



BCI/PLH's approach to making a difference in cancer diagnosis, with a new biopsy imaging technology; using AI and Technology to transform Cancer Care in LMICs.

Beatrice WIAFE ADDAI, MD.PHD

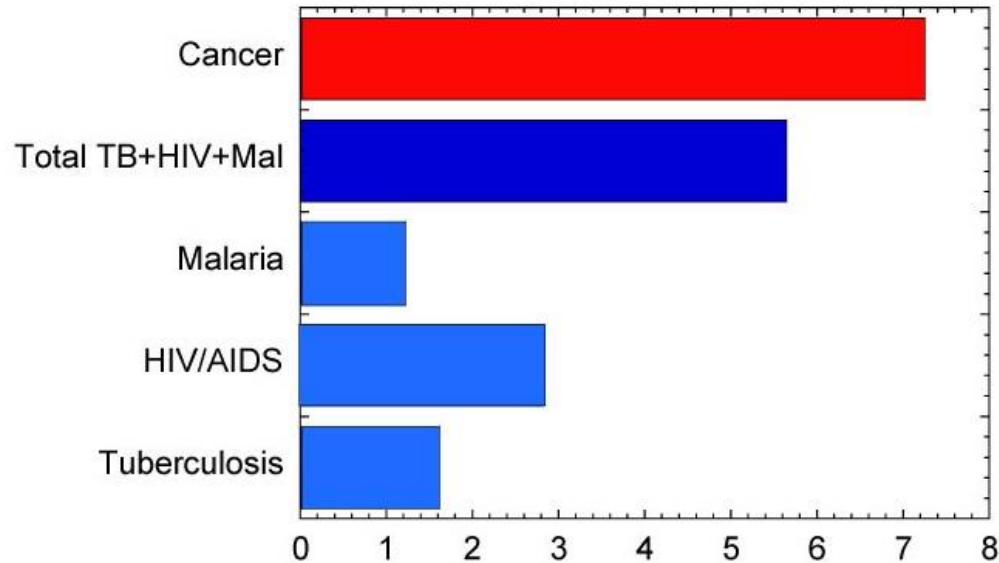
***Consultant Breast Surgeon,
C.E.O., Peace and Love Hospitals,
President and Founder, Breast Care International,
President and Founder BCI America,
Founding Director OOTII CCCoE
Fmr Member, Ethics committee - IARC,
Medical Advisory Board Member, Direct Relief, USA
Advisory Board Member Meals4NCDs,
Member, UICC,
Exec. Comm. Member, IBCN, USA/France
Chairperson, Ghana NCD Alliance,
Co- Chair Global Health Catalyst Summit,
Chair, BCI, Ghana Walk for the Cure***



August 27, 2025 – Kumasi, Ghana

CANCER IS A GLOBAL PROBLEM

Millions of deaths in 2002



WHO (2003)

Fig 1. WHO projection of global mortality 2002

◆ Cancer is a global problem accounting for almost 13% of all deaths worldwide. This equates to over 7 million people a year, more than is caused by HIV/AIDS, TB and malaria combined.

◆ Although the world is rightly focused on controlling the spread of these infectious diseases, we are in danger of ignoring the growing burden of CANCER in developing countries.

OFFICIAL LAUNCH OF THE LANCET ONCOLOGY COMMISSION'S REPORT ON SSA IN GHANA; HOSTED BY BREAST CARE INTERNATIONAL IN MAY 2022



WHY THE LATE PRESENTATION? (60 - 70% OF CASES)

MYTHS & MISCONCEPTIONS

- Cancers are not curable
- Cancers are caused by witchcraft or evil spirits
- Cancer is a Spiritual disease
- Cancer is by fate;
- It results as a curse on a family
- It's the result of a person's failure
- That patients die from surgery
- Cancer is Stigmatized



BARRIERS

- Lack of Awareness
- Inadequate/Bad Treatment
- **COST**
- **DISTANCE**
- **LACK OF COUNSELLING**
- **LACK OF SUPPORT**
- **STIGMA**

BCI/PLHs working hard to change this narrative

THE FIRST PHASE OF THE OTUMFUO OSEI TUTU II CCCOE PROJECT IS AT A COST OF - 10 MILLION USD

The first “stand alone one stop shop” comprehensive cancer center of excellence, which includes an AI Hub”

Our vision is simple but powerful: to save lives.



**OTUMFUO OSEI TUTU II
COMPREHENSIVE CANCER
CENTER OF EXCELLENCE**



Otumfuo Osei Tutu II Comprehensive Cancer Center of Excellence Patrons and Technical Committee (GHC Team)



OTUMFUO OSEI TUTU II
FOUNDATION

SOD CUTTING CEREMONY ESTABLISHMENT OF THE OTUMFUO OSEI TUTU II COMPREHENSIVE CANCER CENTER OF EXCELLENCE



H.E. JOHN AGYEKUM
KUFOR
FORMER PRESIDENT OF THE
REPUBLIC OF GHANA



NANA PROF. OHENEBA
BOACHIE-ADJEI
WOAHENE II
OTUMFUO HIAHENE



DR. (MRS.) BEATRICE WIAFE-ADDAI
PRESIDENT & FOUNDER, BREAST CARE
INTERNATIONAL
CEO, PEACE AND LOVE HOSPITALS



PROF. WIL NGWA
FOUNDING DIRECTOR OF
GLOBAL HEALTH CATALYST
HARVARD/JOHN'S HOPKINS



PROF. SAIFUL HUQ
UNIVERSITY OF PITTSBURGH, USA



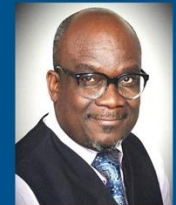
PROF. STEPHEN AVERY
UNIVERSITY OF PENNSYLVANIA,
USA



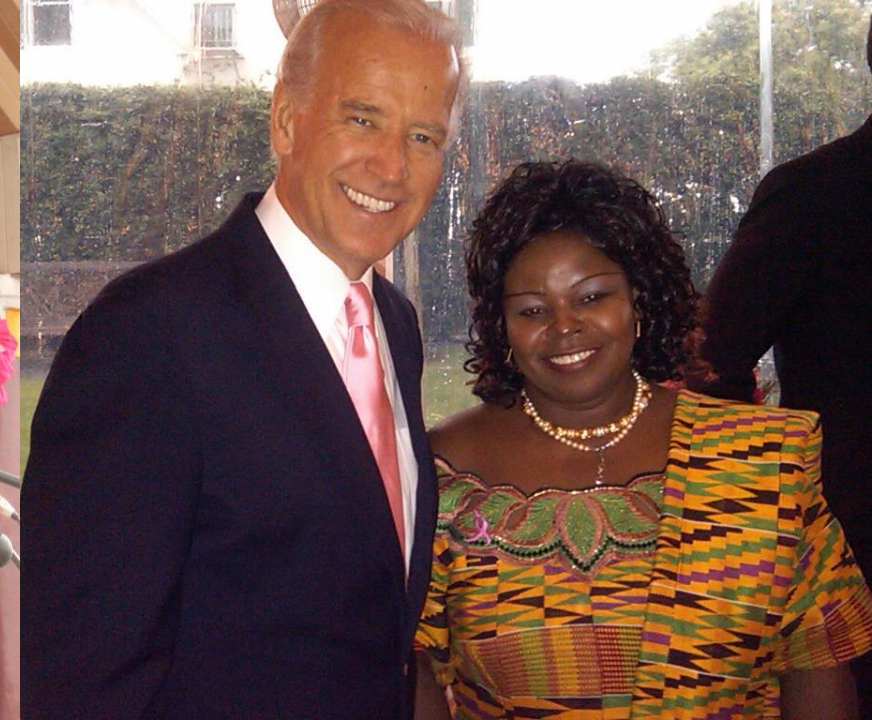
MR. ERIC BROYLES
NANOCAN, USA
BOARD MEMBER BCI AMERICA



