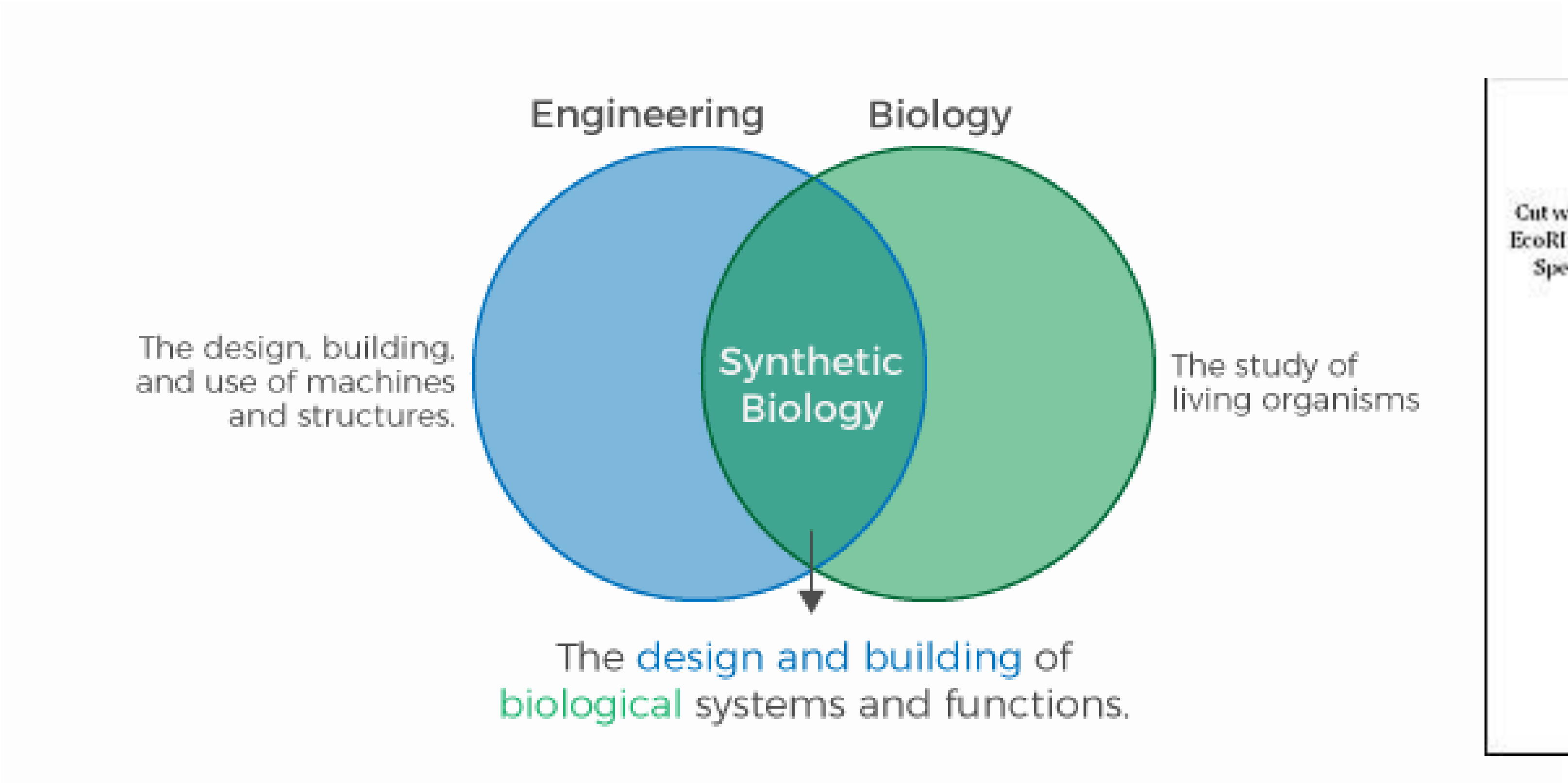
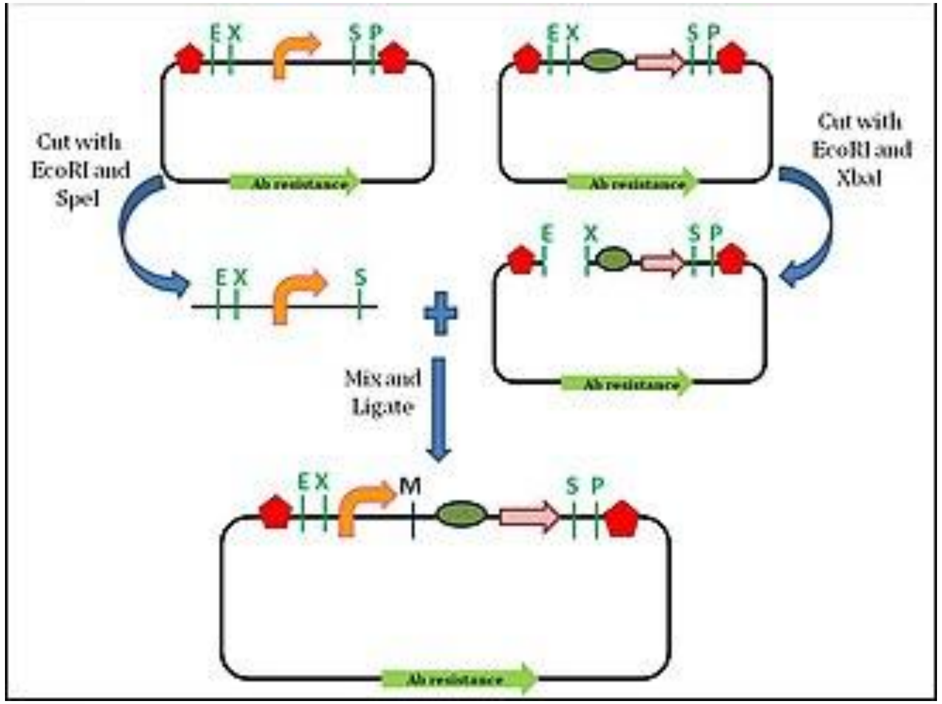
