



# The Latvian R&I context and the contribution of RTOs

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Chairman of the Board, LAKIFA

The Synergies with Research and Innovation Funds: Stairway to Excellence  
Riga, Latvia, 15.04.2015.



# Content of Presentation

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- Brief introduction Association of Chemical and Pharmaceutical Industry of Latvia and PharmIdea
- Innovation eco-system by eyes of manufacturer
- Private – Public partnership as example of boosting contract research infrastructure for pharma and medical product innovation

# The Association of Latvian Chemical and Pharmaceutical Industry

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**LAKIFA is steadily growing association,  
representing 50 companies and 9 industry sub-sectors:**

- manufacturers of pharmaceuticals and active pharmaceutical ingredients
- phytochemicals
- manufacturers and distributors of cosmetics and household products
- distributors and manufacturers of chemical raw materials
- glass fiber production
- rubber manufacturer and plastic converters
- manufacturers and dealers of paints, coatings and building chemistry
- dealers of chemical equipment and reagents
- industrial gases production

# The Association of Latvian Chemical and Pharmaceutical Industry



## Membership and active international networking:

- The Latvian Confederation of Employers, LDDK



- Latvian Chamber of Commerce and Industry, LTRK



- European Council of Chemical Industry, CEFIC



- The European Cosmetic, Perfumery and Toiletry Association, Cosmetics Europe



Cosmetics Europe  
The International Association of  
Cosmetics Manufacturers

- The European Detergents and Household Products Association, A.I.S.E



- European Industrial Gases Association, EIGA



- European Chemicals Employers Group, ECEG



# Leading pharma & biotech companies in Latvia



- **Grindeks** (synthetic drugs)
- **Olainfarm** (synthetic drugs)
- **PharmIdeas** (sterile pharmaceuticals)
- **Silvanols** (phytochemicals, nature products)
- **Virotherapy Center of Latvia** (anti-cancer therapy of tumours by virus application)
- **OSI** (new drug research, medical chemistry)
- **BMC** (new drug research, medical chemistry)
- **Nuclear medicine centre** (cancer diagnostics, new drug research)
- **Biosan** (laboratory & biotech equipment)
- **Biotehniskais Centrs** (laboratory & biotech equipment)

# PharmIdea

private pharmaceutical company



# Main business activities

Development and manufacturing of own sterile generic hospital drugs in niche therapeutic areas for global pharmaceutical market since 2008:

- intensive care & reanimation
- hospital gynaecology
- anti-cancer



**Innovative ideas and projects: hospital bacteriophages (alternative for antibiotics) and oncoviruses (alternative for chemotherapy drugs)**



