

Disease Detection and Treatment

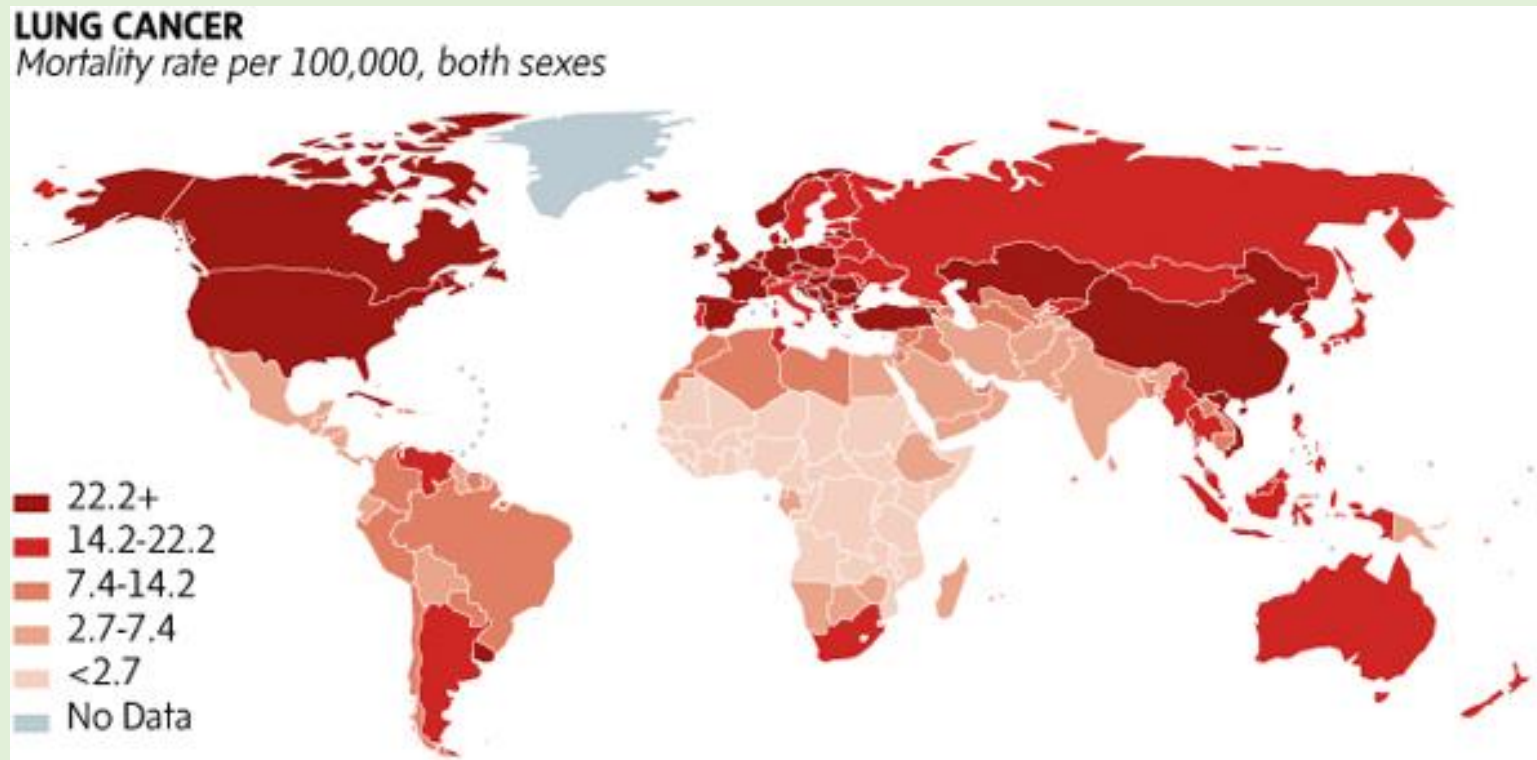
aka.

