Like

- Needs assistance with daily activities
- Multiple comorbid medical conditions
- Mild cognitive impairment
- Limited social support
- Lives alone
- Transportation issues
- Polypharmacy
- Frailty

Likely Did Not Participate in
Registration & Cooperative Group Studies



Integrating Geriatrics and Oncology

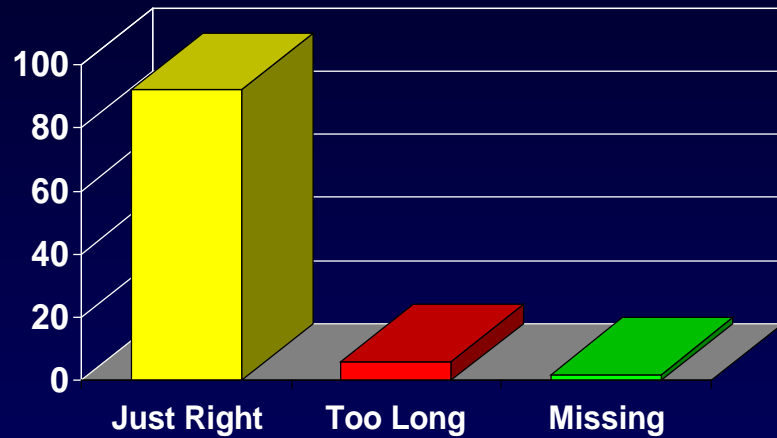
Factors other than chronological age that predict morbidity & mortality in older adults

- Functional status
- Comorbid medical conditions
- Cognition
- Nutritional status
- Psychological state
- Social support
- Medications (polypharmacy)

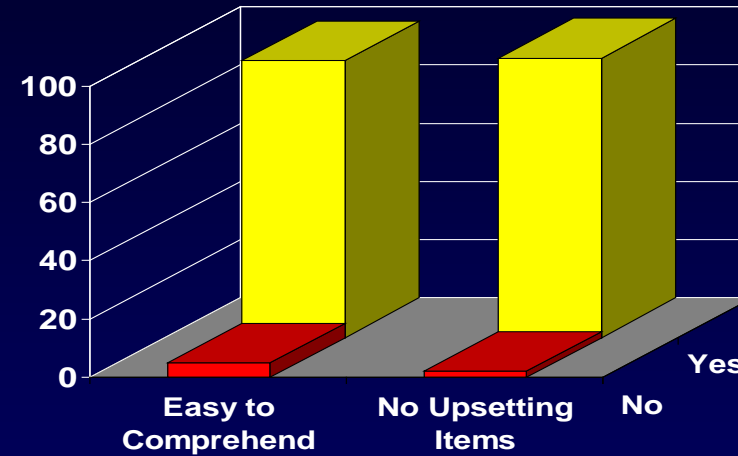
Geriatric
Assessment

Geriatric Assessment Questions are Acceptable to Patients

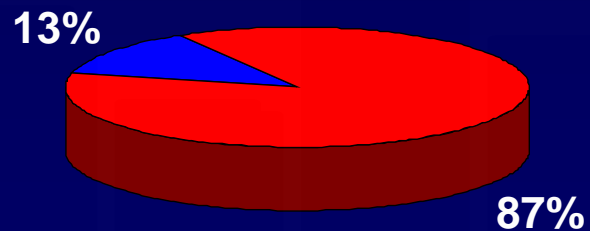
92% Length is "Just Right"



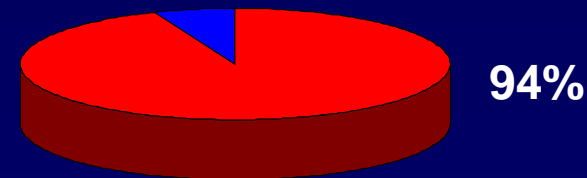
95% Easy to comprehend
96% Not upsetting



87% Completed patient questionnaire w/o assistance



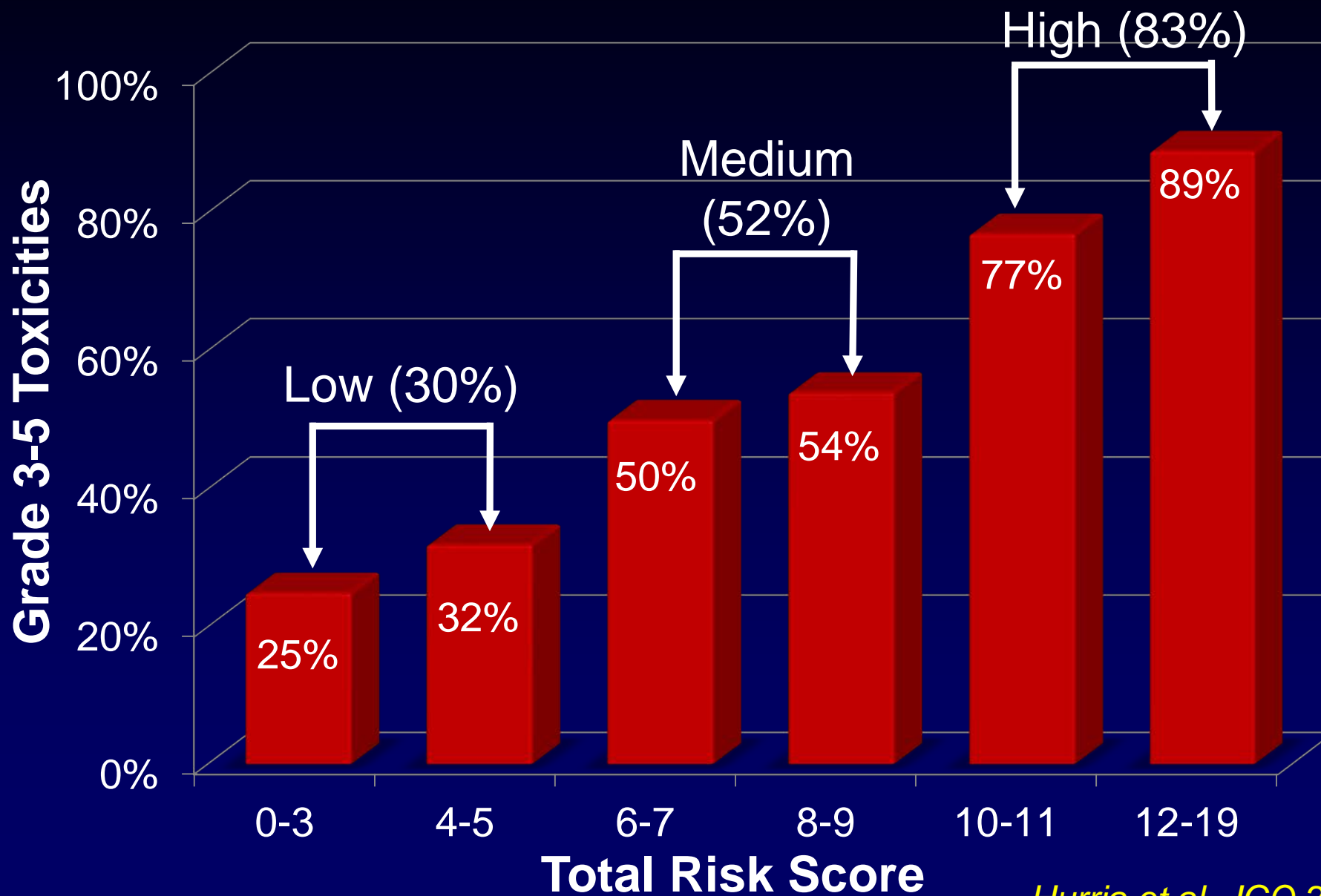
94% Completed healthcare provider portion



Can We Identify Older Adults at Risk for Chemotherapy Side Effects?

- Melding Geriatrics and Oncology
- Multicenter study
 - 10 participating institutions
 - Cancer and Aging Research Group
- Over 750 patients enrolled
- Publication: *Journal of Clinical Oncology* 2011 & 2016
- Research named a key Clinical Cancer Advances in 2012 by the American Society of Clinical Oncology

Risk of Severe Side Effects



Real World Usage of the Geriatric Assessment



www.mycarg.org

Meet the Researchers	U13 Meeting	CARG Studies	Grants/Job Opportunities	Educational Resources	Resources for the Older Adult	Geriatric Assessment Tools	Geriatric Oncology Events	R25 Nursing Grant	URCC GA Studies	CARG Advocacy	Contact Us
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GERIATRIC ASSESSMENT TOOLS

Chemotherapy Toxicity Tool and Geriatric Assessment Tool

The Chemo-Toxicity Calculator

The Chemo-Toxicity Calculator assessment variables (function, patients across seven participating sites were identified by the study were identified by the vulnerability to chemotherapy toxicity. Chemo-Toxicity Calculator in clinical practice.

[Chemo Toxicity Calculator](#)

Geriatric Assessment Tool

A geriatric assessment is utilized to identify the most vulnerable patients (for

required for their administration. A geriatric assessment tool (that can be completed primarily by patients) was developed for incorporation into oncology clinical trials and routine care settings.^{1,2} The domains that are assessed include functional status, comorbidities, medications, nutritional status, cognitive function, and psychosocial status.

