

# ANALYTICS CORE



Can-Lan Sun, PhD  
Core Chair



Mina Sedrak, MD, MS  
Junior Faculty Lead

# ANALYTICS CORE MEMBERS

- **Can-Lan Sun, PhD**  
Core Chair
- **Mina Sedrak, MD, MS**  
Junior Investigator Lead
- **Supriya Mohile, MD, MS**  
PI liaisons
- **Louise Walter, MD**  
Organizational Liaisons  
Member
- **Dan Li, MD**  
Junior Investigator Board  
Member
- **Melissa Loh, MBBCh BAO**  
Junior Investigator Board  
Member
- **Beverly Canin**  
Patient Advocate Board:  
SCOREboard Co-Chair
- **Eva Culakova, PhD**  
Member
- **Huiwen Xu, PhD**  
Member

# ANALYTICS CORE

## MISSION

- Serve as central resource of expertise and counselling in epidemiology, biostatistics, and research design to advance cancer and aging research nationally
- Provide national statistic design support to accelerate high-quality research at aging and cancer interface for investigators at all stages of research process
- Help investigators generate scientifically sound hypotheses, identify right datasets or alternatives, use appropriate methods, collect accurate exposure and outcome data, and interpret/analyze results
- Support geographically disparate but committed group of interdisciplinary CARG investigators
- Provide central resource of statistical and trial design support to investigators studying older adults with cancer

# ANALYTICS CORE

## FUNCTION

- Provision of expert consultations through making aging-specific recommendations on study design, data selection, sample size/power calculations, and statistical analysis plans
- Link investigators with datasets for secondary data analysis, study design for pilot data, toolbox of methods and analytical plans for utilizing data, and informatics guide to best use data
- Foster opportunity for collaborations with other Cores to coordinate design
- Additional members provide diverse knowledge, expertise, and experience in fields

# R2I PHASE/ R33 ACCOMPLISHMENTS

## Meetings

- Hosted 8 analytical core meetings
- R2I phase discussed: core structure, membership, policies
- R33 year 1 discussed: inquires forms/procedures, how to share datasets, how to provide feedback

## Inquiries

- 5 inquiries:
  - Dr. Tomonori Mizutani from Japan: validation dataset request
  - Dr. Jessica Jones: Pre-emptive versus reactive chemotherapy dose reduction
  - Jody Simon: Precision Oncology Landscape in Geriatric Oncology
  - Dr. Carolyn Presley: Resiliency/functional decline Beeson
  - Dr. Lorinda Coombs
- ❖ Example: Drs. Jones and Presley's proposal



**CARG**  
CANCER & AGING RESEARCH GROUP  
Infrastructure Grant

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# ACCOMPLISHMENTS

## Databases

- Drs. Loh, Sedrak, and Wong created the public available data source excel file: uploaded onto mycarg website
- Working on Data Sharing Recommendations for:
  - CARG, HOPE, COACH datasets

## Pilot Grant/ Pilot grant review

- First pilot grant: Drs. Sedrak and Magnuson
  - RDI paper in final stage
- CARinG pilot grant review



# WHAT'S WORKING/WHAT'S NOT?

- Core structure, projects, membership working well
  - Team is able to split into small groups as needed for specific projects
  - Balance between members working on Analytic Core projects versus inquiries is working well
  - Unclear if membership should stay the same for this core or rotation given expertise of this core and possible difficulties with finding other experts—await conversation during conference
- Inquiry and feedback process works well
- No secondary data analysis inquiry yet
  - Like Dr. Presley's study, we could add value by reviewing protocols/grants that include geriatric assessment information



# FUTURE DIRECTION

- Goal to set up data sharing procedures and recommendations for next year
- Goal to develop tools (SAS & R programs) for GA scoring and other common questionnaires
- Inclusion: review goals and get feedback from Advocacy group
- Sustainability: secondary data analysis-publication, how to support core member's time?





## Publicly Available Datasets for GeriOnc Research

Databases	Abbreviations	Link	Paper/Abstract titles	Investigator	Example research papers by CARG members	Comments
Surveillance, Epidemiology, and End Results	SEER	<a href="https://seer.cancer.gov/data/">https://seer.cancer.gov/data/</a>	Predicting future cancer incidence by age and gender	Rachel Freedman Noam VanderWalde	<a href="https://ascopubs.org/doi/abs/10.1200/JCO.2019.37.15_suppl.1559">https://ascopubs.org/doi/abs/10.1200/JCO.2019.37.15_suppl.1559</a>	
				Viteri Malone		
				Eva Culakova		
				Anita Kumar		Programming challenge
Surveillance, Epidemiology, and End Results-Medicare	SEER-Medicare	<a href="https://healthcaredelivery.cancer.gov/seermedicare/">https://healthcaredelivery.cancer.gov/seermedicare/</a>	The characteristics, treatment patterns, and outcomes of older adults aged 80 and over with multiple myeloma	Tanya Wildes	<a href="https://www.ncbi.nlm.nih.gov/pubmed/32169544">https://www.ncbi.nlm.nih.gov/pubmed/32169544</a>	No EHR data, lab values, limited information on metastasis
			Measuring cardiopulmonary complications of carfilzomib treatment and associated risk factors using the SEER-Medicare database		<a href="https://www.ncbi.nlm.nih.gov/pubmed/31721143">https://www.ncbi.nlm.nih.gov/pubmed/31721143</a>	
			Adherence to Lenalidomide in Older Adults With Newly Diagnosed Multiple Myeloma		<a href="https://www.ncbi.nlm.nih.gov/pubmed/31843543">https://www.ncbi.nlm.nih.gov/pubmed/31843543</a>	
			Cost differential associated with hospice use among older patients with multiple myeloma		<a href="https://www.ncbi.nlm.nih.gov/pubmed/31262592">https://www.ncbi.nlm.nih.gov/pubmed/31262592</a>	
				Xiaotao Rony Zhang		
				Amy Davidoff		
			Depression and Health Care Utilization at End of Life Among Older Adults With Advanced Non-Small-Cell Lung Cancer	Cara McDermott	<a href="https://pubmed.ncbi.nlm.nih.gov/30121375/">https://pubmed.ncbi.nlm.nih.gov/30121375/</a>	
				Rachel Freedman		
			Patterns of care in older patients with squamous cell carcinoma of the head and neck: a surveillance, epidemiology, and end results-medicare analysis	Noam VanderWalde	<a href="https://pubmed.ncbi.nlm.nih.gov/24058388/">https://pubmed.ncbi.nlm.nih.gov/24058388/</a>	
			Effectiveness of chemoradiation for head and neck cancer in an older patient population		<a href="https://pubmed.ncbi.nlm.nih.gov/24725687/">https://pubmed.ncbi.nlm.nih.gov/24725687/</a>	
			Definitive Pelvic Radiotherapy and Survival of Patients With Newly Diagnosed Metastatic Anal Cancer		<a href="https://pubmed.ncbi.nlm.nih.gov/30659127/">https://pubmed.ncbi.nlm.nih.gov/30659127/</a>	
				Viteri Malone		
	Niraj Gusani					
	Meghan Karuturi					

PUBLIC  
DATASETS  
FOR  
GERI-ONC  
RESEARCH