THE BUTTERFLY SYSTEM

Electronic Cervical Ripening & Monitoring System for Induction of Labor

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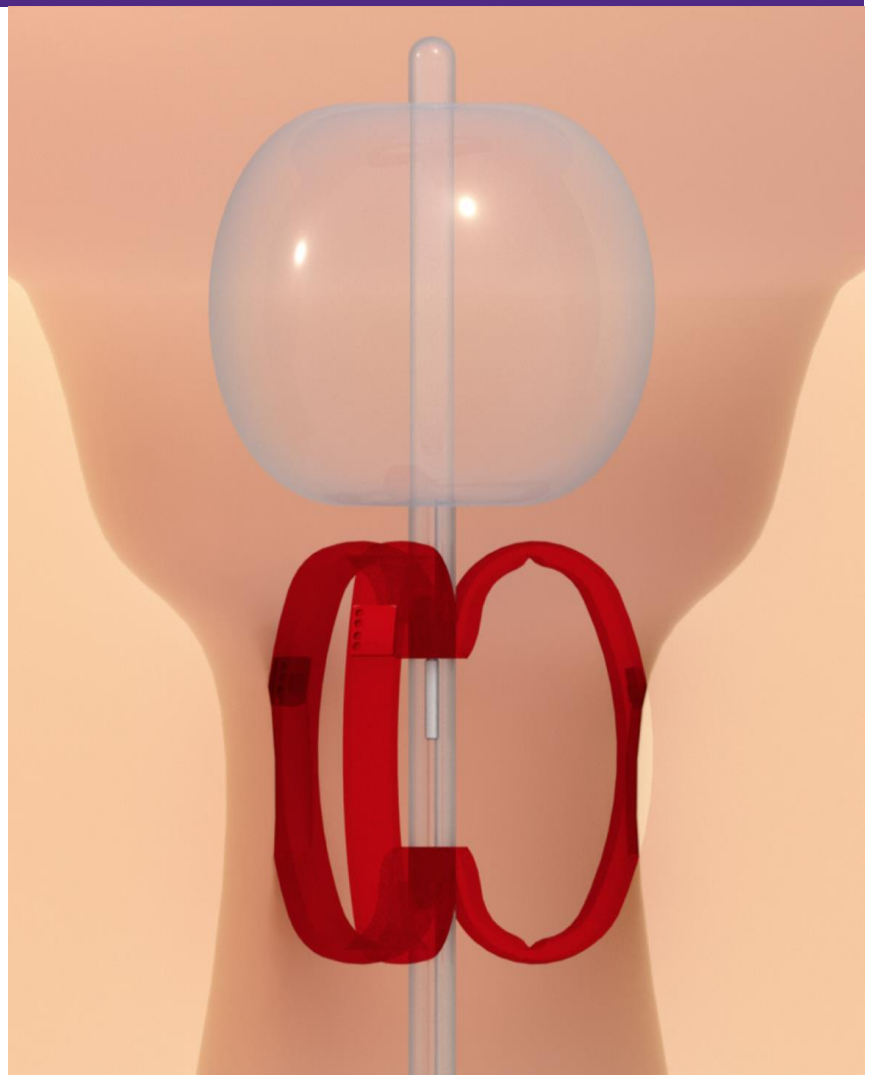
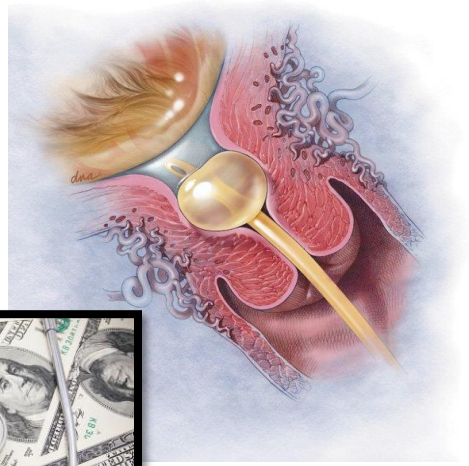


Problem Statement

- 23% of labors in the U.S. are induced
- 2 induction methods: mechanical & pharmacological

Current problems:

- Measurements are taken every ~5 hours
- Reaching active labor takes over 6-12 hours
- Every check increases infection rate
- Lack of devices to track progress of cervical ripening in real-time
- Need for early patient hospitalization



