knb communications

Health tech AI: present + predictions

February 2025

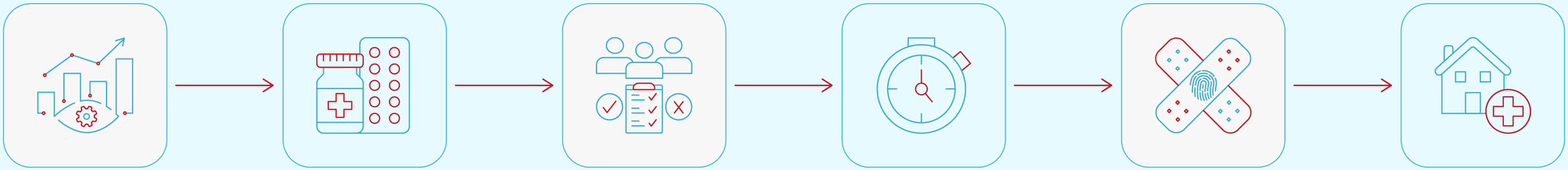
Moving minds in healthcare for over 25 YEARS

Chintan Shah, MBA | President of KNB Communications

- Proud to lead a team of award-winning health and biotech communications experts
- Excited to partner with a range of AI-driven health and biotech companies
- Strong public advocate for AI
- Influencing how AI is reshaping the healthtech industry and how companies can effectively share their stories to foster trust, adoption, and impact

Health tech AI

AI across the healthcare continuum



Predictive analytics	Drug discovery	Clinical trials	Early detection	Personalized treatment	Health at home

Predicting + preventing diseases before symptoms

- Google's DeepMind can predict protein structures and model disease evolution.
- Biofourmis creates AI models that detect diseases like heart failure days before symptoms show up.
- Illumina uses AI to analyze DNA and predict hereditary disease risks before birth.

DeepMind Biofourmis illumina®

AI-generated drugs + drug discovery

- Insilico Medicine: Designed the first-ever AI-generated drug that entered human trials.
- Atomwise: Uses AI to predict how molecules interact with proteins, speeding up drug research.

Insilico Medicine

Atomwise

Clinical trials

Cognivia uses AI-driven analytics and patient psychology tools to reduce data variability in clinical trials. Their AI mitigates placebo effects, predicts adherence, and optimizes retention, improving statistical power and trial outcomes. By addressing patient heterogeneity and engagement, Cognivia helps biopharma make more informed decisions and accelerate effective therapies.

