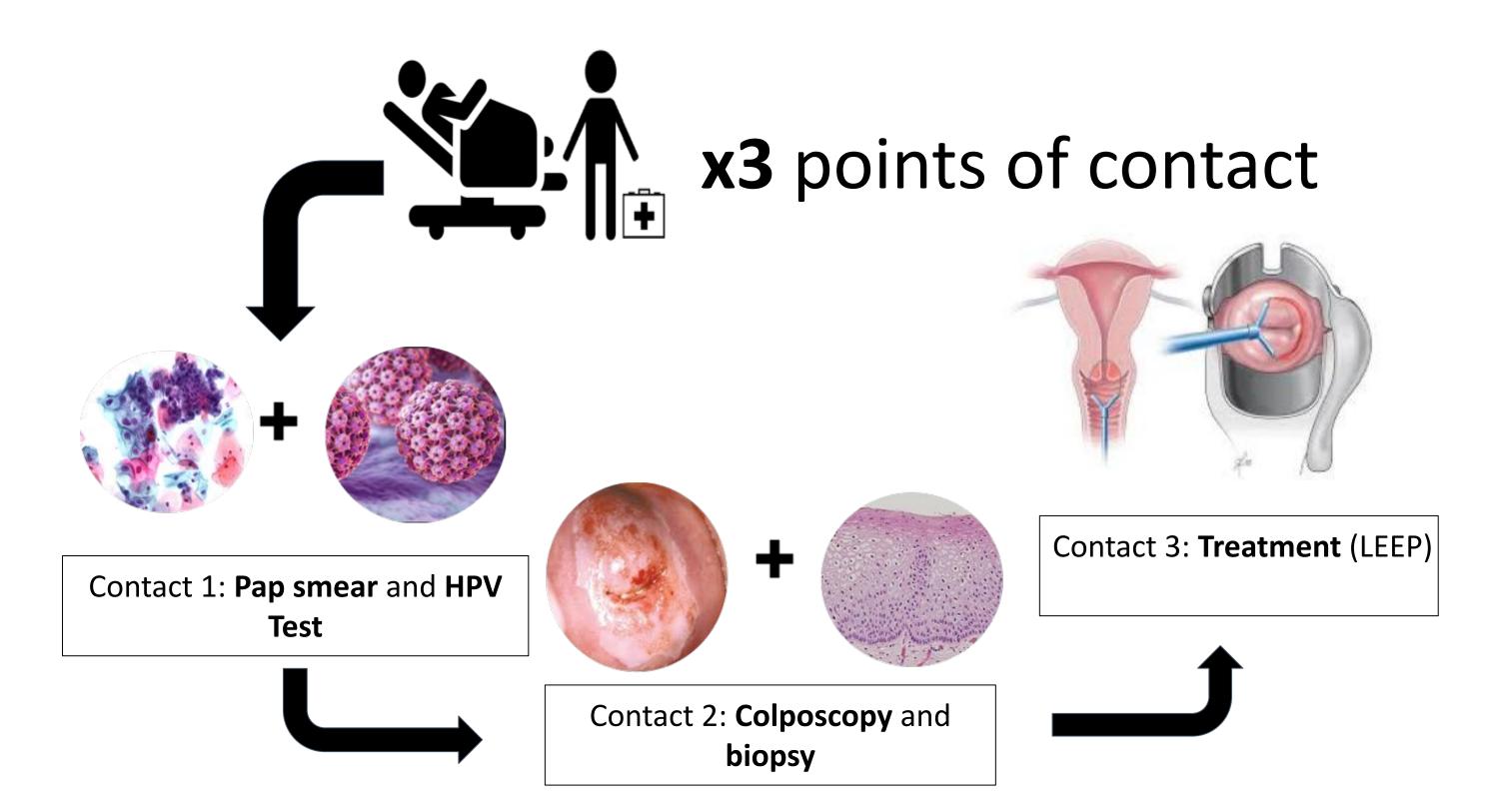
# Novel Therapies for Cervical Cancer in Peru

DUKE BASS
CONNECTIONS

SOFIA CHODRI<sup>2,3</sup>, AMY GUAN, KAYLA HENDRICKSON<sup>2</sup>, GARETH KELLEHER, ANIKA MANDAVILLI<sup>2,3</sup>, PERLA MEDRANO<sup>2</sup>, LAYA SATHYAN, NEHA SHAW<sup>2,3</sup>, MARLEE KRIEGER<sup>1,2</sup>, BRIAN CROUCH<sup>1,2</sup>