Please click on the below for more information regarding the geriatric assessment tool:

¹Hurria et al. *Cancer* 2005

²Hurria et al. *JCO* 2011

Geriatric Assessment in English

- [Patient portion](#)
- [Patient portion \(mobile-friendly\)](#)
- [Healthcare provider portion](#)

Geriatric Assessment in Spanish (Evaluación Geriátrica en Español)

- [Porción del paciente](#)
- [FACITtrans Certified Translation Certificate \(Spanish\)](#)
- [Porción del paciente \(optimizado para dispositivos móviles\)](#)

Website Usage:

- ~6,000 hits/month on the GA Tools Page
- ~16,000 hits/month overall for the website
- Visitors from 24 countries
- 45% international visitors

clearance), and geriatric of a study which enrolled 500 (JCO 2011). The results from and oncologic correlates of the goal is to utilize this

estimating physicians to identify of the time and resources

Practical Assessment and Management of Vulnerabilities in Older Patients Receiving Chemotherapy: ASCO Guideline for Geriatric Oncology

Supriya G. Mohile, William Dale, Mark R. Somerfield, Mara A. Schonberg, Cynthia M. Boyd, Peggy S. Burhenn, Beverly Canin, Harvey Jay Cohen, Holly M. Holmes, Judith O. Hopkins, Michelle C. Janelsins, Alok A. Khorana, Heidi D. Klepin, Stuart M. Lichtman, Karen M. Mustian, William P. Tew, and Arti Hurria

➤ Recommendation:

- In patients age 65 and older receiving chemotherapy, geriatric assessment should be used to identify vulnerabilities or geriatric impairments that are not routinely captured in oncology assessments.

Evidence-based, benefits outweigh harms

Evidence Quality: High

Strength of Recommendation: Strong

Strength of the Data for Geriatric Assessment

Repetto et al. JCO 2002 Levit et al. J Natl Cancer Inst. 2018 Caillet et al. Clin Interv Aging 2014
Hurria et al. JCO 2016 Hamaker et al. Acta Oncol. 2014 Puts et al. JNCI 2012 Hurria et al. JCO 2011
Soubeyran et al. JCO 2012 Puts et al. Ann Oncol 2014 Extermann et al. JCO 2007
Decoster et al. JGO 2013 Winkelmann et al. JCRCO 2011 Aaldriks et al. CROH 2011
Williams et al. JGO 2014 Extermann et al. Cancer 2012 Dale et al. JNCI 2012 Hurria et al. JCO 2014

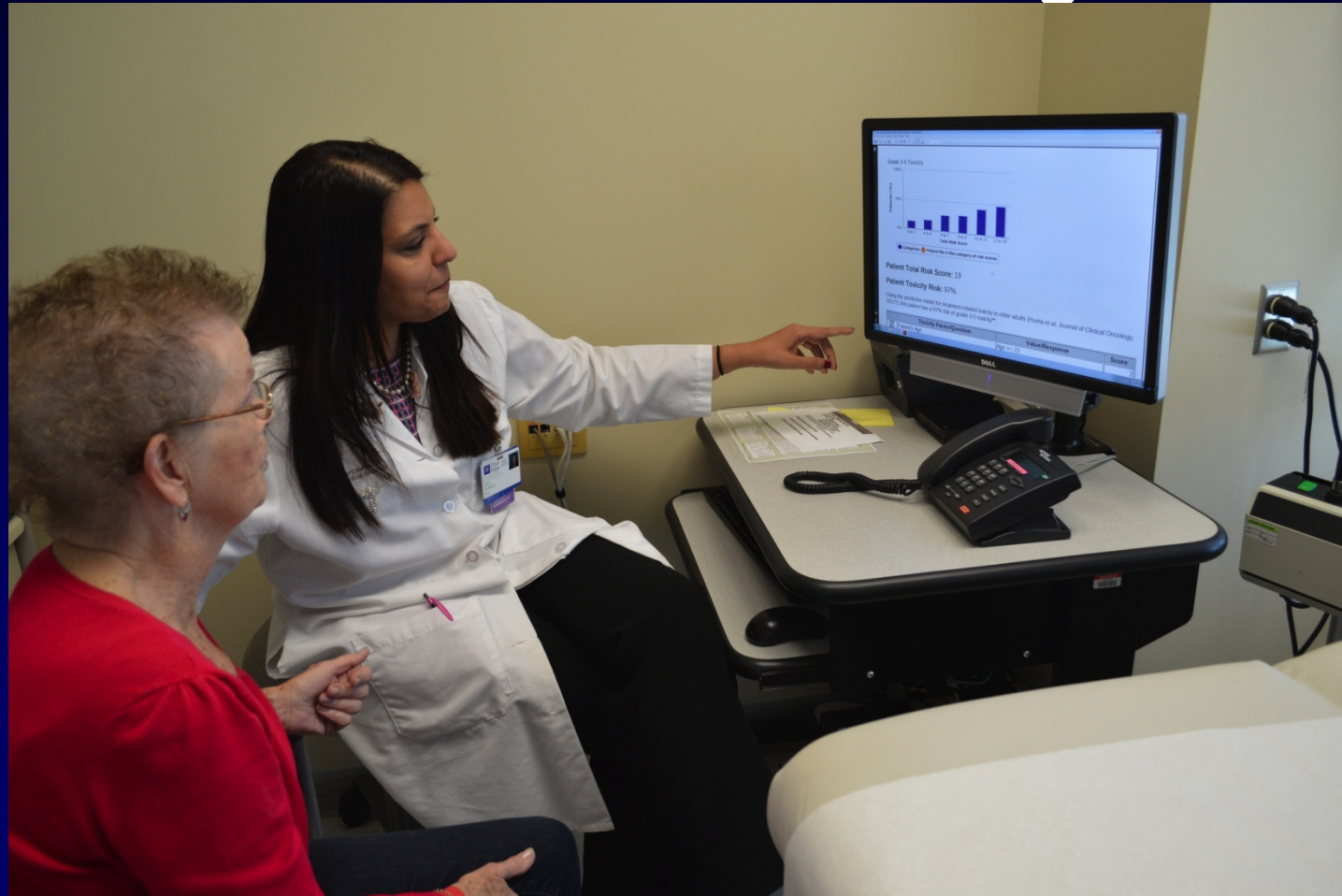
The data in support of the geriatric assessment inclusion in clinical trials and clinical care are international, multi-institutional, and highly peer-reviewed.

Hurria et al. J Am Geriatr Soc. 2007 Hurria et al. JOP 2016 Arnoldi et al. Tumori 2007
Wildiers et al. JCO 2014 Mohile et al. Cancer 2016 IOM 2013 Caillet et al. JCO 2011
Hurria et al. Cancer 2005 Chaibi et al. CROH 2011 Palumbo et al. Blood 2015 Puts et al. JNCI 2012
Hurria et al. JCO 2011 Hurria et al. JCO 2015 Extermann et al. Cancer 2012
Augsschoell et al. JGO 2014 Luciani et al. JGO 2015 Tucci et al. Cancer 2009 Mohile et al. JCO 2018
Aaldriks et al. Breast 2013 Ramjaun et al. JGO 2013 Puts et al. Ann Oncol 2014
Ramjaun et al. JGO 2013 Tucci et al. Leuk Lymphoma 2015 Hurria et al. JCO 2016
Baitar et al. JGO 2015 Klepin et al. Blood 2014 Clough-Gorr et al. JCO 2010
Kenis et al. Ann Oncol. 2013 Aaldriks et al. Acta Oncol. 2016

Study	Design	Population	Intervention Delivery	Management Strategy	Outcomes
Hurria et al. -City of Hope	2:1 Patient randomization n=600	age 65+ with any stage solid tumor malignancies starting a new chemo regimen (any line)	Study NP in collaboration with the primary oncologist and clinic nurse to follow up	Established protocol based on multidisciplinary team input and triggers based on GA results	4 Primary endpoints: Chemo toxicity (Gr3+); Rate of hospitalization; Change in functional status; Change in psychosocial status
Soubeyran et al. -28 Regional Coordination Units for Geriatric Oncology (mix of sites)	Patient randomization n=1200	age 70+ with most solid tumor malignancies candidate for first/second-line medical treatment	Geriatrician with nurse follow up	Established protocol based on expert input	Co-primary endpoint of overall survival and dimensions of QoL ; Response; PFS; other QoL; Chemo tox, Health care utilization
Puts et al. -multi-center study of centers in Canada	Patient randomization n=350	age 70+ with most solid tumor malignancies starting first/second line chemotherapy	Geriatric oncology with nurse follow up	Established protocol based on Delphi consensus and guidelines	QoL ; Cost-effectiveness; Function; Chemo tox; Satisfaction; Cancer tx changes; Survival
Mohile et al. -community oncology practices affiliated with University of Rochester NCORP Research Base	Cluster randomization by oncology practice COACH: n=542; GAP n=700	age 70+ with advanced solid tumor malignancies	GA summary results and recommendation given to oncology team	Established protocol based on Delphi consensus panel and guidelines	COACH: Communication, Satisfaction; GAP: Chemo toxicity (Gr3+), Survival, Function

High Quality Cancer Care for the Older Adult

Geriatric Assessment Facilitates Communication and Decision-Making



**Solutions to
Fill Ongoing Knowledge Gaps**



Institute of Medicine

ASCO

**U13 Grant
(NIA, NCI, CARG)**

NCI--Accelerated Aging

2013 Institute of Medicine Report *Delivering High-Quality Cancer Care: Charting a New Course for a System in Crisis*

Recommendations:

- There is a critical need for research in older adults with

Potential

- Increase research
- Consider the following
 - Research design & infrastructure
 - Recruitment of older adults
 - Reporting of results

DELIVERING
HIGH-QUALITY

VIEWPOINT

Improving the Quality of Cancer Care
in an Aging Population

Recommendations From an IOM Report

Hurria et al. JAMA 2013

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

U13 AG048721 Grant

Collaboration Between CARG, NCI, & NIA

Biological, Clinical, and Psychosocial Correlates at the Interface of Cancer and Aging Research

William Dale, Supriya G. Mohile, Basil A. Eldadah, Edward L. Trimble, Richard L. Schilsky, Harvey J. Cohen, Hyman B. Muss, Kenneth F. Schmeider, Betty Ferrell, Martine Extermann, Susan C. Newfield, Arti Hurria, on behalf of the Cancer and Aging Research Group

- Gap:
 - Clinical Measures Most Relevant to Older Adults Are Rarely Incorporated Into Oncology Clinical Trials
- Recommendation:
 - Consistently Incorporate Validated Geriatric Assessment Measures Into Oncology Research