cognivia
QUANTIFY THE POWER OF THE MIND

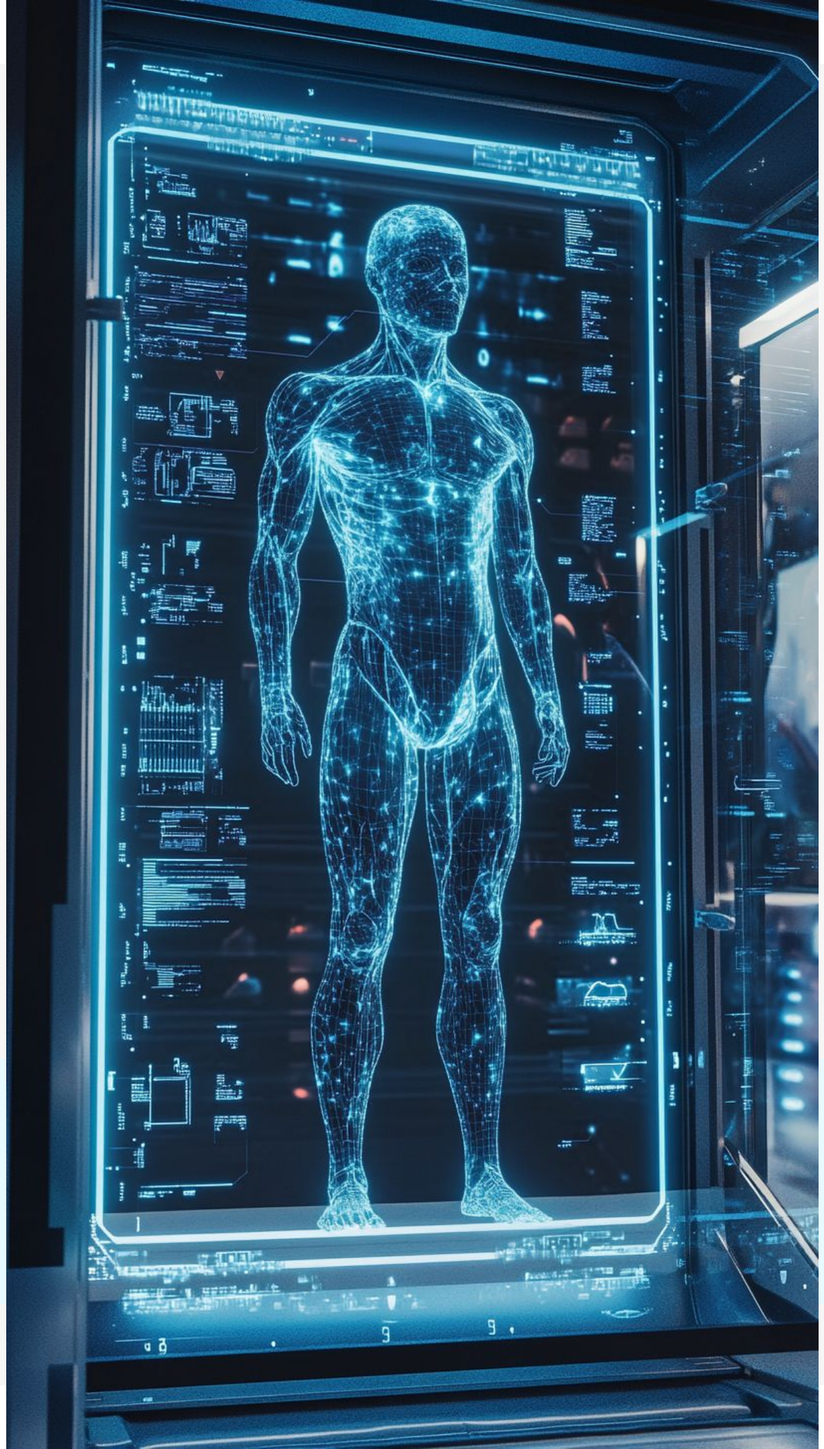
Early diagnosis

- C the Signs: Predicts cancer risk by analyzing symptoms and medical records for early detection.
- Aidoc: Scans medical images to detect strokes, pulmonary embolisms, and brain bleeds early.
- Neko Health: Full-body scans detect health risks in minutes for early diagnosis.

the signs

aidoc

NEKO



Precision health + personalized treatment plans

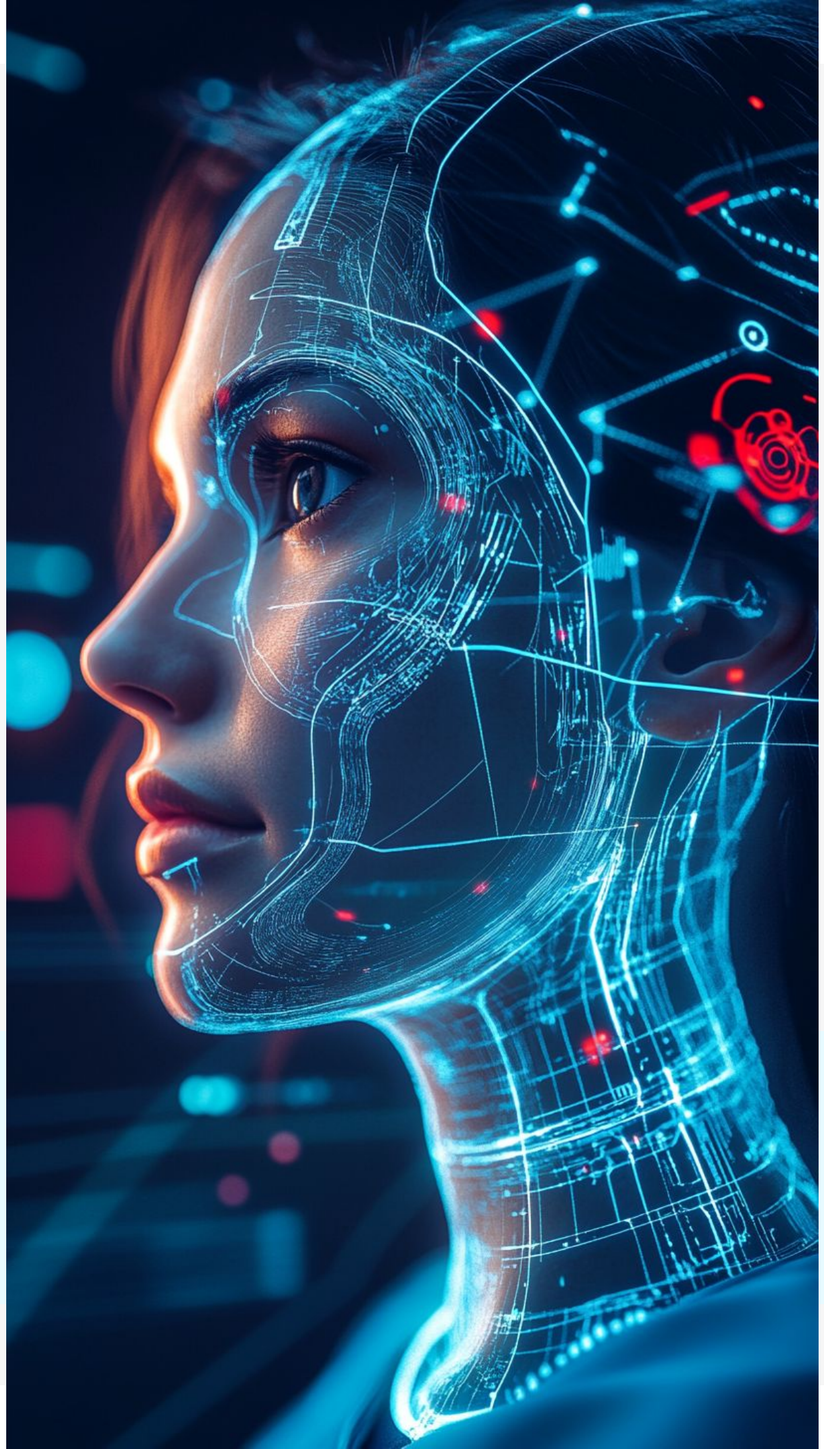
Mental health:

Deep Longevity, Woebot Health, and Kernel rely heavily on machine learning to analyze brain activity, emotional responses, and psychological patterns. AI tailors treatments and provides personalized mental health care.

DEEP LONGEVITY

Woebot Health™

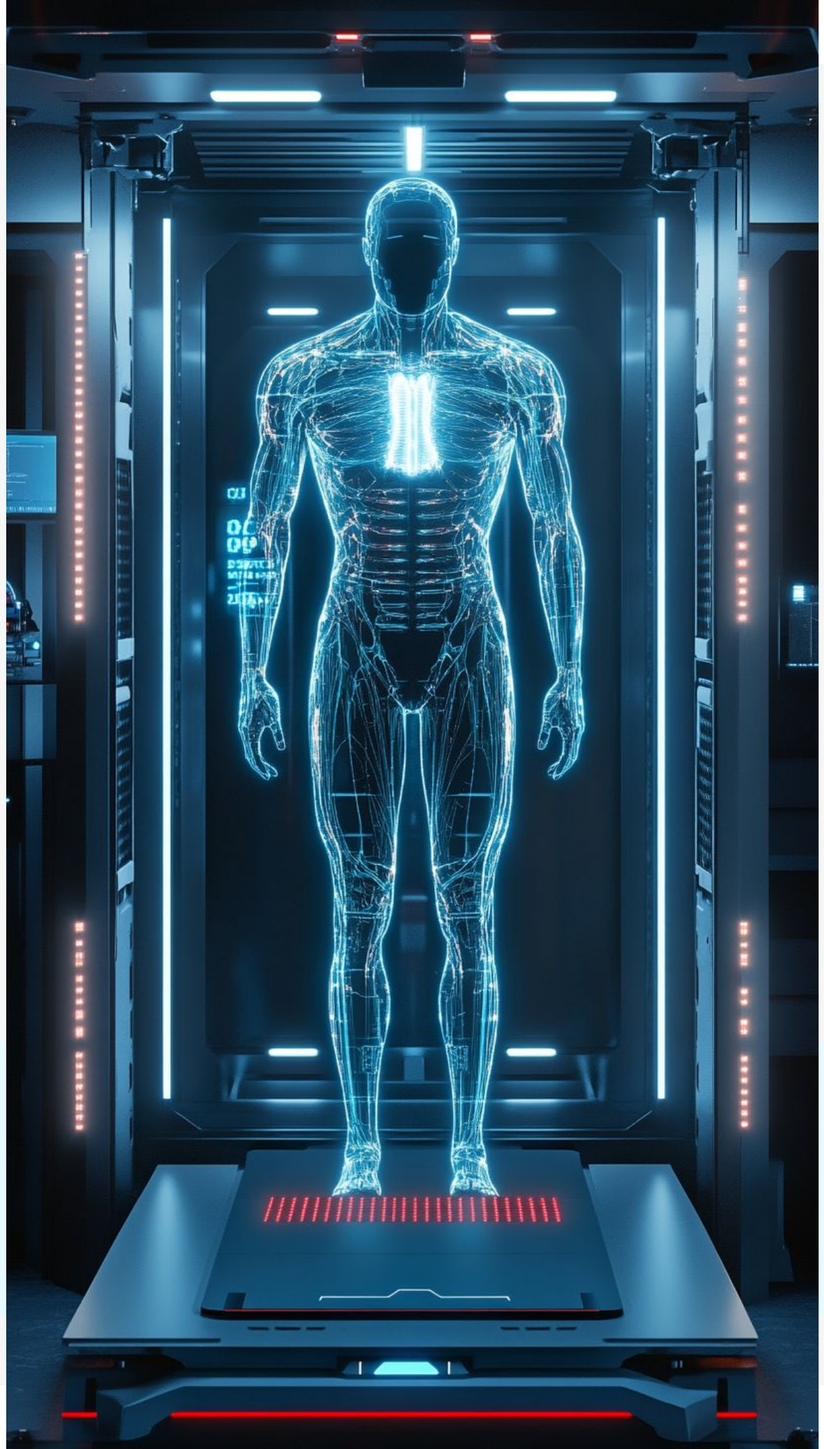
kernel



Precision health + personalized treatment plans

Physical health:

Artera, Diag-Nose.io, and K Health use AI to personalize treatment plans. Artera tailors prostate cancer care, Diag-Nose.io customizes respiratory disease management, and K Health provides AI-driven primary care with personalized health assessments and telemedicine services.