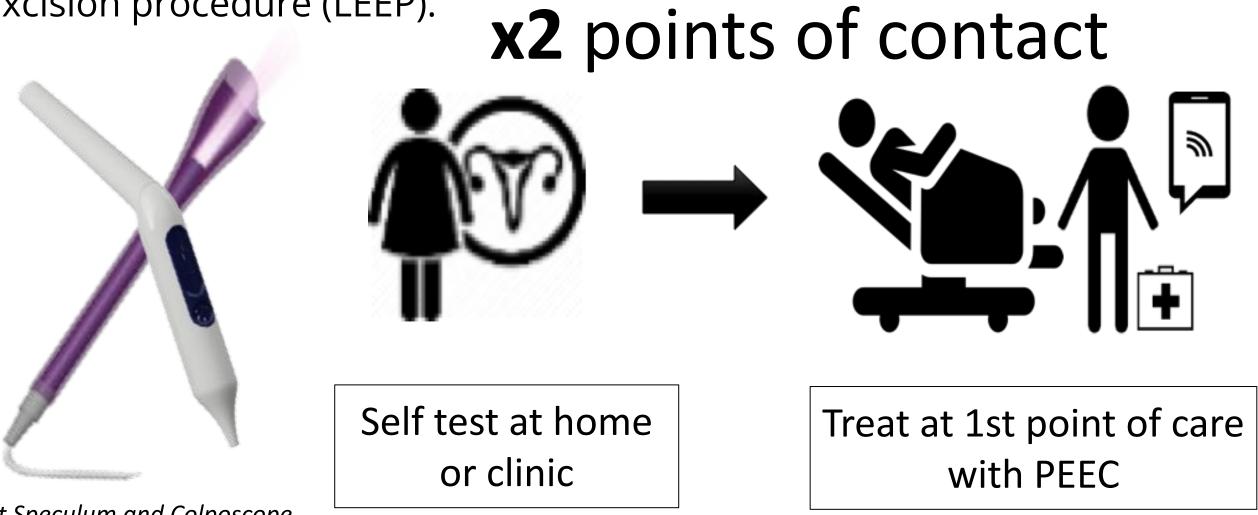
<sup>1</sup>Pratt School of Engineering, <sup>2</sup>Duke Global Health Institute, <sup>3</sup>Trinity College of Arts & Sciences.

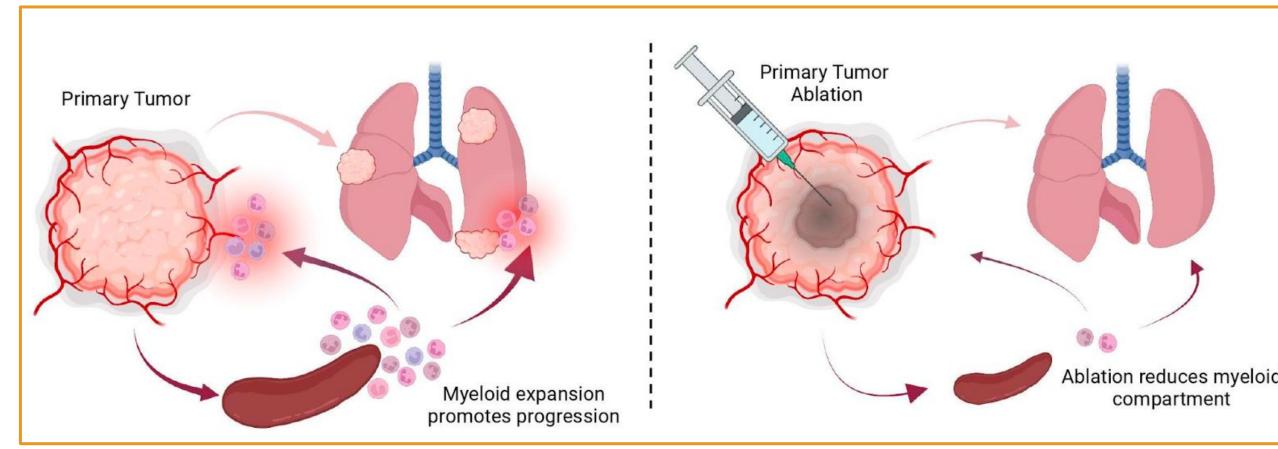
Bass Connections in Global Health



# Background

In Peru, cervical cancer (CC) is the leading cause of cancer death in women (GLOBOCON 2020). Barriers to treatment include inadequate healthcare infrastructure, maintaining supply chains of necessary equipment, workforce shortages, and high loss to follow up after a positive screening (PAHO 200). Receiving treatment can be a challenging, drawn out process. Current treatment methods of cervical cancer include thermal ablation, cryotherapy, surgery, and loop electrosurgical excision procedure (LEEP).





