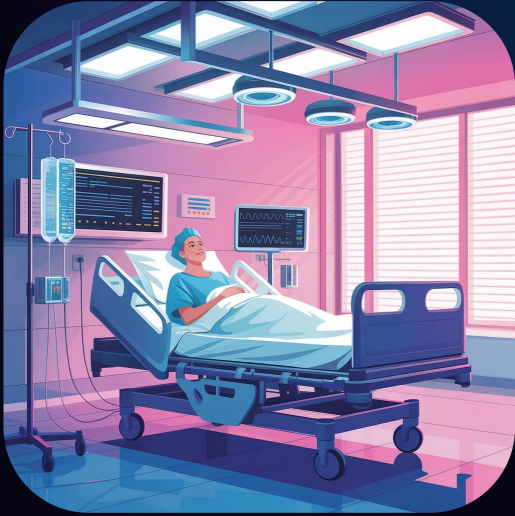


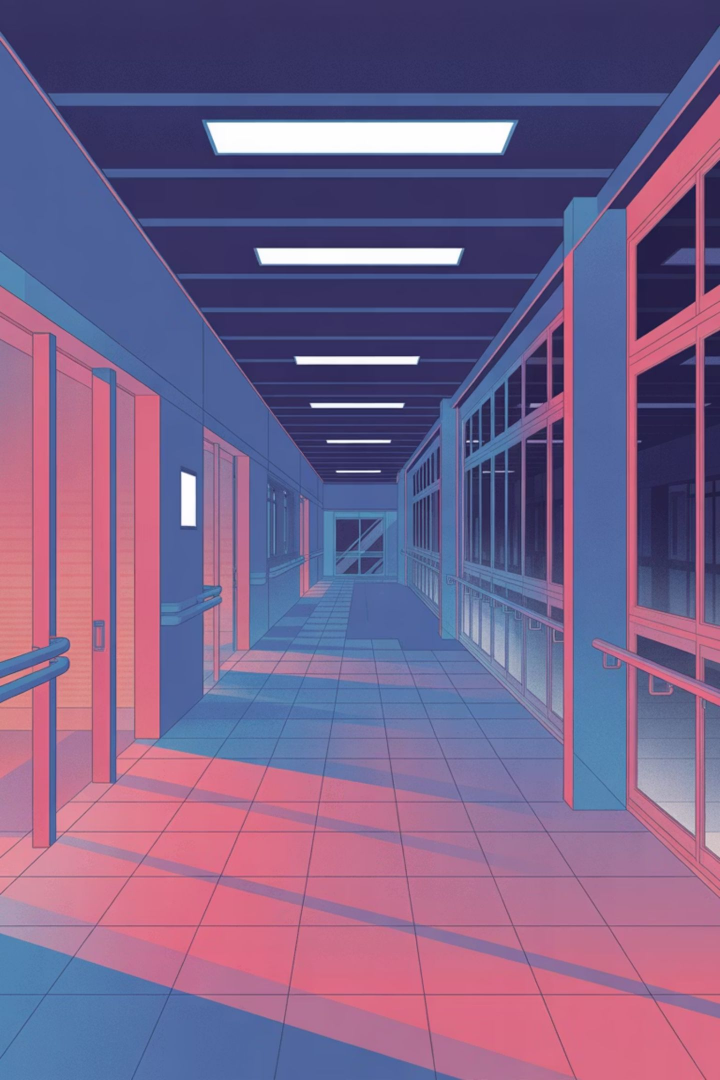
Team 309

SurgiWatch 

Detect infection early. Prevent
postoperative complications worldwide.



No monitoring. No warning. No chance to intervene.



The Silent Killer: Postoperative Complications

313M

Surgeries/Year
Worldwide

3rd

Cause of Death

#1

Leading Cause
Is Infection

Why It Matters

Preventable complications drive up costs, consume resources, and cost lives.

4.2M

Annual mortality rate from
post-op complications

\$41.3B

Annual cost of hospital
readmissions

\$25K

per additional day of
inpatient monitoring

Multimodal postoperative monitoring at-home

continuous vitals monitoring, surgical wound monitoring, and AI-powered data synthesis