At-home diagnostic tests | leveraging smartphones

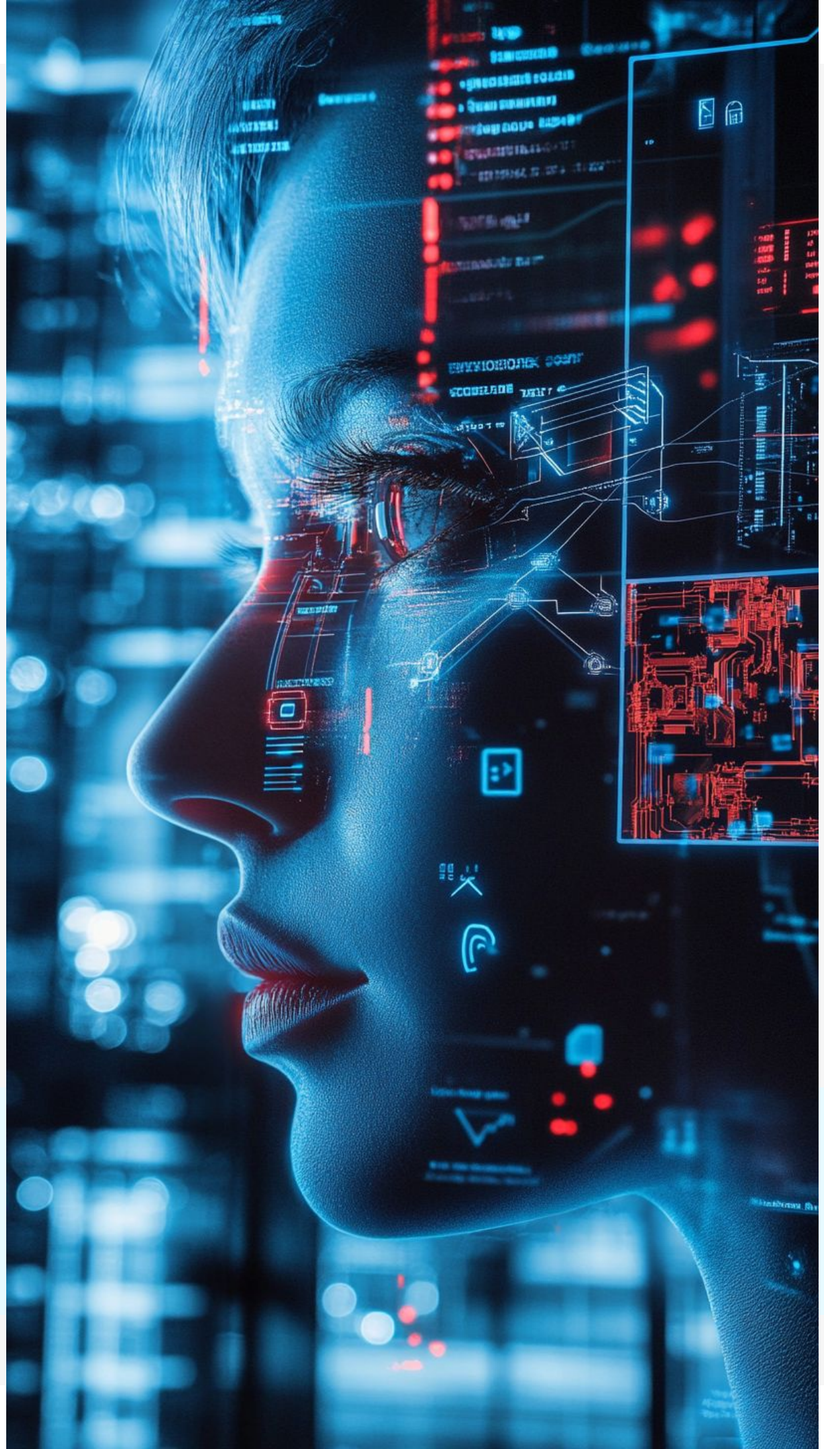
Healthy.io leverages smartphone technology to offer at-home diagnostic tests, such as urine analysis, using computer vision and AI algorithms. Patients can conduct tests at their convenience, and the app analyzes results to provide actionable insights, facilitating early detection and management of various health conditions.

Healthy.io

Longevity apps

Rejuve.AI is a decentralized, AI-driven longevity research network that enables individuals to monitor their health data, contribute to cutting-edge research, and earn rewards. By aggregating and analyzing data through advanced AI and blockchain technologies, Rejuve.AI provides personalized health insights and fosters collaboration among researchers, clinics, and health enthusiasts to combat aging and extend healthy human life.

