




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

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Exploring Cancer
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A collaboration between



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Fridays
11:00 - 11:50 AM EST/EDT

August 25 Welcome to Cancer(s) and Health Disparities 101 - The Introduction	October 13 Breast Cancer Health Disparities	November 10 Precision Medicine and Immunotherapy
September 4 Radiation Oncology - What Is It, and What Is It Good For?	October 20 Pancreatic Cancer	November 17 Expanding Cancer Care Quality and Delivery in Sub-Saharan Africa: a collaborative approach
September 8 New Strategies in Treating GI Cancers	October 27 Careers in Cancer	

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October 27, 2023

Careers in Cancer

 Veronica Carlisle, MPH, CHES	 Jessica Veale, MHS, PA-C	 Michelle Johnson, MHS, PA (ASCP)CM
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Veronica Carlisle,
MPH, CHES

Veronica Carlisle, MPH, CHES, is the Senior Community Health Educator at Lineberger Comprehensive Cancer Center (LCCC) in the Office of Community Outreach and Engagement (COE) the University of North Carolina, Chapel Hill. In her role, she facilitates meaningful engagement between researchers and communities in part through management of LCCC's community advisory board along with COE's community grant funding program and community outreach and cancer education activities. Veronica works with communities throughout the state of North Carolina with a focus on underrepresented populations. Her areas of experience include community engagement, cancer health equity, and participatory research. Veronica has a Bachelor of Science in Occupational Therapy from Howard University and received her Master of Public Health in Behavioral Sciences and Health Education from the Rollins School of Public Health at Emory University.

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Professional Highlights

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2. Veronica received the UNC School of Medicine Dean's Performance Award for Community Service

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2. Veronica received the UNC School of Medicine Dean's Performance Award for Community Service
1. Veronica believes that even her first job, delivering newspapers, helped prepare her for the work she does today.

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Jessica Veale, M.A.S., PA-C, attended the University of North Carolina at Chapel Hill and graduated with a degree in Clinical Laboratory Science. After graduation, she started working at Vidant Medical Center's hematology laboratory as a medical technologist. Her time as a medical technologist ignited her desire to provide more patient facing care and she started pursuing a career as a physician assistant (PA). She was able to pursue this dream when she gained acceptance to the Duke PA program. Since graduating PA school, she has been practicing as a physician assistant in pediatric hematology oncology at ECU health.

**Jessica Veale,
MHS, PA-C**

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Professional Highlights

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Professional Highlights

4. Jessica Veale, M.H.S, PA-C, enjoys teaching and often gives hematology lectures to the ECU PA program.

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Professional Highlights

- 4.** Jessica Veale, M.H.S, PA-C, enjoys teaching and often gives hematology lectures to the ECU PA program.
- 3.** She is credentialed to perform lumbar punctures with the administration of intrathecal chemotherapy.

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Professional Highlights


- 4.** Jessica Veale, M.H.S, PA-C, enjoys teaching and often gives hematology lectures to the ECU PA program.
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- 2.** She is the co-chair of North Carolina Academy of Physician Assistant diversity equity and inclusion committee.

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Professional Highlights

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- 2.** She is the co-chair of North Carolina Academy of Physician Assistant diversity equity and inclusion committee.
- 1.** She is the creator of a podcast, The PA Process

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Michelle Johnson, MHS, PA (ASCP)CM

Mrs. Johnson serves as the Program Director of the Duke Pathologists' Assistant Program. As a graduate of the Duke Pathologists' Assistant Program (1999), Michelle began her career at Duke as a staff pathologists' assistant in the Surgical Pathology Laboratory following the completion of the program. After leaving Duke, she worked in community practices in Utah and Virginia, and also served as the senior pathologists' assistant at Vanderbilt University, which included supervising both the adult and children's hospital surgical pathology laboratories while also participating in the coordination of the resident education alongside the Surgical Pathology Director.

Education has been a central component of Michelle's career. She has volunteered with the American Association of Pathologists' Assistants, serving as the contributor for the Gross Photo Tutorial in the quarterly journal from 2007-2017. She is a secondary author for a growing protocol in the published Growing Guidelines through the AAPA, 2018. Michelle has mentored several technical colleagues throughout her career, assisting in their progression to pathologists' assistant programs in multiple states. In 2022 Michelle received the Pamela Volturno Teaching Award, which is awarded annually by the graduating class of the Duke Pathologists' Assistant Program to honor the individual whose knowledge, teaching and professionalism has had the most positive impact on their training. Michelle also currently serves as an adjunct clinical instructor at High Point University, teaching Pathophysiology and Histology to biomedical science graduate students.

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Professional Highlights

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Professional Highlights

- Michelle Johnson, MHS, PA (ASCP)CM has been a Gross Photo Tutorial content contributor to the Cutting Edge Journal of the AAPA for 10 years.