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Our Solution

BUTTERFLY Monitoring System

- Taps into an existing medical indication (CRIB) adding an expanding monitoring feature
- Real-time monitoring for providers and patients replacing the “Finger Measurement” of dilation
- For in-patient **and** outpatient use
- Reduce the amount of time and resources required for mechanical labor induction

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Butterfly Technology Features

Measurement accuracy

+/- 0.5 cm

Vertical measurement spatial frequency

3 points along vertical length of cervix spanning 3 cm

Diameter measurement range

1.3 cm - 5 cm

Measurement recording

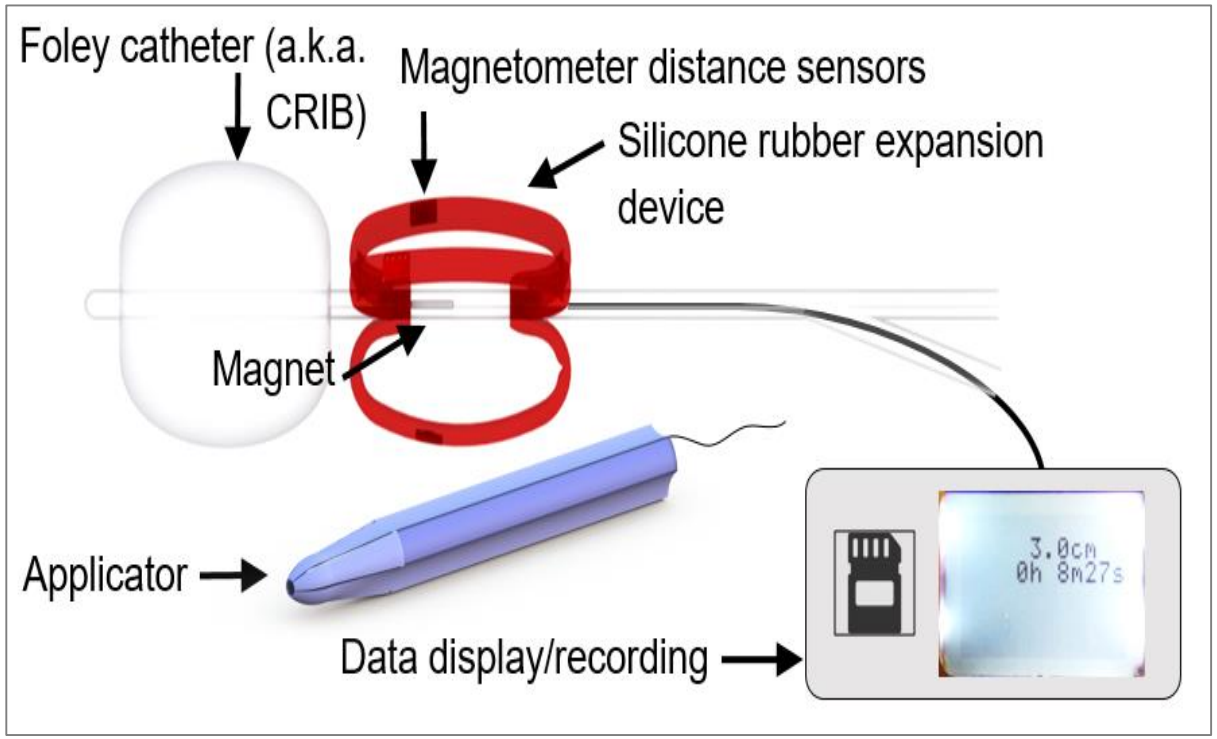
Taken every 2 seconds

Saved to SD card

Displayed on an LCD screen

Safety

Biocompatible materials



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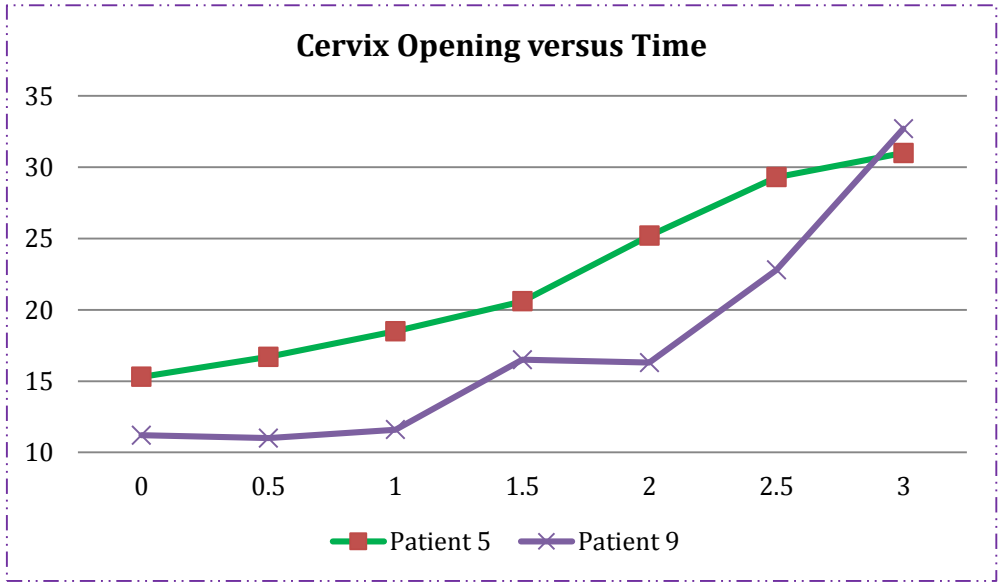
Uniqueness – Preliminary Clinical Data

Key Features:

- Cervical Ripening + Continuous Monitoring
- Portable
- Wireless Connectivity/Remote monitoring



Y-axis: Cervical dilation (mm)

X-axis: Cervical Ripening (Hours)

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Clinical Need – Market Opportunity

4 million babies are born every year

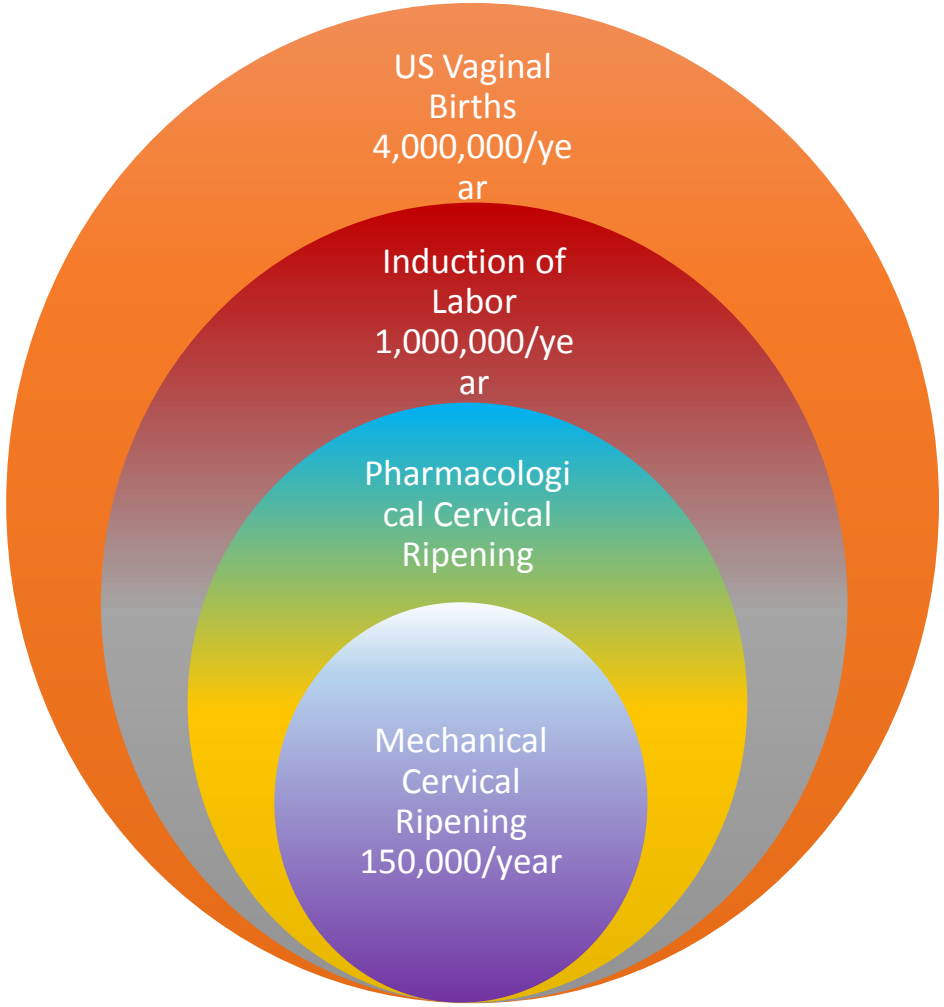
1 million are born from an induced labor