REJUVE.AI
OWN YOUR LONGEVITY



AI-powered smart tattoos + wearables

- MC10 and Epidermal Electronics are developing AI-powered, flexible tattoos that monitor vital signs in real time.
- Fitbit, Apple, and WHOOP are integrating AI-driven health insights into wearables to detect early disease onset.

What’s next?

Looking ahead to future developments in health tech AI

Brain-computer interfaces (BCIs)

- Synchon: Minimally invasive brain implants that allow paralyzed individuals to control devices like computers and smartphones using their thoughts.
- Neuralink: Elon Musk's company is working on BCIs to not only restore motor function but potentially enhance cognitive abilities and even upload / download memories.
- Corti.ai: Uses AI to listen to emergency calls and detect signs of cardiac arrest faster than human dispatchers.

synchron

NEURALINK

corti

Gene editing + synthetic biology

Mammoth Biosciences and Synthego integrate AI to analyze vast genetic datasets, optimize CRISPR targeting, and predict off-target effects. AI accelerates gene-editing experiments by providing simulations and predictive tools.

Mammoth Biosciences

SYNTHEGO

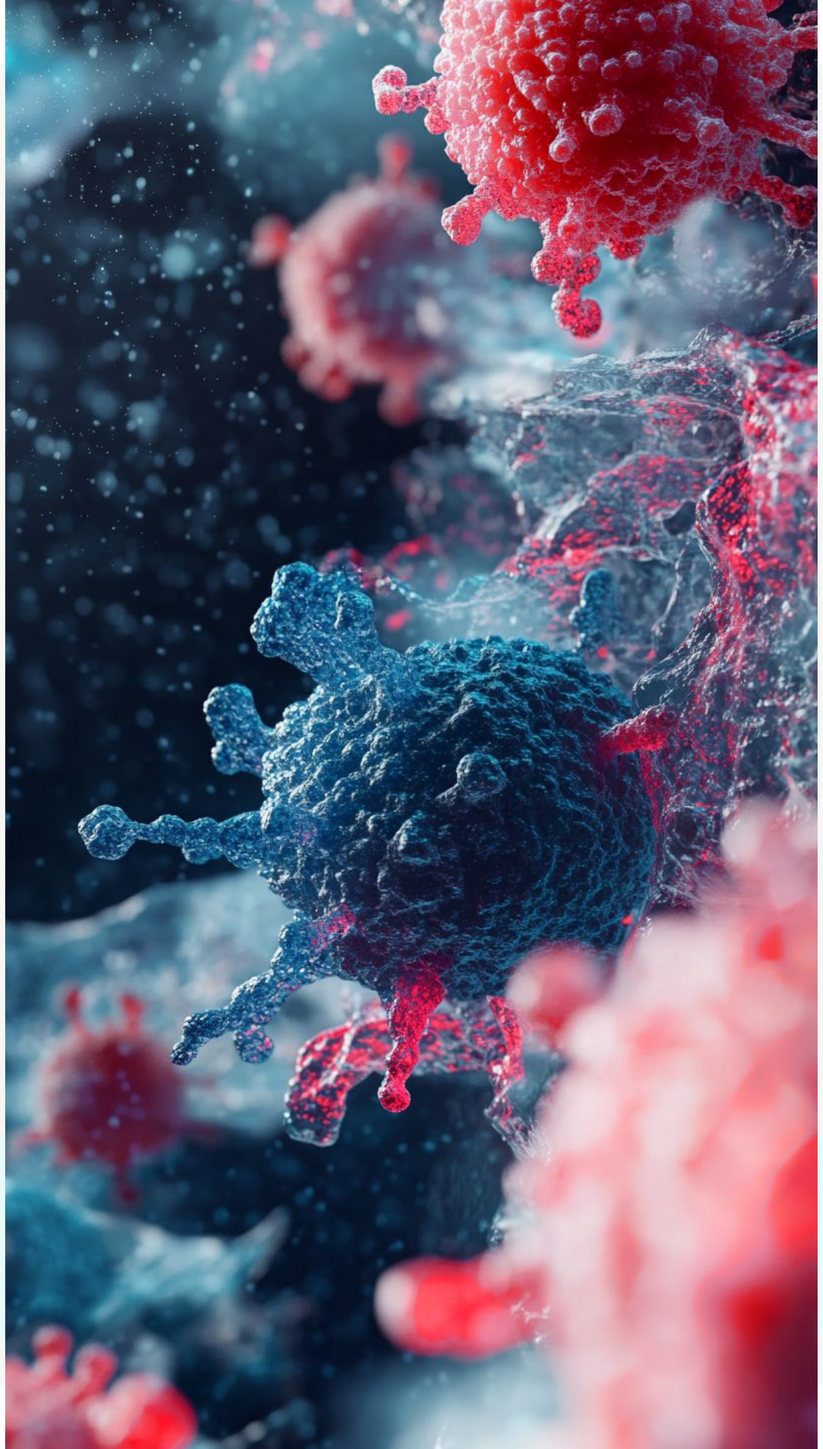
AI-enhanced cancer treatment + tumor simulations

- IPaige.AI uses AI to detect cancer from pathology slides faster and more accurately.
- Tempus analyzes genetic data to personalize cancer treatments.
- Massachusetts General Hospital is working on "digital twins" of tumors, simulating how they respond to various treatments before testing them in patients.