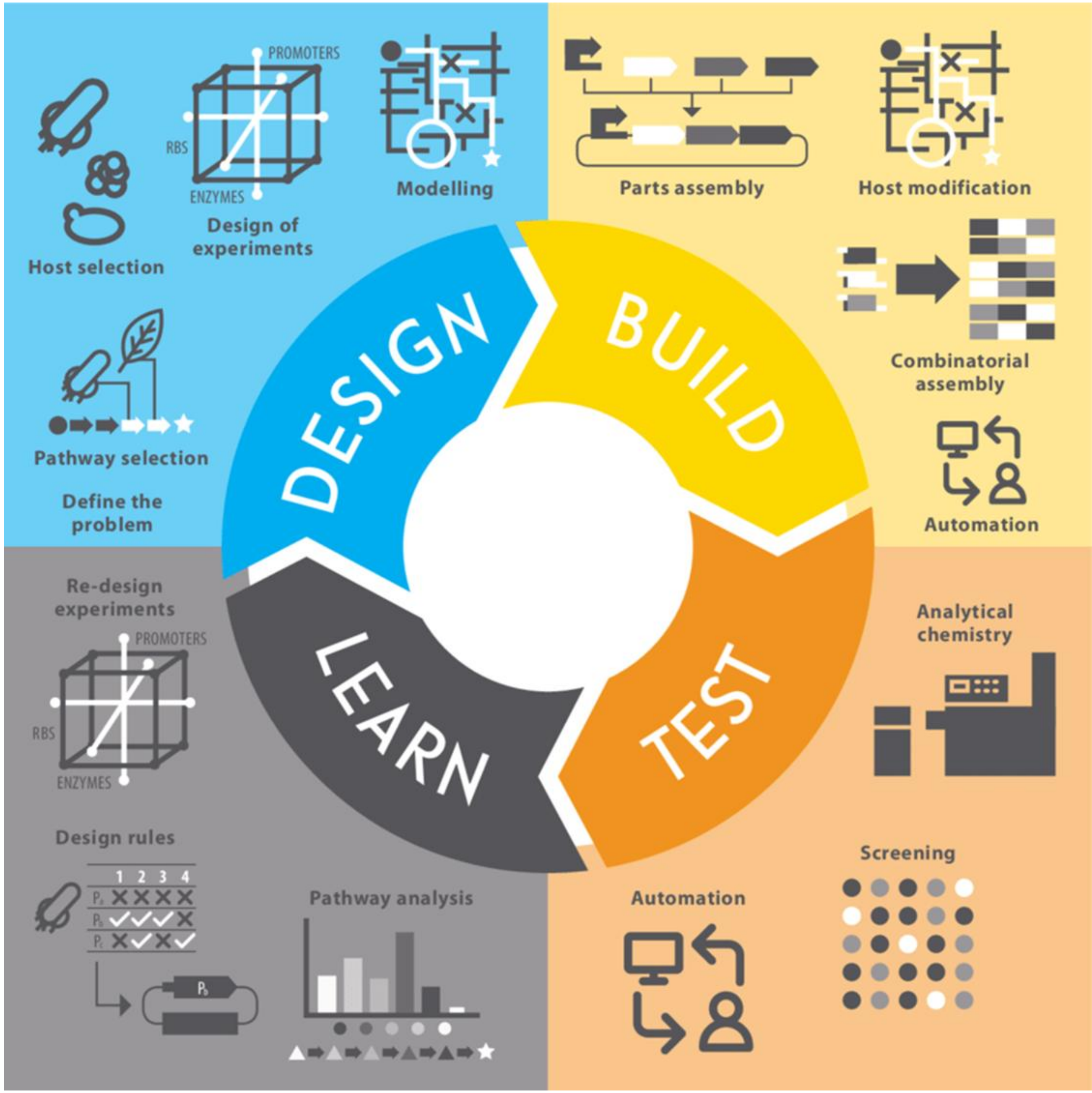
iGEM Thessaly

