Zorta

One nanocarrier
Many valuable functions

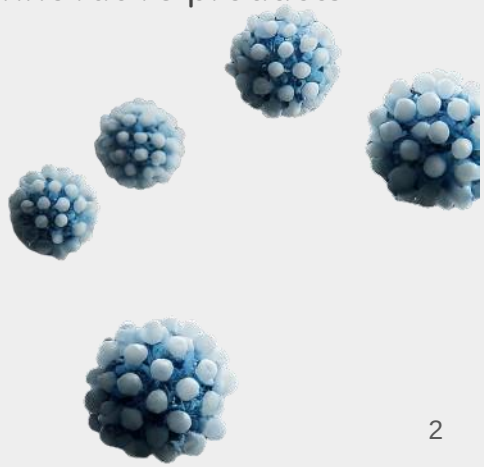
Founder: Ezra Ella, Ph.D.
Contact: dr.ezra.ella@gmail.com

About us

An Israel-based startup specializing in utilizing nanocarriers for bioengineering, diagnostics, and pharmacology

We leverage our extensive experience across various scientific fields to optimize nanocarriers for maximum effectiveness

- Multiple applications for a single nanocarrier
- Pioneering technology: harnessing computational abilities to develop innovative products
- Our focus is on ensuring product efficacy, reliability, and stability



Our **team**

Ezra Ella, PhD
CEO

Ben Medvin, MSc
US Lead

Igor Itkin, MSc
AI Lead

Jacob Kagan, PhD
Algorithmics Lead

Nathaniel Benchemhoun
CBO

Yifat Harel, PhD
Chemistry Lead

collective experience encompassing biotechnology, drug discovery & development, metabolic pathways, chemistry, physics, nanotechnology, computer vision & statistics

Our **advisors**

Prof. Shulamit Michaeli, PhD

vice president of research
& former dean

Bar-Ilan University
אוניברסיטת בר-אילן

Prof. Hovav Nechushtan, MD

head of genomic oncology

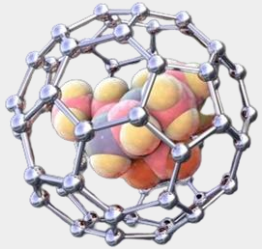
Prof. Marianna Rachmiel, MD

head of pediatric endocrinology
& diabetes institute

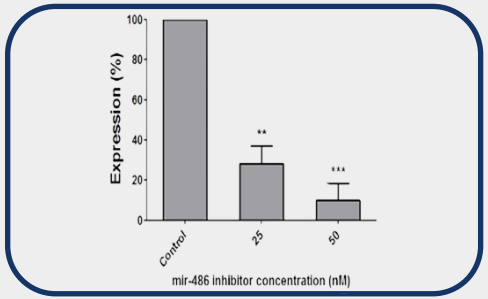
SHAMIR MEDICAL CENTER

What is Zorta?

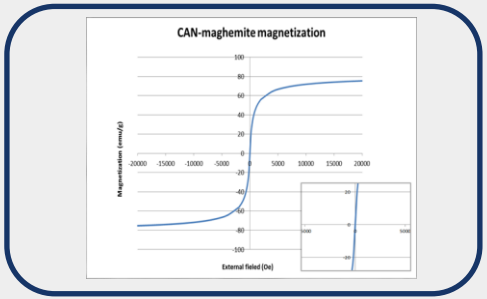
- A small and versatile nanocarrier with multiple applications as*:



