

Femtech Small Businesses and Women's Health

Advancing New Technologies to Improve Outcomes

What is femtech?

"Femtech" refers to healthcare technology that focuses on women's health and may include products, diagnostics, software, and other services. Femtech offers solutions and support for a variety of women's health topics, including gynecologic health, menstruation, reproductive health, pelvic conditions, and conditions that disproportionately affect women.

How does NICHD support femtech?

Although the femtech industry is relatively new, NICHD has a long history of advancing women's health knowledge and tools, including research that led to the development and commercialization of the first home pregnancy test in 1978. NICHD-funded research also led to regulatory approval of elagolix (Orlissa[®]), the first treatment for endometriosis-related pain, and Oriahnn[®], the first pill for treatment of heavy menstrual bleeding from uterine fibroids.

The National Institutes of Health dedicates \$1.3 billion annually for small business programs that promote innovation, commercial potential, and societal impact. In fiscal year 2023, NICHD supported 11 small business femtech awards with the potential to change lives. NICHD's commitment to advancing women's health continues through its support of these and other efforts that capitalize on the promise of technology.

Success Snapshots

Building a Menstrual-Based Diagnostic for Endometriosis (NextGen Jane)

People with endometriosis, a common gynecologic disease that causes pain and infertility, often wait up to 10 years between symptom onset and surgery, which is currently the only option for diagnosis. An easy, non-invasive diagnostic would enable earlier detection and treatments that could delay disease progression. With NICHD support, NextGen Jane's "smart tampon" kits collect menstrual effluent from study participants with endometriosis. After completing more than 2,000 kits, the company is validating an assay to diagnose endometriosis from these samples.

Surgical Training Simulator for Obstetricians/ Gynecologists (Miyazaki Enterprises)

The Miya Model[®] simulates real experiences to provide training in vaginal surgical techniques and basic gynecologic procedures (such as a speculum exam) at a level of detail and specificity currently unavailable in commercial products. Better training can improve patient safety, lower medical costs, and contribute to health benefits. NICHD has funded development of the Miya Model[®] since 2015. The project, now in Phase IIB—a critical bridge between academic development and self-supported commercialization—is undergoing a multicenter evaluation to determine whether it improves operating skills and health outcomes.

Additional NICHD-Funded Femtech Projects

Diagnostics & Treatments

Abalone Bio

By optimizing an antibody, ABt140, that targets specific cell receptors in uterine tissues and in neurons associated with chronic pain, this company hopes to relieve endometriosis pain. With NICHD funding, researchers are testing ABt140 in mouse models.

Advanced Tactile Imaging

NICHD supports multiple projects led by this company, including: improved imaging methods that detect and characterize gynecologic conditions, such as endometriosis, to accelerate time to diagnosis; and tailored, image-guided surgical treatments for pelvic floor disorders.

Endomet Biosciences

With NICHD support, this company developed and is evaluating a new endometriosis treatment. Early studies suggest that the compound eliminates the hallmark lesions of the disease, meaning it could be a first-of-its-kind curative therapy.

TheraNova

This company's cellphone-based tool easily tracks menstrual bleeding and could improve diagnosis of heavy menstrual bleeding. Researchers are using NICHD funds to validate the tool's diagnostic effectiveness.

Novel Products

CollaMedix

CollaSling®, a collagen-based bio-fabric implant, supports the bladder to prevent urine leaks in stress urinary incontinence. The bio-fabric fosters infiltration of native cells/tissues to eventually replace the implant with the person's own cells. With NICHD funds, the company is improving the design and initiating additional studies.

Reia

This company's pessary (a small device that supports pelvic organs) enables independent and comfortable in-home management of symptoms, even in people with limited hand dexterity, allowing people to better control their lifestyle and daily activities. The company is using NICHD funding to manufacture items for eventual use in a clinical trial on this pelvic prolapse treatment.



Surgical & Procedural Advances

Briteseed

This company's imaging tool identifies and characterizes tissues in real-time to prevent damage to ureters during surgery. NICHD funding will allow further design and testing of the system for use in urogynecological laparoscopic surgeries.

Claria Medical

This company's Tissue Containment and Extraction System (TCES) enables safe, rapid, and cost-effective removal of the uterus in a same-day, outpatient setting. Researchers are using NICHD support to refine the system's design/protocols and pursue a usability study.

ZSZ Medical

Benefits of this company's Zip-stitch surgical wound closure system, developed specifically for laparoscopic hysterectomy, include easier and faster application, a fully bioabsorbable framework, and improved post-surgical healing. With NICHD funding, the company is evaluating the system in a clinical setting.

Learn More About
NICHD Femtech Projects



NICHD Women's Health Website:
<https://go.nih.gov/jBYBPgj>



Eunice Kennedy Shriver National Institute
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