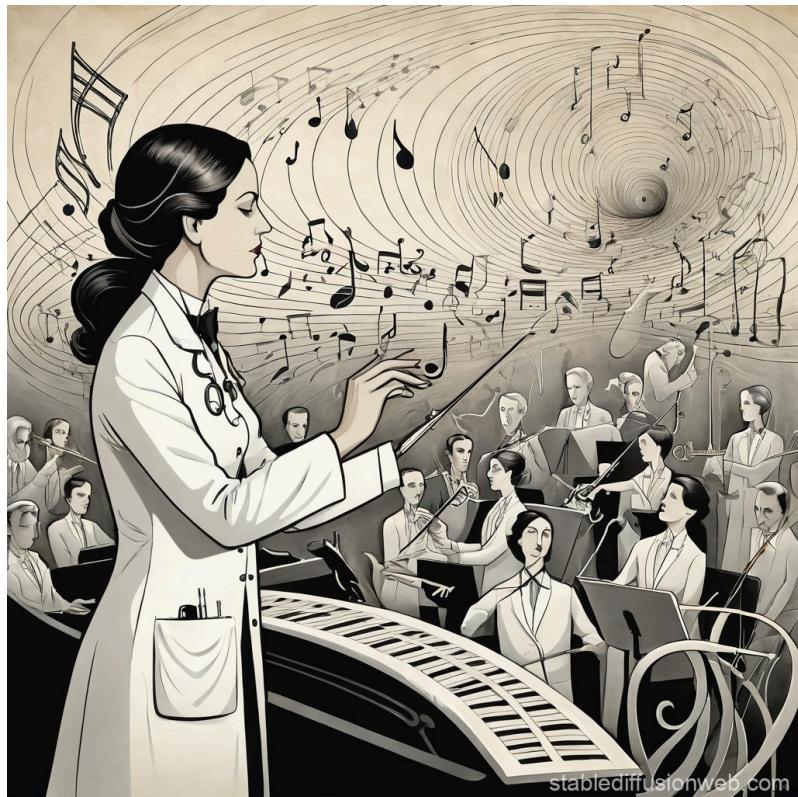


Ravel Diagnostics

Shazam for Respiratory

AI-powered health screening from your pocket



Vision

Ravel Diagnostics is redefining health diagnostics through sound.

We harness AI-powered audio analysis to deliver noninvasive, real-time diagnostic insights via everyday devices, starting with smartphones.

Our goal is to detect a wide spectrum of conditions, from vocal cord disorders to respiratory and complex neurological diseases, using voice and breath recordings.

Why It Matters

Vocal cord and respiratory conditions are underdiagnosed and undertreated, with diagnosis often delayed due to the need for invasive tools and specialist referrals.

Current Problem

Diagnosis today relies heavily on endoscopy - invasive, specialist-dependent, and slow. Patients often go untreated due to delays, access issues, or lack of follow-up.

Our Solution

Record. Analyze. Diagnose.

Using a smartphone, our app captures patient audio, analyzes it using deep learning, and delivers diagnostic insights directly to clinicians.

Key Benefits

- Early detection of vocal cord and respiratory conditions
- Noninvasive follow-up for chronic illness and cancer recurrence
- Decision support tool to reduce misdiagnosis and unnecessary procedures
- At-home monitoring and telemedicine-ready
- Rapid triage for specialist referral

Our Edge: The Team & Technology

We combine **deep medical expertise** with **audio and AI leadership**:

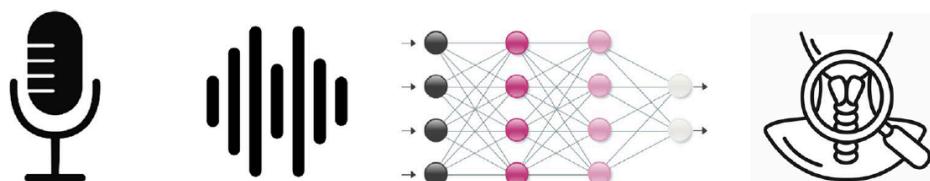
- **Dr. Idit Tessler & Dr. Eran Alon** - Clinicians driving use cases and access at Sheba Medical Center
- **Eyal Naimi** - AI & machine learning technical expert
- **Tomer Elbaz & Nir Kozlovsky** - Audio technology and consumer device integration veterans.
- **Sheba Hospital ARC** - Strategic partner with exclusive access to **real-world patient recordings** via Sheba Connect

How It Works

1. Record patient using a smartphone
2. Normalize for mic specs with DSP calibration
3. Preprocess and analyze audio via neural networks
4. Return diagnosis to the attending physician

Target Accuracy:

- 0% False Negatives (no missed critical conditions)
- <10% False Positives



Product Roadmap (POCs)

POC	Focus	Outcome
1. Feasibility	Binary detection of vocal cord polyps	Validate model accuracy
2. Accessibility	Smartphone-recorded audio analysis	Account for mic variability & real-world acoustics
3. Data	Sound recordings of all Sheba patients	Data warehouse for modeling
4. Value	Classify pathology type/severity	Extend to multiple pathologies
5. Deep & Wide	Respiratory sound classification	Detect asthma, COPD, etc.
6. Longitudinal Care	Track condition over time	Personalized treatment monitoring
7. Future Screening	Early detection of neurological diseases (e.g. Parkinson's)	Use longitudinal datasets & patient data

Market Opportunity

- **8% of population** suffers from vocal cord conditions, yet **only 10% receive treatment**
- **6,000+ hospitals** and **30,000+ clinics** in the U.S.
- No direct competitors offering **sound-based diagnostics via consumer devices**

Business Model

SaaS: Offered via **app + cloud service**

- **Per-site licensing** for hospitals/clinics
- **Per-use model** for individual practitioners

Current Status

Partnership formation, Sheba ARC

Developing initial models with public datasets.

POC and clinical validation under way in collaboration with **Sheba Medical Center**.

Contact:

Nir Kozlovsky

Ravel Diagnostics, Co-Founder

nirkoz@gmail.com

[LinkedIn](#)