Synthetic Biology







DESIGN
BUILD
TEST
LEARN
Host selection
RBS
ENZYMES
PROMOTERS
Design of experiments
Modelling
Pathway selection
Define the problem
Parts assembly
Host modification
Combinatorial assembly
Automation
Analytical chemistry
Screening
Automation
Re-design experiments
PROMOTERS
RBS
ENZYMES
Design rules
1 2 3 4
Pathway analysis

DBTL cycle

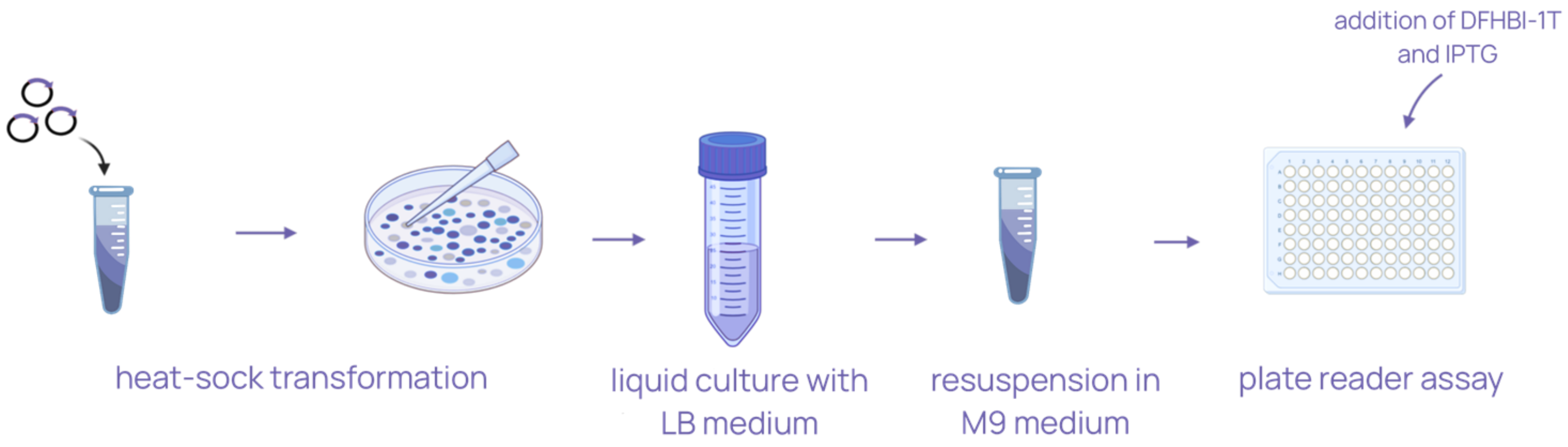
iGEM competition

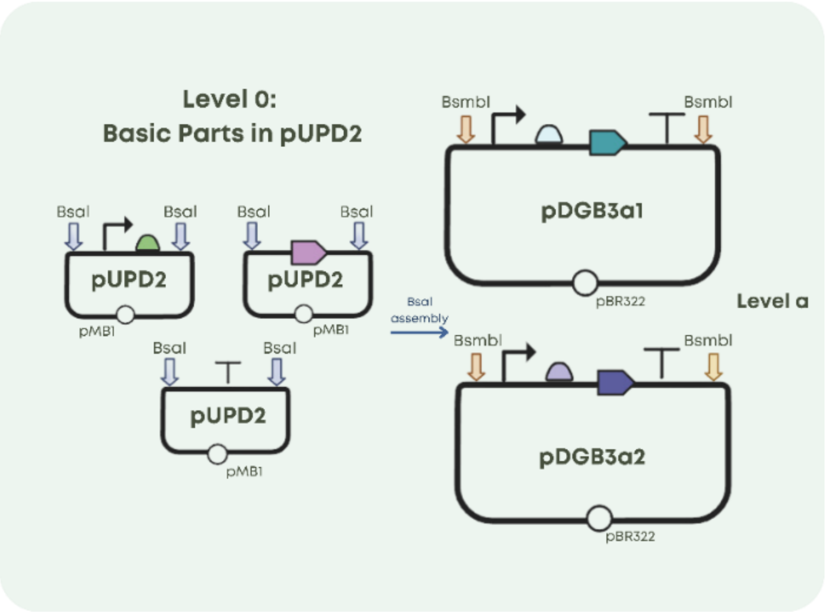
iGEM teams

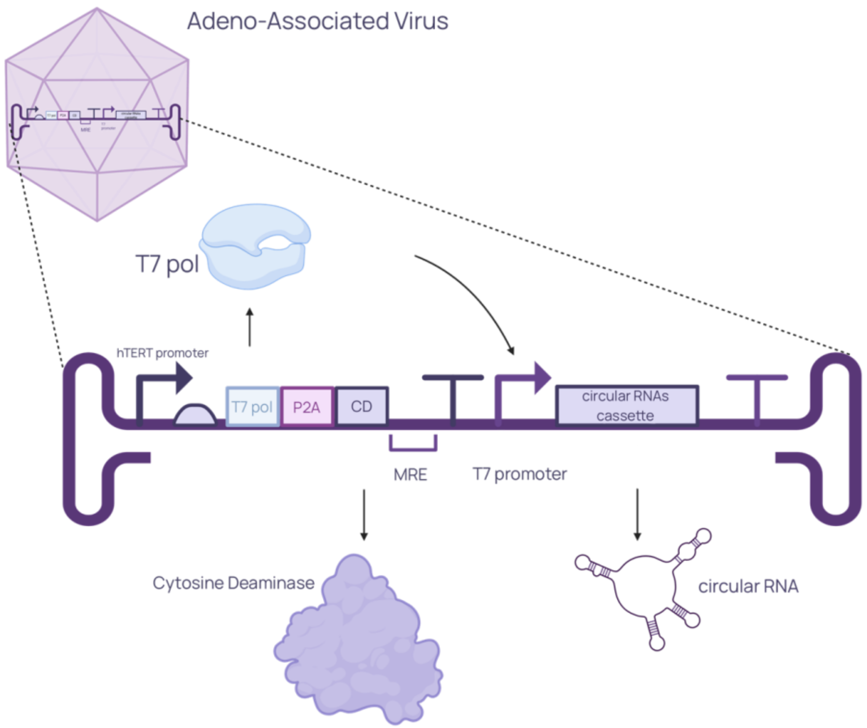
NOT ONLY BIOLOGY & ENGINEERING

- WET LAB
- DRY LAB
- HUMAN PRACTICES
- FUNDRAISING
- WIKI
