

# WHY FINLAND

for pharmaceutical R&D?

# This slide set has been prepared by

Pharma Industry Finland (PIF) Clinical Trials Expert Group, consisting of almost 10 experts from PIF member companies

The slide set is free to be used in promoting clinical research in Finland

If you have any comments or questions, please contact PIF Senior Advisor Pauliina Ehlers;  
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# Land of a Thousand Possibilities





# The Power of a Functional Ecosystem

## Land of:

specialized cancer centers  
neurology know-how  
high-quality vaccine research  
pediatric expertise  
phase I research specialists  
private sector



Well-functioning  
healthcare system



Electronic patient records



Digitally skilled & engaged  
people & culture of trust



Genomic data & biobanks



Government backing

# Well-functioning Healthcare

- 5,6 million inhabitants<sup>1</sup>
- Pharmaceutical industry investments have doubled since 2019<sup>2</sup>
- Finnish Government is committed to the national target of raising Finland's R&D expenditure to 4% of GDP by 2030<sup>3</sup>
- A survey conducted in 2024 showed that clinical trials bring substantial benefits both to the patients and society: societal value of one clinical drug trial averages approximately €10 million<sup>4</sup>
- Well-functioning collaboration with regulatory authorities – two-way communication with local authority and national ethics committee, authorities support study sponsors, academia and clinical trial sites in order to reach the common goals



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# Well-functioning Healthcare

- Strong Nordic collaboration in several therapeutic areas (Denmark, Finland, Sweden, Norway = 28 million inhabitants)
- Finnish university hospitals rank high in Newsweek 2024 listing (2400 hospitals, across 30 countries), e.g.
  - 50. Helsinki
  - 121. Turku
  - 126. Tampere



- Finnish study participants are Committed
  - willing to travel to the clinical trial site from other parts of the country
- Digital-savvy
  - actively seeking information about recruiting studies from the websites of centers and authorities



Well-functioning healthcare system



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# Finnish Population, Public Diseases



## Cancer

- There are over 35,000 new cases annually, and more than 13,000 cancer deaths.
- Various tumors were the most common cause of death among working-age Finns and the second most common cause of death among all Finns in 2020.
- As the population ages, more people are developing cancer, and it is predicted that by 2035 there will be over 30% more new cancer cases, approximately 46,000.



## Cardiovascular diseases

- Cardiovascular diseases cause almost half of all deaths among people of working age in Finland.
- In 2018, about 173,000 Finns had a special right to reimbursement for coronary heart disease.
- Every other adult has either an antihypertensive medication or increased blood pressure. This means more than 2 million people.
- More than 3 million Finns suffer from lipid disorders, i.e. they have either raised blood cholesterol or use cholesterol medication.



## Diabetes

- In Finnish population 14% of men and 10% of women have type 2 diabetes.
- Type 1 diabetes is more common in Finland than in any other country, apparently due to the Finnish genetic heritage. Approximately 50,000 people suffer from type 1 diabetes.



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# Finnish Population, Public Diseases



## Obesity

- 30% of women and 27% of men have obesity in Finland.<sup>1</sup>
- Obesity is most common among 40–64-year-olds, one-third of whom are obese



## Autoimmune diseases

- **Multiple sclerosis (MS):** There are about 13,000 people suffering from MS in Finland. Finland has one of the highest rates of disease in the world.<sup>2</sup>
- **Irritable Bowel Disease (IBD):** The number of people with IBD is over 60,000 in Finland and continues to grow steadily.



## Asthma, allergies

- The prevalence of allergic diseases in Finland is high and has increased over the past few decades. Asthma affects 10% of men and 14% of women aged over 30. 7% of men and 10% of women over 30 years use anti-asthma medication.