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Professional Highlights

- 5.** Michelle Johnson, MHS, PA (ASCP)CM has been a Gross Photo Tutorial content contributor to the Cutting Edge Journal of the AAPA for 10 years.
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22

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23

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1. She is a recipient of the Pamela Vollmer Teaching Award in 2022.

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The Role of a PA in Pediatric Hematology Oncology

Jessica Veale, M.H.S., PA-C

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Are there any students in the audience interested in pursuing a career as a Physician Assistant?

Yes 0%

No 0%

Start the presentation to see live content. For screen share software, share the entire screen. Get help at pearson.com/egp

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What is a Physician Assistant?

- PAs (physician associates/physician assistants) are licensed clinicians who practice medicine in every specialty and setting."- AAPA

PAs practice medicine in all specialties

- 21.8% Primary Care
- 12.2% Internal Medicine Subspecialties
- 8.6% Emergency Medicine
- 1.9% Pediatric Subspecialties
- 38.9% Other
- 34.4% Surgical Subspecialties
- 4.7% No Specialty

2021 AAPA Salary Survey
All data based on clinically practicing PAs in the U.S.

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NC PA Programs (11)

NC PA Programs (11)

- Campbell University College of Pharmacy & Health Sciences
- Duke University School of Medicine
- East Carolina University, College of Allied Health Sciences
- Elon University
- Gardner-Webb University
- High Point University
- Methodist University
- Pfeiffer University
- UNC School of Medicine
- Wake Forest University School of Medicine
- Wingate University

NC/APA

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- Wake Forest University School of Medicine
- Wingate University


NC/APA

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Requirements

- Bachelor's Degree (any major)
- Direct Patient Care Experience
- Graduate Record Examination (GRE)
- Shadowing a PA
- Academic References
- CASPA Application

* Please note: All PA programs have specific requirements




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Required Prerequisite Coursework

Anatomy Physiology Biology







Chemistry Math English


*Prerequisite coursework is going to vary by each PA program



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Fun Facts

-  The PA Profession was first established in 1967.
-  There are approximately 150,000 PAs in the US.
-  The average length of PA school is 26 months.
-  There are approximately 277 PA programs in the US.
-  PAs practice in a variety of specialties and medical settings, in every state.
-  PAs can switch specialties without obtaining additional schooling.

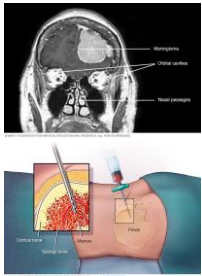


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Pediatric cancer

- Cancer is the leading cause of death from disease among children
- Acute lymphocytic leukemia is the most common cancer diagnosed in kids.
- Other common types of pediatric cancer include brain tumors and lymphomas.

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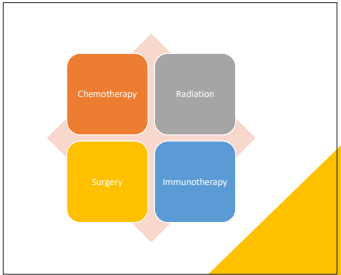


How do we diagnose cancer?

- History and Physical exam
- Labs
- Imaging
- Biopsies

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Treatment



The diagram shows four colored boxes arranged in a 2x2 grid, each with a pink arrow pointing towards the center. The top-left box is orange and labeled 'Chemotherapy'. The top-right box is grey and labeled 'Radiation'. The bottom-left box is yellow and labeled 'Surgery'. The bottom-right box is blue and labeled 'Immunotherapy'.

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Disparities

- Race and ethnic
- Social economical
- Access to care
- Representation in clinical trials
- Treatment non-adherence
- Language barriers

*Demographic and socioeconomic disparities in pediatric cancer in the United States: Current knowledge, deepening understanding, and expanding intervention by Alissa Bellizzi, Alexandria Hilliard, and Adam Cross

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Clinical trials

The Children's Oncology Group (COG), a National Cancer Institute supported clinical trials group, is the world's largest organization devoted exclusively to pediatric cancer research.

[Learn More >](#)

Photo Courtesy of Pediatric Health Resources

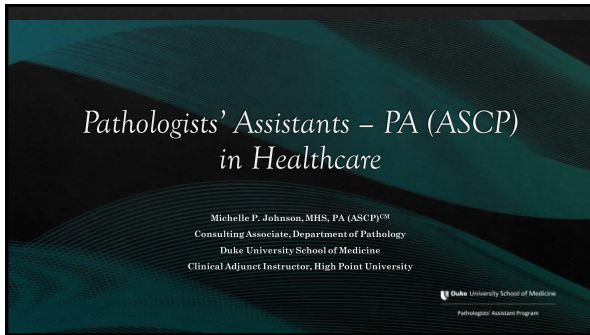
*Children oncology group

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Life after Cancer

- We continue to follow patients until they are 30 to monitor for any late effect complications from cancer therapy.