- ENTREPRENEURSHIP
- SOCIAL MEDIA

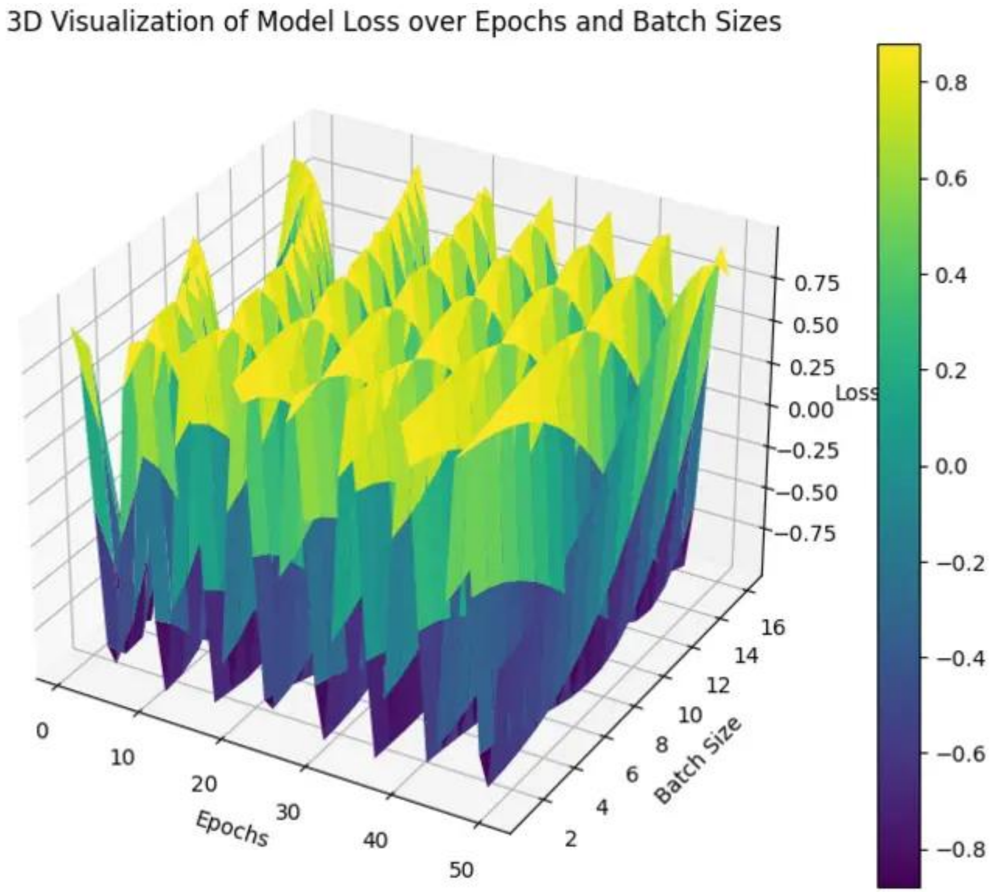
Wet Lab

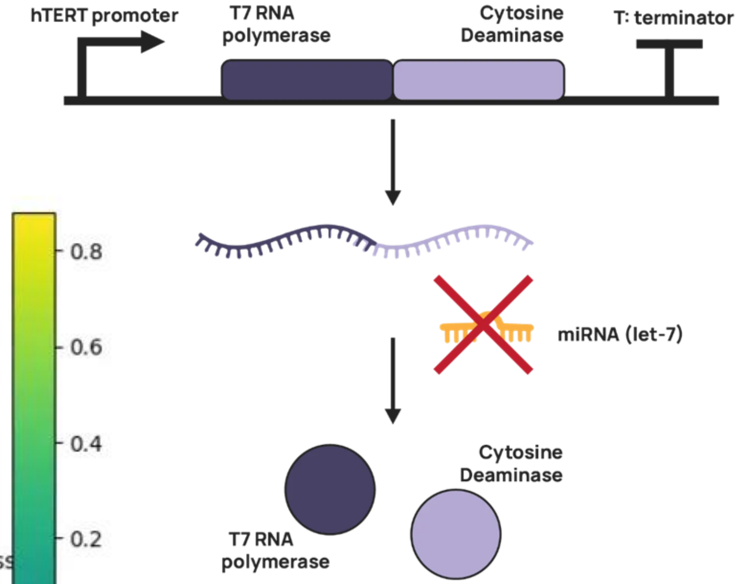

addition of DFHBI-1T and IPTG
heat-sock transformation
liquid culture with LB medium
resuspension in M9 medium
plate reader assay

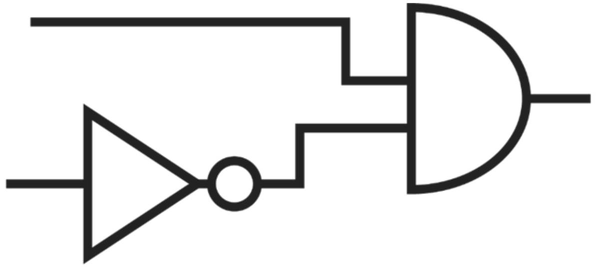

Level 0:
Basic Parts in pUPD2
BsaI
BsaI
pUPD2
pMB1
BsaI
BsaI
pUPD2
pMB1
BsaI
BsaI
pUPD2
pMB1
BsaI assembly
BsmbI
BsmbI
pDGB3a1
pBR322
Level a
BsmbI
BsmbI
pDGB3a2
pBR322


Adeno-Associated Virus
T7 pol
hTERT promoter
T7 pol
P2A
CD
circular RNAs cassette
MRE
T7 promoter
Cytosine Deaminase
circular RNA