Paige

TEMPUS

MGH 1811 MASSACHUSETTS GENERAL HOSPITAL



3D bioprinting + organ creation

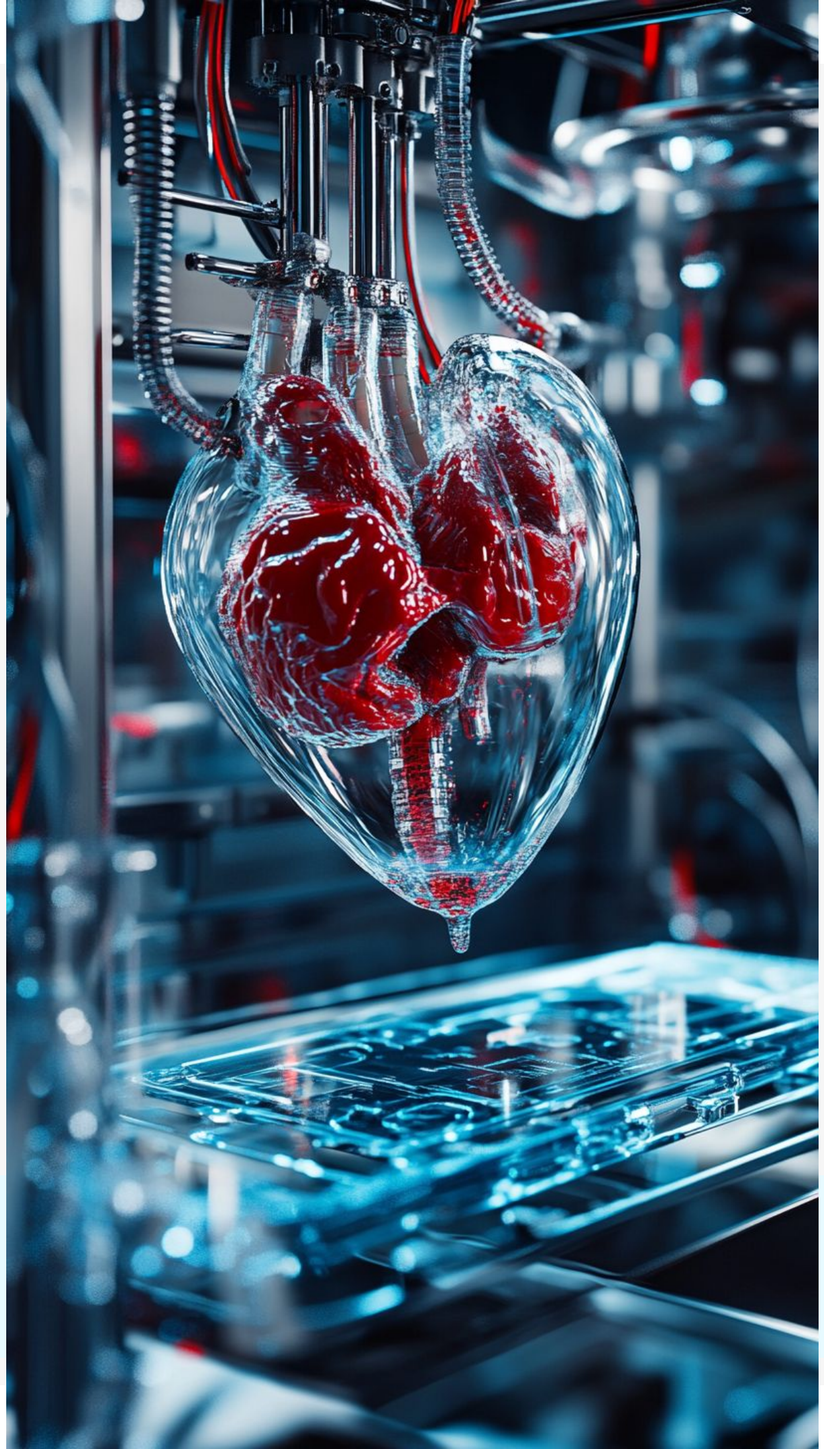
Companies like Organovo and Cellink use AI to optimize the bioprinting process, analyze cellular data, and predict how tissues will behave. AI helps simulate organ growth, ensuring structures are viable for transplantation.

- Tissue engineering startups are using AI to optimize growing artificial organs.
- United Therapeutics is developing AI-guided 3D printing of lungs to address organ shortages.
- MIRAI is an AI system assisting in tissue engineering and regenerative medicine.

