

Exploring Cancer
Examining the Role of Biology, Race, Class, and Socioeconomics

Welcome to the UNC Lineberger Cancer Network's live webinar

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Exploring Cancer
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A collaboration between

NC Central University | UNC Lineberger Comprehensive Cancer Center | Mercy Catholic Adventist Hospital and Technical State University

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Exploring Cancer
Examining the Role of Biology, Race, Class, and Socioeconomics **Fridays**
11:00 - 11:50 AM EST/EDT

August 26 Welcome to Cancer(s) and Health Disparities 101 - The Introduction	September 30 Including the patient voice in cancer research	November 11 Precision Medicine and Immunotherapy
September 9 Genomics/Microbiome and Disparities for Endometrial Cancer	October 14 Breast Cancer Health Disparities	November 18 Cervical Cancer, Basics of Treatment and Disparities in Outcome
September 16 Building the Oncology Careforce in Malawi to Meet the Needs of Individuals Living with Cancer and their Guardians	October 21 Inflammatory Breast Cancer	

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Exploring Cancer
Examining the Role of Biology, Race, Class, and Socioeconomics **October 21, 2022**

Inflammatory Breast Cancer



Alanna Burwell, MPH, PhD(c)



Portia Andrews, MS

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Alanna is a 5th-year graduate student in the Integrated Biosciences Ph.D. program at North Carolina Central University (NCCU). She received a Bachelor of Science in Biology from NCCU and a Master of Public Health from the University of New England. She completed a 2-year post-baccalaureate program at the National Institute of Environmental Health Sciences (NIEHS), where she studied the effects of environmental contaminants on uterine fibroid growth and endometrial cancer. Alanna's dissertation research focuses on identifying social and biological factors that result in drug resistance for African American women with triple-negative breast cancer.

Her long-term goal is to translate fundamental research findings into meaningful health outcomes for minority populations.

Alanna Burwell, MPH, PhD(c)

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Portia Andrews, MS

Portia Andrews, MS is a biomedical scientist and advocate for health equity who has carved her niche at the intersection of science and the improvement of human health. She earned her Bachelor of Science in Biology from UNC-Chapel Hill and her Master of Science in Biological and Biomedical Sciences from NC Central University. Portia's current research focuses on addressing genetic ancestry and underlying patterns of genetic diversity in breast cancer health disparities.

While her professional experience spans scientific research, patient care, and community outreach, her goals remain to be an agent in the pool of diversity in healthcare leadership and to increase diversity in clinical trials.

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Inflammatory Breast Cancer

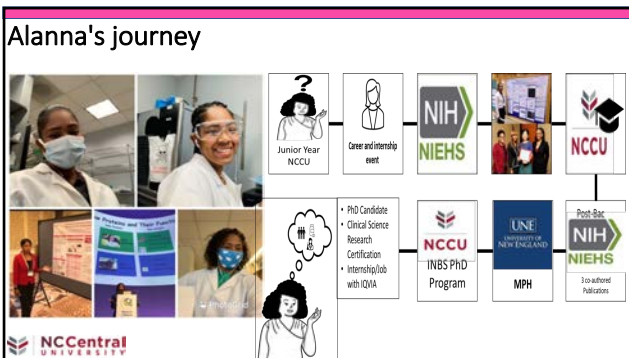


Alanna Burwell, MPH
Portia Andrews, MS

NC Central University

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Alanna's journey



Timeline of Alanna's journey:

- Junior Year NCCU
- Career and Internship event
- NIH NIEHS
- NCCU
- PHD Candidate
- Clinical Science Research Certification
- Internship/Job with IQVIA
- NCCU INBS PhD Program
- UNE UNIVERSITY OF NEW ENGLAND MPH
- Post-Bar NIH NIEHS
- 3 published Publications

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Objectives

1. Describe the signs and symptoms required for a diagnosis of inflammatory breast cancer (IBC).
2. Discuss the importance of early detection diagnosis and treatment of IBC.
3. Identify ways to increase awareness and reduce the stigma linked to the symptoms and treatment of breast cancer.

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Have you heard of inflammatory breast cancer?