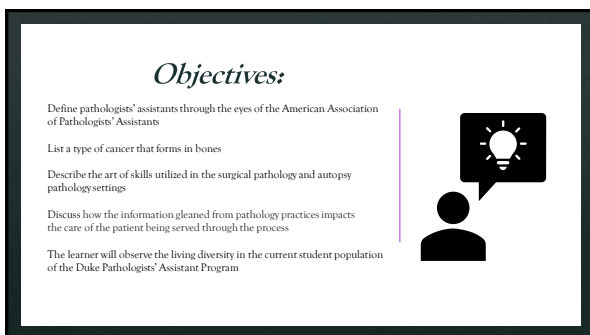
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Pathology

pathos=suffering

logos=study of

Using clinical practice with basic science concepts to understanding structural and functional changes in cells, tissues and organs that define disease processes.

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Definition: a highly trained allied health professional providing services under the direction and supervision of a pathologist

ACADEMICALLY AND PRACTICALLY TRAINED TO PROVIDE ACCURATE AND TIMELY PROCESSING OF A VARIETY OF LABORATORY SPECIMENS, RANGING FROM ROUTINE BIOPSIES TO HIGHLY COMPLEX RESECTIONS IN SURGICAL PATHOLOGY LABORATORIES

ACADEMICALLY AND PRACTICALLY TRAINED TO PERFORM A POST-MORTEM EXAMINATION FROM START TO FINISH, IN COLLABORATION WITH A PATHOLOGIST ON THE AUTOPSY SERVICE

What is a pathologists' assistant?

www.pathassist.org

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First program in 1969 - Dr. Thomas Kinney at Duke University

Increase in medical schools caused concern for an increase in the autopsy workload

Certificate -> BS -> MHS

AABA Fellow -> ASCP certification

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Let's follow a specimen:

A 14-year-old boy presents with pain in his shoulder following pitching a no-hitter with his travel team.



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Over the course of 4 months of follow-up appointments, the patient describes another site of pain in his left thigh, which is worsened during games while running between bases. An MRI reveals a large mass which is not associated with an adjacent soft tissue tumor, and there is not edema outside of the bone. The surgical specimen is below:



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Do you think this is a benign tumor, or a malignancy?



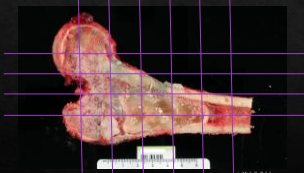
Benign 0%

Malignant 0%

Start the presentation to see live content. For screen share software, share the entire screen. Get help at poll.com/app

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How did the pathologists' assistant handle the specimen so the pathologist could make the diagnosis?



- 1 - Compare the imaging studies with the specimen from surgery and evaluate the medical record of the patient
- 2 - Measure and describe the specimen
- 3 - Dissect and submit a slab section to fully evaluate the tumor and approach to margins
- 4 - Discuss the results with the care team when necessary

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The Answer:

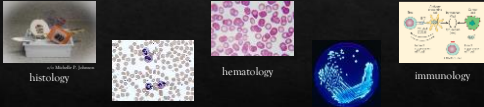


This is a chondroblastic osteosarcoma, commonly diagnosed in adolescents and young adults

malignant

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90% of objective data in electronic patient records derived from pathology laboratories

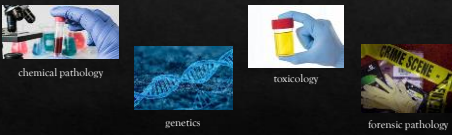


histology hematology immunology

cytology microbiology

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90% of objective data in electronic patient records derived from pathology laboratories

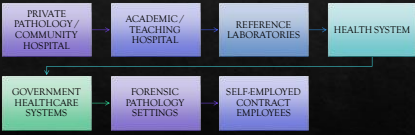



chemical pathology genetics toxicology forensic pathology

Pharmacogenetics

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Where do pathologists' assistants work?



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graph LR; A[PRIVATE PATHOLOGY/COMMUNITY HOSPITAL] --> B[ACADEMIC/TEACHING HOSPITAL]; B --> C[REFERENCE LABORATORIES]; C --> D[HEALTH SYSTEM]; E[GOVERNMENT HEALTHCARE SYSTEMS] --> F[FORENSIC PATHOLOGY SETTINGS]; F --> G[SELF-EMPLOYED CONTRACT EMPLOYEES];
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Where can you read more about the pathologists' assistant career?