Supriya G. Mohile, MD, MS¹; Arti Hurria, MD²; Harvey J. Cohen, MD³; Julia H. Rowland, PhD⁴;
Corinne R. Leach, PhD, MPH, MS⁴; Neeraj K. Arora, MS, PhD⁵; Beverly Canin⁶; Hyman B. Muss, MD⁷;
Allison Magnuson, DO⁸; Marie Flannery, PhD, RN, AOCN⁹; Lisa Lowenstein, PhD¹⁰; Heather G. Allore, PhD¹¹;
Karen M. Mustian, PhD, MPH¹²; Wendy Demark-Wahnefried, PhD, RD¹³; Martine Extermann, MD¹⁴; Betty Ferrell, PhD, MA¹⁵;
Sharon K. Inouye, MD, MPH¹⁶; Stephanie A. Studenski, MD, MPH¹⁷; and William Dale, MD, PhD¹⁸

Dale W, Mohile S...Hurria A Cancer, 2016

COMMENTARY

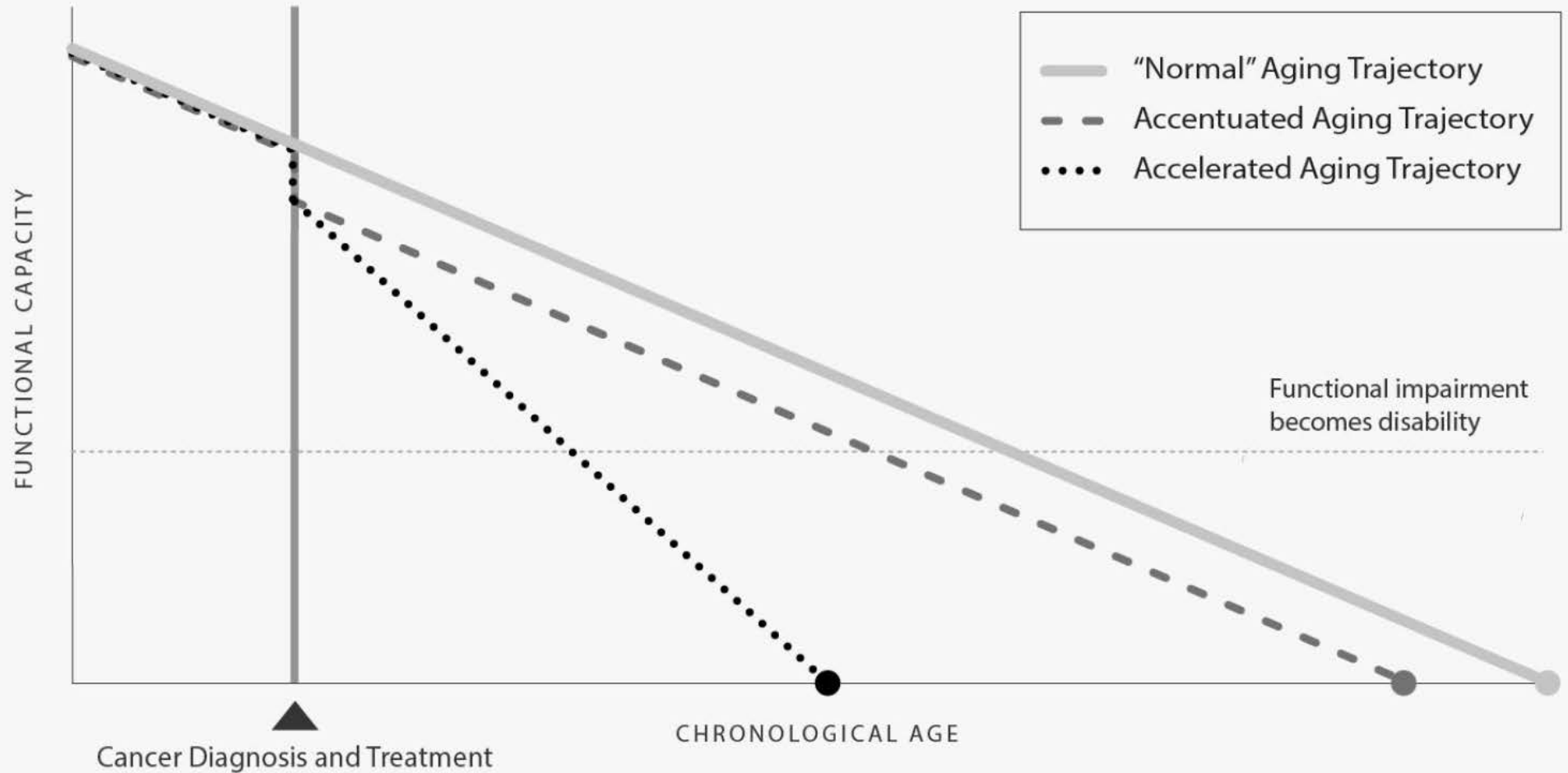
Expanding the Evidence Base in Geriatric Oncology: Action Items From an FDA-ASCO Workshop

Laura A. Levit, Harpreet Singh, Heidi D. Klepin, Arti Hurria

- Use clinical trials to improve the evidence base for treating older adults with cancer
- Leverage research designs and infrastructure to improve the evidence base for treating older adults with cancer
- Increase the authority of the FDA to incentivize and require research involving older adults with cancer
- Increase clinician recruitment of older adults with cancer to clinical trials.

Accelerated Aging

Guida et al, JNCI; 2019



Measuring Aging and Identifying Aging Phenotypes in Cancer Survivors

Guida et al. JNCI, 2019

- Conceptual Considerations
 - Consider aging as a life-course perspective of aging trajectories
 - Engage systems biology to understand aging processes from a cumulative deficit perspective
- Measurement Considerations
 - Use feasible, validated measures of physical and cognitive function
 - Use at least one objective measure of functional status
- Methodologic Considerations
 - Leverage existing resources
 - Increase number of older adults on trials, especially those with comorbidities
 - Identify most important predictors and outcomes
 - Attend to survival bias (cancer survivors with highest accumulation of deficits will die earlier)

Multifaceted & Complex Problem: Multifaceted & Complex Solution

- The majority of individuals with cancer are older adults
- Older adults are under-represented on registration trials
 - Geriatric assessment not included
- There is a need to improve the evidence-base

Many possible solutions:
Let's leap to the solution together!

Special Issue to Remember Dr. Arti Hurria

- Submissions on topics in geriatric oncology and accelerated aging that highlight Dr. Hurria's work.
- Submissions that highlight Dr. Hurria's contribution to mentorship, leadership, faculty development (including her dedication to the fostering the careers of women), multidisciplinary care, and team-based research.
- Personal tributes.



Preparing For the Next Generation: A National Network of Cancer and Aging Investigators

William Dale, M.D., Ph.D.

Arthur M. Coppola Family Chair in Supportive Care Medicine
Clinical Professor and Chair, Department of Supportive Care Medicine
Director, Center for Cancer & Aging Research, City of Hope

CityofHope.org/william-dale
Twitter: @WilliamDale_MD



**There is no better model to study aging than
Cancer**

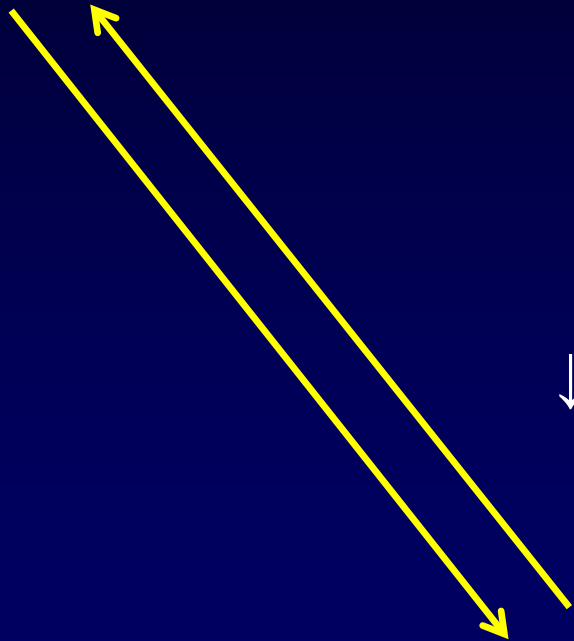
Age, Cancer, and Cancer Therapy

Aging

Cancer

Cell Senescence
Inflammation
DNA Damage
Oxidative Stress
↓
in Telomere Length

**Cancer
Therapy**



“Premature Aging Syndrome”

Introduce
Cancer Tx

Withdraw
Cancer Tx



Will She Recover?

Predicting Risk of Toxicity in Older Patients with Breast Cancer

(R01 & BCRF Grant, PI: Hurria)

Objective: To identify clinical and biological predictors of severe chemotherapy side effects in older patients with breast cancer

Breast Cancer Cases (starting chemo) 500 enrolled	Breast Cancer Control (no chemo) 100 enrolled	Healthy Controls 100 enrolled
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Timepoint 1:

Timepoint 2:

Timepoint 3:

Geriatric Assessment Bloodwork (biomarkers) Age	National PI Transition: Mina Sedrak, MD, MS (COH) Top Accruing Site: Allison Magnuson, DO (University of Rochester) Continued Collaboration Across 16 Sites Manuscript in progress describing preliminary results #DrHurriasLight	Geriatric Assessment Bloodwork (biomarkers) Age
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Across 16 institutions

COH Only

Can We Intervene to Decrease the Risk?