Cancer Busters



Lung Cancer

- Most frequent type of cancer in the entire world
- 1.7 mio. deaths per year [1]
- Risk factor: Tobacco, obesity, unhealthy diet, air pollution
- Less than 20% survive 5 years after diagnosis



1. WHO Cancer statistics

Solution

Today:

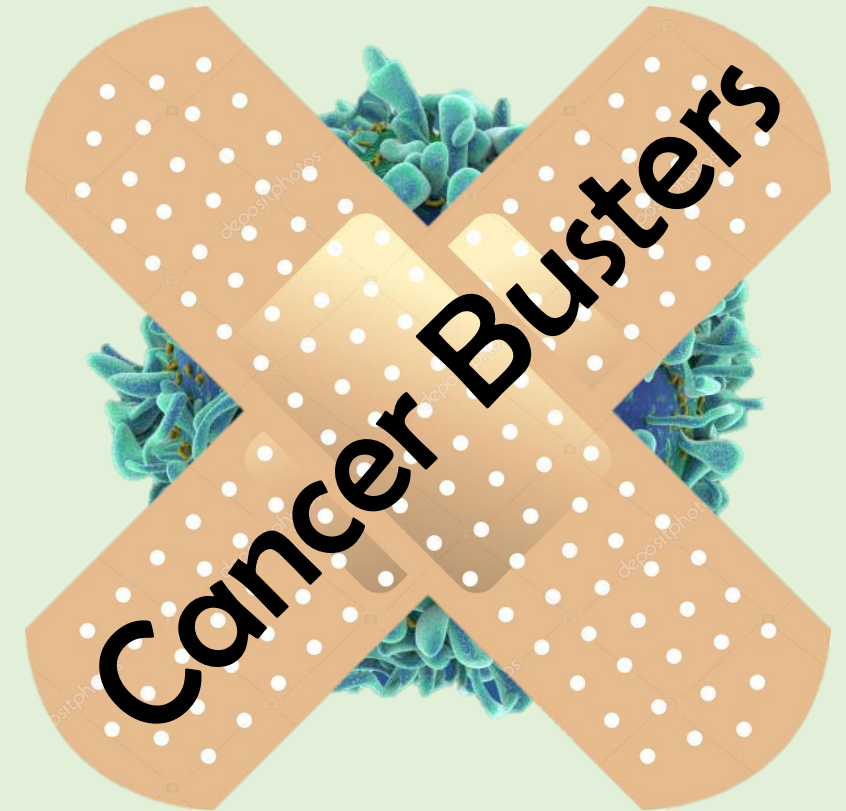
Detection

- Biopsi
- CT
- NMR

Treatment

- Surgery
- Radiation
- Chemo

Future



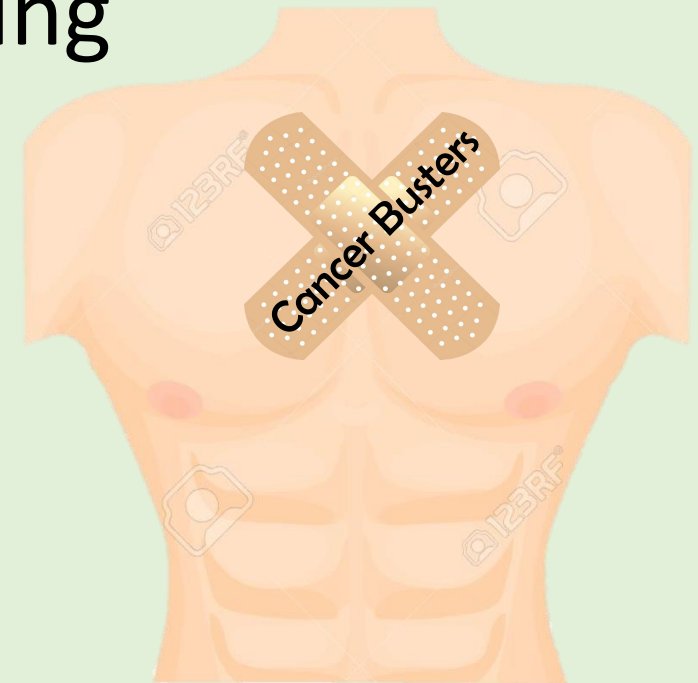
Revolutionary theranostic patch

Diagnostic

- Detects metabolomic cancer particles in sweat
- Heat sensor detects activity in cancer cells
- Detects EM-waves from cancer cells using nanostrip antenna array