DR. LAWRENCIA
BAWUAH DSANE
UNIVERSITY MEDICAL CENTER,
ROTTERDAM, THE
NETHERLANDS, PEACE AND
LOVE HOSPITALS/ BOARD
MEMBER, BCI



BISHOP DR. EVANS
GLOVER
CHAIRMAN, BCI AMERICA
BOARD OF DIRECTORS



Highlights from the BCI Ghana Walk for the Cure 2024









Meaningful involvement of cancer Patient Organization - PALSA







*BCI Ghana Walk for
the Cure, Oct. 2024*



• **The morning before the
Walk**

*Please you are
invited to this
year's Walk*

*BCI Ghana Walk
for the Cure
2025*

*With a touch of
Royalty...*



The image features a large pink poster for the BCI Ghana Walk for the Cure 2025. The poster includes logos for Peace and Love Hospital, BCI International, and Otumfuo Osei Tutu II Foundation. It states it is Ghana's largest breast cancer awareness campaign. The theme is 'A Cure Worth Fighting For'. The event is on Saturday, 4th October 2025, at 8:00 AM prompt. The route starts at Adum Post Office and ends at Manhyia Durbar Grounds. Below the poster, a group of people wearing white t-shirts with the event logo are walking.

PEACE AND LOVE HOSPITAL

BREAST CARE INTERNATIONAL

OTUMFUO OSEI TUTU II FOUNDATION

**GHANA'S LARGEST
BREAST CANCER AWARENESS CAMPAIGN**

**THEME:
A CURE WORTH
FIGHTING FOR**

**BCI GHANA
WALK for the
CURE
2025**

**TIME:
8:00 AM
PROMPT**

**SAT
4TH OCT.
2025**

**STARTING POINT:
ADUM POST
OFFICE**

**END POINT:
MANHYIA DURBAR
GROUNDS**

WALK for the CURE

www.breastcareinternational.org



31.10.2012 12:13



UCDAVIS
MEDICAL CENTER

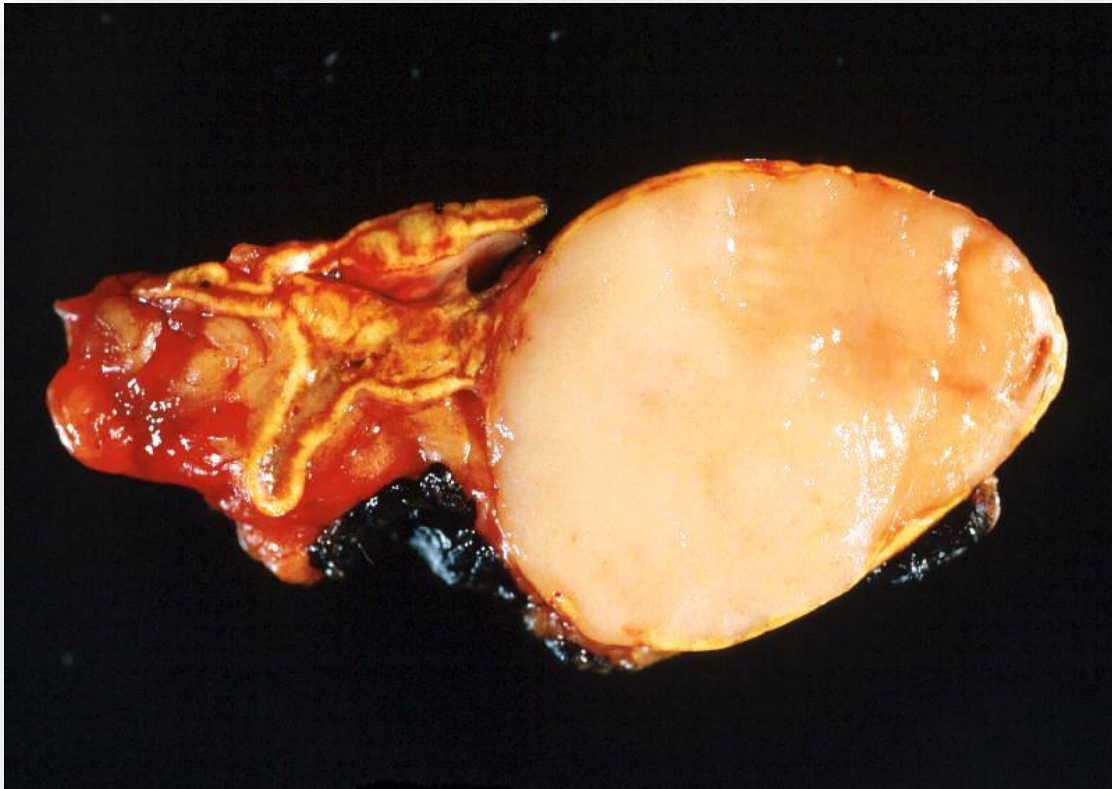


New technologies for global health tissue diagnostics

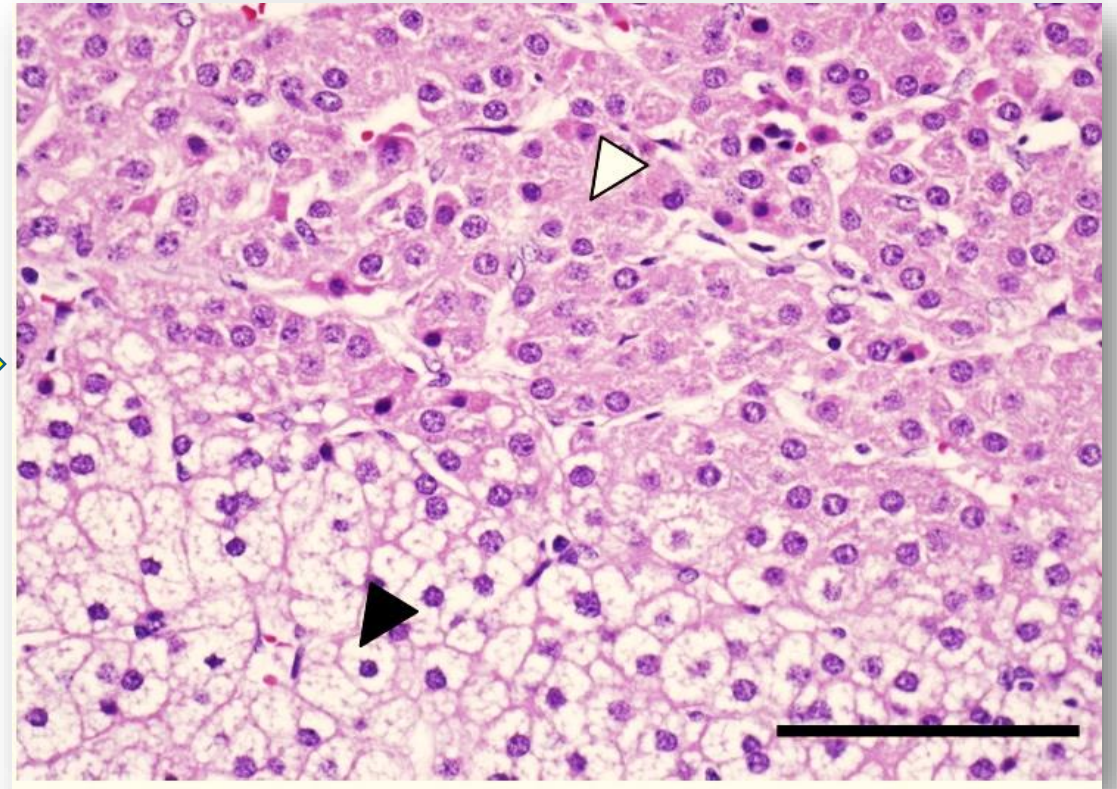
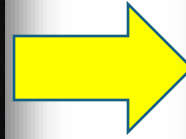
- Richard Levenson
- Nathan Anderson
- UC Davis
- Farzad Fereidouni
- Emory University
- Eric Seibel
- University of Washington
- Beatrice Wiafe Addai
- Peace and Love Hospitals