(UniHealth Grant, Principal Investigator: Hurria)

Objective: To determine whether the geriatric assessment driven interventions will lead to improvement patient outcomes

Pre-Chemotherapy (Baseline)

- Geriatric Assessment
- Calculation of Chemotherapy Toxicity Risk Score

RANDOMIZATION (2:1)

U
PI Transition: Daneng Li, MD (COH)
Co-Investigator: William Dale, MD, PhD
Primary analysis in progress

[#DrHurriasLight](#)

Level Care
Intervention

Dr. Hurria's Legacy:

4,500 Patients Contributing to Cancer and Aging Research

- Identifying Biomarkers of Aging and Chemotherapy Toxicity
- Understanding the Cognitive Effects of Cancer Therapy
- Studying New Cancer Treatments in Older Adults
- Understanding the Needs of Patients and Their Caregivers
- Understanding the Issues For Long-Term Cancer Survivors

Dr. Hurria's Legacy

Since November 2006:

- 30 geriatric oncology studies
 - Over 4,500 participants enrolled in cancer & aging studies
- Expanded peer-reviewed funding
 - K award to 13 NIH grants
- Disseminate our findings
 - Over 200 publications
 - Development of the *Journal of Geriatric Oncology*



Importance of Paying It Forward: Mentorship

VOLUME 26 • NUMBER 19 • JULY 1 2008

JOURNAL OF CLINICAL ONCOLOGY

COMMENTS AND CONTROVERSIES

Mentoring Junior Faculty in Geriatric Oncology: Report From the Cancer and Aging Research Group

Arti Hurria, *City of Hope, Duarte, CA*

Lodovico Balducci, *H. Lee Moffitt Cancer and Research Institute, Tampa, FL*

Arash Naeim, *University of California, Los Angeles, Los Angeles, CA*

Cary Gross, *Yale University, New Haven, CT*

Supriya Mohile, *University of Rochester, Rochester, NY*

Heidi Klepin, *Wake Forest University, Winston-Salem, NC*

William Tew, *Memorial Sloan-Kettering Cancer Center, New York, NY*

Leona Downey, *University of Arizona, Tucson, AZ*

Ajeet Gajra, *University of New York Upstate Medical University, Syracuse, NY*

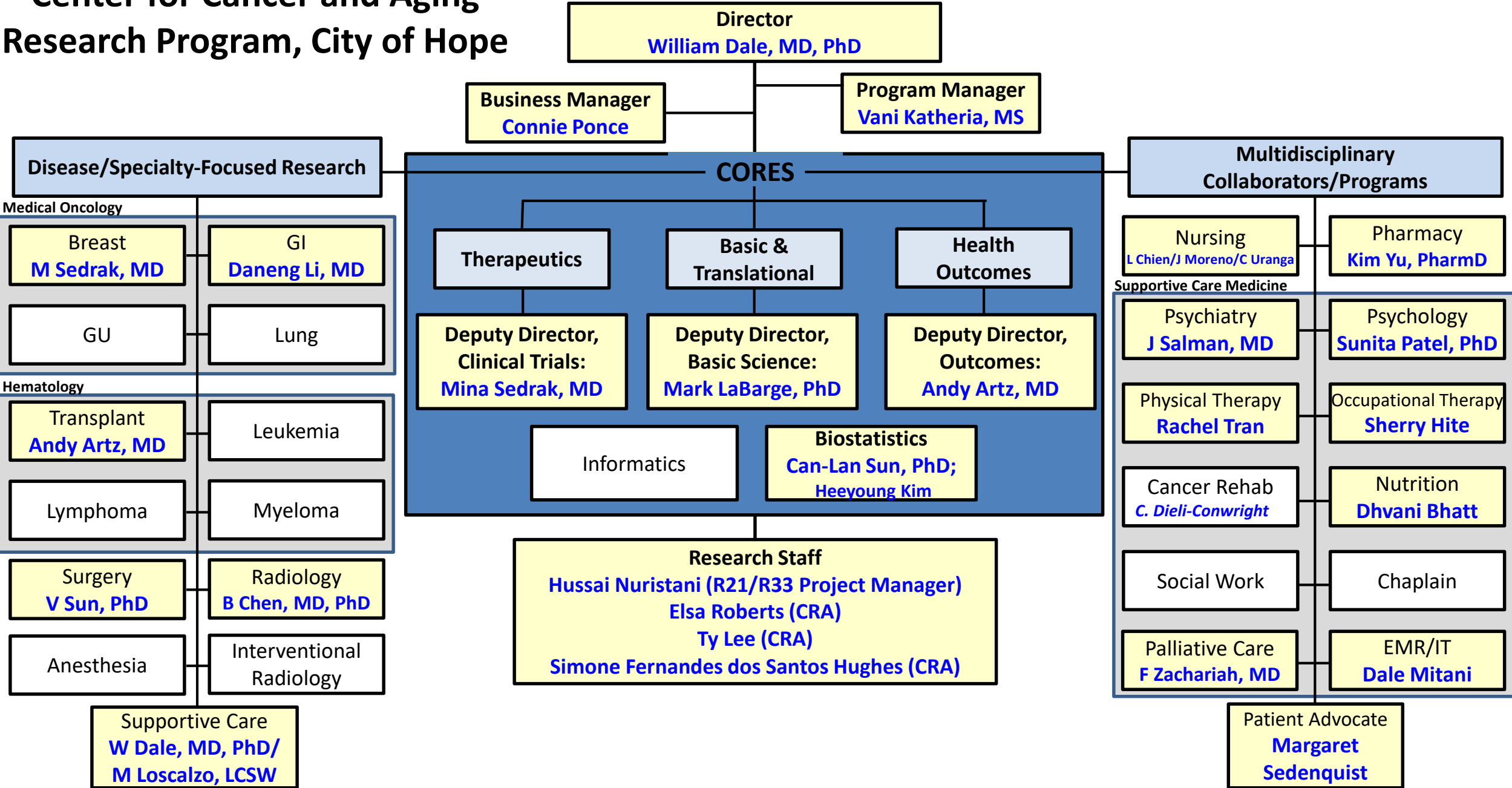
Cynthia Owusu, *Case Western Reserve University, Cleveland, OH*

Homayoon Sanati, *University of California at Irvine, Irvine, CA*

Theodore Suh, *The Cleveland Clinic, Cleveland, OH*

Robert Figlin, *City of Hope, Duarte, CA*

Center for Cancer and Aging Research Program, City of Hope





CARG Infrastructure Grant

(CARinG; NIA: R21/33)

MPIs: Drs. William Dale, Supriya Mohile, (Arti Hurria)

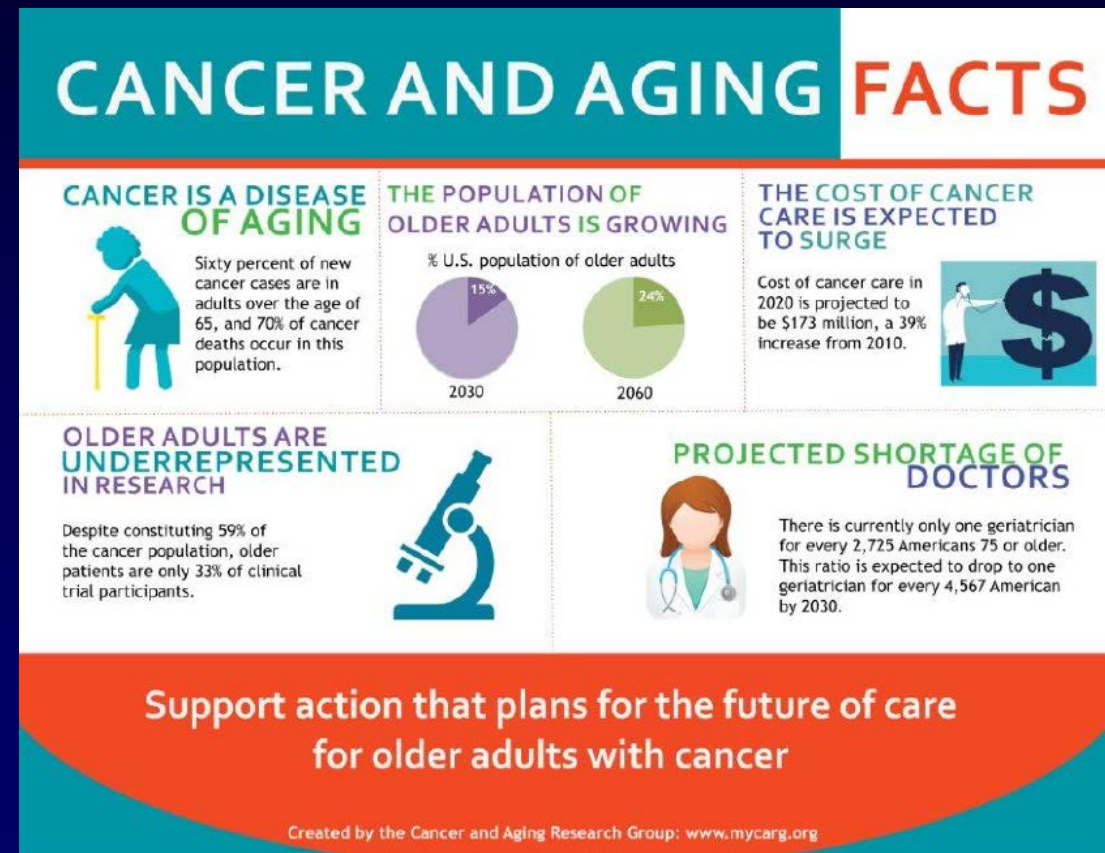


Founded by: Arti Hurria, MD (2006)



Co-Leads: Supriya Mohile, MD, MS & William Dale, MD, PhD

- **Mission:** to join geriatric oncology researchers across the nation in a collaborative effort of designing and implementing clinical trials to improve the care of older adults with cancer.
- **Bi-monthly CARG Calls:** where members can present current projects and grant proposals for feedback.



On Average, 40 Members per CARG Call



Over 20 Participating Institutions and 310 Members

Meet the Researchers	U13 Meeting	CARG Studies	Grant/Job Opportunities	Educational Resources	Geriatric Assessment Tools	Geriatric Oncology Events	R25 Nursing Grant	URCC GA Studies	Contact Us
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MISSION STATEMENT

The mission of the Cancer and Aging Research Group is to join geriatric oncology researchers across the nation in a collaborative effort of designing and implementing clinical trials to improve the care of older adults with cancer. The only requirement for membership is the desire to help older adults with cancer.