Yes

No

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Komen Graduate Training in Disparity Research (GTDR) Program

- **Purpose:** To train underrepresented minority graduate students in breast cancer research and to develop and implement community-based strategies.
- **Program:** The NCCU GTDR trans-disciplinary training program is designed to equip and inspire emerging breast cancer researchers to address the biological and social factors that contribute to breast cancer health disparities incidence and mortality.
- **Funding:** In September 2016 NCCU received funding from Susan G. Komen for its Graduate Training in Disparities Research (GTDR) Program.
- **Trainees:** Doctoral and Masters students in the Integrated Biosciences and Biological and Biomedical Sciences Program.
- **Partnerships:** NCCU Professors, Duke Cancer Institute Office of Health Equity and Disparities, Durham Community Advisory Board, Patient Advocates




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Beyond the bench: Education and Community Outreach for IBC

IBC Education and Outreach CEnR Project (Drs. Seronda Robinson and Nadine Barrett)

- Meeting with patient advocates
- Human subjects research and IRB protocols
- Survey design and focus groups
- IBC Forum at Women's Health Awareness Day








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Developing an Inflammatory Breast Cancer Campaign: Results from Focus Groups Led by Komen Scholars

Women's health awareness day (WHAD) is a comprehensive outreach and screening program held at NCCU to promote women's health in the Durham community and the Greater Triangle.

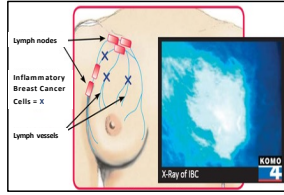
Listening session with attendees to:

- Understand their current knowledge about Inflammatory Breast Cancer (IBC)
- Raise awareness about IBC.
- Learn strategies and recommendations to increase awareness in the broader community.

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What is inflammatory breast cancer (IBC)?

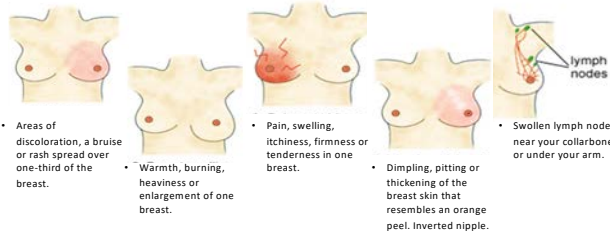


- Accounts for about 1% - 5% of all breast cancers diagnosed in the United States.
- An aggressive type of cancer in which cancer cells block lymph vessels in the skin, causing the breast to look inflamed.
- IBC is most diagnosed in young Black women.



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Symptoms of IBC



- Areas of discoloration, a bruise or rash spread over one-third of the breast.
- Warmth, burning, heaviness or enlargement of one breast.
- Pain, swelling, itchiness, firmness or tenderness in one breast.
- Dimpling, pitting or thickening of the breast skin that resembles an orange peel. Inverted nipple.
- Swollen lymph nodes near your collarbone or under your arm.



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Diagnosis of IBC



- Diagnosis involves a **physical examination, imaging studies and a biopsy.**
 - **Physical exam:**
 - A rapid onset of erythema (redness), edema (swelling), and a peau d'orange appearance (ridged skin) and/or abnormal breast warmth, with or without a lump that can be felt.
 - **Imaging:**
 - **Mammogram:**
 - Uses low energy X-rays to create a picture of the inside of your breast.
 - Allows your healthcare provider to look for lumps, breast calcifications or skin thickening
 - **Ultrasound:**
 - Uses sound waves to create pictures of the inside of your breasts, nearby tissue and lymph nodes
 - Allows your provider to see if cancer from your breast has spread to nearby tissue.
 - **Biopsy:**
 - The only way to confirm an IBC diagnosis.
 - Removal of tissue sample from breast for pathological testing.



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Staging IBC



- Biopsy results can help your healthcare provider stage the cancer or determine whether it's spread outside of your breast tissue.
 - By the time IBC is diagnosed, it's either stage III or stage IV
 - Stage III: cancer has only spread to your breast tissue skin
 - Stage IV: cancer has spread to other organs
- A PET scan or a CT scan and a bone scan help to determine if the cancer has spread.
- Proper diagnosis and staging of inflammatory breast cancer help doctors develop the best treatment plan and estimate the likely outcome of the disease.