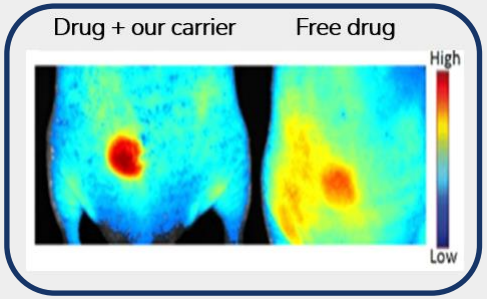
Transfection reagent



MRI contrast agent



Drug delivery agent



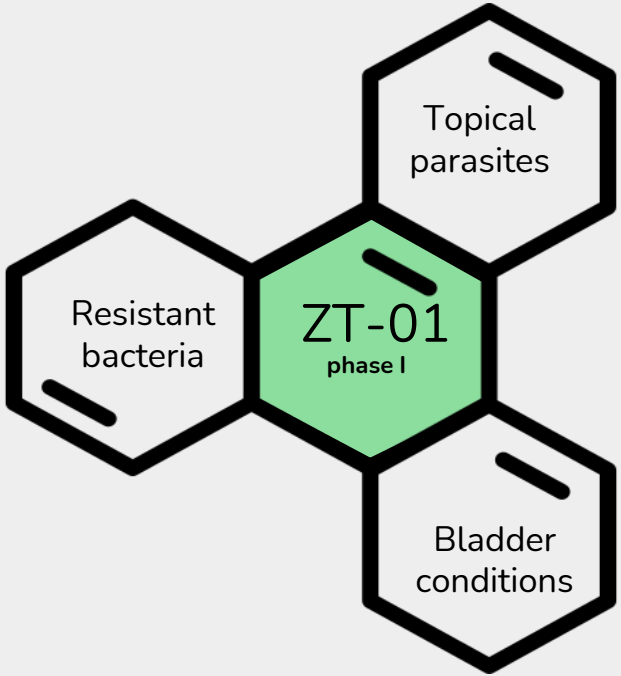
* All results were obtained by BIU research laboratories

Our **technological assets**

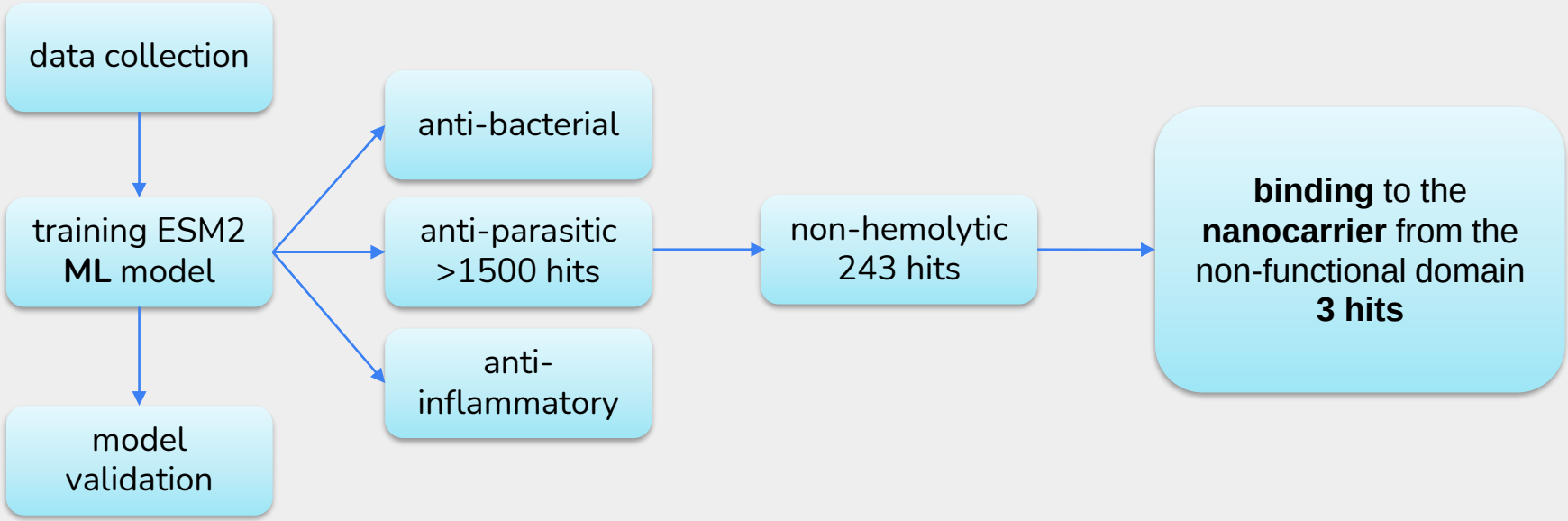
nanocarrier	**ZT-01**
developer	Bar Ilan University
base	iron oxide
cargo	**RNA, DNA, small molecules, peptides**
use	topical, lumen
tested	**pre-clinical** leishmaniasis
financed	**$1.8M**
patents	**2**