United Therapeutics CORPORATION

organovo®

CELLINK A BICO COMPANY



AI-enhanced bionic eyes + vision restoration

- Pixium Vision and Bionic Vision Technologies are developing AI-driven retinal implants to restore sight in blind individuals.
- Cortigent is working on AI-assisted neuroprosthetics to restore partial vision by directly stimulating the brain.

PIXIUM VISION

BIONIC VISION TECHNOLOGIES

Cortigent™

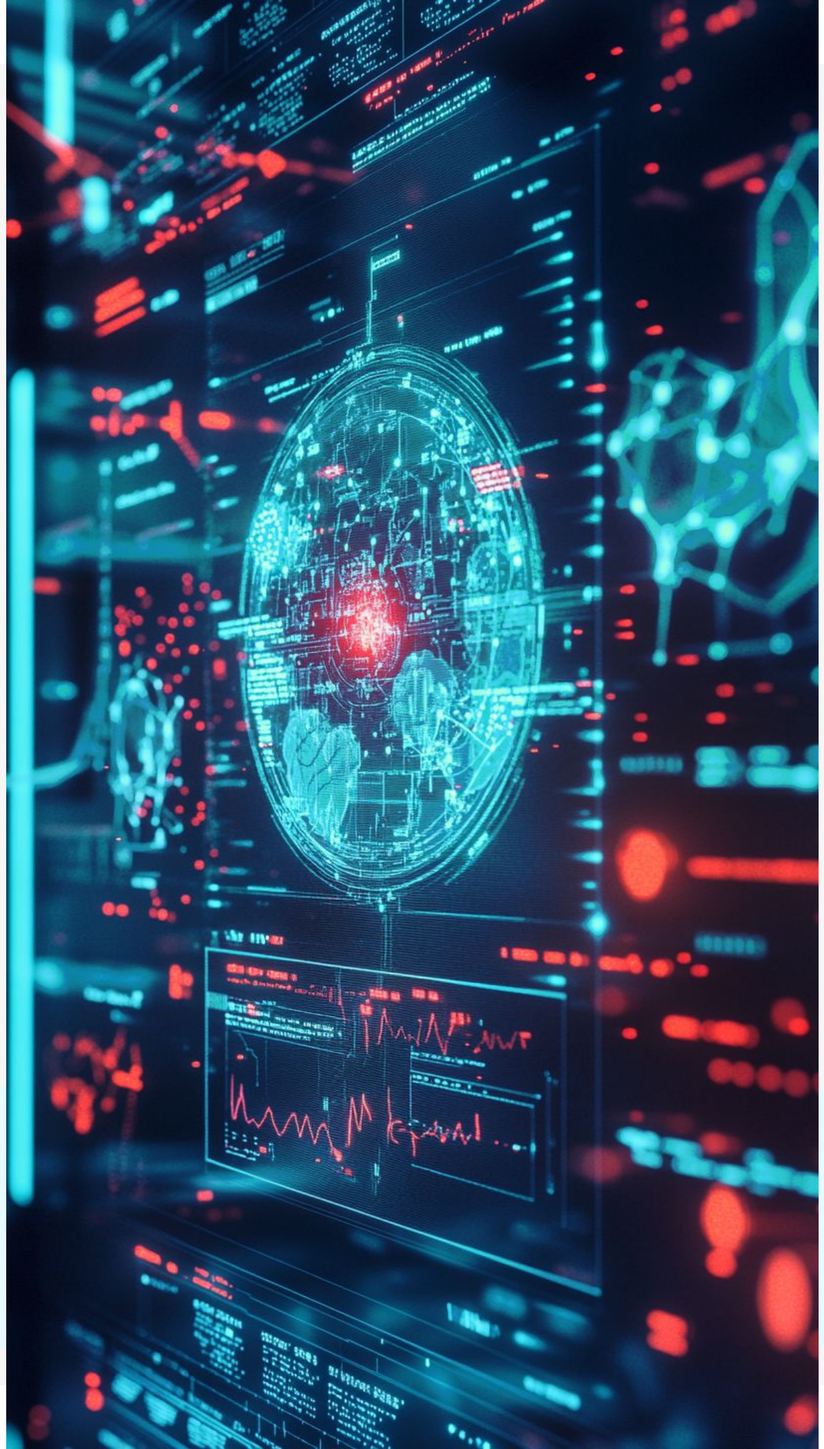
AI-enabled longevity science + aging reversal

- Retro Biosciences (backed by Sam Altman) is using AI to develop therapies to extend human lifespan by 10+ years.
- Altos Labs (funded by Jeff Bezos) is exploring cellular reprogramming to reverse aging.
- Juvena Therapeutics uses AI to discover anti-aging compounds targeting age-related diseases.

ALTOS™

Juvena THERAPEUTICS

Retro BIOSCIENCES



Nanorobots

Magnus Medical, BioNTech, and VeriSIM Life employ AI to design and direct nanorobots or simulate their actions at the cellular level. AI is used to predict outcomes, guide delivery, and model interactions within the body.

magnusmedical BIONTECH VERISIMLife

Synthetic wombs

AI plays a critical role in EctoLife and Juno, managing and monitoring artificial womb environments. In these systems, AI ensures optimal conditions for fetal development, adapting in real time to the needs of the embryo.