Approximately 15% of induced labors are through mechanical induction

150,000 market size every year

Unique design and niche market justifies an ambitious 1st year market penetration

At 1% penetration: goal 1st year sales = 1,500 units sold



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Business Model

Reduced time = Improved Efficiency = Increased Revenue

	Current System		BUTTERFLY Monitoring System *
Time			
• Cervical Ripening	9 ± 3 hours	⬇	2 - 9 hours
• Induction of Labor	10-36 hours		10-36 hours
Cost			
• Healthcare Providers	$$$	⬇	$ TBD
• Hospitals, Insurers, Patients	$$$	⬇	$ (~$48)
	Induction Fee Bundles @NU:		
US$256 mechanical / pharmacological	**US$1,220** induction /augmentation <24 hrs		**US$1,646** fetal monitoring & nursing

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* Outpatient setting

Intellectual Property

Two US provisional application and one PCT Utility application are filed

Internal No.	Country of Filing	Status	Type	Application Serial Number	Application Date
2015-113-01	United States	Expired / Converted	Provisional	62/256,547	Nov 17, 2015
2015-113-02	(PCT App)	Filed	PCT	PCT/US2016/062441	Nov 17, 2016
2015-113-03	United States	Filed	Provisional	62/518,993	Jun 13, 2017

Competition

	Maasal cervical dilator	Cervical dilation measurement instrument	Cervical dilation measuring device	Cervix dilation and labor progression monitor	Transvaginal Sonography	BUTTERFLY System
Safety During Induction of Labor	-	-	-	+	+	+
Portability	-	-	-	-	-	+
Dilation/ Ripening	+	-	-	-	-	+

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Team

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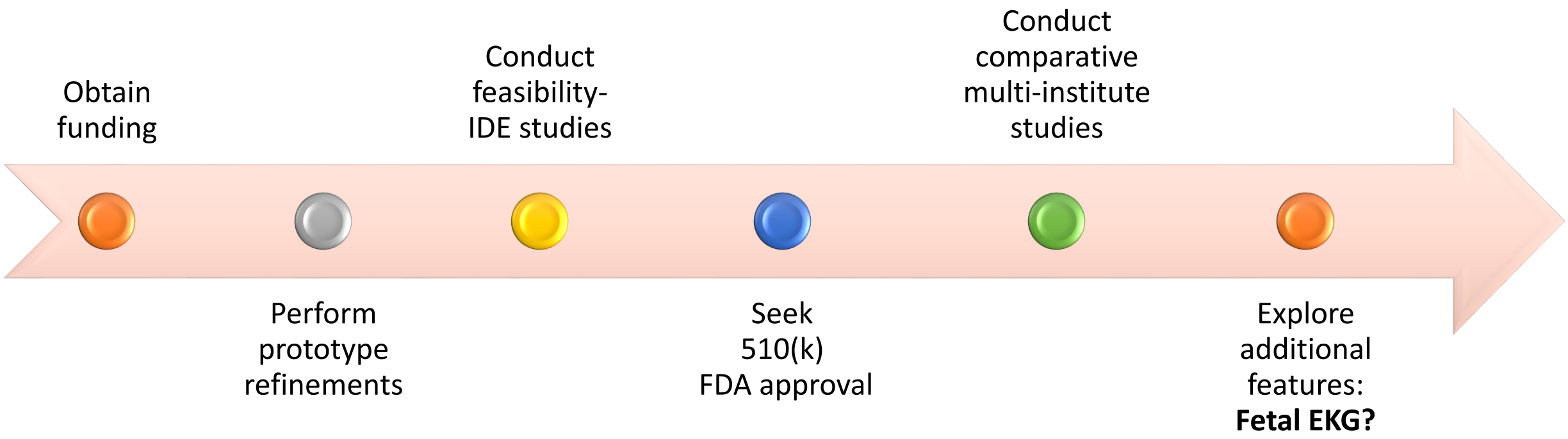
Next Steps



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The Summary

- ✓ Untapped problem in women's health
- ✓ **Enhanced experience during induction at labor & delivery (reduce hospital stays)**
- ✓ Real-time monitoring of cervical dilation during cervical ripening
- ✓ **Accurate and sensitive information of progress; eliminating manual process**
- ✓ The BUTTERFLY system will change the clinical paradigm of labor induction

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