## DEFINITIONS

RESEARCH – creation of knowledge

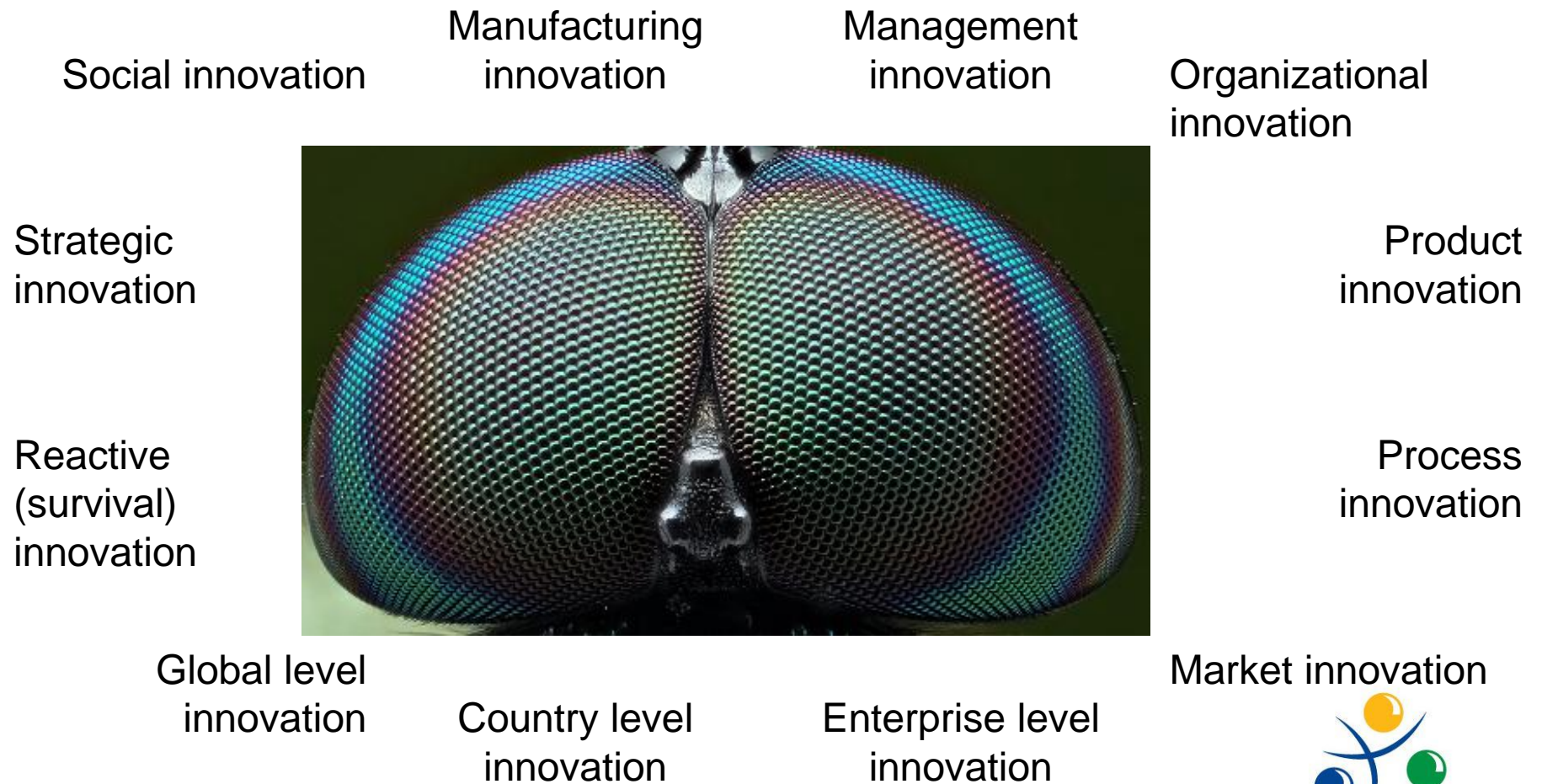
INNOVATION – transformation of knowledge into  
products demanded and accepted by market