ECTOLIFE
ARTIFICIAL WOMBS

Juno
Perinatal Healthcare

AI-guided cryptopreservation + suspended animation

— Tomorrow Biostasis and Alcor Life Extension Foundation are exploring AI-assisted cryonics, aiming to preserve human bodies for future revival.

— NASA and DARPA are researching AI-driven suspended animation techniques for long-term space travel.

AI-driven pandemic prediction + outbreak detection

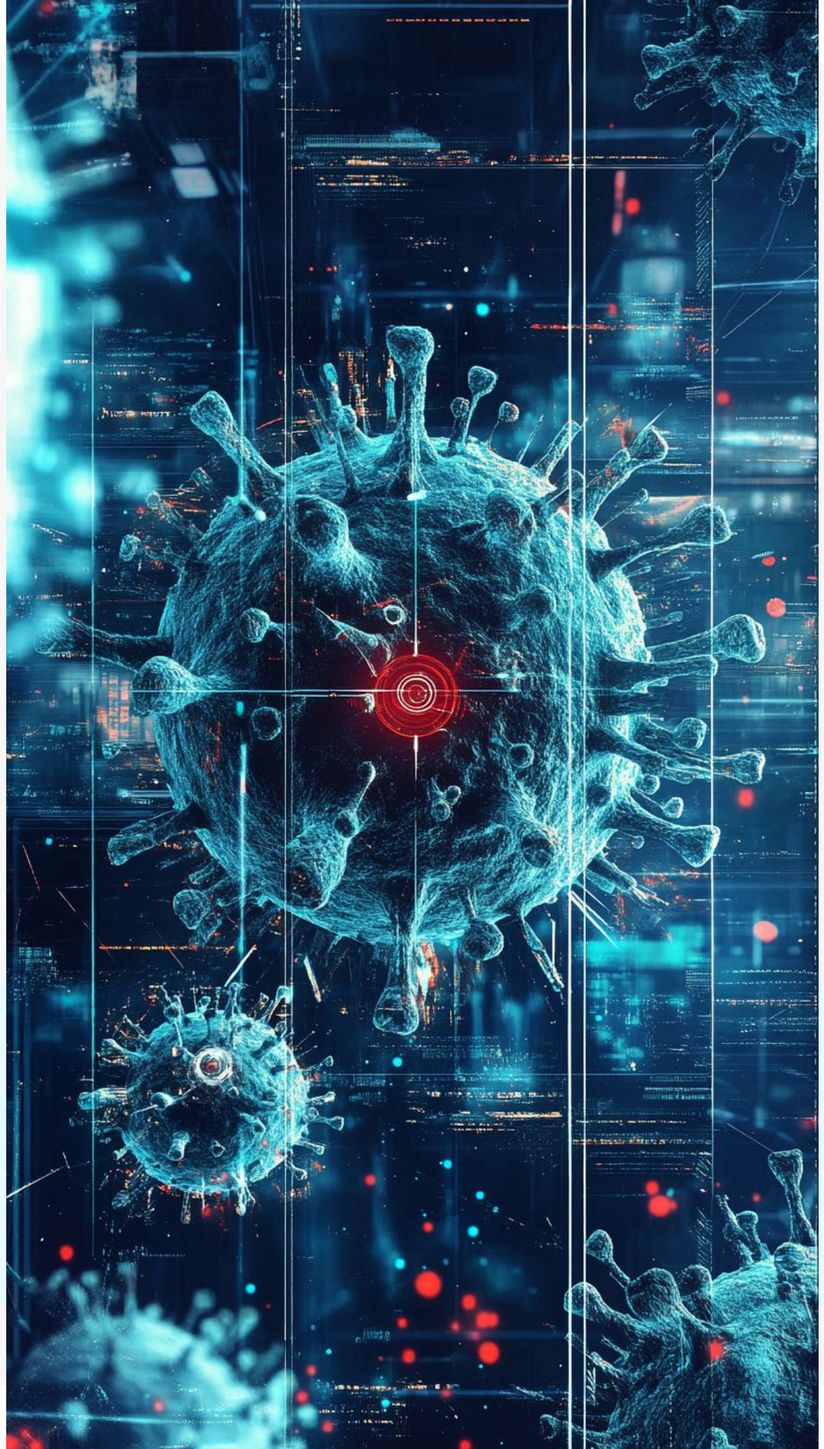
— BlueDot was one of the first systems to detect COVID-19 before global alerts.

— Metabiota and GIDEON use AI to model and predict infectious disease outbreaks.

bluedot

METABIOTA™

gideon
GLOBAL INFECTIOUS DISEASES AND EPIDEMIOLOGY ONLINE



And beyond that...

Connect with me

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Thank you

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