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# Digital Health, Social and Welfare Registers

# 17

comprehensive &  
high-quality registers



Well-functioning  
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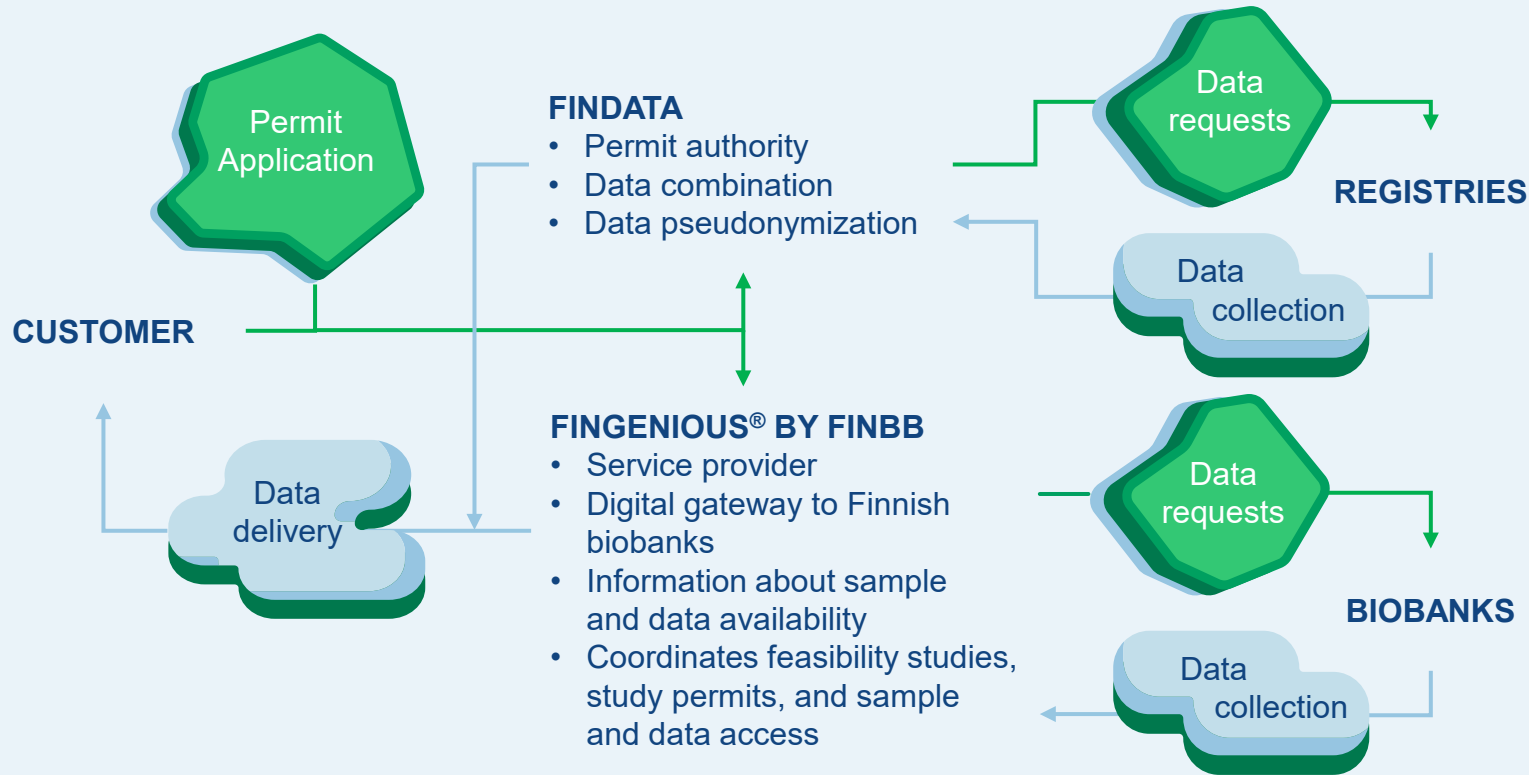


Genomic data & biobanks



Government backing

# Advanced Data Infrastructure Facilitates the Data Access Process



## BENEFITS OF FINDATA

- A one-stop shop for the secondary use of social and health data
- Predefined timelines speeding up the processing of requests and data release
- Secure data analysis environment to ensure better data privacy