Dry Lab - Modeling

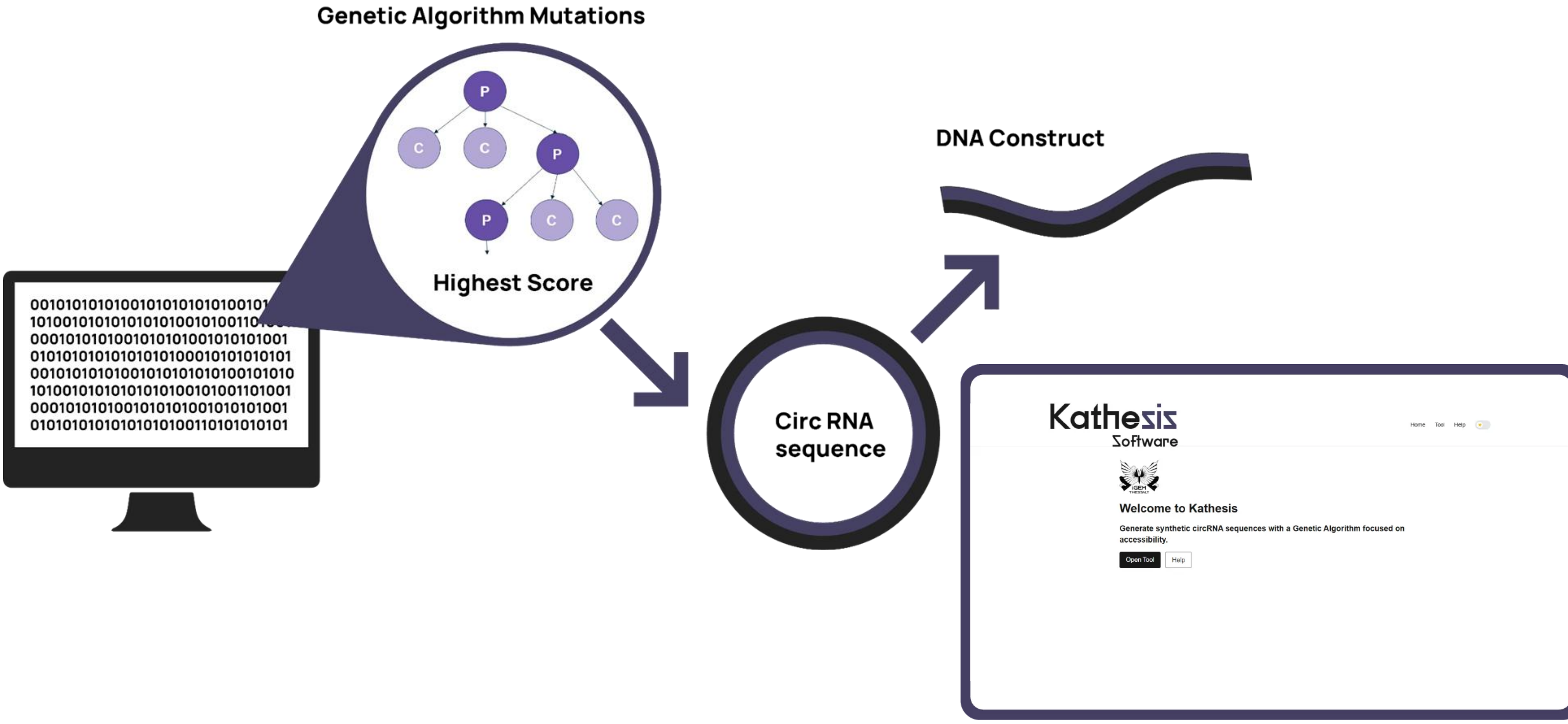




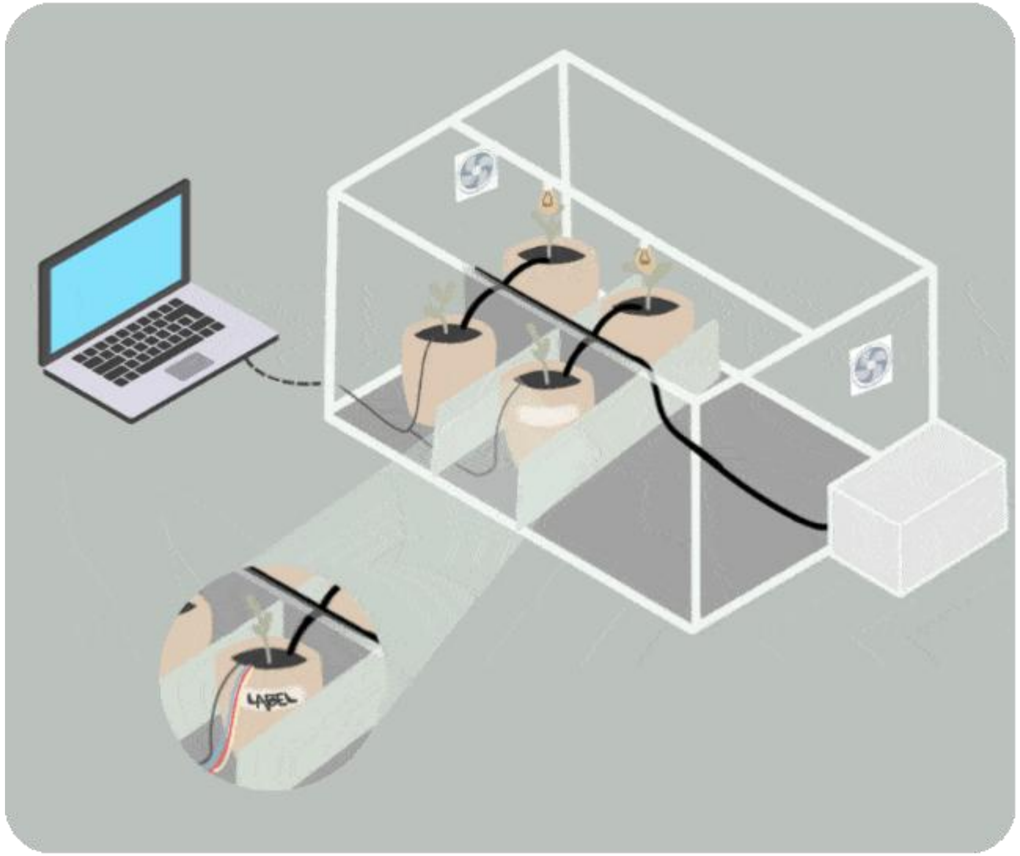