Hardware



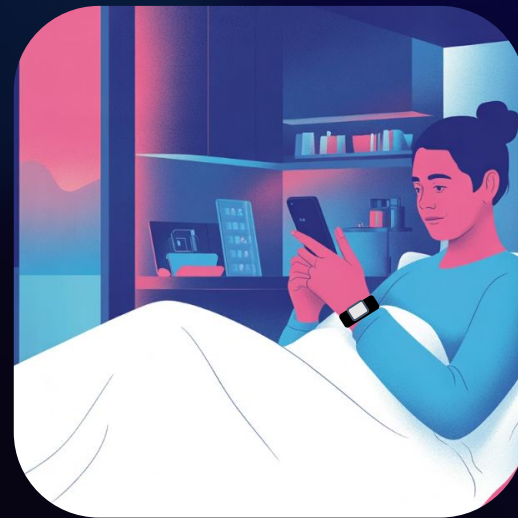
**Wound Image + Vitals
AI Analysis**



Phone App

PATIENT JOURNEY

Recovery, Simplified



PATIENT INTERFACE

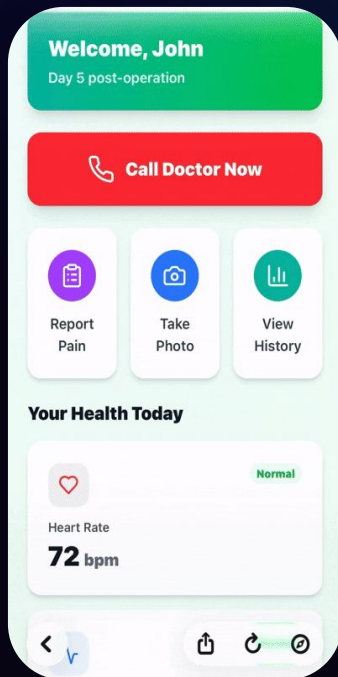
Minimal work, maximal adherence



Wear It & Leave It

Periodic vitals monitoring

Interoperability with other wearables.



Try it yourself!



AI-Powered Software

Infection screening via

- Vitals trends
- Wound images
- Pain levels

PHYSICIAN INTERFACE



Try it yourself!

The screenshot displays a user interface for patient management. At the top, there are navigation tabs with numbers 24, 5, 1, and 20. Below these are two buttons: 'View All Patients' with a person icon and 'Add New Patient' with a plus icon and a person icon. The main section is titled 'Recent Patients' and lists four entries:

- John Anderson** • 58 yrs **STABLE** →
Surgery: Cardiac Bypass Day 5 post-op Updated 2 hours ago
- Mary Thompson** • 45 yrs **WARNING** 2 Alerts →
Surgery: Hip Replacement Day 3 post-op Updated 30 mins ago
- Robert Chen** • 62 yrs **CRITICAL** 1 Alert →
Surgery: Spinal Fusion Day 8 post-op Updated 10 mins ago
- Sarah Williams** • 51 yrs **STABLE** →
Surgery: Knee Replacement Day 12 post-op Updated 5 hours ago

A small question mark icon is visible in the bottom right corner of the interface.



Smart Alert

Alerts clinician and patients when action is needed.

Reduces alert fatigue.

Impact

3-5 Days Earlier

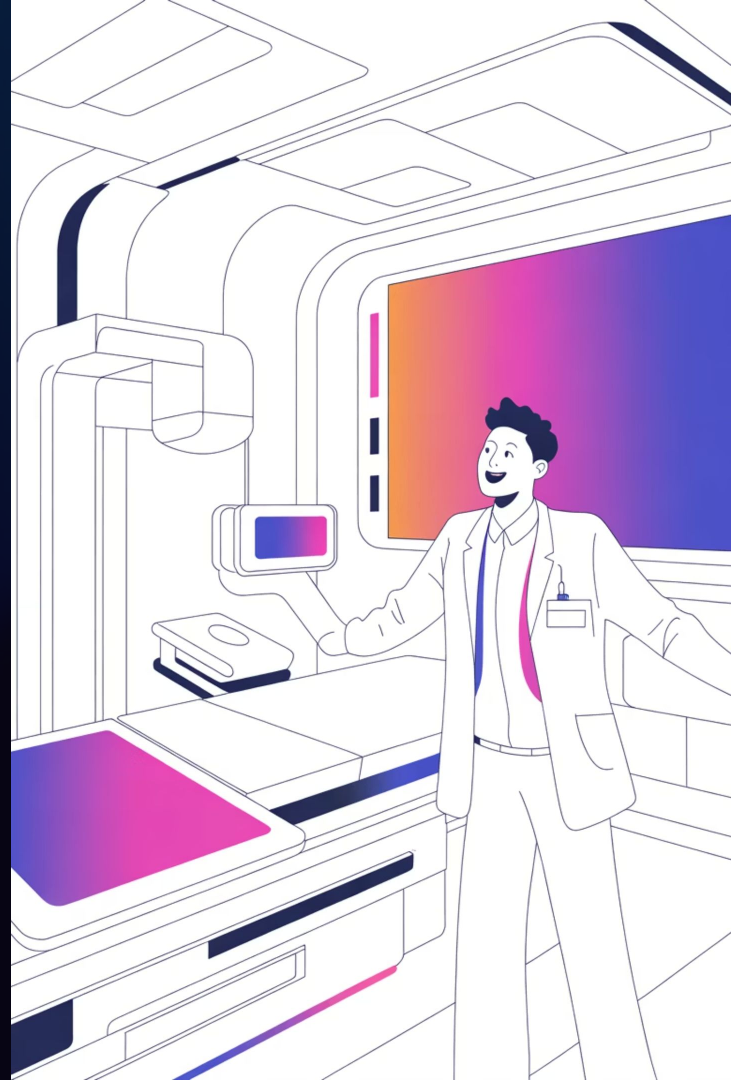
Infection detected sooner
(Sanger, 2016)

