Baltic Particle therapy center initiative: ***recent activities and closest events***

On behalf of the
CERN Baltic group's *"Advanced Particle therapy center for the Baltic States"* working group

prof. **Toms Torims** and **Kristaps Paļskis**

Fast recap

April 12th, 2022
"Advanced Particle Therapy center for the Baltic States" working group established within the CERN Baltic group (CBG)

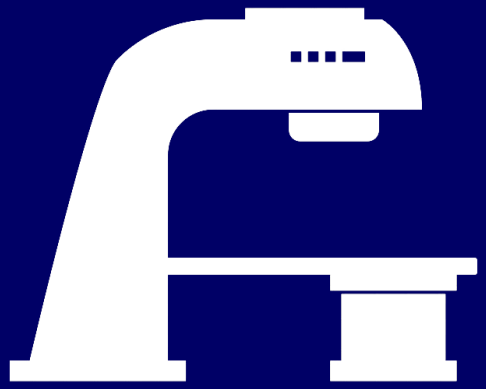
Spring 2022
Development of a dedicated conceptual design report

End of 2021
CBG discussion with NIMMS collaboration on facility options

February 2022
NIMMS Helium synchrotron working group establishment with involvement of researchers from the CBG

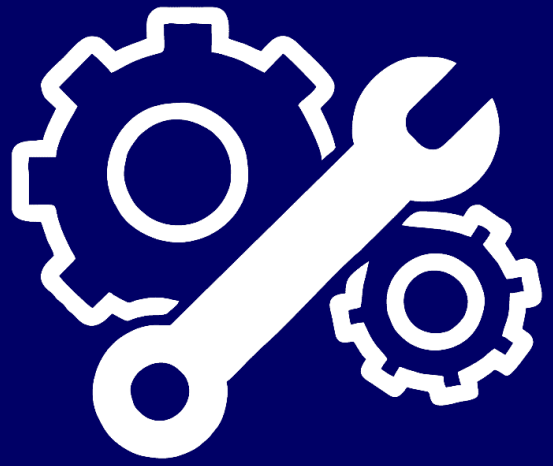
Fast recap

Research institution



Clinical cancer treatment facility

Particle therapy and nuclear medicine



Industry involvement infrastructure

Fast recap

End of 2022 : Bilateral meetings with relevant medical associations, universities and political stakeholders

therapeu ology associatio in Latvia and L ia

crucial !

