

# METIS

Rapid Test for  
Cancer





# The Team

- Our team's PI :  
Ioannis Vizirianakis, Associate Professor  
of Pharmacology, Depart. of  
Pharmaceutical Sciences, AUTH
- School of Pharmacy, AUTH
- School of Biology, AUTH
- School of Chemistry, AUTH
- School of Physics, AUTH
- School of Informatics, AUTH
- School of Electrical and Computer  
Engineering, AUTH
- Department of Molecular Biology  
and Genetics, DUTH

# Problem

**More than 112.000 patients  
dying of pancreatic cancer  
every year.**

Cancer is the second leading cause of death worldwide behind cardiovascular disease.

More patients with pancreatic cancer are diagnosed at a later stage, where the treatment options are limited.

Available diagnostic markers are not sensitive or specific enough for visualizing early-stage pancreatic cancer.

1

2

3



1

Early diagnosis of Pancreatic cancer at stages I and II.

2

Non - Invasive: Urine samples processing

3

High specificity, accuracy and sensitivity for pancreatic cancer.

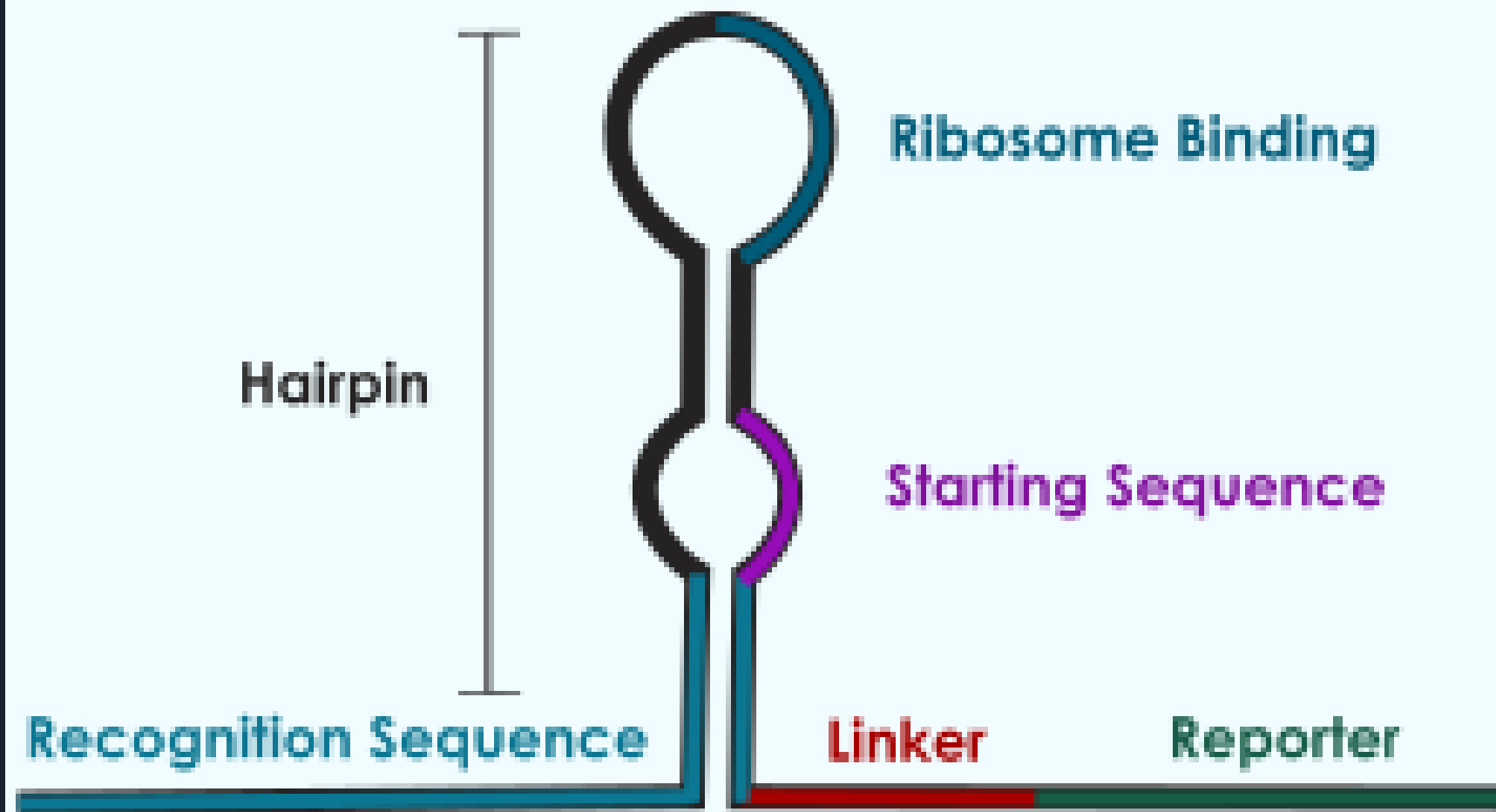
# METIS

**An innovative, quick, cheap and non-invasive diagnostic test for pancreatic cancer**

*"We analyze urine to diagnose cancer."*

# Our Technology

We have designed RNA Switches, that called "Toehold Switches", that can detect with high specificity small molecules in urine samples. These molecules are at high levels in urine in stage I & II pancreatic cancer as compared to healthy individuals.