CARG Website: myCARG.org

Mentoring Junior Faculty in Geriatric Oncology ▶

Meet the Researchers	U13 Meeting	CARG Studies	Grant/Job Opportunities	Educational Resources	Geriatric Assessment Tools	Geriatric Oncology Events	R25 Nursing Grant	URCC GA Studies	Contact Us
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NIH/NIA Research Infrastructure Development for Interdisciplinary Aging Studies (R21/R33)

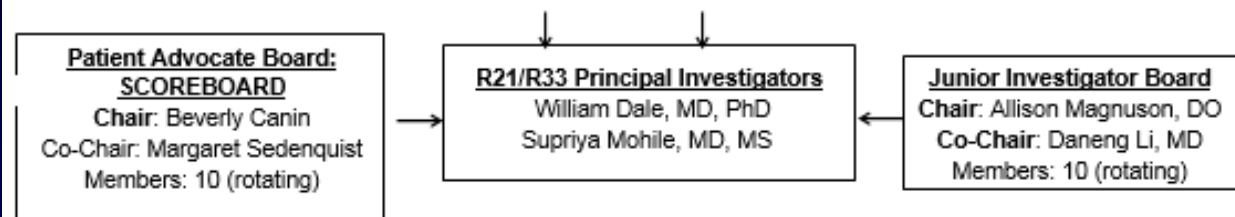
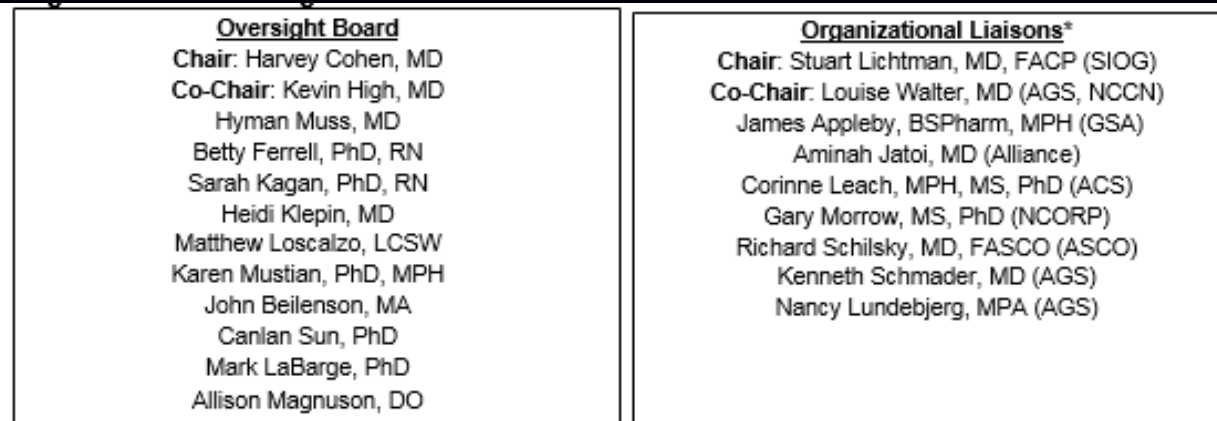
- This FOA invites applications that propose to develop novel research infrastructure that will advance the science of aging in specific areas requiring interdisciplinary partnerships or collaborations.
- This FOA will use the NIH Phased Innovation Award (R21/R33) mechanism to provide up to 2 years of R21 support for initial developmental activities, and up to 3 years of R33 support for expanded activities.
- Through this award, investigators will develop a sustainable research infrastructure to support projects that address key interdisciplinary aging research questions.

CARG Infrastructure Grant (CARinG) Goals

The overall goal is to develop a sustainable national research infrastructure to create and support significant and innovative projects addressing key interdisciplinary research questions at the aging and cancer interface.

- **Increase high-impact research** to reliably identify older patients at highest risk for adverse outcomes from cancer and its treatments;
- **Develop effective interventions** to improve outcomes for vulnerable older adults and their caregivers;
- **Mentor the next generation** of aging and cancer researchers;
- **Disseminate the findings** widely to inform clinical practice;

Organizational Structure

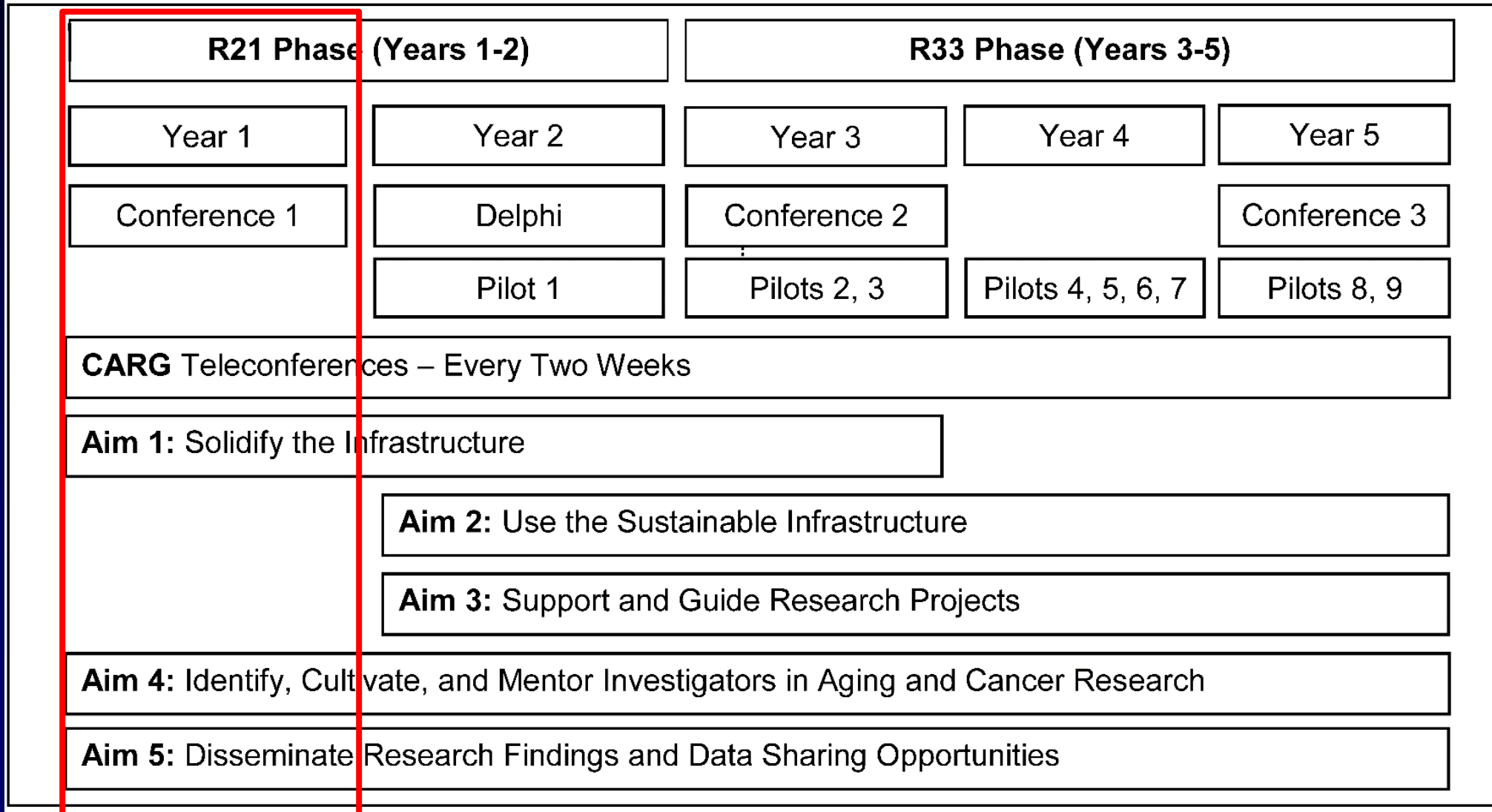


Core 1: Leadership, Mentorship & Training
Co-Chairs/PI Liaison: Supriya Mohile, MD, MS; William Dale; MD, PhD

Aging Assessments	Interventions	Research Methods
<p><u>Core 2: Clinical and Biological Measures of Aging</u> Chair: Heidi Klepin, MD Co-Chair: Hyman Muss, MD PI Liaison: William Dale, MD, PhD PI Liaison: Supriya Mohile, MD, MS Margaret Sedenquist Allison Magnuson, DO Corinne Leach, MPH, MS, PhD Mark Labarge, PhD Thuy Koll, MD</p>	<p><u>Core 3: Behavioral, Psychological Supportive Care Interventions</u> Chair: Matthew Loscalzo, LCSW PI Liaison: Supriya Mohile, MD, MS Beverly Canin Aminah Jatoi, MD Rawad Elias, MD</p>	<p><u>Core 5: Epidemiology, Biostatistics, & Informatics</u> Chair: Canlan Sun, MD, PhD PI Liaison: William Dale, MD, PhD Louise Walter, MD Karen Mustian, PhD MPH Mina Sedrak, MD</p>
	<p><u>Core 4: Care Delivery & Comparative Effectiveness Research</u> Chair: Harvey Cohen, MD PI Liaison: Supriya Mohile, MD, MS Stuart Lichtman, MD, FACP Gary Morrow, MS, PhD Melissa Wong, MD</p>	<p><u>Core 6: Dissemination & Communication</u> Chair: John Beilenson, MA PI Liaison: William Dale, MD, PhD James Appleby, BSPHarm, MPH, Nancy Lundeberg, MPA Ishwaria Subbiah, MD Dan Li, MD</p>

