

# Saliva-Based Hormonal Tracking System Using Biosensors and AI

## Non-Invasive AI-Powered Menstrual Health Monitoring

Revolutionizing women's health through accessible, real-time hormonal insights that empower informed decisions about fertility, wellness, and cycle management.

# The Challenge in Women's Health Monitoring

## Invasive Testing

Blood draws required for hormone monitoring create barriers to regular tracking and discourage consistent health management.

## Limited Accuracy

Calendar-based apps rely on averages, missing individual biological variations that impact fertility and health predictions.

## No Real-Time Data

Current solutions lack continuous hormone monitoring, leaving women without actionable insights during critical cycle phases.

## Missing Personalization

Generic cycle tracking fails to address irregular patterns, PCOS, and unique hormonal profiles affecting millions of women.

# Our Solution: Smart Biosensor Technology

We've developed a **saliva-based biosensor device** that makes hormone tracking as simple as brushing your teeth. By detecting estrogen and progesterone levels in real-time, our system provides accurate, personalized menstrual health insights without needles or lab visits.

The device seamlessly connects to a **mobile app** that visualizes hormone trends, predicts cycle phases, and delivers AI-powered recommendations tailored to each user's unique biology.

- Non-invasive sample collection in under 30 seconds
- Clinical-grade accuracy from advanced biosensor technology
- Instant results synced to your smartphone



# How It Works: From Saliva to Insight



## Sample Collection

User provides a small saliva sample using the biosensor device. The process is quick, painless, and can be done anywhere.



## Hormone Detection

Advanced biosensors measure estrogen and progesterone concentrations with lab-grade precision in minutes.



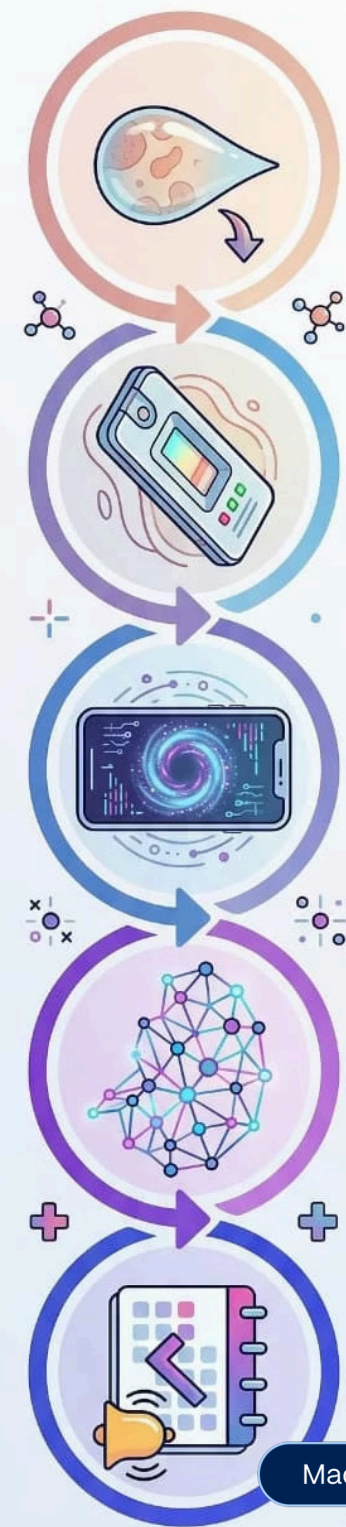
## Digital Conversion

Biological signals are converted to digital data through proprietary algorithms that ensure accuracy and reliability.



## Mobile Integration

Data transmits wirelessly to the mobile app, where AI analyzes patterns and delivers actionable health insights.



# AI-Powered Cycle Prediction

## Intelligent Pattern Recognition

Our machine learning algorithms analyze daily hormone fluctuations to understand your unique cycle signature. The system continuously learns from your data, becoming more accurate with each cycle.