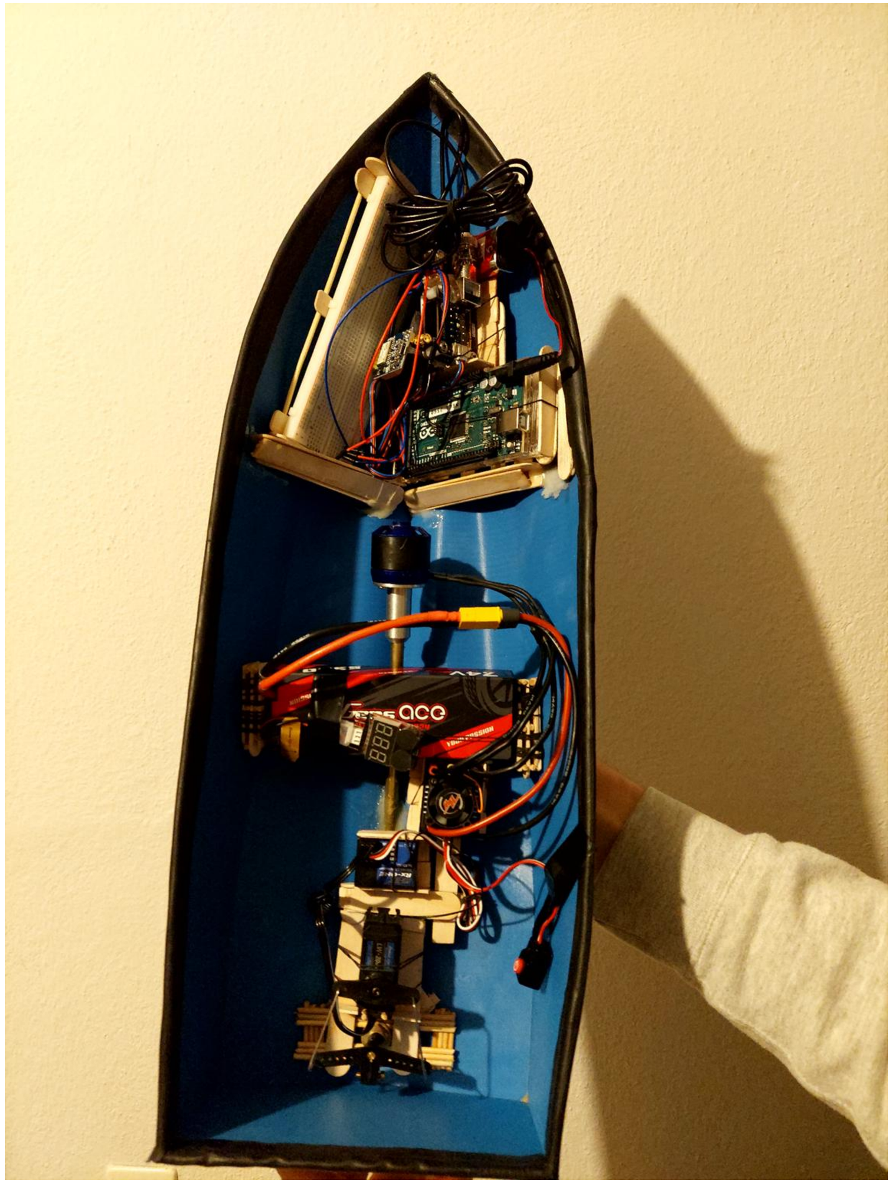
INPUT		OUTPUT
T7 Promoter	miRNA	expression of miRNA sponge cassette
0	0	0
0	1	0
1	0	1
1	1	0