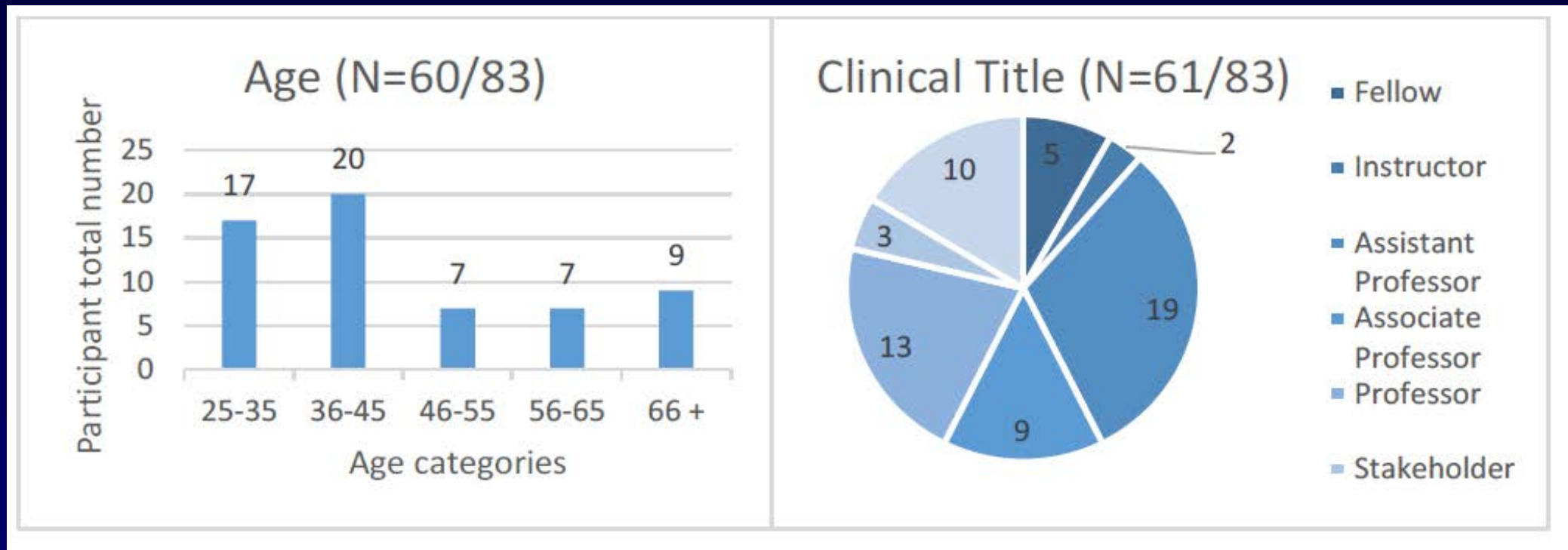
Schema of Events: Setting the Foundation

Figure 1: Schema of Events for “Geriatric Oncology Research Infrastructure to Improve Clinical Care”



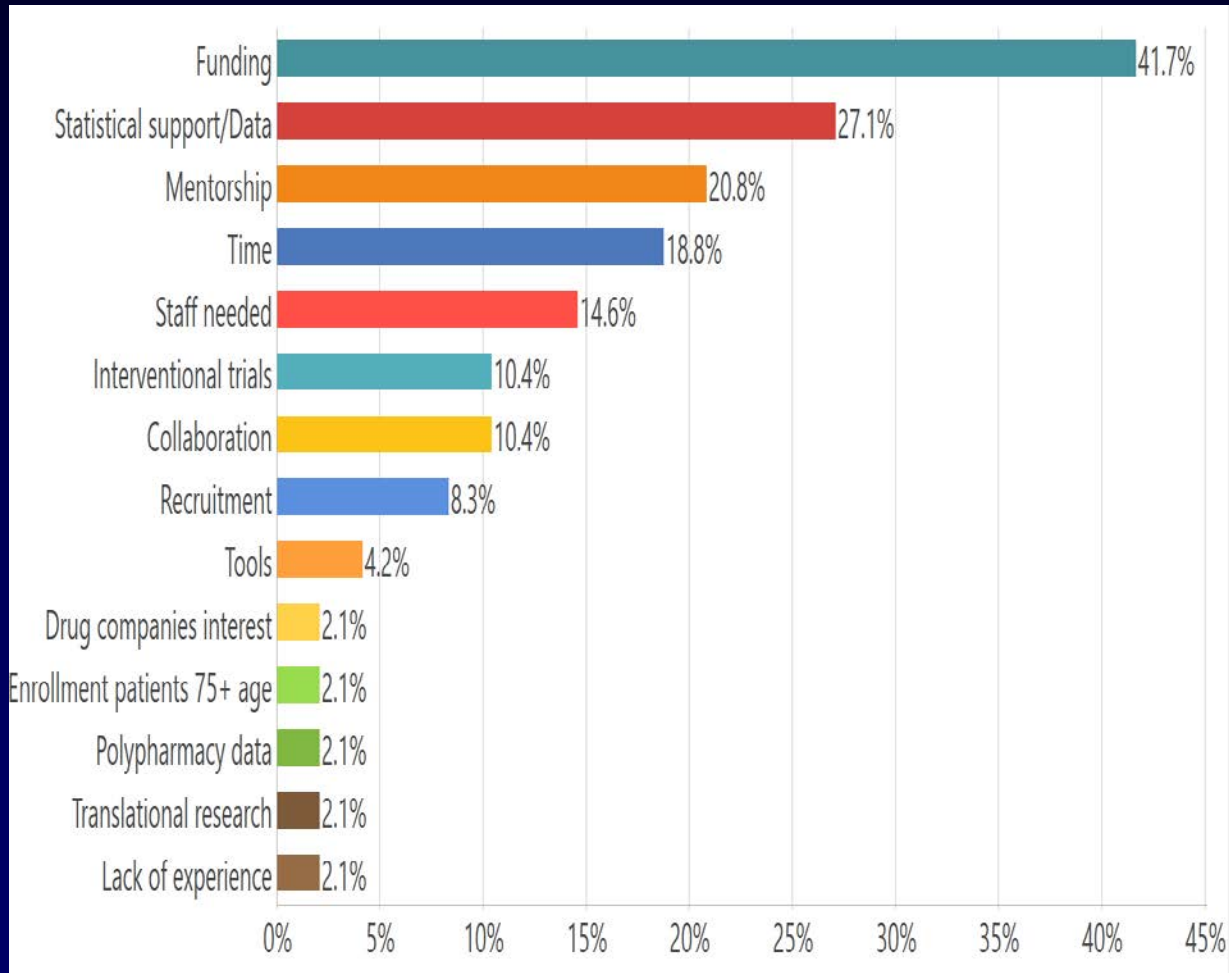
Delphi Survey (Round 1)

- Delphi Survey 1 captured through REDCap
- CARG members (n=261) were invited to complete the online survey, and 83 of the 261 survey participants responded

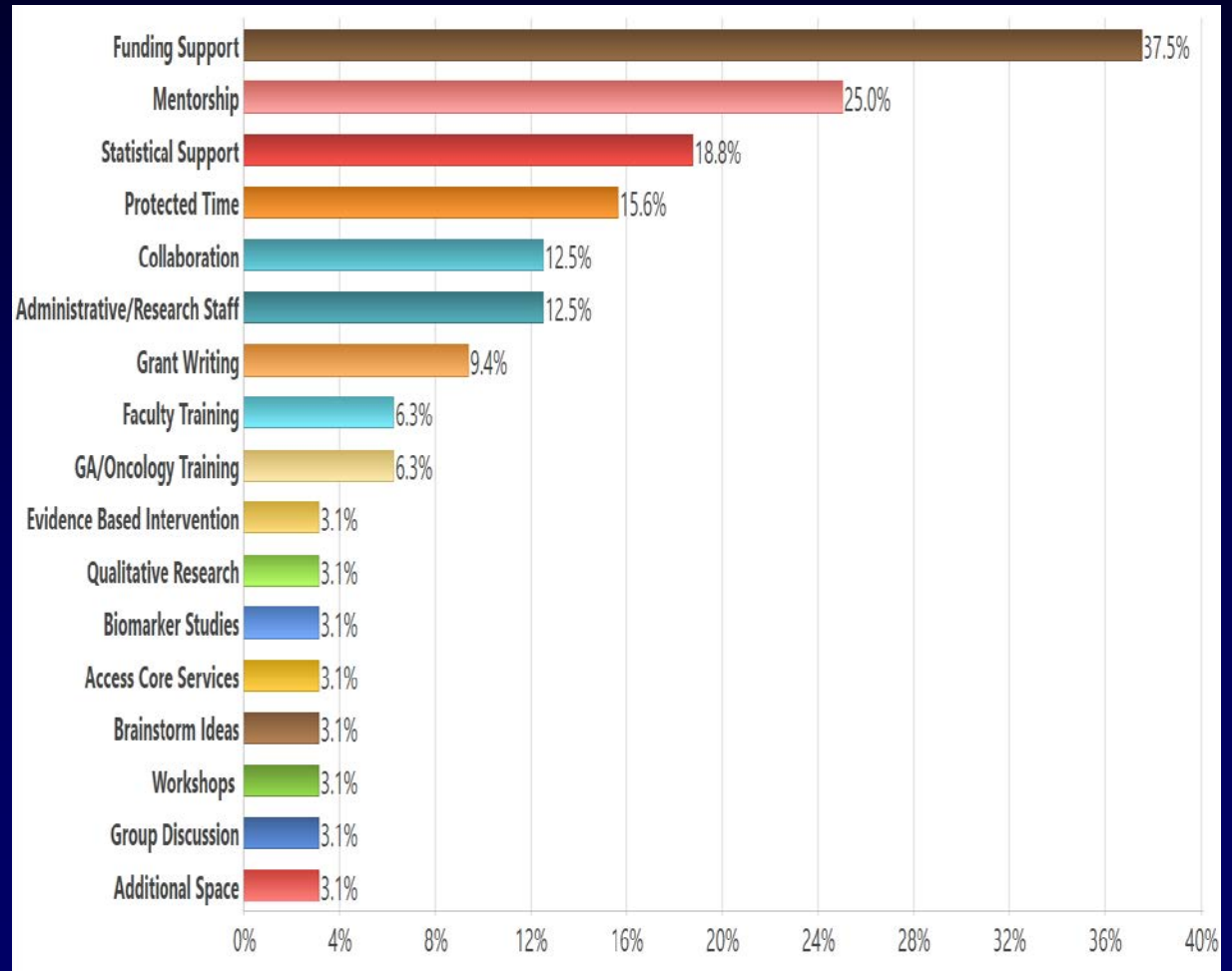


Delphi Survey, Round 1 Results

Barriers Conducting Geriatric Oncology Research



Identifying Unmet Needs: Support Needed

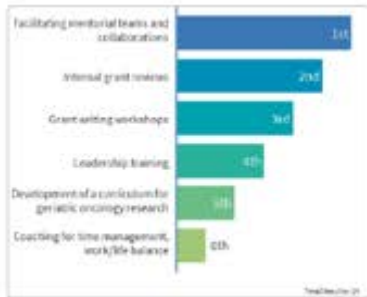


Delphi Survey 2: Priorities for the Mentorship Core



Please rank priorities for the Mentorship Core?