# Competitors

- PCR Tests - Detection of small molecules
- Imaging tests (CT, MRI, PET)

- Endoscopic ultrasound (EUS)
- Biopsy

- Blood test (CA19-9 tumor marker)
- Patents - Molecular Diagnostic tools

METS

# Competitive Advantages

## 1. Early diagnosis

Our diagnostic tool can detect pancreatic tumor at early stages of development, in comparison with other diagnostic techniques.

## 3. Non - Invasive

Biopsy and Endoscopy are invasive techniques. METIS just analyzes urine samples.

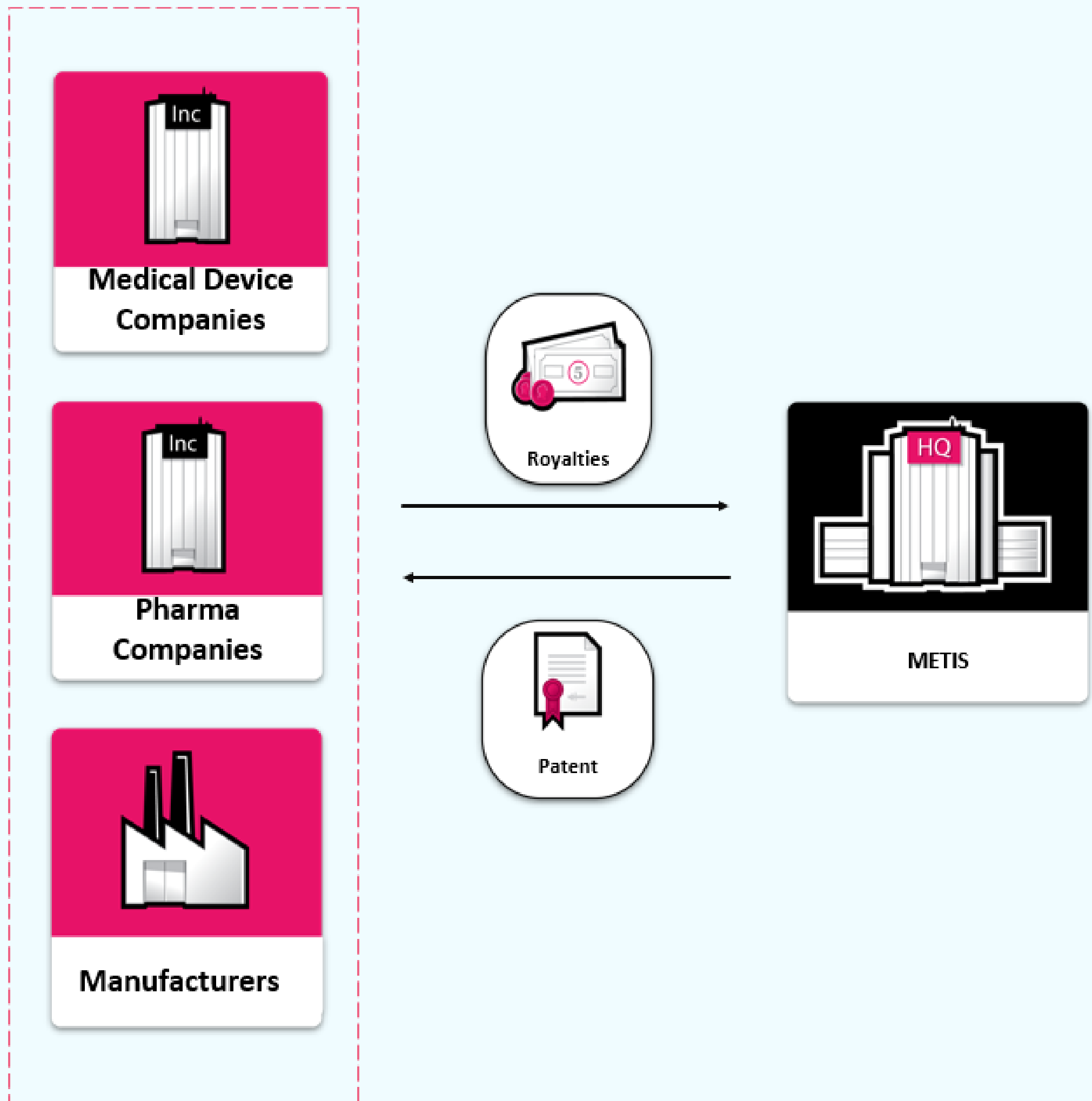
## 2. Easy use

Non-specialised personnel will be needed. In contrast, PCR machine use require specialized microbiologists.

## 4. Cheap

Low cost of chemical and biological reagents that required for METIS machine.