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Treatment of IBC

- IBC treatments use a combination of **chemotherapy, surgery and radiation.**
 - **Chemotherapy:**
 - Uses drugs to kill cancer cells
 - Shrinks cancer cells so they're easier to remove during surgery
 - May also receive chemotherapy after surgery to destroy any remaining cancer cells
 - **Surgery:**
 - Removal of entire affected breast (mastectomy) and nearby lymph nodes
 - **Radiation therapy:**
 - Uses a machine to direct energy toward the cancer, destroying the cancer cells
 - May also receive radiation therapy after surgery to destroy any remaining cancer cells
 - Depending on the characteristics of your cancer cells (discovered during the biopsy) you may receive treatments like **targeted therapy or hormone therapy.**





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Poll Question:

A patient's biopsy confirms stage III invasive ductal carcinoma (cancer cells that developed in the milk ducts have spread beyond the ducts) and that these cancer cells have estrogen receptors. It is recommended that the entire left breast is removed. Which form of treatment and/or combination of treatments would allow for the best outcome? Hormone therapy or chemotherapy?

A. Hormone therapy
B. Chemotherapy



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What are some stigmas that are associated with breast cancer?


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Reduce the stigma

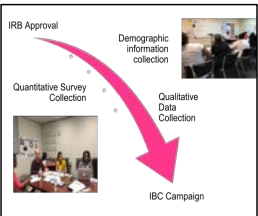
- Provide a comfortable setting for individuals to freely ask questions and give input
- Gauge the individual's understanding and retention of information
- Engage individuals into dialogue about breast cancer screenings and how to identify IBC
- Build relationships with the community
- Instill Self-advocacy
- Understand the importance of family medical history



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Focus Groups: Methodology



- Developed a *culturally tailored* outreach and marketing plan
- Utilized best practice to generate question guides
- Captured data and created summary reports from participants' responses

Participants:

- Duke Cancer Institute (DCI) Community Advisory Council
- Orange Grove Missionary Baptist Church Members
- Sisters Network Inc. – A National African American Breast Cancer Survivorship Organization
- Delta Sigma Theta Sorority Inc.

Focus Group Facilitators: Komen Scholars

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Where are you most likely to receive health education and information?

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How would you raise awareness for a rare disease?


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Raise Awareness

- Utilize social media
- Spread awareness about IBC to diverse groups
- Develop culturally tailored outreach and marketing plans.
- Engage all researchers with the community.
- Form partnerships with the community and researchers to facilitate the development of relevant and accessible information about IBC.







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Key takeaways

One-to-One Education

- Ability to gauge the individual's understanding and retention of information
- Provide a comfortable setting for individuals to freely ask questions and give input

Help spread awareness about IBC to diverse groups

- Engage individuals into dialogue about breast cancer screenings and how to identify IBC
- Build relationships with the community

Share the Message

- IBC not only affects women but their love ones too
- Inform everyone about IBC
- IBC may not result in a lump in the breast

Connectivity

- Bring a friend or someone who can advocate for you when going to the doctor
- Find a healthcare provider who will listen to your concerns
- Know all your options and ask questions when you do not understand



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Acknowledgements

Komen Scholars

- Alanna Burwell, MPH
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Advisory Board

- Dr. Kevin Williams - NCCU
- Dr. Jodie Fleming - NCCU
- Dr. Seronda Robinson - NCCU
- Dr. Maria Dixon-NCCU
- Dr. Nadine Barrett - Duke
- Dr. Gayathri Devi - Duke

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Upcoming Live Webinar

Precision Medicine and Immunotherapy

 **Ugwuji N. Maduekwe, MD, MMSc, MPH, FACS, FSSO**
 Associate Professor
 Oncology and Endocrine Surgery
 Cancer Epidemiology
 Medical College of Wisconsin

November 11 11:00 AM


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Exploring Cancer is a webinar series taught by cancer biologists, physicians, public health experts, and other cancer specialists from NCCU, UNC-Chapel Hill, and NC A&T.

We hope to see you next time!

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