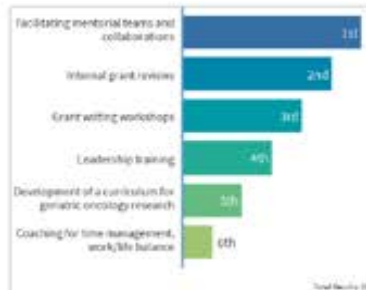
Delphi 2: Question 13 (n=23/24)



Response options

- Facilitating mentorship teams and collaborations
- Internal grant reviews
- Grant writing workshops
- Leadership training
- Development of a curriculum for geriatric oncology research
- Coaching for time management, work/life balance

Delphi 2: Question 13A (n=24/24)



Response options

- Facilitating mentorship teams and collaborations
- Internal grant reviews
- Grant writing workshops
- Leadership training
- Development of a curriculum for geriatric oncology research
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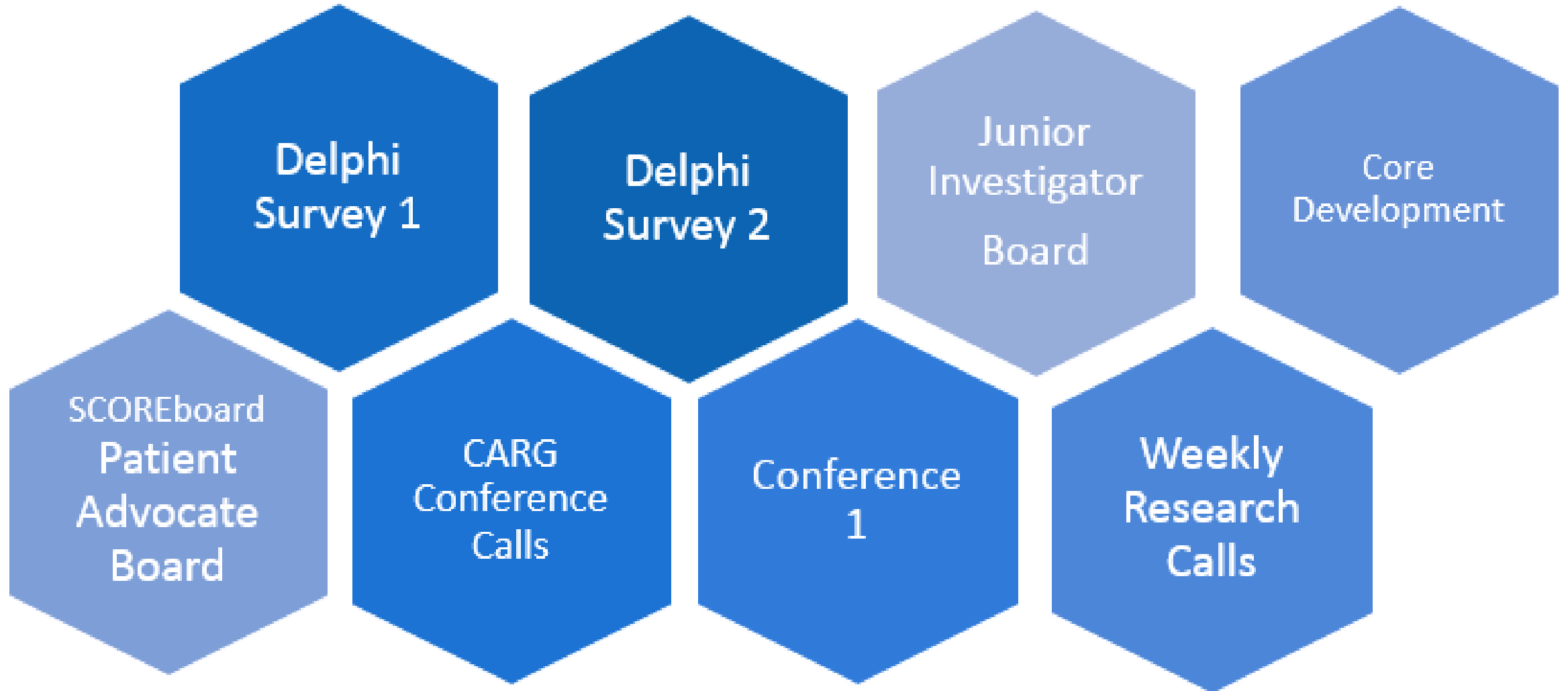
Response Options	Responses Ranked	Priority
Facilitating mentorship teams and collaborations	53	Highest Priority
Internal grant reviews	60	
Grant writing workshops	66	
Leadership training	91	
Development of a curriculum for geriatric oncology research	103	
Coaching for time management, work/life balance	111	Lowest Priority

Response Options	Responses Ranked	Priority
Facilitating mentorship teams and collaborations	51	Highest Priority
Internal grant reviews	55	
Grant writing workshops	75	
Leadership training	93	
Development of a curriculum for geriatric oncology research	111	
Coaching for time management, work/life balance	119	Lowest Priority

Patient Advocate Board: SCOREboard

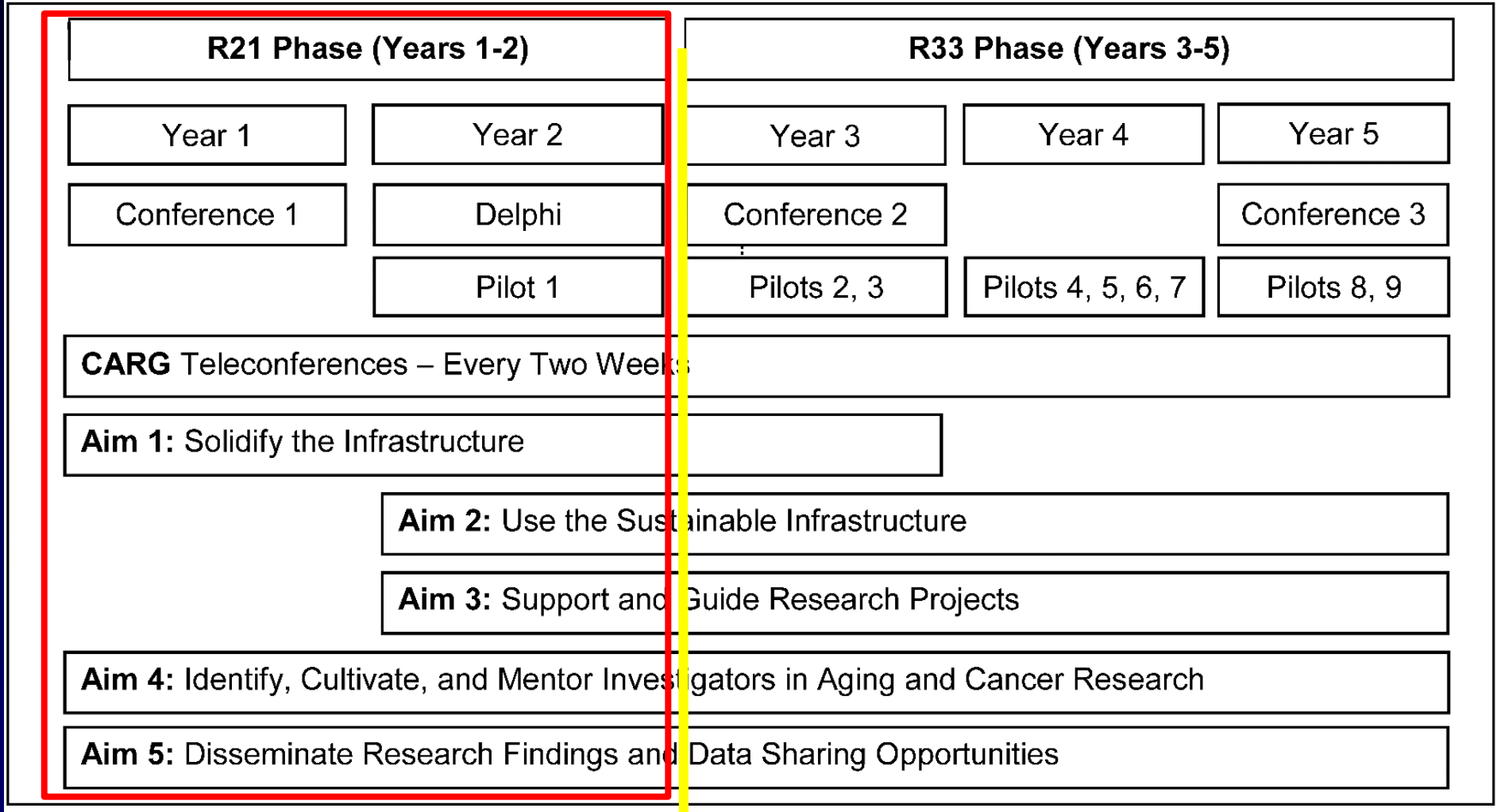
- **Co-Chairs:** Beverly Canin and Margaret Sedenquist
- **Our Mission:** to improve aging and cancer research and care delivery by infusing the knowledge and experience of older patients with cancer and their caregivers in all stages of the research process.
- Current membership 10 – 5 original members; 5 new confirmed
3 CA; 1 NC; 2 NY; 1 CT; 2 AA; 6 cancer types
- Procedures
 - 1.5 hour monthly webinar meetings including the liaison PI and members of the project team
 - One or two SCOREboard members work with each Core