would serve to train our AI platform with proprietary data

Our markets **are massive & penetrable.**



POC: anti-bacterial peptides (done in silico)



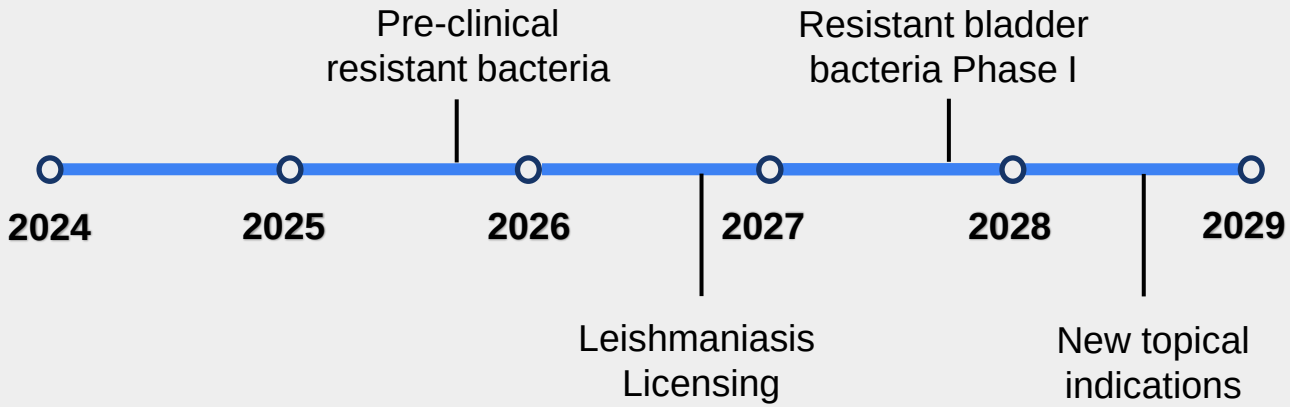
next step would be in vitro-validation

Our **partnerships**

Vast product offerings

Medical implementation

- **Topical Leishmaniasis:** Time to licensing 1-2 years.
- **Resistant bacteria:** Pre-clinical in-vivo experiments in one year.
- **Bladder resistant bacteria:** Time to phase I: 3 years.



Expected income

- **Topical Leishmaniasis : $2M** upfront payment for licensing, **$100M** Voucher upon FDA approval. **Option for exit strategy at late 2026 at $100M** for specific indication.

- **Resistant bacteria treatment:** TBD, market value of **$5.2B** with **CGAR of 7.6%**

- **Transfection kit**: licensing payment **&** royalties of sales **in 2025**

What else can be done

Drug which its patents was expired and have no generic competitor:

Docetaxel

Chemotherapy drugs have vast side effects, but using our unique nanocarrier, we can significantly reduce these side effects and file for a new patent for the combination.
Used for bladder & breast cancer: tissues we aim to treat.
Market size: $102.4B in 2021

The focus on bladder cancer market

Market Opportunity

- Improving docetaxel: Significantly reducing the toxicity of a widely used chemotherapy, with expired patent
- Cost effective: Low production cost, high retail value
- Large market: $5.25B in 2023