Nief, Corrine A., Adam M. Swartz, Erika Chelales, Lauren Y. Sheu, Brian T. Crouch, Nirmala Ramanujam, and Smita K. Nair. 2022. "Ethanol Ablation Therapy Drives Immune-Mediated Antitumor Effects in Murine Breast Cancer Models" *Cancers* 14, no. 19: 4669. https://doi.org/10.3390/cancers14194669

This project is part of an effort to develop a new cervical cancer therapy that overcomes some of the main barriers of linking Peruvian women to treatment. The therapy is an enhanced ethanol ablation known as Point-of-care Ethanol Ethyl Cellulose (PEEC) treatment, which is designed to induce complete regression of tumors. The goal is for PEEC to be safe, effective, low cost, and less burdened by infrastructure needs. If successful, PEEC could fill the gap in coverage left by cryotherapy and thermal ablation.

## **Research Aims**

Our primary objectives are to map the regulatory pathway for medical technologies in Peru and assess the need and market for PEEC.

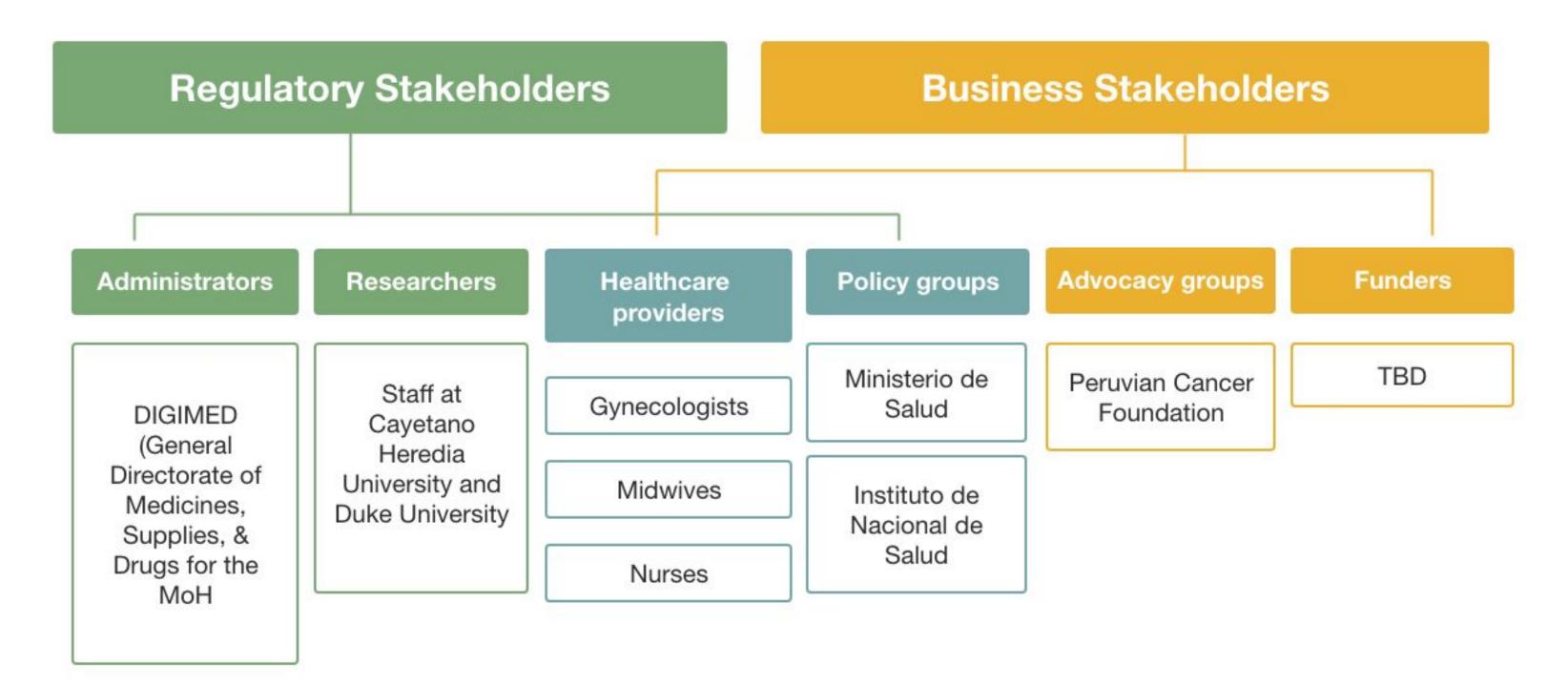
- Understand perceptions of cervical cancer in the Peruvian government and medical research field.
- Understand how to navigate regulatory landscape of Peruvian healthcare system.
- Develop a roadmap for implementing PEEC treatment.