Dry Lab - Software

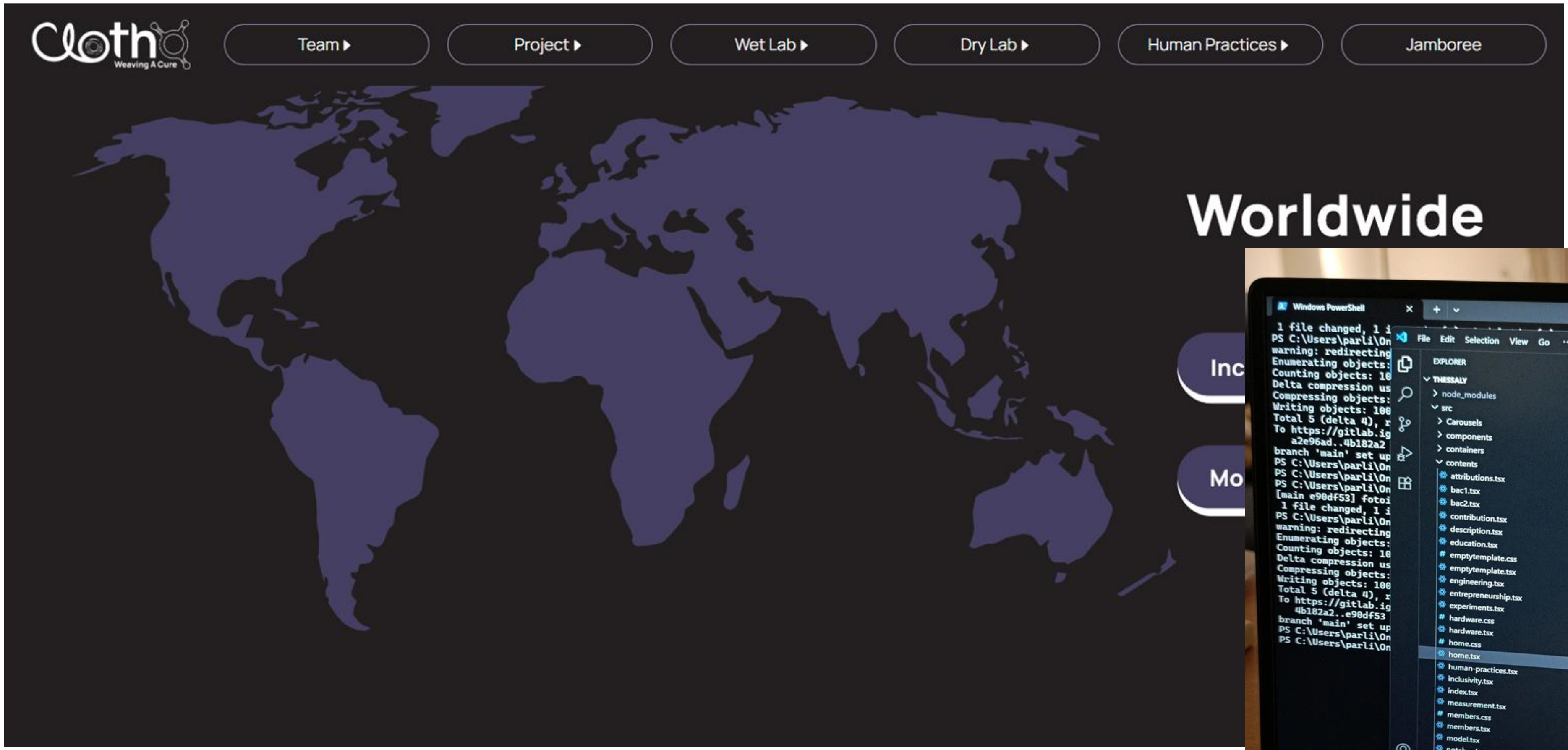


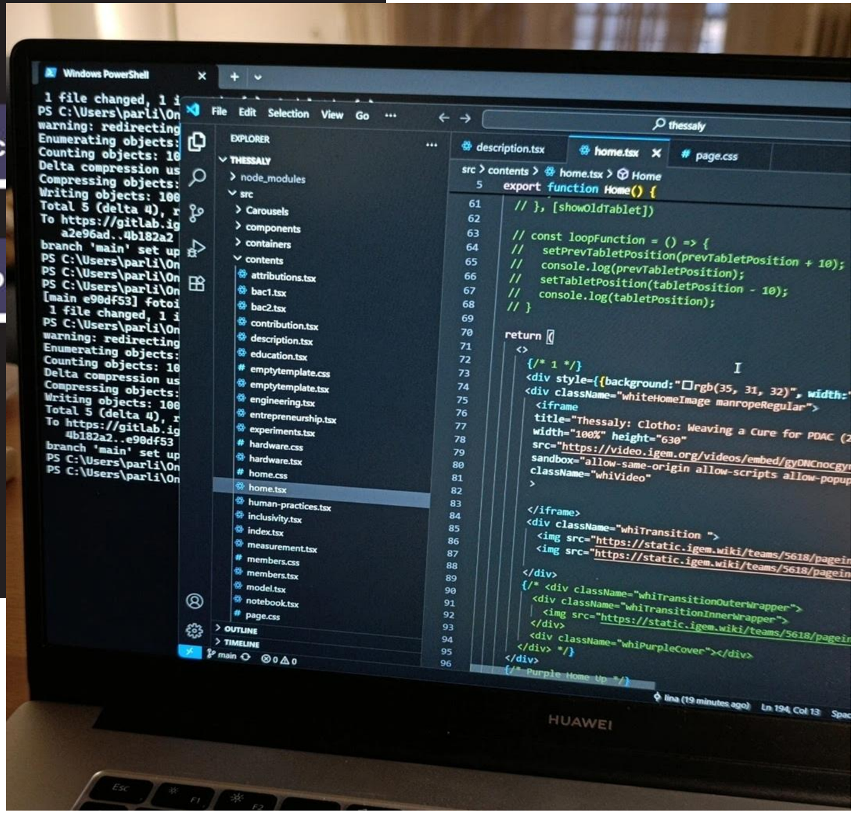
Dry Lab - Hardware





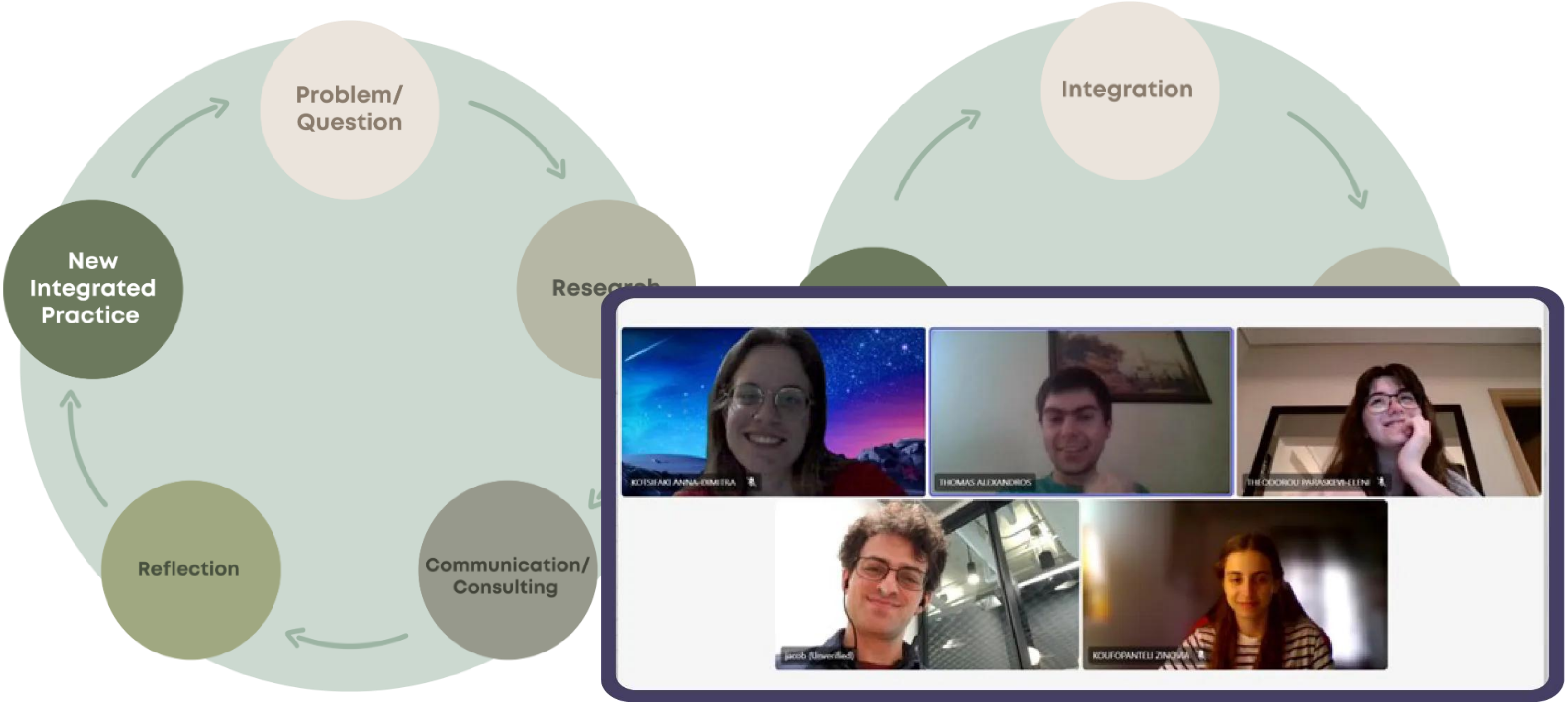
Wiki


Clotho
Weaving A Cure
Team
Project
Wet Lab
Dry Lab
Human Practices
Jamboree
Worldwide



Human Practices - Education

Human Practices - Integrated



Entrepreneurship

Strengths

- Innovative Approach
- High Precision & Personalization
- Reduced Side Effects
- Scalable Platform
- Early Validation
- Multidisciplinary Team

S

Weaknesses

- Early Development Stage
- High Initial Costs
- Regulatory Complexity
- Cybersecurity Issues
- Limited Clinical Experience of Core Team
- Patent Overlap Risk

W

O

