

CUTIVAX

A Subcutaneous & Tumor Resection Cavity Implantable Immunotherapy Platform

Prof. Dr. Ayhan Olcay

olcay@innowayrd.hu

Center for Targeted Therapy Technologies (CT3)

<https://bogazicict3.net/>



Surgical Bed Challenge

- Residual tumor cells stay behind after resection.
- Local inflammation favors wound healing but not tumor control.
- Primary source of cancer relapse.

Systemic Immunotherapy Challenge

- Limited by tumor antigen relevance.
- Weak systemic control of local recurrence.
- Limited brain penetration and T-cell access.

Why Now ?

- Over 70% of solid tumors require surgery.
- High relapse rates & post-surgical immune suppression.
- No approved therapies target this critical window.

MARKET OPPORTUNITY

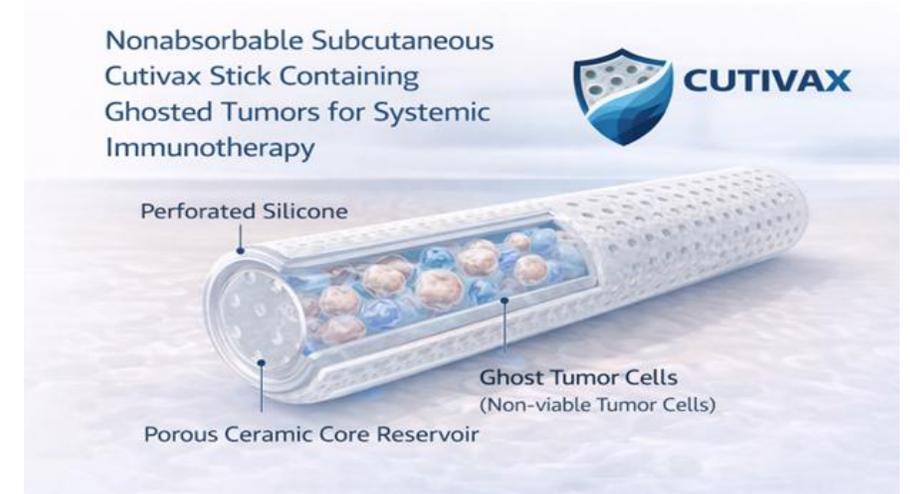
New category between surgery and systemic treatments for high unmet need and minimal competition.

CUTIVAX Opportunity

- First implantable immunotherapy platform.
- Active local and systemic immune response.
- Scalable across diverse solid tumor types.

CUTIVAX PLATFORM

- Tumor tissue collected during surgery or biopsy.
- Cells inactivated with Far-UVC turn into immunogenic "ghosts".
- Implanted subcutaneously or in a surgical lodge near lymphatic regions.
- Immune cells infiltrate & trigger local and systemic immunity.



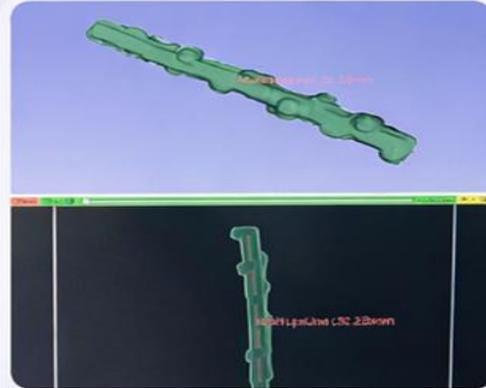
Far-UVC Ghosting for Tumor Cells (ImmuneFixed)