RESEARCH = scientists & INNOVATION = entrepreneurs





## Diversified innovation understanding





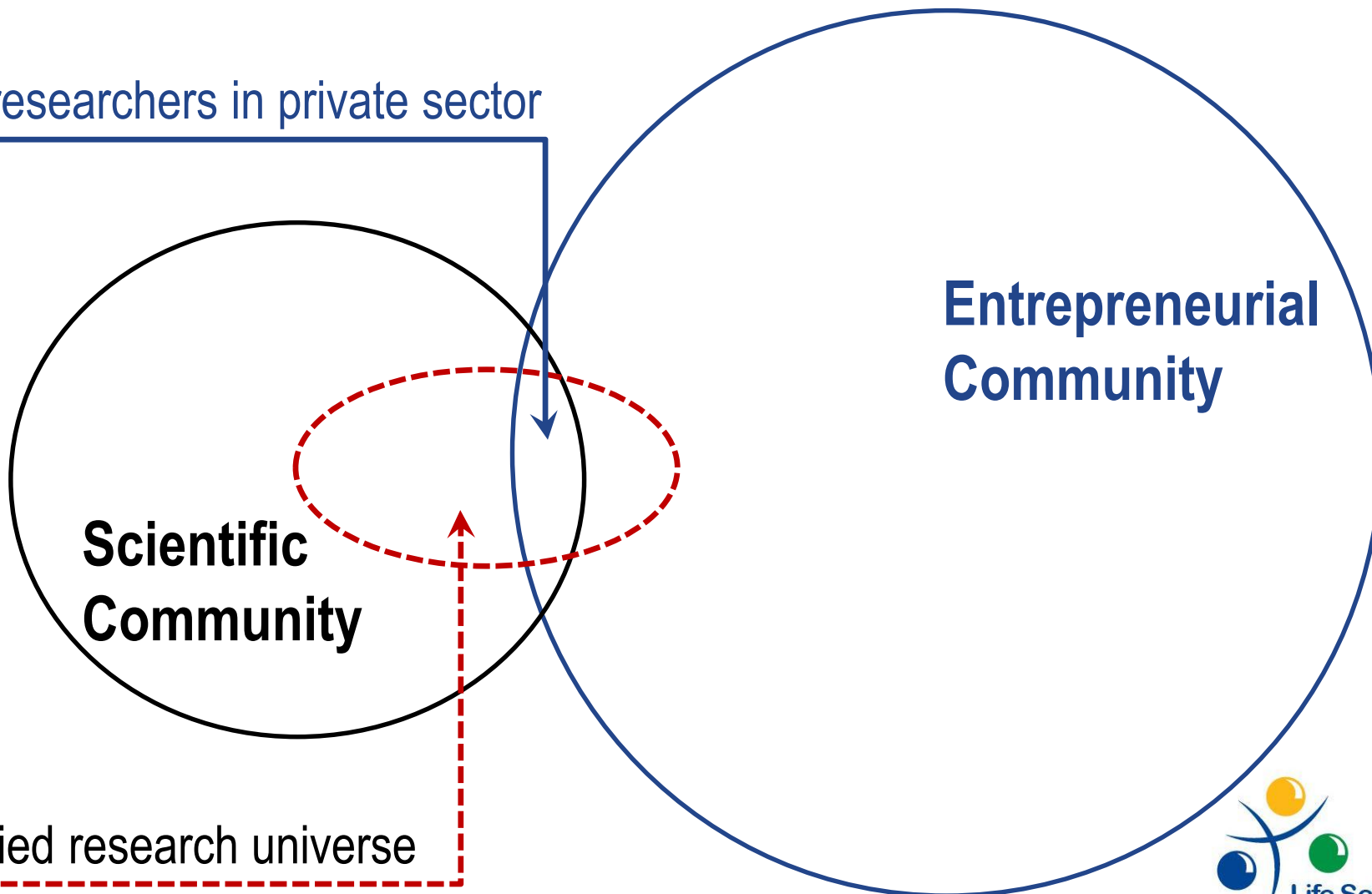
# !!! For further growth of Latvia economy we need export-capable manufacturing industries

accordingly → Innovation eco-system by eyes of manufacturer

1. Support of Industrial Applied Research via **Competence Centre programm**  
( 80 m€, 2016.- 2021.)
2. Support of **start-up of manufacturing** of new, innovative, export oriented products  
( 100 m€, 2016.- 2021.)
3. Support of **training and education** for broad scope of industrial related technologies  
( 20 m€, 2016.- 2021.)



8% of researchers in private sector





# Cancer patient in PET/CT scanning





# Why till now have not been developed PET/CT Technology in Latvia?

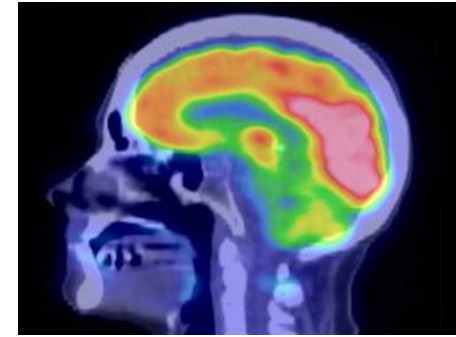
- There should be **established 3 complex competencies** under integrative, discipline and specific control:
  - Radiochemistry (cyclotron = physics + chemistry + mechanic + software)
  - Sterile technologies under regulations of Good Manufacturing Practice (GMP)
  - Nuclear medicine (interpretation of images)
- Cyclotron and establishment of PET/CT center **requires 9-12 m€ capital investments**
- Weak public-private partnership culture in Latvia, especially for knowledge and technologically intensive projects



NUKLEĀRĀS  
MEDICĪNAS  
CENTRS

*de facto*

Private – Public partnership project



## **Riga Nuclear Medicine Centre (NMC)**

ambitions to introduce world class technology for  
cancer and neuro-degenerative research and  
diagnostics in Latvia