## BENEFITS OF FINGENIOUS®

- A one-stop digital gateway to Finnish biobanks, their collections and services
- Perform quick sample and data queries by browsing biobank collections
- Reach all public biobanks in Finland with one feasibility and one access request
- Only one material transfer agreement (MTA) needed
- Possibility for recontacting donors for future studies



Well-functioning healthcare system



Electronic patient records



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Genomic data & biobanks

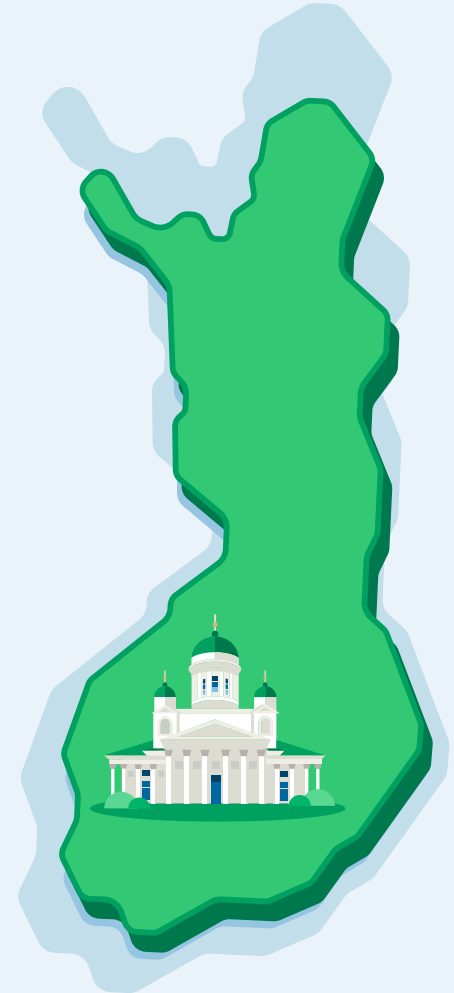


Government backing

# Advanced Data Infrastructure Facilitates the Data Access Process

## GOVERNMENTAL SUPPORT

- Act on the Secondary Use of Health and Social Data
- Biobank Act
- Genome Act (in preparation)
- Growth Programme for Health and Wellbeing
- Public investments
- Comprehensive Cancer Center
- Neurocenter Finland
- Genome Center (in preparation)
- Finnish Drug Discovery Centre



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Genomic data & biobanks



Government backing




# Finnish Biobanks Contain 4 Million Patients With 13 Million Samples\*

## SAMPLES


- DNA
- Plasma
- Serum
- Buffy coat
- Other sample types: FFPE tissue (>11M samples), RNA, cells, CSF, liquid biopsies ( cfDNA), FF tissue, whole blood.

## PATIENTS

- **POSSIBILITY FOR RECONTACTING DONORS**  
Pre-screened patients with phenotype and genotype deep data can be recontacted for new biomedical studies. Up to 95% of all biobank donors give consent to be recontacted.
- **NATIONAL PATIENT RECALL SERVICE**   
Over 300,000 patients available for recontacting through FINBB's unique Fingenious® biobank service.
- **MULTIDISCIPLINED NETWORK OF EXPERTS**  
Biobanks work in close collaboration with a network of clinicians covering all therapeutic areas.

## DATA

A majority of the available clinical data is longitudinal EHR data.