Pathology

(Still the) gold-standard for diagnosis—and therapy guidance



Gross Anatomy



Histology ...

... viewed with state of the art technology

TISSUE BIOPSY IS THE GOLD STANDARD

3 Types of Breast Biopsies

1. Fine needle aspiration

- Collects sample of cells



2. Core needle biopsy

- Collects core of tissue
- Ultrasound or MRI guides process



3. Open (surgical) biopsy

- Removes all or part of abnormality



the focus uh of our uh collaborator uh

AI Catalyst for Global Health Lecture 3 - Pathology

The whole edifice of medicine rests on the pathologist's diagnosis

Screening
& Detection



CT
MRI
Lab
Sono
Derm
...
CTC

Tissue



Pathology

Surgical Pathology
Hematopathology
Dermatopathology
Molecular Pathology

Diagnosis

Treatment
& Research

Testing
Sequencing
Pharma
Studies
Insurance
...
Follow-up

Pathology lagging...Other disciplines have evolved dramatically

Surgery



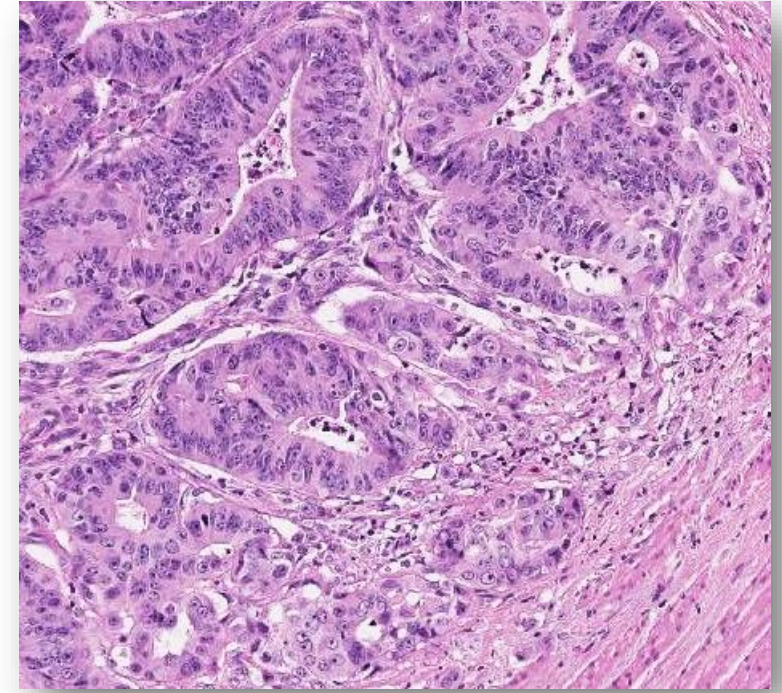
Before anesthesia



Now: da Vinci surgical robots

From tissue to slide:
SLOW!

Biopsies at UC Davis



And the slide may still
need to be digitally
scanned

This process can take - Days to weeks and months...