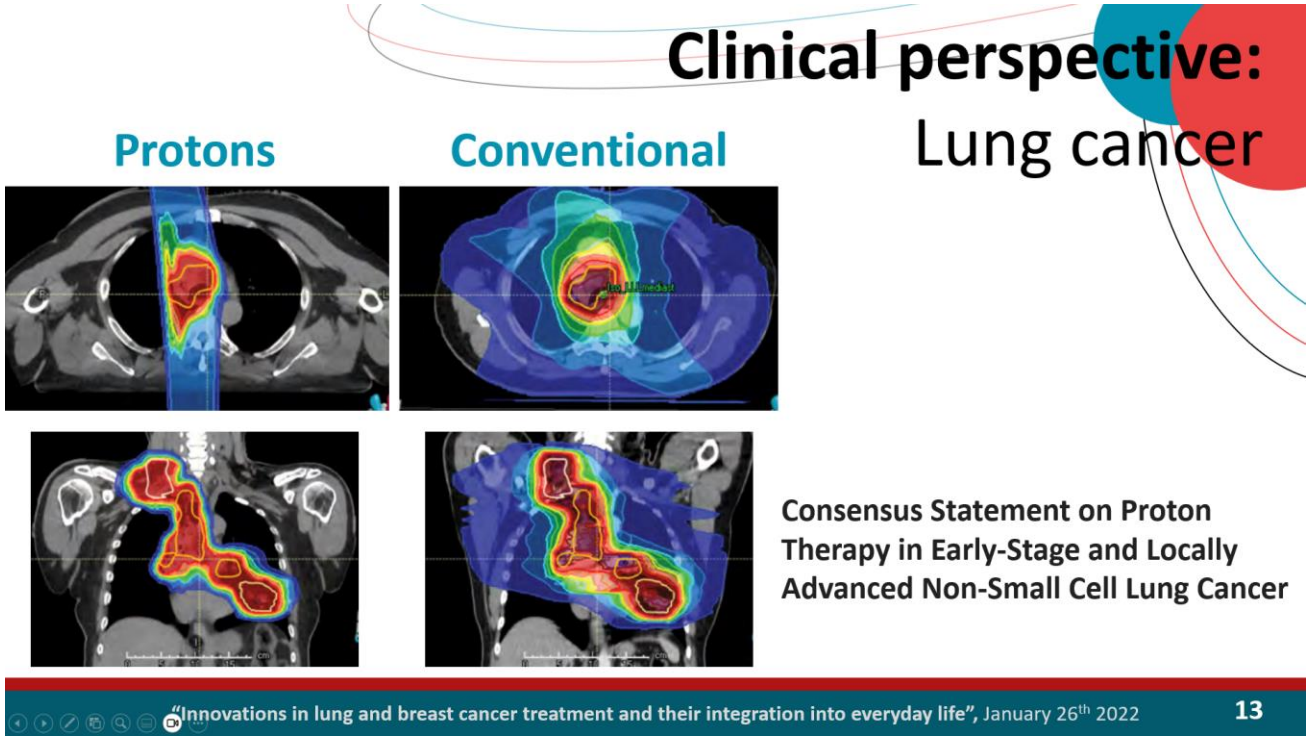
Recent activities: medical community

27th of January, 2023

Invitation to give a talk in Lithuanian Radiation Therapy association conference **“Innovations in lung and breast cancer treatment and their integration into everyday life”**

28th of February, 2023

Invitation to give talk in the periodic meeting of Latvian Therapeutic Radiology Association



Recent activities: political stakeholders

9th of March, 2023

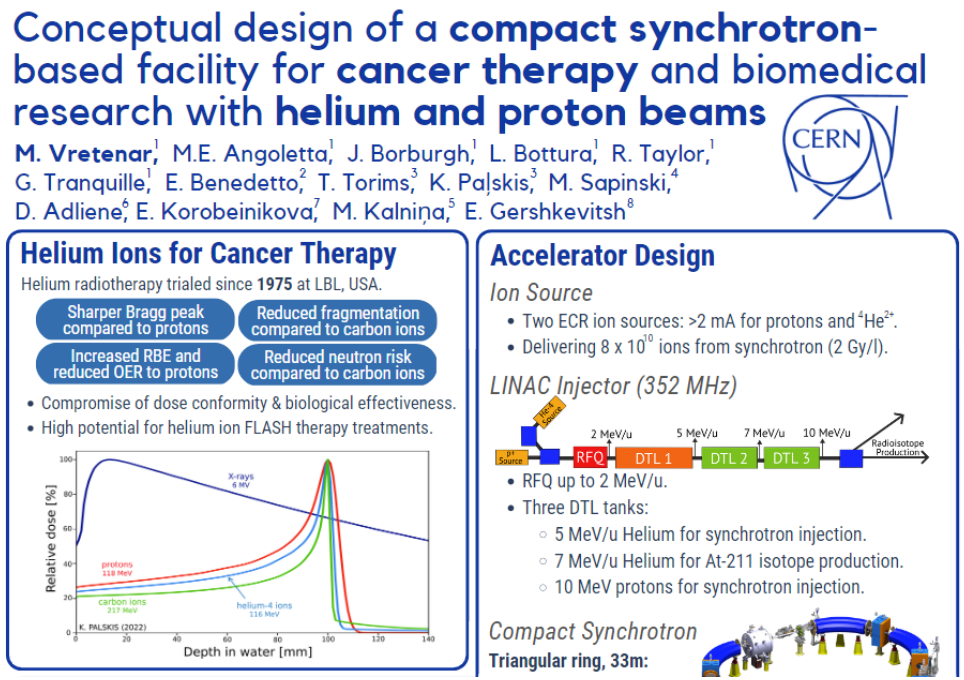
Invitation to take part and give a talk on the initiative as part of the Latvian Ministry of Science and Education organized **Enhanced Dialogue on Latvian R&I System** with European Commision representatives on Research institution project initiatives

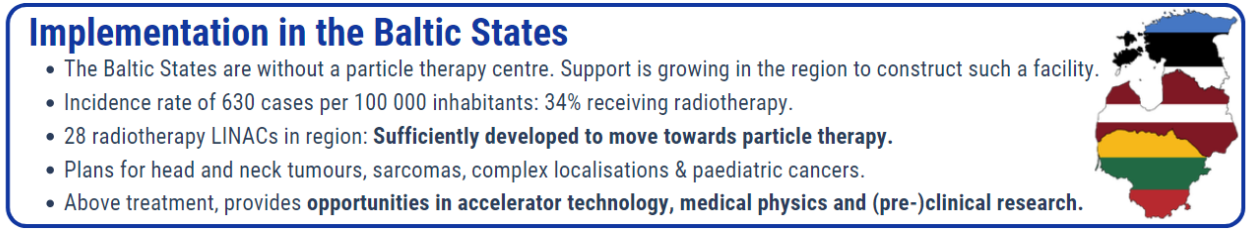
Recent activities: scientifically

April of 2023

NIMMS collaboration has developed a scientific publication on the helium synchrotron technology updates for the 14th International Particle Accelerator Conference (IPAC2023)
"CONCEPTUAL DESIGN OF A COMPACT SYNCHROTRON-BASED FA-CILITY FOR CANCER THERAPY AND BIOMEDICAL RESEARCH WITH HELIUM AND PROTON BEAMS"

The publication has a dedicated chapter on the possible development in the Baltic States, outlining cancer and radiotherapy equipment statistics etc.:
A FACILITY FOR THE BALTIC STATES





