Advancing Women's Health through Research & Innovation

at the World's First Engineering-Based College of Medicine

Carle Illinois
COLLEGE OF MEDICINE

Carle | UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

CI MED Women's Health Research and Student Projects

Carle Illinois College of Medicine students and faculty are pioneering advancements in women's health through their research and innovations. For hundreds of years, women's health has been tackled by traditional methods, but not at Carle Illinois College of Medicine where we are training physician-innovators to infuse engineering concepts into groundbreaking care.

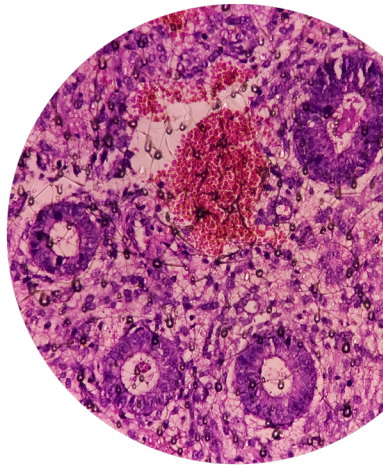
Research

A Carle Illinois College of Medicine Team is Harnessing Machine Learning Insights to Improve Endometrial Cancer Diagnosis

New machine learning tools under development by researchers at Carle Illinois College of Medicine and Carle Health could help address **disparities** in the **diagnosis of endometrial cancer** in younger women and women of color.

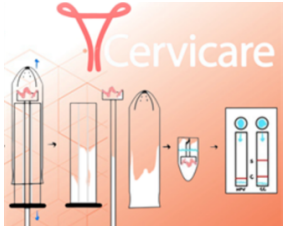
The **clinician-student team** is leveraging technology to identify patterns in patients' health care visits that could alert doctors of increased risks of **endometrial cancer** in populations that are often underdiagnosed.

The team is breaking new ground by using artificial intelligence and machine learning algorithms to examine demographic and clinical data obtained from **premenopausal** patients who have subsequently been diagnosed with endometrial cancer.



Student-led & Capstone Projects

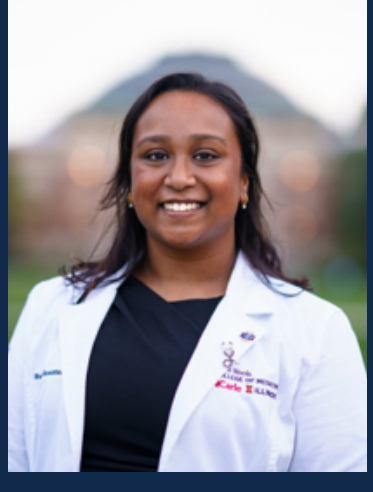
Cervicare



Cervicare is a student-led team working to advance cervical cancer diagnosis with a new bedside screening test. The innovation is a novel point-of-care test to bypass the need for traditional pap testing. It is aimed at increasing accessibility to this vital screening procedure, particularly in underserved communities.

The startup was cofounded by CI MED students to address the diagnostic aspect of cervical cancer. The team is targeting the issue of gender inequality in health care while focusing simultaneously on the intersection of gender, race, socioeconomic status, and locational barriers, thus finding a solution that gives all women increased access to better health care.

A CI MED Student Named Young Innovator of the Year for New Cervical Cancer Screening Test



A Carle Illinois College of Medicine student (Bhargavee Gnanasambandam) has earned the title of Young Innovator of the Year for her new solution to detect human papillomavirus (HPV) and cervical cancer with a simple test that provides results within 15 minutes. The new approach leverages well-understood technologies in an innovative way to create a platform that has the potential to meet the needs of patients and greatly reduce gynecological cancers.

MenoPatch Personalized Therapy for Menopause

MenoPatch offers unique therapy for the well-being of women impacted by menopause. This solution is aimed at empowering women with customizable and non-invasive relief from menopause symptoms with a convenient skin patch.

MenoPatch is a transdermal skin patch that delivers personalized dosages of hormone replacement therapy to patients experiencing menopausal symptoms. It provides patients with a needleless, user-friendly, and effective solution for delivering hormone therapy to manage menopausal symptoms. MenoPatch differs from other patches by incorporating mechanisms to allow dose modification on the fly with a single patch.

HystAssist: CI MED Students Have Developed a New Tool to Improve Training, Safety for Difficult Gynecological Surgeries

The HystAssist simulator is a new surgery simulation tool for new surgeons training to perform common but difficult-to-learn gynecological procedures. It was created by a CI MED student-led team to improve patient outcomes by creating true-to-life practice for obstetrics and gynecology residents to safely practice each step in a vaginal hysterectomy before assisting with and performing real patient surgeries.

AmnioSense

AmnioSense is a new pH-sensitive undergarment liner designed to provide expectant women a clear indicator of labor onset. It is an award-winning innovation created by CI MED students. It is particularly focused on empowering rural expectant mothers by providing a reliable at-home amniotic fluid detection test, ensuring timely and accurate identification of labor onset, and minimizing unnecessary trips to health care facilities.

BRACA: Innovations on the Post-Surgical Compression Bra

The BRACA post-surgical bra applies engineering principles to improve the function and usability of these specialized garments for patients who have undergone a mastectomy for breast cancer.

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