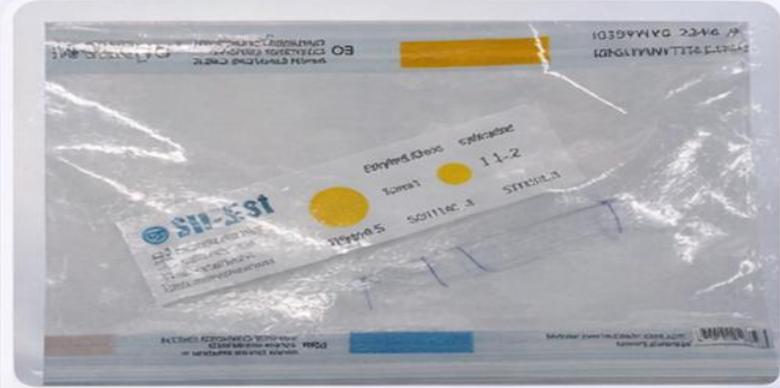
Preclinical Trials



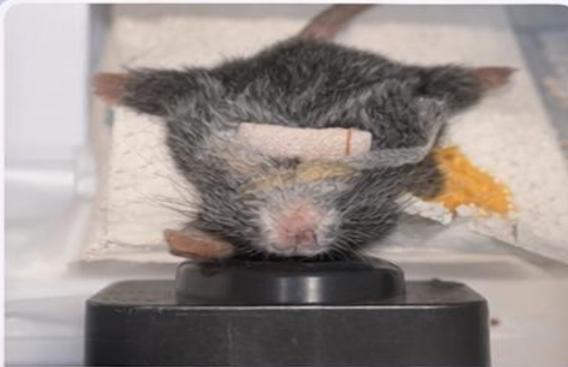
Cutivax prototype for laboratory trials



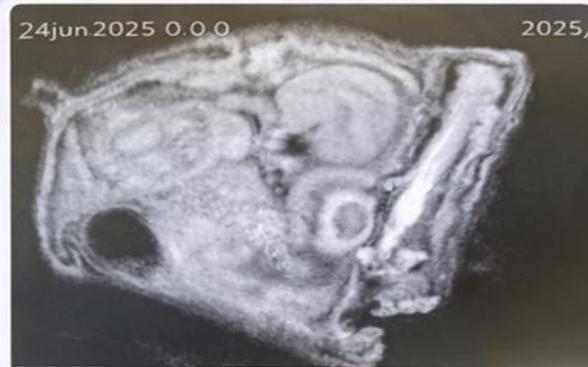
CT image of Cutivax prototype



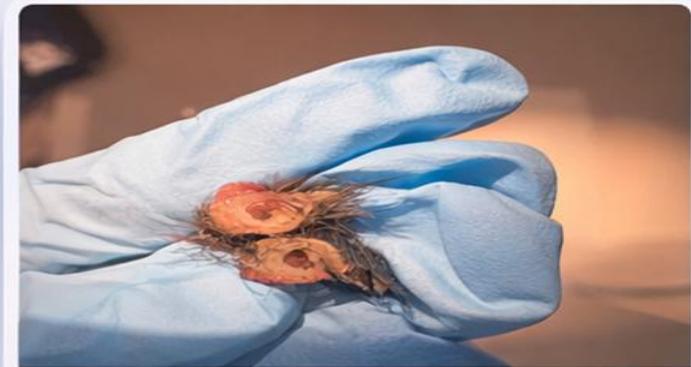
Sterilized Cutivax prototype for trials



Cutivax prototype implantation in rat

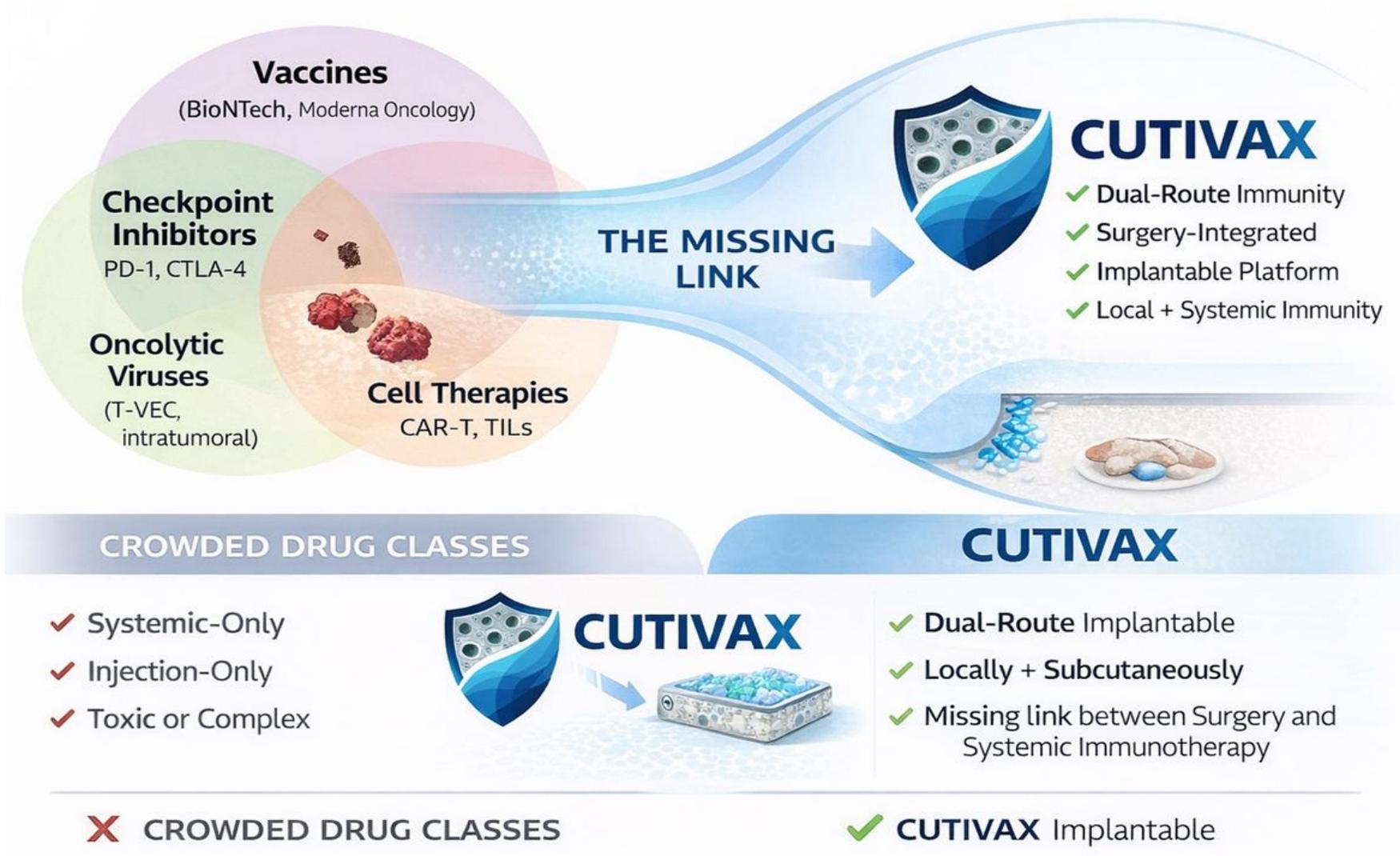


MRI of implanted Cutivax stick in mouse



Autopsy of first implanted Cutivax prototype from mouse

Competitive Landscape



Revenue Streams

- B2B Licensing: Hospitals & oncology centers
- Device + Consumables model:
 - Subcutaneous CUTIVAX sticks (single-use)
 - Resorbable surgical-lodge CUTIVAX patches
- Autologous processing kits (Far-UVC ghosting)
- Service fees: on-site or hub-based preparation
- Future upside: allogeneic libraries & combinations

Value & Pricing Logic

- Bundled pricing: surgery + immunotherapy
- Per-patient recurring revenue
- High-margin consumables
- Scalable across solid tumors
- Rapid entry via compassionate use
- Long-term standard-of-care adoption