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## Data Analysis

AI processes hormone trends across multiple cycles

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## Pattern Learning

Identifies individual biological rhythms and variations

03

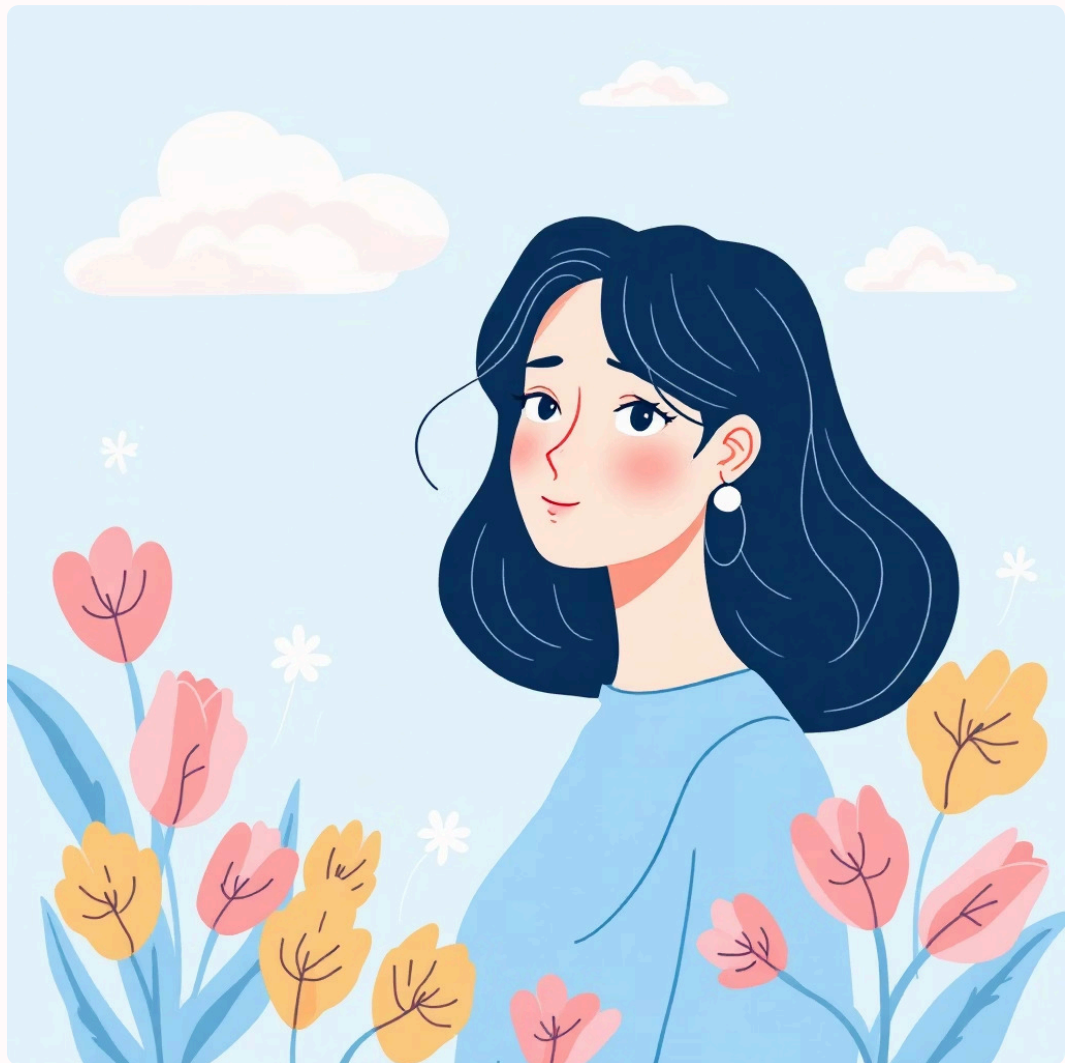
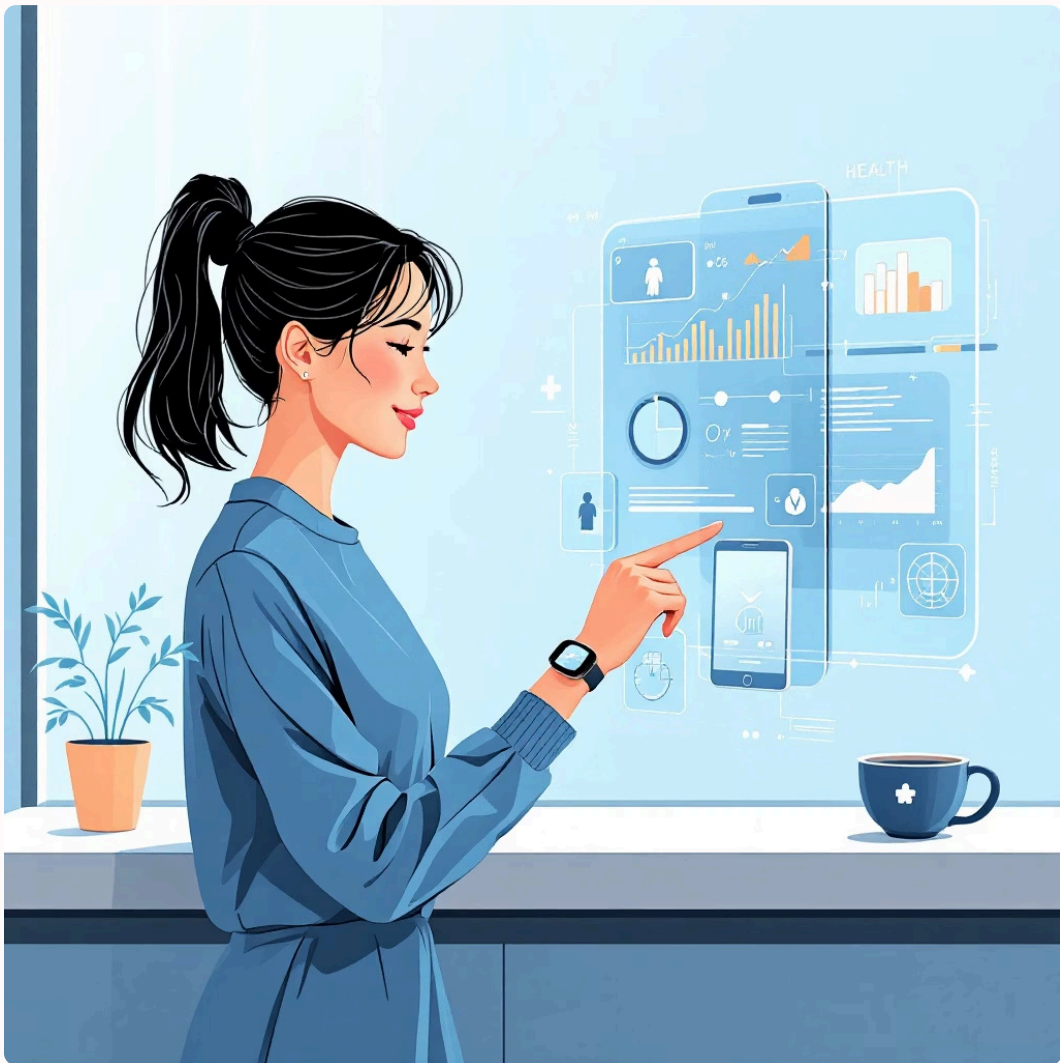
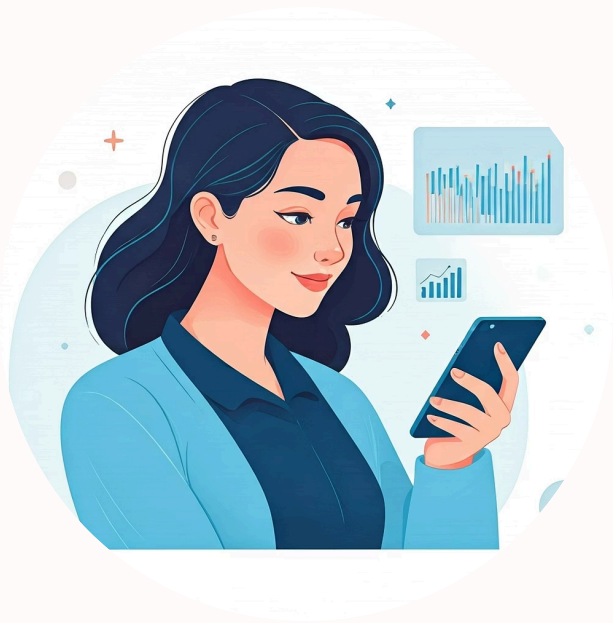
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## Predictive Insights