# Business Model - Revenue Model



# Market Example

## Greece

**3.783**

Microbiology  
Laboratories, hospitals  
and private clinics

**3.035.179**

Population over 60  
years old in Greece

### Manufacturer's Revenue Potential

- 1000€ per device/ 30€ per kit sold to the microbiology lab

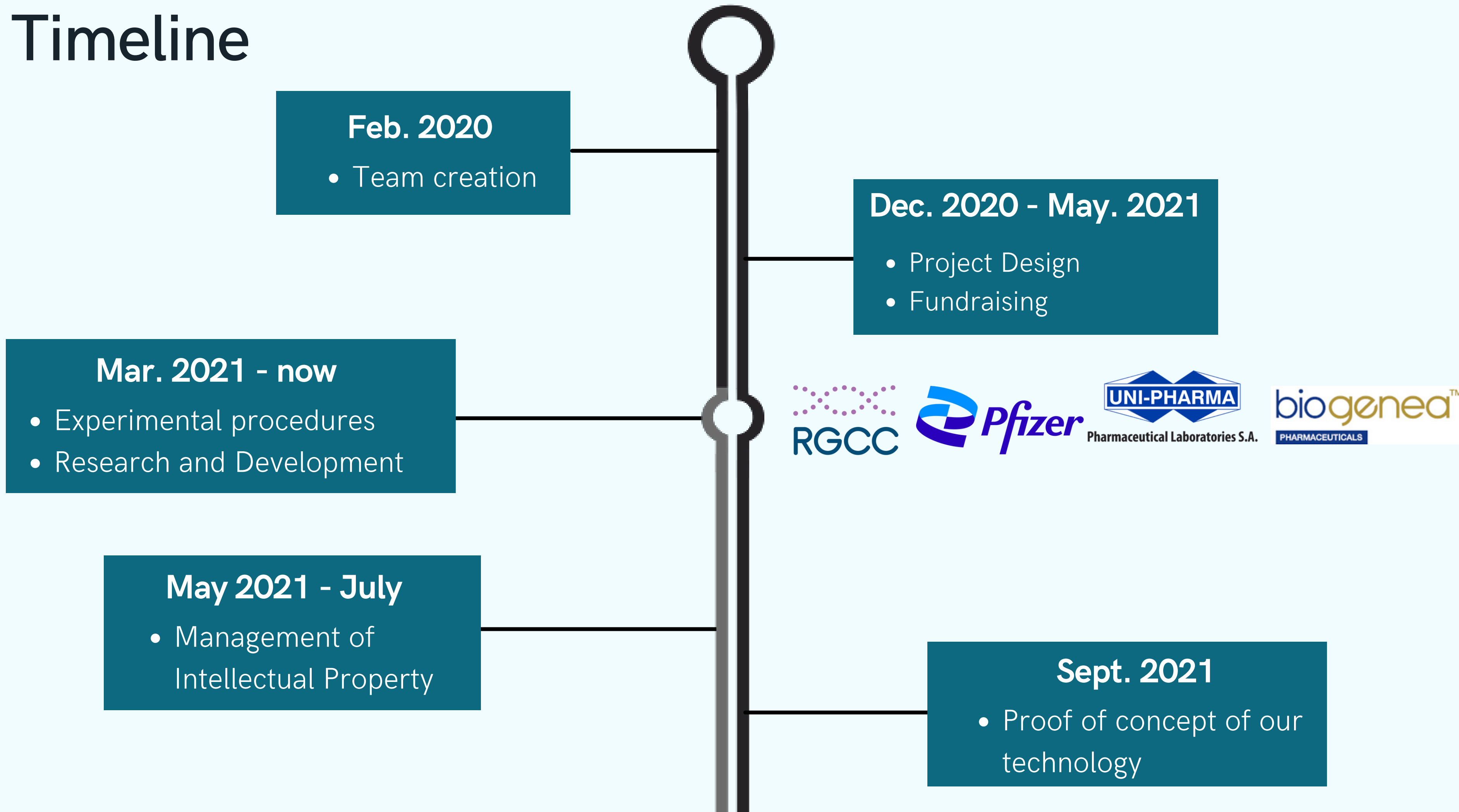
Manufacturer's  
Revenue

**45.527.685 €**

METIS's  
Royalties

**2.276.384 €**

# Timeline



# Future Timeline



## Oct. - Nov. 2021

- File our patent
- Establish a spin-off

## Nov. 2021 - Dec. 2021

- Finalize proof of concept
- Market research
- Reach out to medical device manufacturers

## Jan. 2022 - Ongoing

- Fundraising
- Continue R&D for new biomarkers
- Market outreach for IP licensing

# What we need:

Networking with people with knowledge about Medical IP and sublicensing.

Mentor with expertise in market research in the field of diagnostics (global)

Engage with VCs for funding opportunities

# Contact Us



[igemthessaloniki@gmail.com](mailto:igemthessaloniki@gmail.com)



[igem.thessaloniki](https://www.instagram.com/igem.thessaloniki)



[linkedin.com/company/igem-thessaloniki](https://www.linkedin.com/company/igem-thessaloniki)