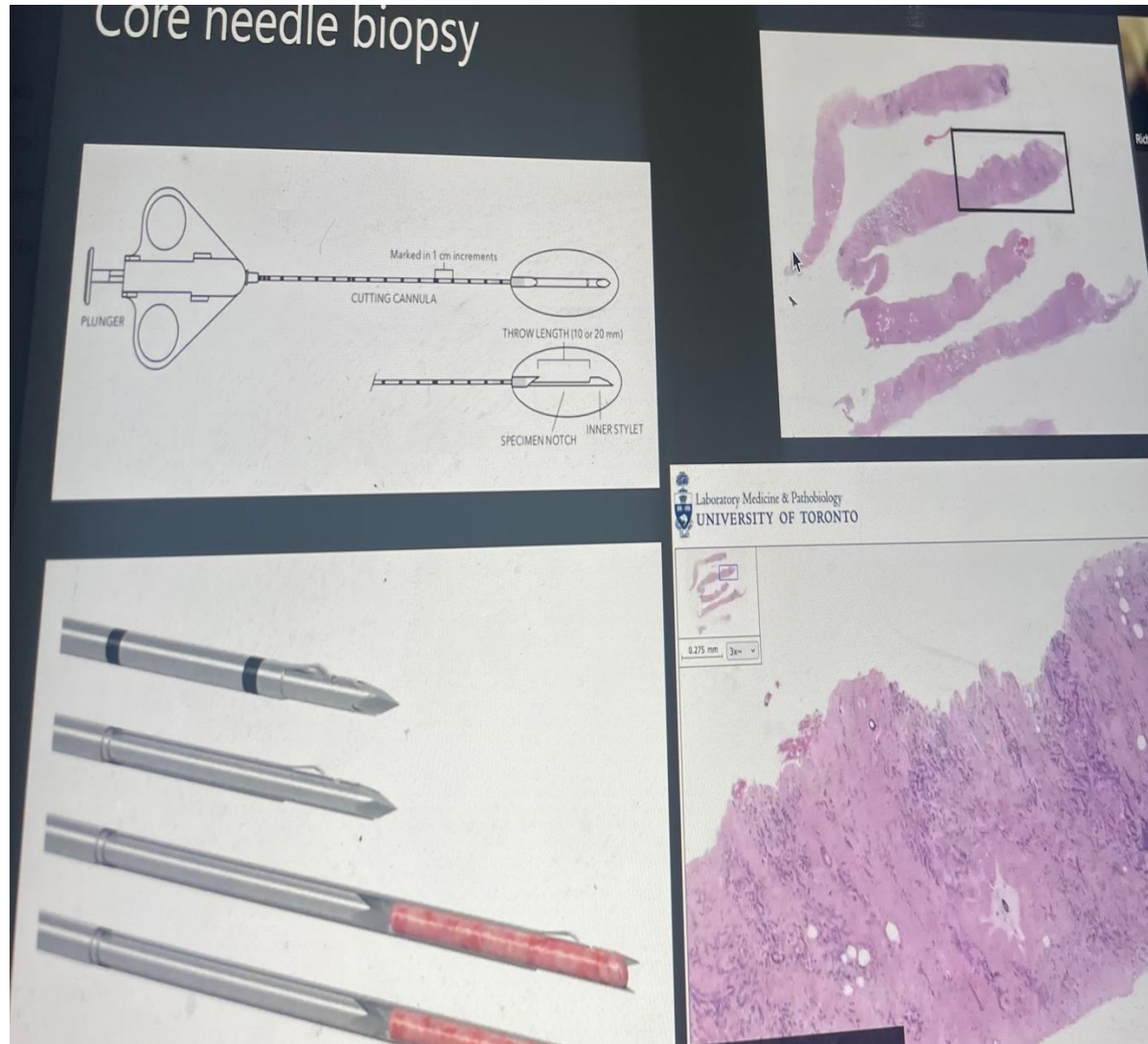
Typical pathology lab with microtome



H&E STAINING WITH AN AUTOSTAINER



Science that is lagging behind



A pathologist reviewing a slide.

State of the art, but actually...

the state of the art has been lagging a bit...



Impact of Pathology Delays- STRESSFUL

Delayed Diagnosis and treatment