Courtesy of: Taylor R. (CERN)

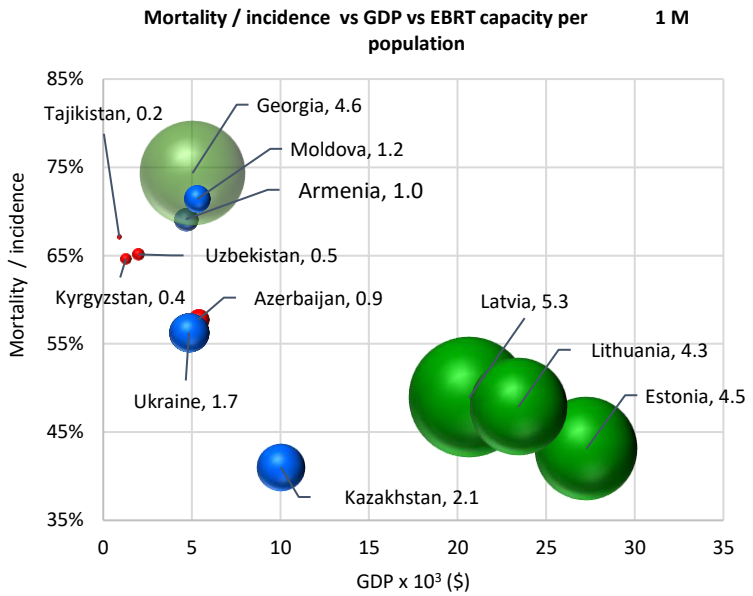
Recent activities: cancer statistics

March - April of 2023

Last year Estonia, Latvia and Lithuania took part in the *Access to Radiotherapy Technologies Study in the Baltics, Eastern Europe, Central Asia, and the Caucasus.*

We have received the data analysis: **our first joint statistical data**, that could be used further for patient number estimates
Data are to be published in a scientific journal

Survey for additional data collection has been developed together with Manjit Dosanjh
(*particle therapy specific data, Baltic country case study*)



ACCESS RADIOTHERAPY TECHNOLOGIES

CERN Baltic Group
"*Advanced Particle Therapy center for the Baltic States*" working group
in collaboration with
ACCESS RADIOTHERAPY TECHNOLOGIES

QUESTIONAIRE CANCER DATA FOR THE BALTIC REGION

Name	
Contact/e-mail	
Institution	
Country	

This questionnaire has been prepared together with the experts from last year's *Access to Radiotherapy Technologies Study (ART) in the Baltics, Eastern Europe, Central Asia and the Caucasus*. The goals of this questionnaire:

- to focus on the case in the Baltic States and extend the data further for better understanding of cancer incidence and treatment within our region;
- to achieve **first estimate of the number of patients, who could potentially benefit from the particle therapy** that would be accessible through the proposed facility.

Planned events: *Main event*

25th of May, 2023

Workshop

“Particle therapy - future for the Baltic States? State-of-play, synergies and challenges”

Conceptually: Representatives and experts from involved professional associations from the Baltic States to discuss and find solution for 5 of the main identified “problem-areas”. Non-Baltic clinical and technical experts to take part as well.

Hosted at CERN

Questions for today:

- Representation of Estonia
- As we have key-people on site – are we OK to announce hybrid for others interested?

Cancer statistics in the Baltic States region

Clinical indications for proton therapy

Technology readiness level of the accelerator

Synergies with the nuclear medicine field

Educational pathways for personnel

Planned events: educational aspects

28th of June, 2023

As part of the annual HITRI*plus* project meeting in Riga, a dedicated workshop will be held:

"Clinics and research: considerations to create a novel particle therapy center"

Conceptually: Educational lectures by the leading experts from European ion therapy centers (CNAO, HIT, MedAustron) on clinical indications, medical physics, scientific research and practical

We welcome your participation by registering here:
https://indico.cern.ch/event/1256528/

Session I
Clinical aspects and rationales of particle therapy

Session II
Medical physics and quality assurance in particle therapy

Session III
Helium ion therapy. Heavy ion therapy research

Session IV
Practical experience of setting up a treatment center

https://www.hitriplus.eu/

HITRI plus
Heavy Ion Therapy Research Integration

Other planned activities: . . .

3rd of June, 2023

Invitation for a lecture on particle therapy technology developments at the project initiative in ISRS course Sigulda, Latvia:

ISRS Educational Course "SRS/SRT in Management of Metastatic Brain Tumors, Genitourinary, Gynecological, and Abdominal Cancers; Medical Physics for Radiosurgery."

12th to 14th of June, 2023

Oral presentation in the "**19th Nordic-Baltic Conference on Biomedical Engineering and Medical Physics**" conference

Finalizing the speaker for this conference!

Work on the visual identity of the initiative

Involvement of professionals for development of the visual identity of the initiative and promotional material preparation

Thank you for your attention !