Year 1: Key Outcomes



Schema of Events: Setting the Foundation

Figure 1: Schema of Events for “Geriatric Oncology Research Infrastructure to Improve Clinical Care”



R33 Phase -April 1, 2020

CARinG Cores

LEADERSHIP CORE

LEADERSHIP,
MENTORING, &
TRAINING

Co-Chairs: Supriya Mohile, MD, MS; William Dale, MD, PhD; Heidi Klepin, MD

PI Liaison: Supriya Mohile, MD, MS; William Dale, MD, PhD; Heidi Klepin, MD

MEASURES CORE

CLINICAL &
BIOLOGICAL
MEASURES OF
AGING

Chair: Hyman Muss, MD
Junior Faculty Lead:
Thuy Koll, MD

PI Liaison: Supriya Mohile, MD, MS; William Dale, MD, PhD

SUPPORTIVE CARE CORE

BEHAVIORAL,
PSYCHOLOGICAL
& SUPPORTIVE
CARE
INTERVENTIONS

Chair: Matthew Loscalzo, LCSW
Junior Faculty Lead:
Rawad Elias, MD

PI Liaison: PI Liaison: William Dale, MD, PhD

HEALTH SERVICES RESEARCH CORE

CARE DELIVERY
& COMPARATIVE
EFFECTIVENESS
RESEARCH

Chair: Harvey Cohen, MD
Junior Faculty Lead:
Melisa Wong, MD, MS

PI Liaison: Supriya Mohile, MD, MS

ANALYTICS CORE

EPIDEMIOLOGY,
BIostatISTICS &
INFORMATICS

Chair: Canlan Sun, MD, PhD
Junior Faculty Lead:
Mina Sedrak, MD, MS

PI Liaison: Supriya Mohile, MD, MS

COMMUNICATION CORE

DISEMINATION &
COMMUNICATION

Chair: John Beilenson, MA
Junior Faculty Lead:
Ishwaria Subbiah, MD, MS

PI Liaison: William Dale, MD, PhD

CARinG Pilot Grants

<u>Pilot Grant</u>	<u>Year</u>	<u>Grant Support</u>	<u>Matching Funds</u>	<u>Timeframe</u>
Pilot Grant 1	2	\$15,000	\$15,000	9/1/19-8/31/20
Pilot Grant 2	3	\$20,000	\$15,000	4/1/20-3/31/21
Pilot Grant 3	3	\$20,000	\$15,000	4/1/20-3/31/21
Pilot Grant 4	4	\$20,000	\$15,000	4/1/21-3/31/22
Pilot Grant 5	4	\$20,000	\$15,000	4/1/21-3/31/22
Pilot Grant 6	4	\$20,000	\$15,000	4/1/21-3/31/22
Pilot Grant 7	4	\$20,000	\$15,000	4/1/21-3/31/22
Pilot Grant 8	5	\$20,000	\$15,000	4/1/22-3/31/23
Pilot Grant 9	5	\$20,000	\$15,000	4/1/22-3/31/23

Core Papers

- Special Issue to Honor and Remember Dr. Arti Hurria through the *Journal of Geriatric Oncology*
- Junior Investigators who attend Conference 1 lead their respective paper and review the need for this particular Core for the infrastructure, and review of the process for next steps



Allison Magnuson, DO
Measures Core



Thuy Koll, MD
Measures Core



Rawad Elias, MD
Supportive Care Core



Melisa Wong, MD
Health Services Core



Dan Li, MD
Analytics Core



Mina Sedrak, MD, MS
Analytics Core



Ishwaria Subbiah, MD
Communication Core

Pilot Grant 1

- **Title:** Development of a Personalized Discussion Priorization Tool for Older Adults Considering Adjuvant Chemotherapy for Breast Cancer
- **Co-PIs:** Allison Magnuson, DO and Mina Sedrak, MD, MS
- **Grant Period:** September 1, 2019 – August 31, 2020

- **Overall Objective:** Develop and test a technology-mediated DPT, which integrates personalized information on risk factors for adjuvant chemotherapy-related toxicity in older women with breast cancer

- **Specific Aims**
 - **Aim 1:** Conduct a secondary analysis of patients enrolled on NCT01472094 to determine the association between clinical factors and reduced RDI of a prescribed chemotherapy regimen.
 - **Aim 2:** Adapt a DPT to include personalized information regarding risk of chemotherapy toxicity and risk of reduced RDI, and evaluate the usability of the DPT in ten older adults considering adjuvant chemotherapy for breast cancer.



Solidify the Infrastructure

Test Case: Pilot Grant 1

- **Evaluation and Metrics:**
 - Staff hired (program manager, biostatistician, science writer)
 - Development of a comprehensive inventory of aging and cancer researchers
 - Establishment of the Cores including a membership roster and operating manuals for Core structure and function
 - Revision of Core function and procedures based on evaluation by Core members, conference attendees, and grantees
 - Frequency of participation of Core members in calls, webinars, and conferences
 - Publications summarizing the key aspects of the infrastructure development

Next Steps

The Cores

- Review core composition
- Establish a Leadership Core
- Need to prioritize and establish timeline
- Patient advocates are integral partners
- Workflow: Need to develop an algorithm
 - Intake form on CARG website
 - “Super Navigator”
 - “5 minute consult”
 - Followed by more in depth help

Enduring Resources

- Catalog of measures:
 - Geriatric Assessment
 - Biological
- Standardized protocols
- Data collection
- Storage
- Toolbox of methods and analytical plans
- Databases of tools and studies
- Database of investigators



Mentorship (Sustainability)



- Our mentees are our future:
 - Leadership training
 - Leveraging junior investigators: “teaching moments”
 - “Pay it forward”

- Define what we mean
 - “M” vs. “m”
 - Advisor
 - Sponsor





**THANK YOU FROM
ALL OF US!**



CARG
CANCER & AGING RESEARCH GROUP
Infrastructure Grant

Funded by NIH/NIA
Grant No. 1R21AG059206



NIA R21/R33 (MPIs: Dale, Mohile, Hurria): Geriatric Oncology Infrastructure to Improve Clinical Care

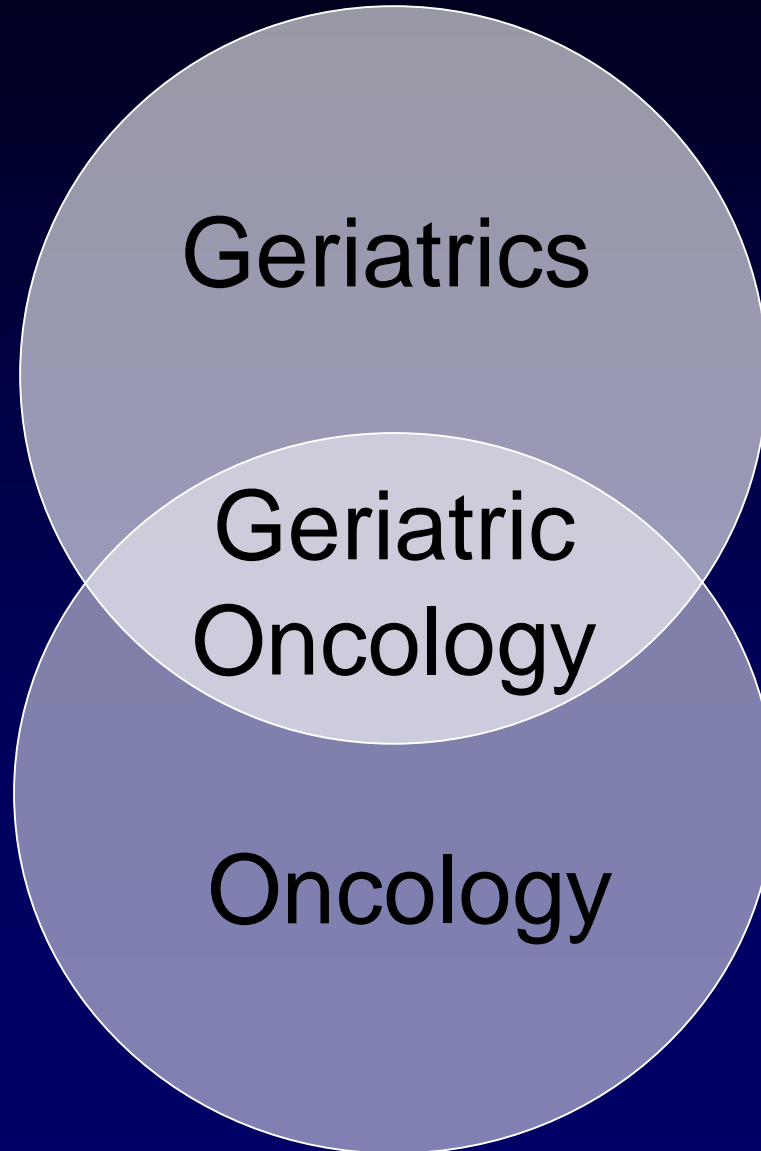
- 1) Accelerate high-quality research at the aging and cancer interface
- 2) Attract and mentor investigators
- 3) Combine aging and cancer research to form a pipeline of sustainability for Cores
- 4) Disseminate these results to the broader community



To the Future



Thank you!





Q&A

Future webinars

January 14, 2020, 12-1 p.m. ET

- Kiri Ness and Monica Gramatges

April 9, 2020, 12-1 p.m. ET

- Luigi Ferrucci and Morgan Levine

Send speaker suggestions and other feedback to:

NCIDCCPSagingwebinar@mail.nih.gov



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