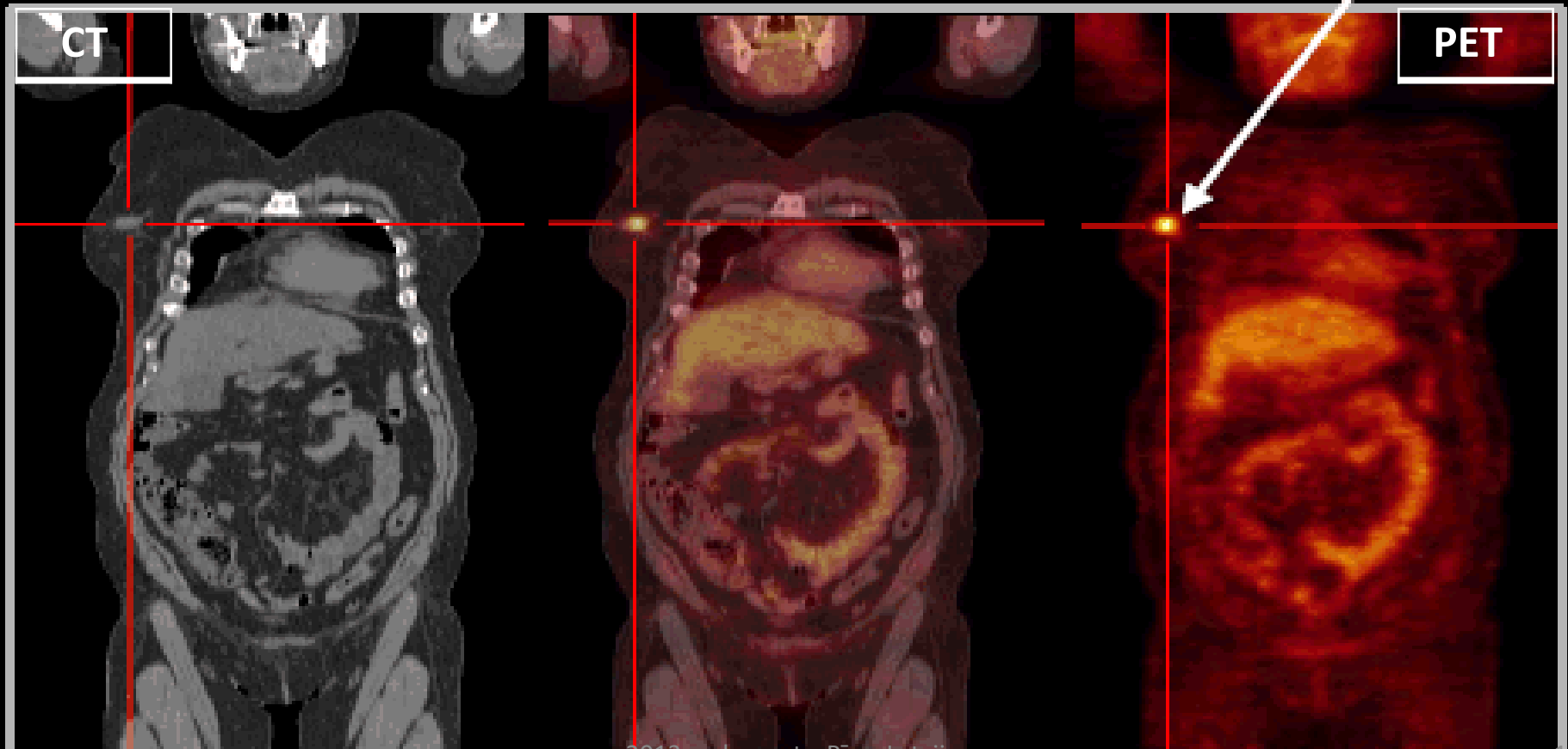
# Shareholders of NMC project

Private companies	Public partners
<p><b>V.Skrīvelis &amp; team, 52% of shares :</b></p> <ul style="list-style-type: none"><li>• Competence in sterile technologies and radiochemistry</li><li>• Competence in Good Manufacturing Practice (GMP) certification</li><li>• Competence in radiochemistry and radiation safety</li><li>• Competence in management of ERDF co-funded laboratory's projects</li></ul>	<p><b>Riga Stradins University (Medical academy) , 47% of shares:</b></p> <ul style="list-style-type: none"><li>• Competence in medicine science industry, including gene expression technologies;</li><li>• Competence to train specialists of nuclear medicine</li><li>• Competence of cancer research (RSU Oncology Institute)</li></ul>
	<p><b>Latvian Institute of Organic Synthesis, 1,0% of shares:</b></p> <ul style="list-style-type: none"><li>• R&amp;D capabilities in medicine chemistry and fine organic synthesis;</li><li>• Competences of the pharmaceutical research.</li></ul>