**~45% Fewer
Readmissions**

Preventable readmission
(Pham, 2023)

\$150M Annual Savings

infection-related complications ALONE (Merkow, 2015; Lawson, 2013)



Business Model:

Fixed cost for
hardware:

\$5 /device/patient

+

Subscription
for software:

\$60 /month/patient

=

Revenue:

\$65 /patient

\$3.9M revenue

within 1 year with *20 hospitals only*

3000 patients per hospital per year

Competitive Analysis

First to combine imaging and vitals to track recovery

Feature	SurgiWatch	Bio Button / BioBeat / Vital Connect	Current Health	RedScar / MyHealthPal / Perspective
Continuous Vitals Monitoring	✓	✓	✓	✗
Surgical Site Monitoring	✓	✗	✗	✓
AI-powered Analysis	✓	✗	✓	✓
Interoperability	✓	✗	✗	✗

We aim to help the >300M people having surgeries annually

Total Addressable Market

All post-surgical monitoring worldwide

\$24B

Serviceable Available Market

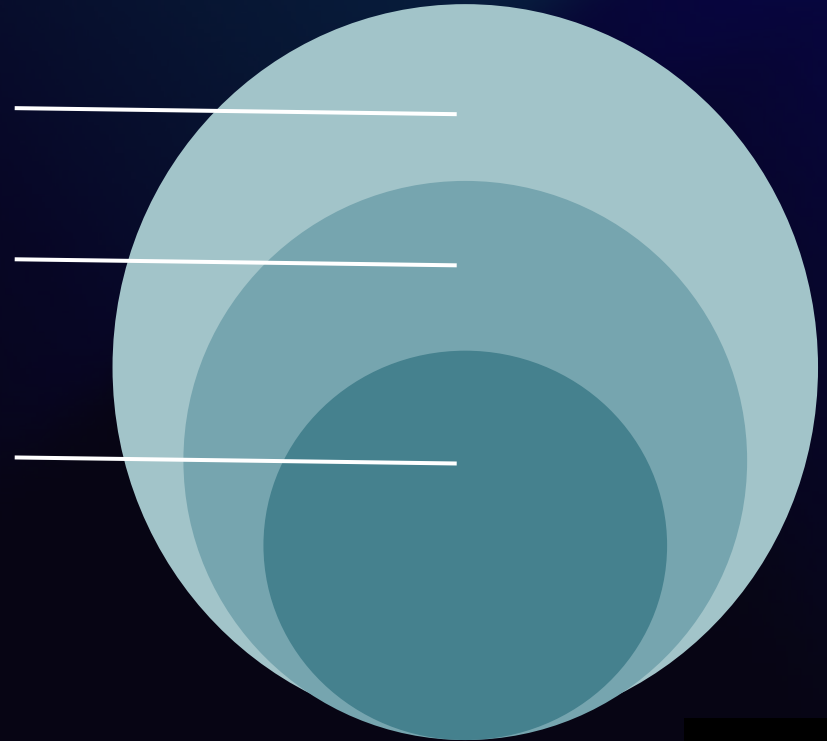
US post-surgical monitoring (all surgeries)

\$2.4B

Serviceable Obtainable Market

US post-abdominal surgery monitoring

\$336M





Detect Infection Early, Reduce Postoperative Complications Worldwide

Every surgery deserves a safe recovery — no matter where the patient goes home.

Meet the Team

14

Languages

6

Countries



Keer Zhang
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Biodesign Fellow



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Tangier, Morocco
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Science, MIT



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Comp. Bio + Infectious Disease