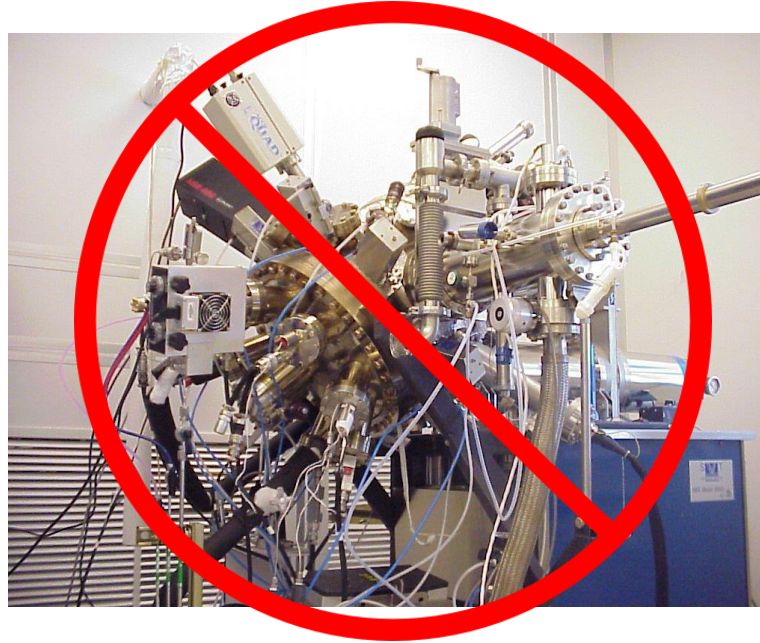
Reliance on empirical treatment options

***More misdiagnoses and missed
treatment opportunities***

Patient safety and quality

What is needed:

Simple



Inexpensive



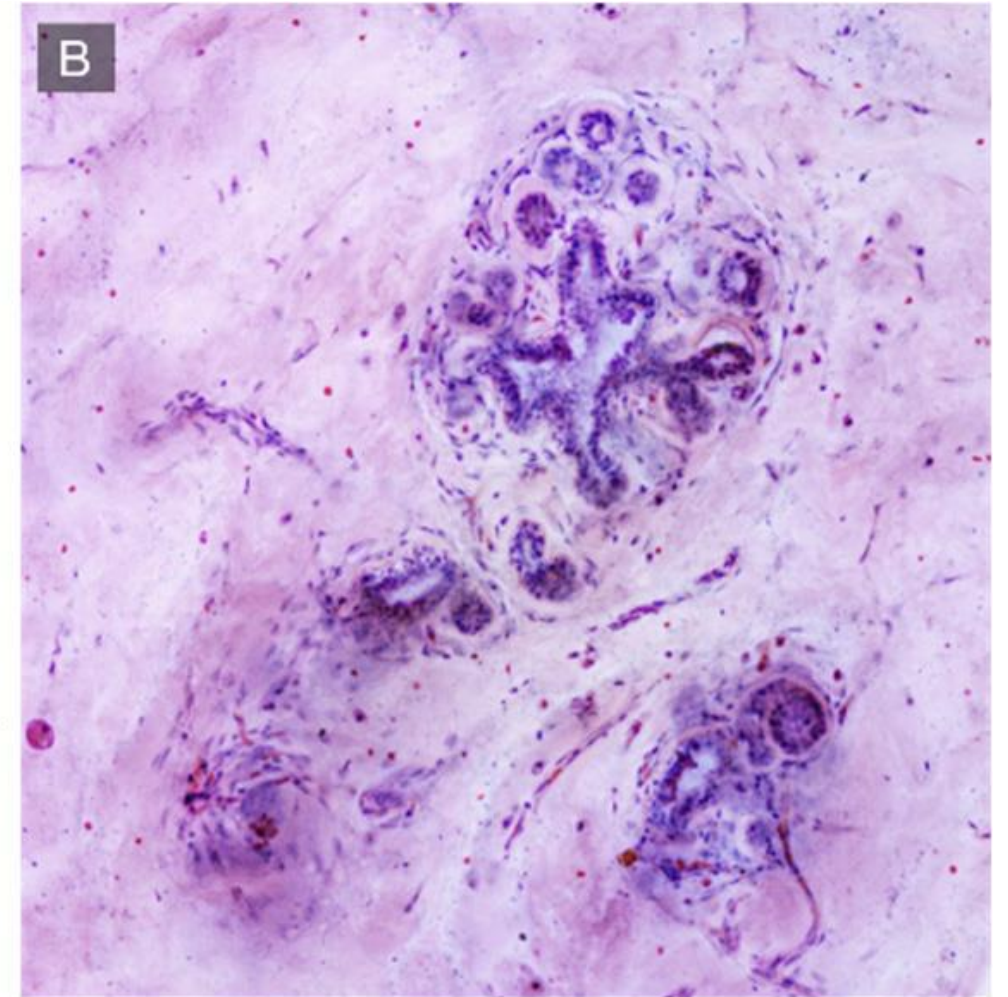
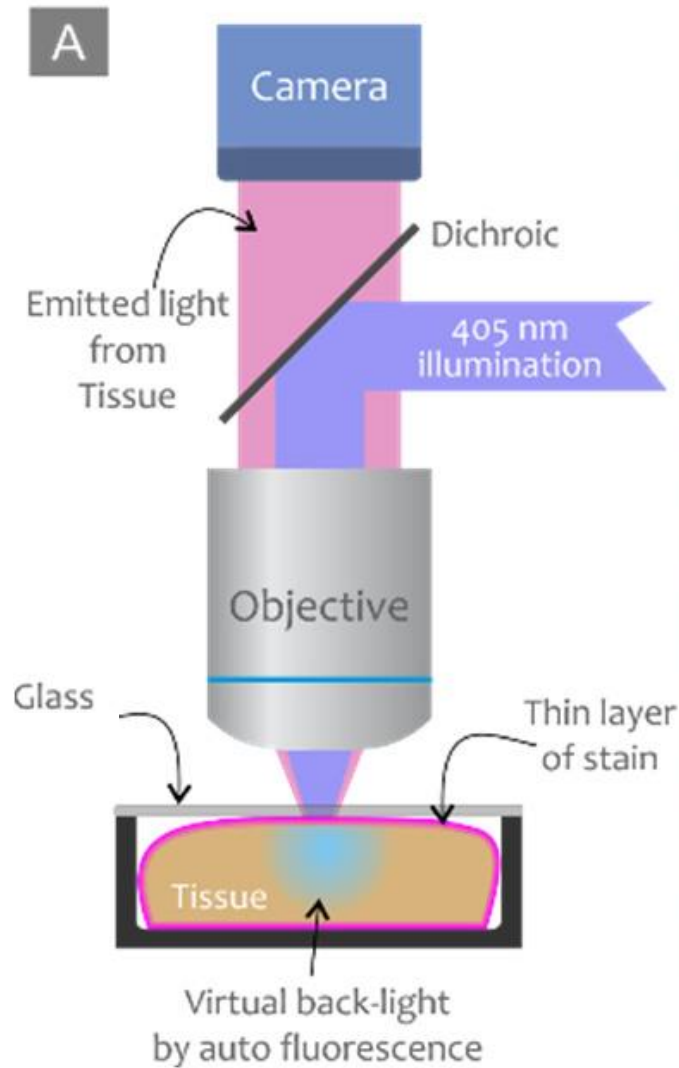
Pathologist-friendly