# FDG-PET/CT

Krūts vēža  
primārais mezgls

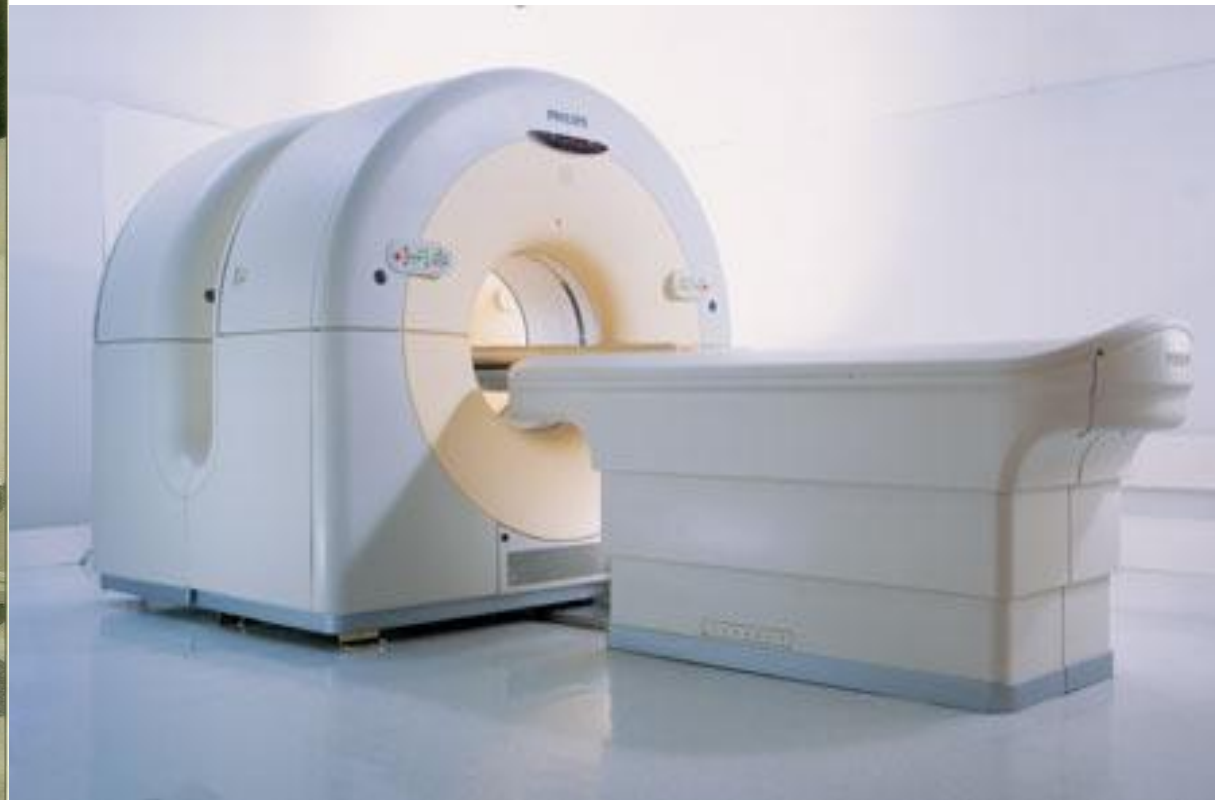






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MEDICĪNAS  
CENTRS

# Cyclotron and PET/CT camera





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# NMC building progress, March 2015



**I am working hard to say in near future:**

**DEAR CANCER,  
ONE DAY I HOPE  
YOU WILL BE JUST A  
ZODIAC SIGN**



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Chairman of the Board

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Thank you for your attention!