## Methods

- 1. Conduct background literature search on general state of cervical cancer in Peru.
- 2. Formulate research questions based on goals of CC technology and background knowledge in Peru.
- 3. Construct a stakeholder analysis for novel cervical cancer therapies in Peru.
  - a. Organize stakeholders into categories for interview guide development.
  - b. Identify potential interviewees for answering research questions.
- 4. Create an interview guide for each category of stakeholder.

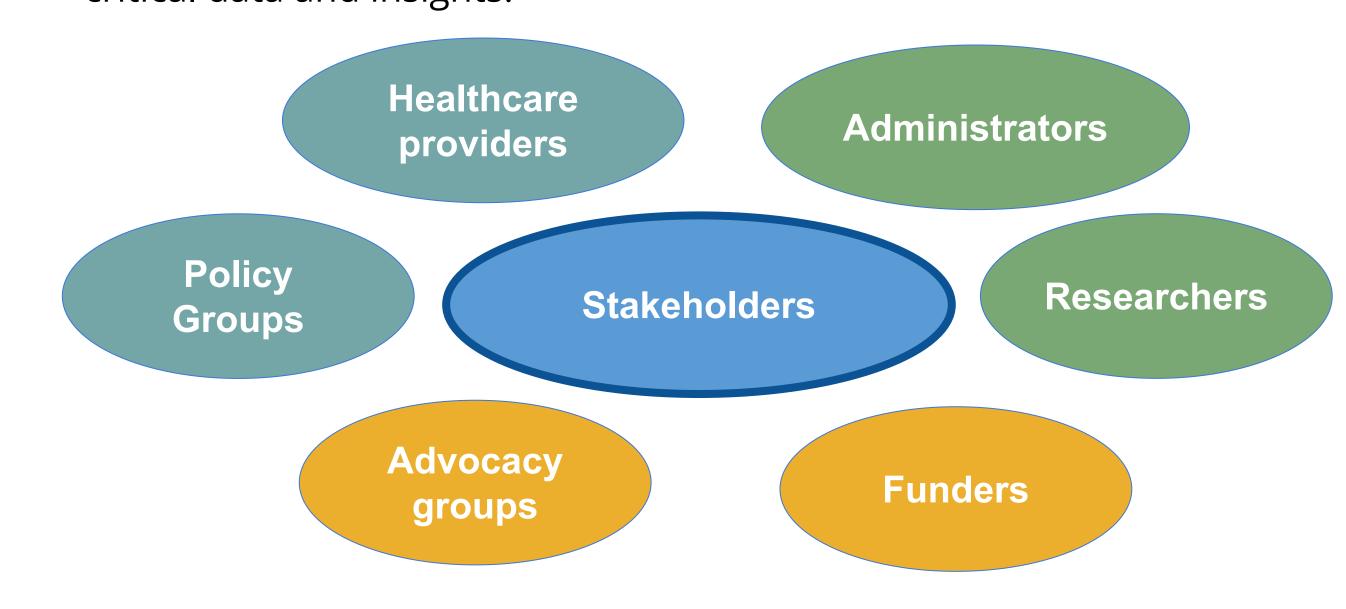
#### Figure 1: 2022-2023 Project Timeline 2023 2022 Background Draft IRB literature review application Submit IRB application 1st draft 1st round Bass poster Interview guide stakeholder matrix March trip showcase postponed due situation in Peru Political turmo breaks out in

#### Figure 2: Regulatory and Business Stakeholder Diagram



# **Anticipated Results**

- Conduct interviews with key stakeholders in Peru in Summer 2023.
   2-3 interviews among each of the six key stakeholder types
- Interviews with various stakeholders knowledgeable about business and regulatory pathways for implementing PEEC in Peru will provide critical data and insights.



# **Anticipated Future Directions**

## Develop:

- Needs assessment for cervical cancer treatment in Peru
- Document outlining necessary steps to conduct a clinical trial in Peru
- Policy brief summarizing healthcare regulatory landscape in Peru
- Form effective service delivery model for PEEC in Peru



Cayetano Heredia National Hospital

https://www.hospitalcayetano.gob.pe/PortalWeb/

### Collaborators