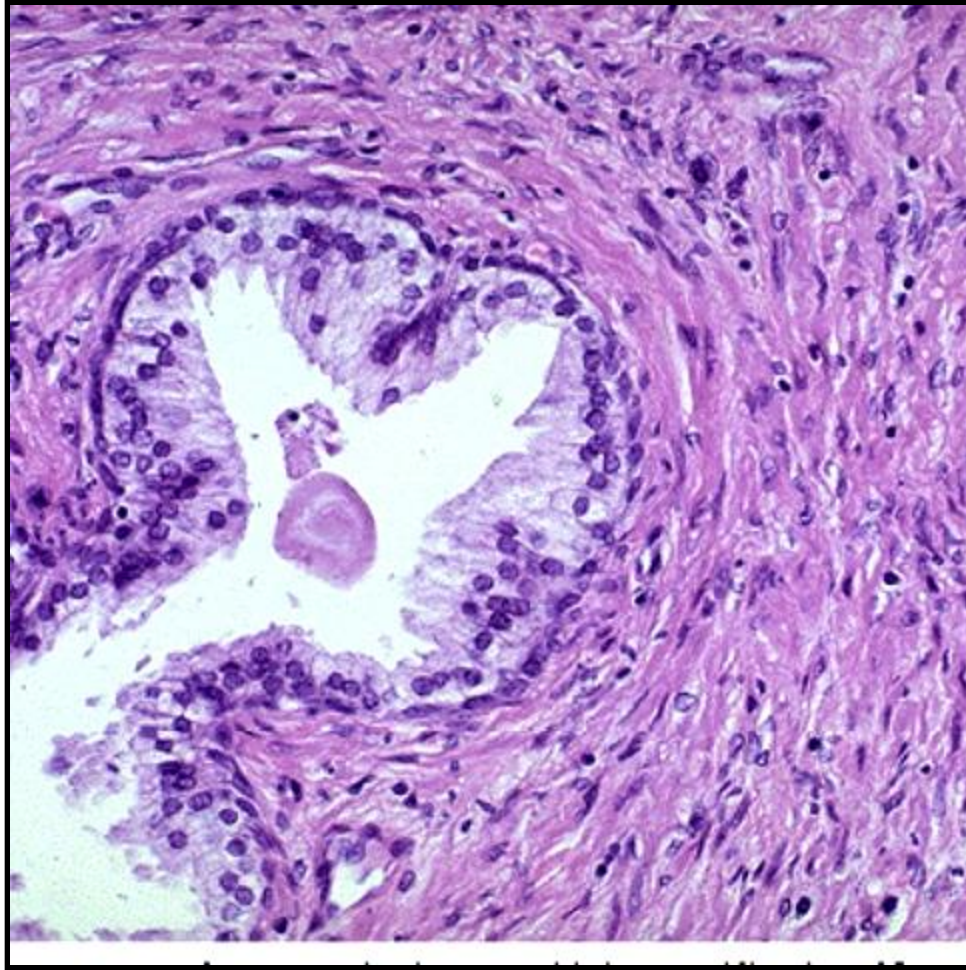


Global

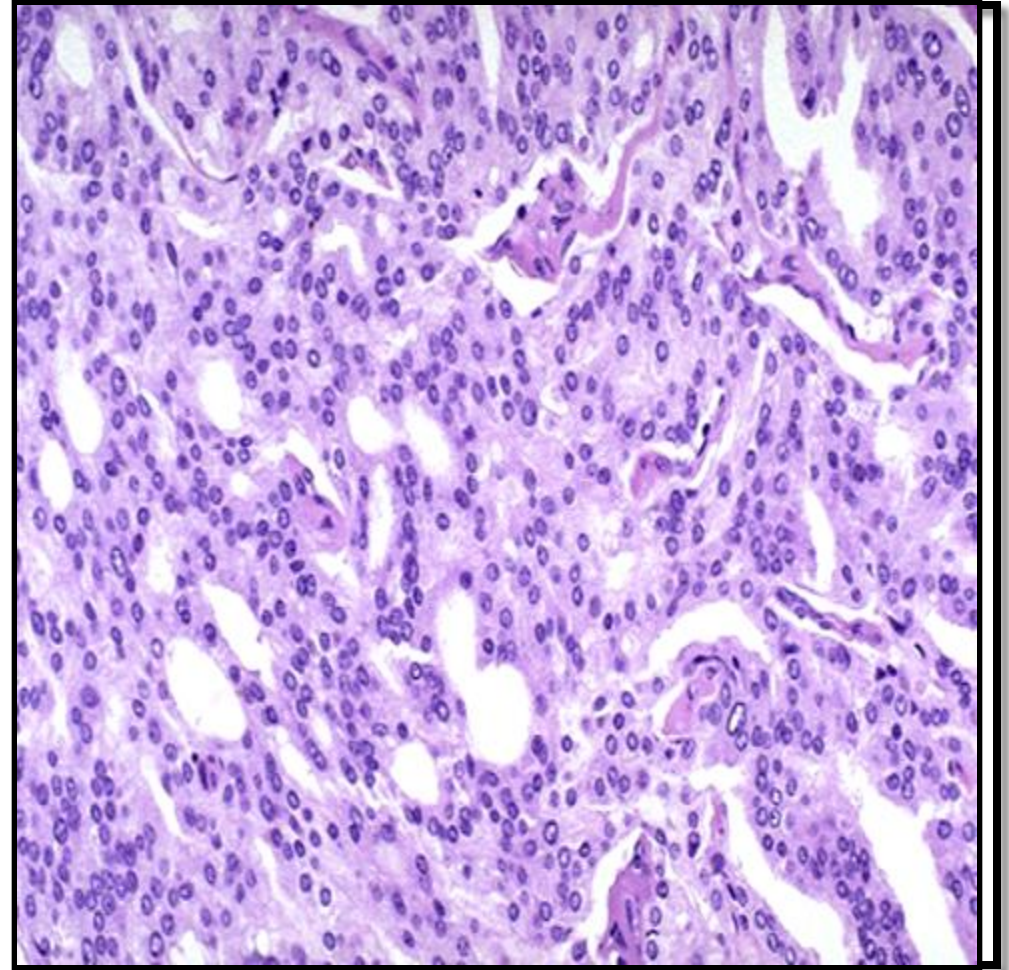


FIBI: Fluorescence Imitating Brightfield Imaging





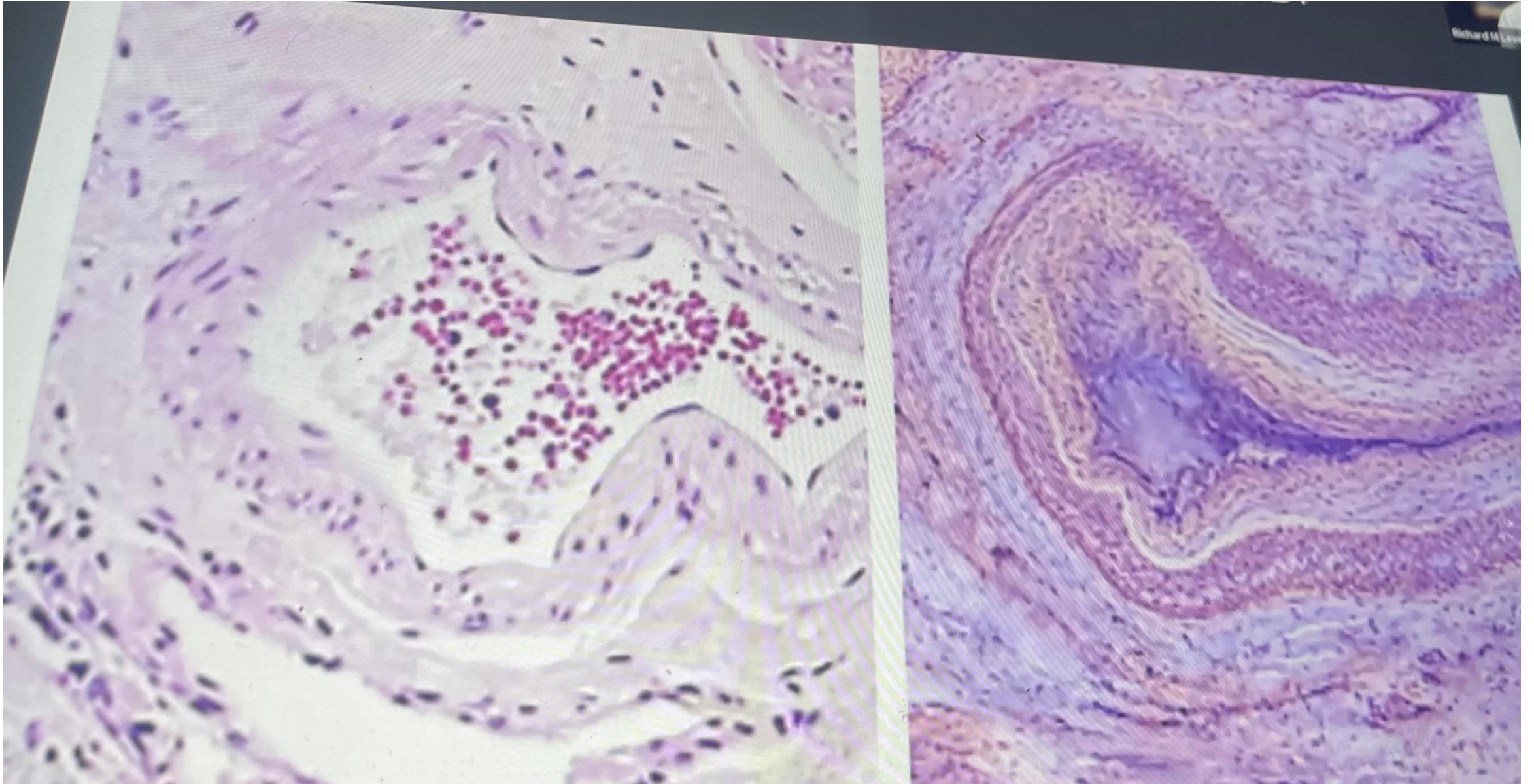
Normal Prostate