Forecasts ovulation and menstruation 5-7 days ahead



# Target Market & Customer Segments



## Students & Professionals

Tech-savvy women balancing education or careers who need convenient, accurate cycle tracking without clinic visits.

## Irregular Cycle Management

Women with PCOS, hormonal imbalances, or unpredictable cycles requiring personalized biological insights.

The global FemTech market is projected to reach **\$103 billion by 2030**, with hormone monitoring representing a rapidly growing segment driven by demand for non-invasive, data-driven women's health solutions.

# Business Model & Revenue Streams



## Hardware Sales

One-time purchase of biosensor device with proprietary technology

**Price point: \$89-129**



## App Subscription

Monthly access to AI insights, cycle predictions, and data storage

**\$9.99/month or \$89/year**



## Premium Analytics

Advanced health reports, fertility coaching, and personalized recommendations

**\$14.99/month premium tier**



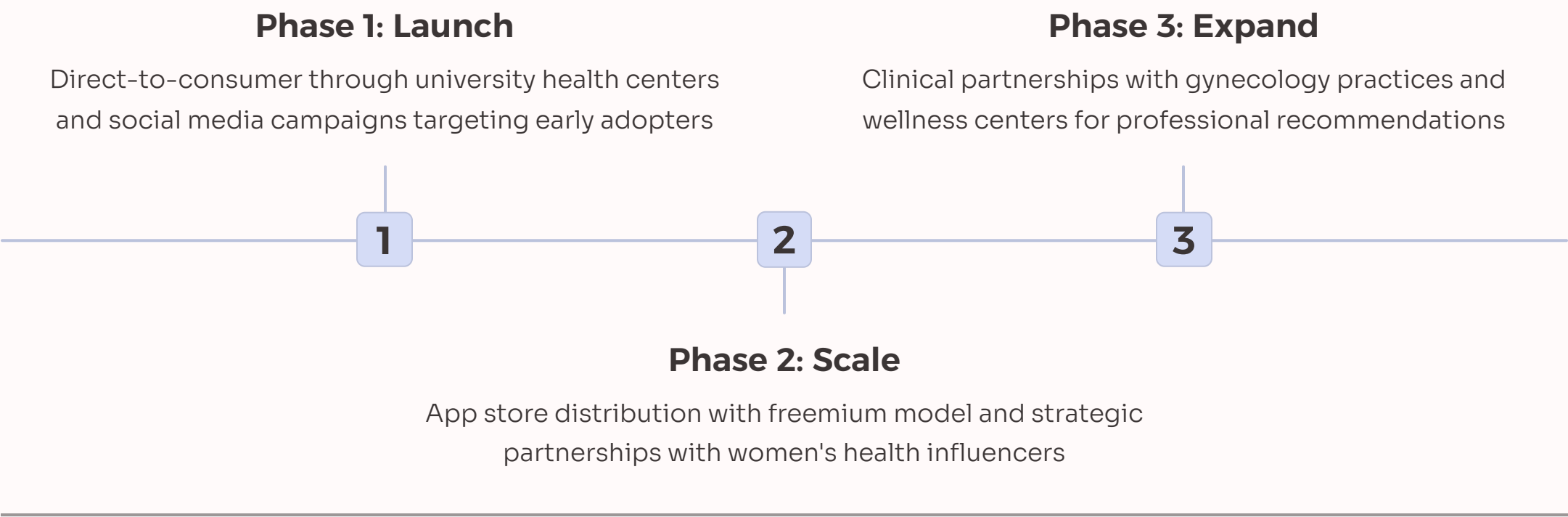
## B2B Partnerships

Bulk sales to clinics, wellness centers, and corporate health programs

**Enterprise licensing model**

- ❑ Our hybrid hardware-software model creates recurring revenue while maintaining affordable entry pricing to maximize market penetration.

# Go-To-Market Strategy & Financial Outlook



## Financial Snapshot

Device Cost	Software Model	Year 1 Target	Break-Even
\$35 manufacturing	95% gross margin	10,000 users	Month 18
65% margin	Recurring revenue	\$1.2M revenue	30% YoY growth

# Impact & Future Vision

## Transforming Women's Healthcare

Our technology democratizes access to hormonal health insights, empowering women with the biological data they need to make informed decisions about fertility, wellness, and lifestyle choices.

### Immediate Impact

- Non-invasive alternative to blood tests
- Improved cycle awareness and planning
- Reduced healthcare costs and clinic visits

### Future Expansion

- Multi-hormone detection (cortisol, testosterone)
- Integration with smartwatches and wearables
- Hospital and fertility clinic partnerships



"By combining biosensor innovation with AI, we're not just tracking cycles—we're unlocking a new era of personalized, proactive women's health management."



# Thank You

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AI-Powered FemTech Innovation