Treatment

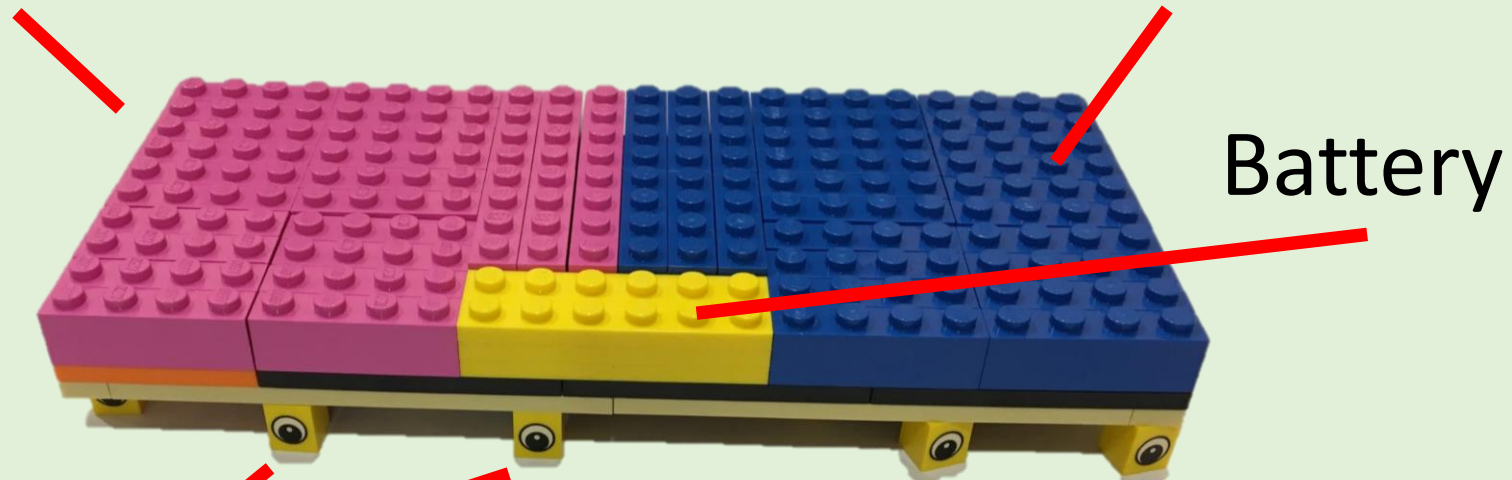
- Release of nanomedicine (aptamer) activates immune system to kill cancer



Heat sensor

Sweat bio-sensor

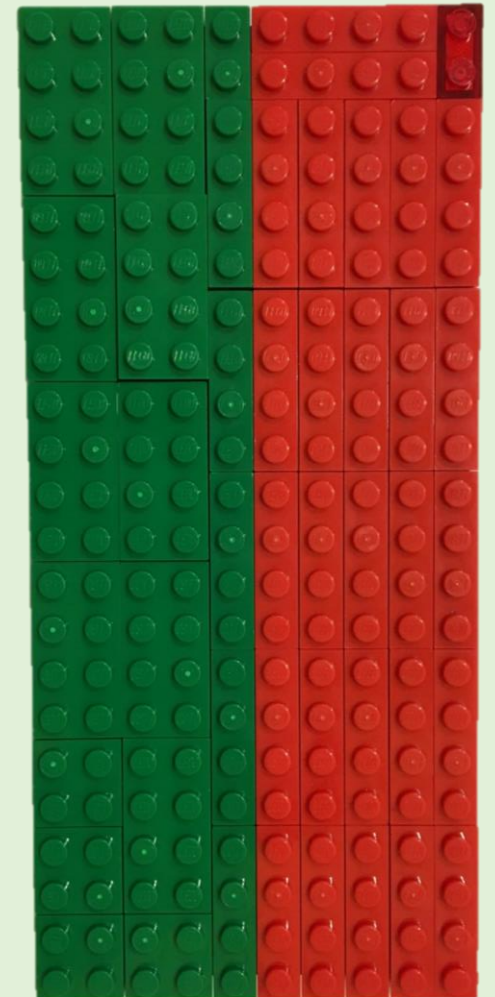
Color change
to show
diagnosis



Battery

Nanoantenna

Aptamer nanomedicine



Application in Developed World

Our solution helps early detection

- **Cheaper** than scans
- **Safer** than biopsies
- More **effective** than CT-scans

Our solution saves lives and costs

- When detected early, treatment is much **cheaper**
- Early detection **increases** survival rates
- **Better** treatment alternatives
- Distributed by government, doctors and OTC



Application in Developing World

Our solution helps people without health care

- Provides **diagnosis** in rural areas
- **Treatment** for people in poor countries
- Collaboration with NGO's and WHO

Our solution saves lives and costs

- Early diagnosis allows cheaper treatment



Global cost of lung cancer: 895\$ billion [2]

Our solution can **reduce** the cost in developed countries

- **Cheaper** diagnosis
- Early detection allows **cheaper** treatment
- **Reduce** treatment costs by a third



Disease Detection and Treatment

aka.

Cancer Busters

Team

Ela
Stefano
Rusdina
Giulia
Mikkel
Coach Markus



Thanks to

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Giuseppe
Ralf
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