Adenocarcinoma of the Prostate

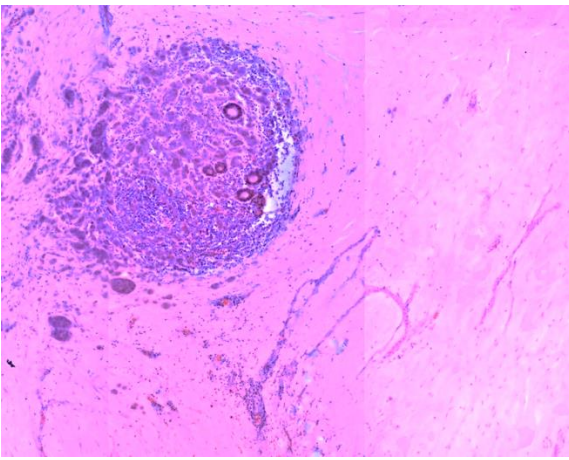
H & E

FIBI



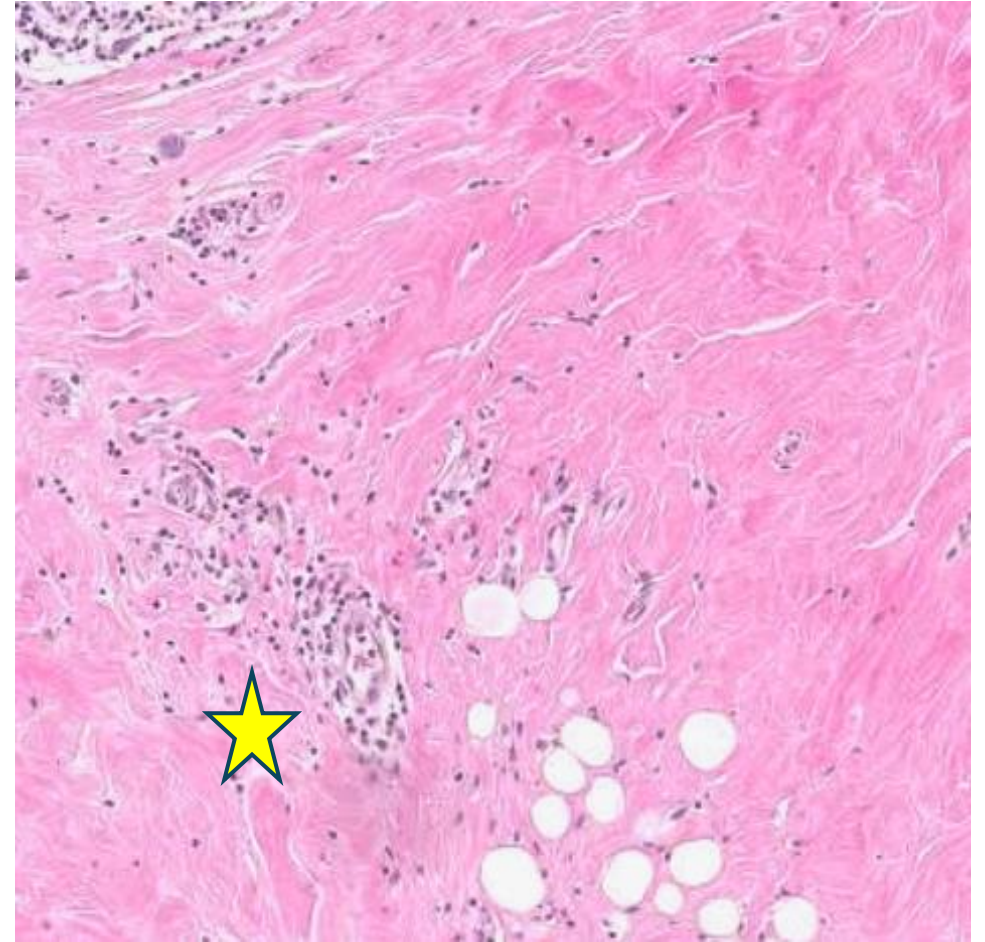
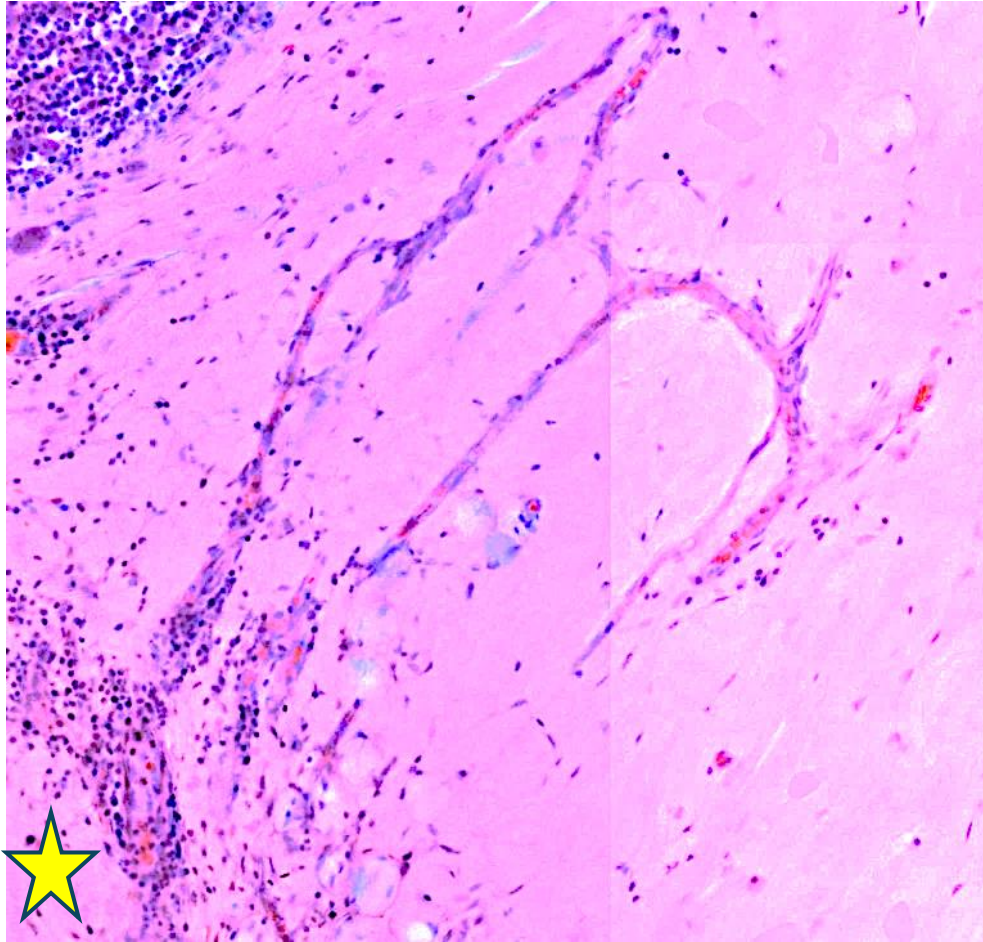
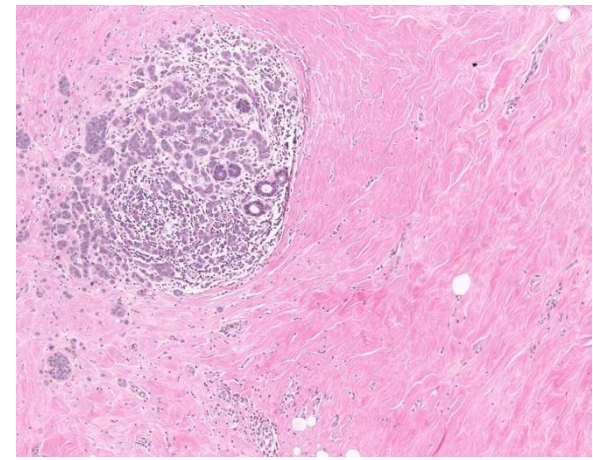
And more
information!