Project Core Team



**Prof. Dr. Ayhan
Olcay**

Project Lead,
Clinical, animal trials
and prototype
development



**Prof. Dr. Serdar Baki
Albayrak**

Clinical, animal trials
and prototype
development



**Prof. Dr. Gamze
Tanrıöver**

Animal trials and
Tumor Ghosting



**Prof. Dr. Yeliz
Emine Ersoy**

General Surgery
Clinical trials

Proven Execution

CE-Marked Product (Initus-V 222) and Multiple Granted Patents

Project Partners



**Prof. Dr. Ayhan
Olcay**

Cardiologist,
Project Lead, clinical,
animal trials and
prototype
development

**Onur Yolay,
MSc**

Biologist, animal
trials, IP rights



**Prof. Dr. Gamze
Tanrıöver**

Histology &
Embryology,
animal trials and
tumor ghosting



**Prof. Dr. Yeliz
Emine Ersoy**

General Surgery,
clinical trials

**Prof. Dr. Alper
Can**

Medical
Oncology,
clinical trials



**Vedat Öztürk,
PhD**

Mechanical
Engineer,
prototype
development

**Prof. Dr. Serdar Baki
Albayrak**

Neurosurgeon,
Clinical, animal trials
and prototype
development

From Tumor to Therapy — Anywhere, Anytime.

- Democratize access to cancer immunotherapy beyond elite centers.
- Transform resected tumors into personalized immunotherapy within hours.
- Reduce local recurrence and systemic relapse through post-surgical immune activation.
- Enable treatment of cold and refractory solid tumors.
- Integrate CUTIVAX seamlessly into existing surgical and oncology workflows.

Research track record

- Next-generation cancer immunotherapy platform using the tumor's full biological identity, rather than single antigens or genetic engineering.
- CUTIVAX, is a cell-derived cancer vaccine platform based on controlled tumor cell **ImmuneFixation** by Far-UVC.
- Preserves the complete antigenic landscape
- No genetic modification, no viral vectors
- Immune delegation instead of micromanagement
- Tumor-agnostic, scalable, cost-effective design

Reframing cancer vaccination as immune training, enabling a new translational path between vaccines and cell therapy.

- Preclinical ImmuneFixation and Cutivax Platform validation in progress
- EU-oriented translational experience, including: Innostars EIT-aligned project development
- Academic spin-out creation and technology transfer activities (www.innowayrd.hu)
- Physician-led multidisciplinary team with proven capability in early translational planning
- 7 national (TR) and 3 PCT patent applications directly related to CUTIVAX platform. 1 granted patent (2019/19008) & 6 pending patent applications (2019–2025)

Call (s) of interest:

- ✓✓ HORIZON-MISS-2026-02-CANCER-03-Pragmatic clinical trials for refractory cancers. Budget: €7–8M | RIA | 2026
- ✓ HORIZON-MISS-2027-02-CANCER-03-Phase-1 / First-in-Human trials. Rare & very rare cancers. Budget: €7–9M | RIA | 2027

Project Description:

- Development of CUTIVAX, a cell-derived cancer vaccine platform for refractory solid tumors
- Use of immune-fixed (ghosted) autologous tumor cells preserving full antigenic landscape
- Subcutaneous and post-surgical cavity implant-based local immunotherapy
- Hybrid early clinical designs combining surgery, implant, and systemic immune activation
- Stepwise translation toward Phase-1 / First-in-Human and pragmatic clinical trials
- Initial target indications: TNBC, GBM & refractory solid tumor subtypes !

Expertise sought:

- Clinical oncology centers with experience in early-phase (Phase-1 / FIH) trials
- Surgical oncology/neurosurgery teams for post-resection local immunotherapy
- Immunology groups specializing in innate-adaptive immune crosstalk
- GMP-compatible partners for cell processing and inactivation/imaging, biomarker, and immune-monitoring expertise
- Regulatory and ethics experts for innovative trial designs in refractory cancers