Opportunities

- Large & Growing Market
- Unmet Medical Need
- Scientific & Technological Advancement
- Partnership Potential
- Favorable Funding Potential

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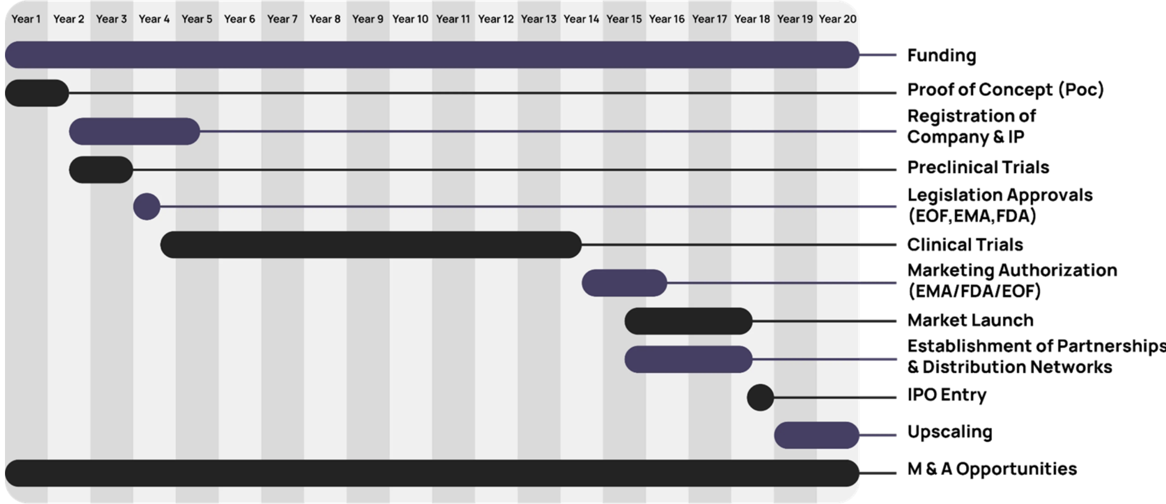
Threats

- Intense Competition
- Scientific Uncertainty
- Manufacturing & Scalability Challenges
- Regulatory Hurdles
- Market Adoption Risks

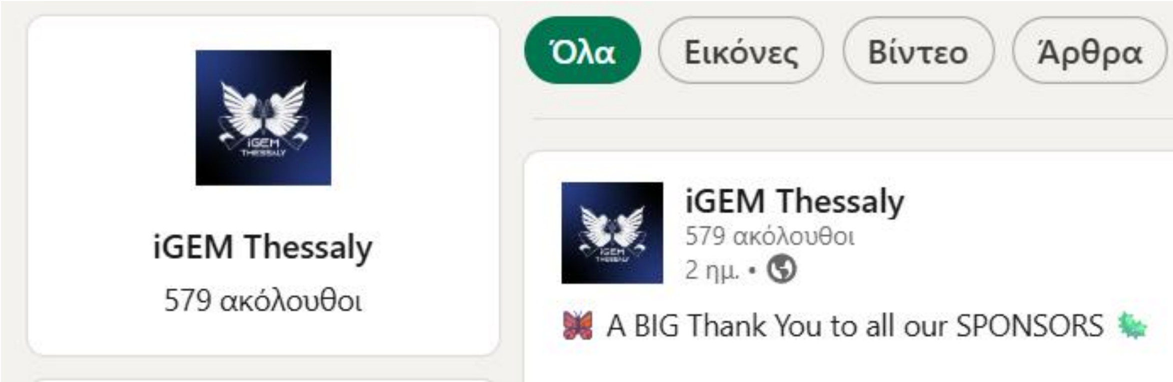
Gantt Chart



Fundraising

- ΠΕΙΡΑΜΑΤΑ
- ΕΚΔΗΛΩΣΕΙΣ & HP
- ΕΓΓΡΑΦΗ ΣΤΟ ΔΙΑΓΩΝΙΣΜΟ & ΣΤΟ ΣΥΝΕΔΡΙΟ
- ΤΑΞΙΔΙ ΣΤΟ JAMBOREE

Social Media



We are recruiting

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https://www.linkedin.com/company/igem-thessaly/