FIBI



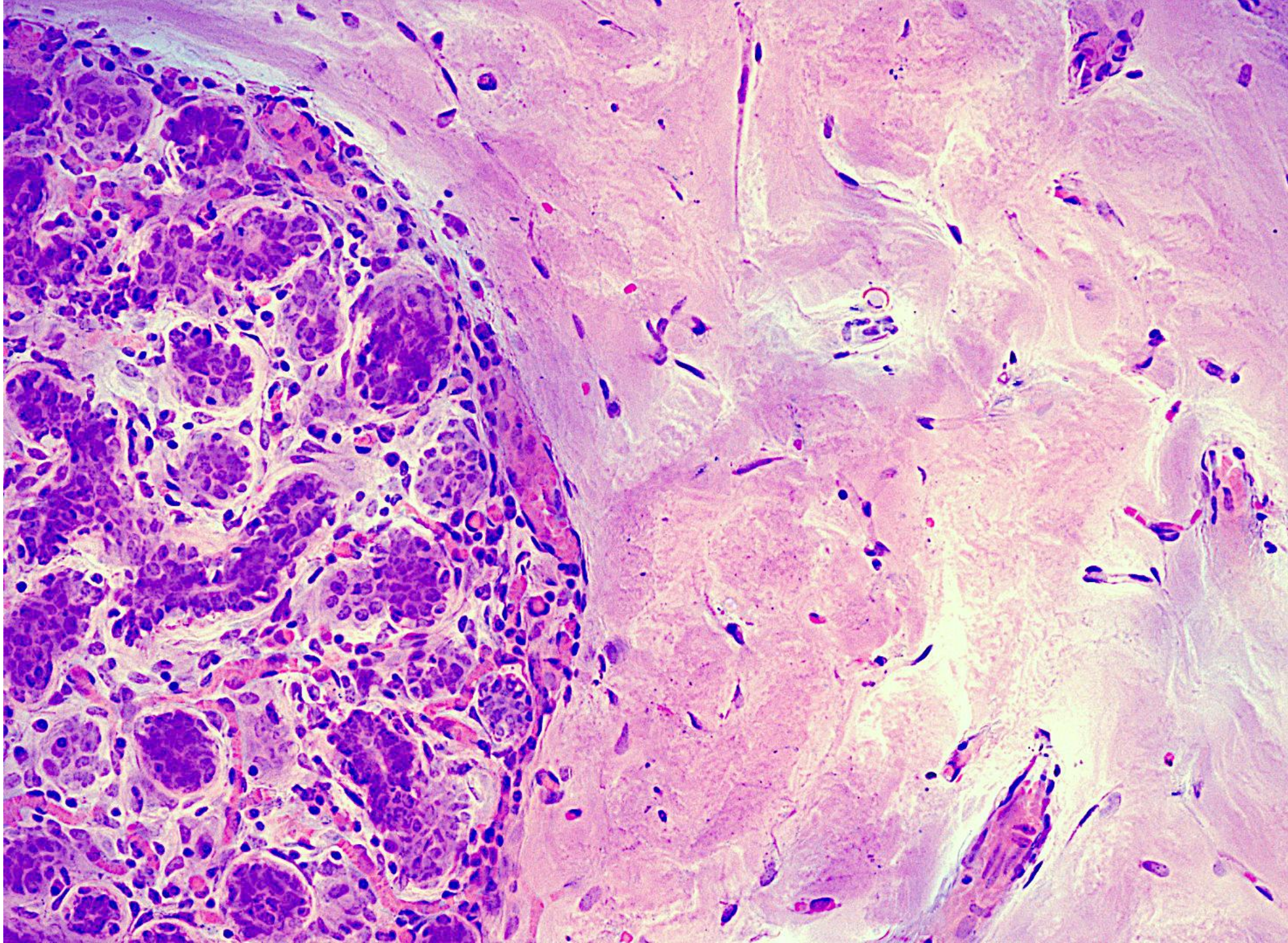
Blood vessel
continuity

H&E



Normal
breast
lobule

FIBI
20X lens



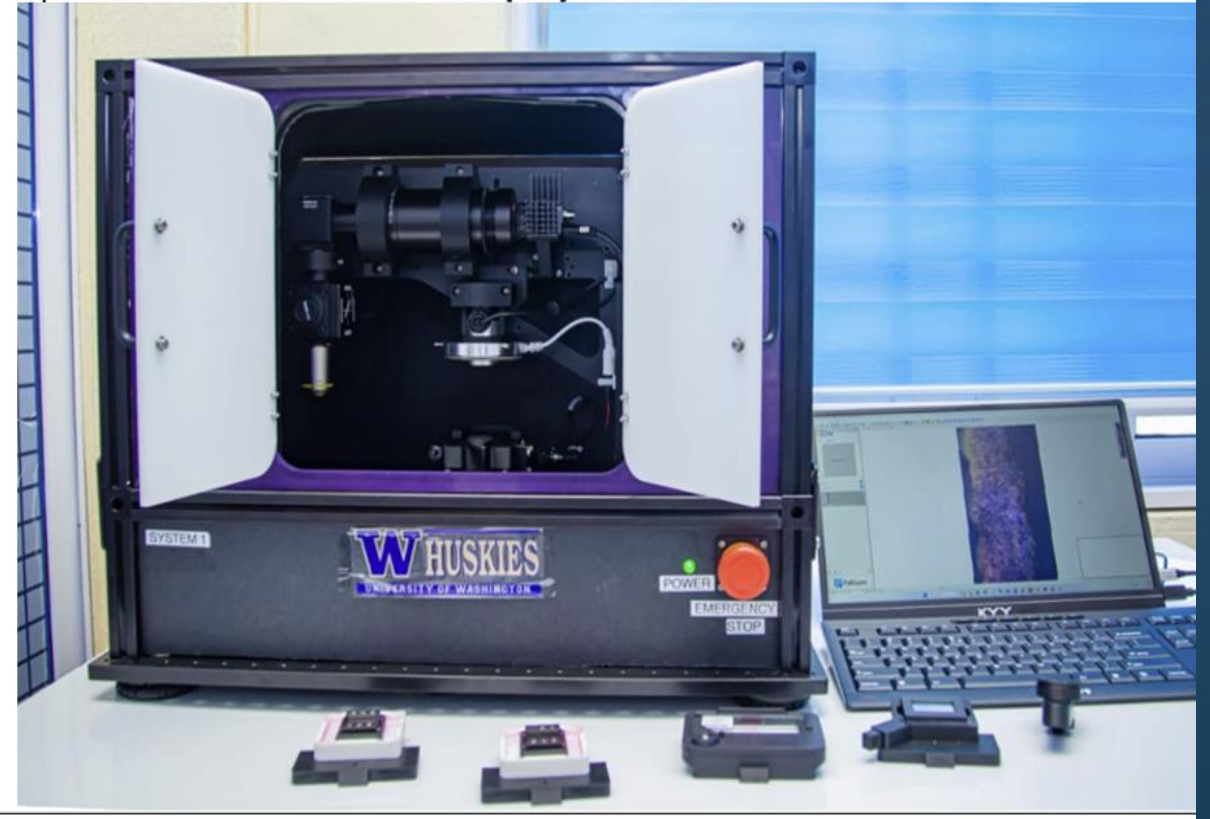
**THE FIRST PROTOTYPE (GEN 1) IN THE WORLD
OUT OF THE INVENTOR'S LAB**

**CoreView Instrument at the Peace and Love
Hospital, Kumasi - Ghana**

PI Beatrice W. Addai and Mr. Mark Fauver opening
CoreVision Gen-1 microscope enclosure.



CoreVision Gen-1 system with custom specimen
holders for core biopsy and resections.

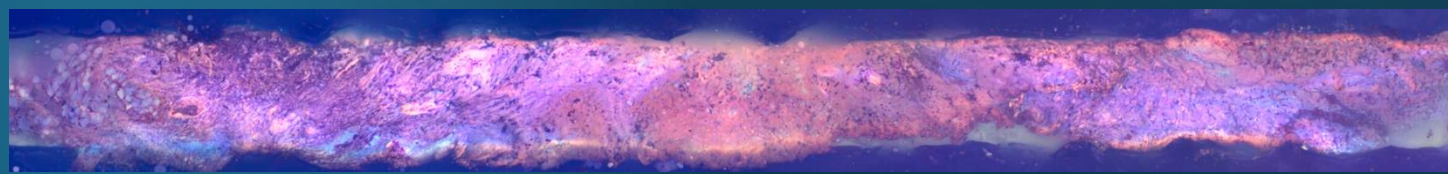


UC DAVIS; UW – SEATTLE; EMORY UNIV; PEACE AND LOVE HOSPITAL KUMASI – GHANA.

BIOPSY ROOM



Report ready in 10 minutes







Conclusion

Pathology is no longer a 19th century discipline

***New tools,
Equally useful in high - and low -
income resource settings, are
now available***

***Let's take advantage of AI and
Technology to leapfrog in
tissue/pathology diagnosis***

THANK YOU



**OTUMFUO OSEI TUTU II
COMPREHENSIVE CANCER
CENTER OF EXCELLENCE**



THANK YOU!!!