The American Association of Pathologists' Assistants - "the not-for-profit volunteer organization of allied health practitioners dedicated to advocacy and advancement of pathologists' assistants"

https://www.pathassist.org/page/What_is_a_PA

https://www.pathassist.org/page/AboutUs_NAACLs

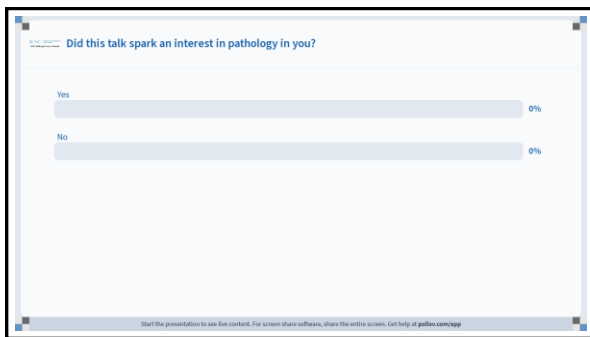
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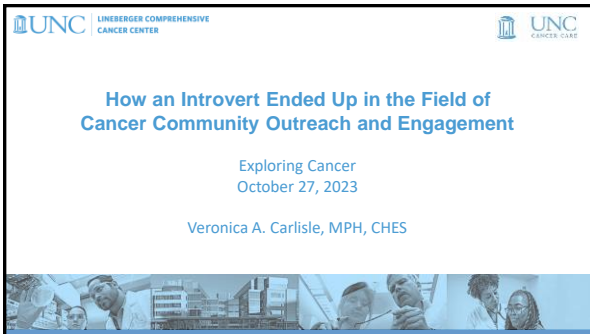
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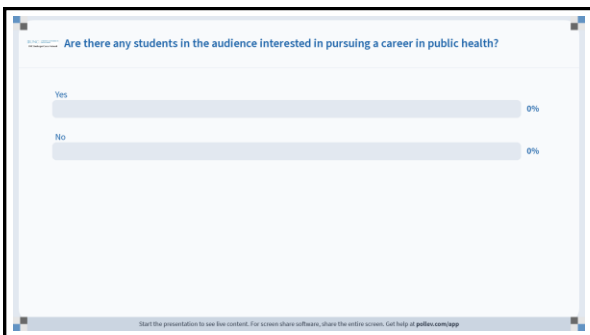
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Where I started: Pre-Cancer Community Outreach and Engagement

Howard University BS → Occupational Therapy (OT)/OT Director → Emory University MPH → American Cancer Society Internship → UNC Lineberger Comprehensive Cancer Center

UNC LINEBERGER COMPREHENSIVE CANCER CENTER

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UNC Lineberger Comprehensive Cancer Center - Research

Study Project Manager

- Managed and provided oversight to study
- Recruited beauty salons and stylists
- Developed focus group guides and conduct focus groups
- Developed educational campaigns
- Developed data collection instruments
- Provided oversight of data collection



UNC LINEBERGER COMPREHENSIVE CANCER CENTER

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UNC Lineberger Comprehensive Cancer Center – Community Education

Community Health Educator

- Developed and disseminated educational material
- Developed and maintained community partnerships
- Partnered to conduct educational events

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UNC Lineberger Comprehensive Cancer Center – Community Outreach and Engagement



Sr. Community Health Educator



- Facilitate UNC Lineberger Community Advisory Board
- Provide oversight of community outreach activities strategic plan
- Provide community and researcher education
- Manage students
- Develop and maintain community partnerships
- Provide technical assistance to researchers conducting community engaged research
- Provide project management for office initiatives



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What I've learned

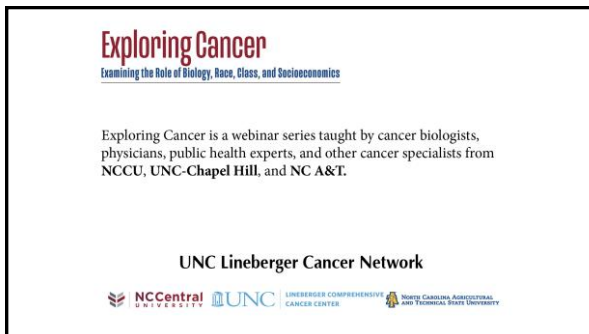
- Even an introvert can work in cancer community outreach and engagement :)
- Career paths
 - are not always straight
 - may not be what we've planned
 - will have challenges
- Build or join a support network
- Take time to enjoy your work life and life

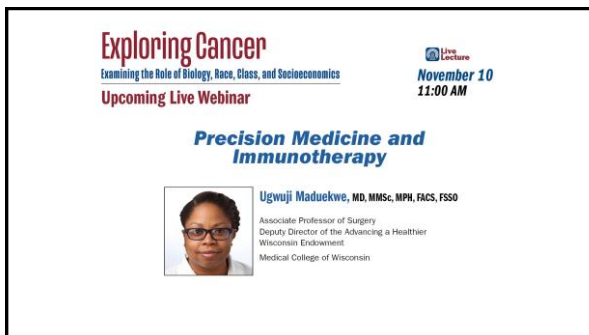
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