Technological advantage

- Natural target organ: Zorta can improve the effectiveness of treatment without being absorbed into the bloodstream
- Efficiency: Zorta can carry both biological and chemotherapy arms of treatment
- Competitive: Lower toxicity offers a competitive edge for doctor adoption

The competition is high in this market, for this we would offer this track only in a collaboration with another leading company

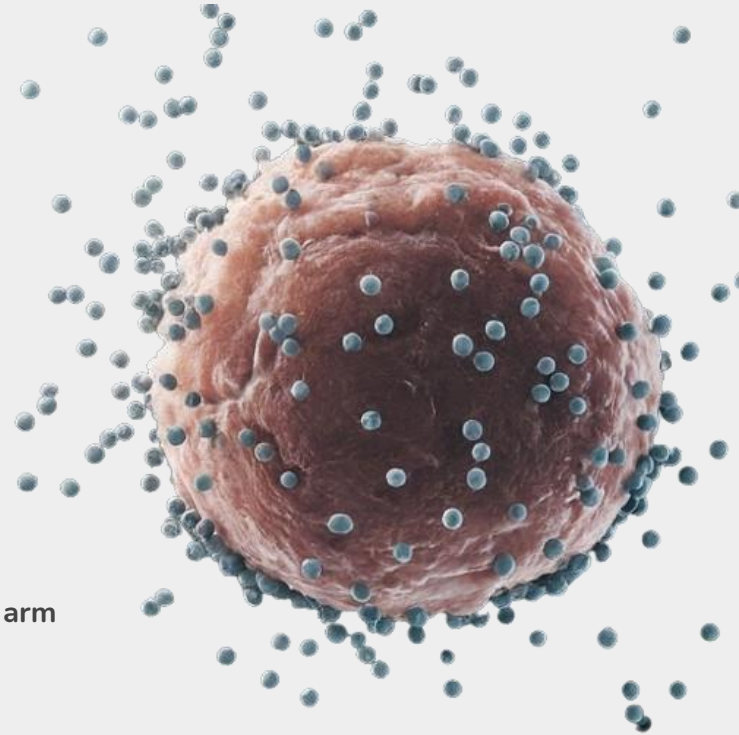
The Focus on transfection reagent market

Market Opportunity

- MVP: Short time to market
- Cost effective: Low production cost, high retail value
- Large market: $3B annually market size with high demand for improvements

Technological advantage

- Efficiency: High transfection rate with relatively high viability
- Competitive: Proven capability to deliver short & long RNA/DNA molecules



Developing and optimizing delivery is a critical step for the bladder cancer biologic arm

SWOT analysis

- **S**trengths:
  - combined treatment on the same nanocarrier: biologic & conventional
  - No or weak competition for some markets as Leishmaniasis and bacterial resistance
  - using & patenting combinations of FDA approved drugs with nanocarrier
  - reduced toxicity of the treatment compared to conventional treatment with free drug

- **W**eaknesses:
  - first time using this specific nanocarrier in a clinical trial
  - market size for strongest indication is relatively moderate

- **O**pportunities:
  - first to provide a novel targeted therapy to bladder using nanocarriers
  - providing solution to other parasitic indications: total market cap of $18.5B
  - integration into a holistic solution of drug administration

- **T**hreats:
  - strong competition in the field of bladder cancer

Seed round

Funding objective: $1M in SAFE equity
Milestones for this round for 12 months of activity:

- First clinical result for topical treatment
- Patented anti-bacterial nanocarrier combinations
- Pre-clinical study for resistant bacteria in the bladder and urinary tract
- Mid 2025: starting series A funding with the objective to raise $5M for clinical trails

Contact Us

LinkedIn

Ezra Ella

Mail

Dr.Ezra.Ella@gmail.com

Phone

+972-58-5352246

Thank you!

Nano-Carrier as Gene Therapy Platform

Nano-carriers have demonstrated exceptional efficacy in carrying and delivering vectors to challenging cells, such as CMK and U2OS cells.

The delivery to these cells has proven to be equally effective compared to standard transfection reagents.