- Genome data
- Basic demographic data (age, gender, diagnosis, etc.)
- Data related to sample collection
- Laboratory values
- Hospital visits and stays 
- Procedure codes
- Medication (administered or prescribed at the hospital)
- Imaging
- Lifestyle data
- Questionnaire data
- Data returned to the biobanks from research projects



Well functioning healthcare system



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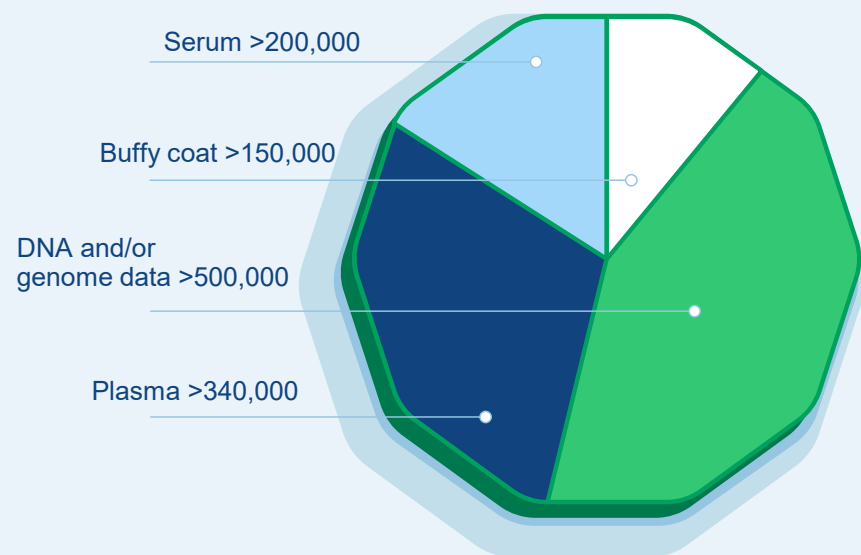


Government backing

\*All Finnish biobank operations are regularly supervised by the Finnish Medicine Agency (FIMEA).

# Finnish Biobanks Contain 4 Million Patients With 13 Million Samples\*

## Examples of samples stored in Finnish biobanks:



**>400,000 sample donors with genome data**

## Regional biobanks:

Biobank Borealis | Arctic Biobank University of Oulu

Biobank of Eastern Finland

Central Finland Biobank

Finnish Clinical Biobank Tampere

Auria Biobank

Helsinki Biobank

## Country-wide biobanks:

Hematological Biobank (FHRB Biobank)

Blood Service Biobank

THL Biobank

Terveystalo Biobank Finland



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# A Science-Loving Government

Legislation / Growth programmes / Concrete actions



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# Count to Five – Count on Finland



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# Land of Specialized Cancer Centers

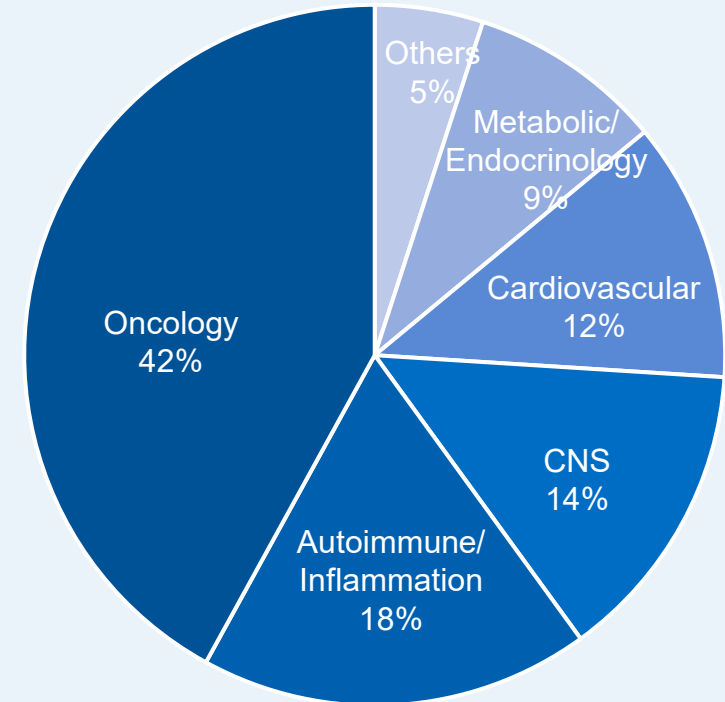
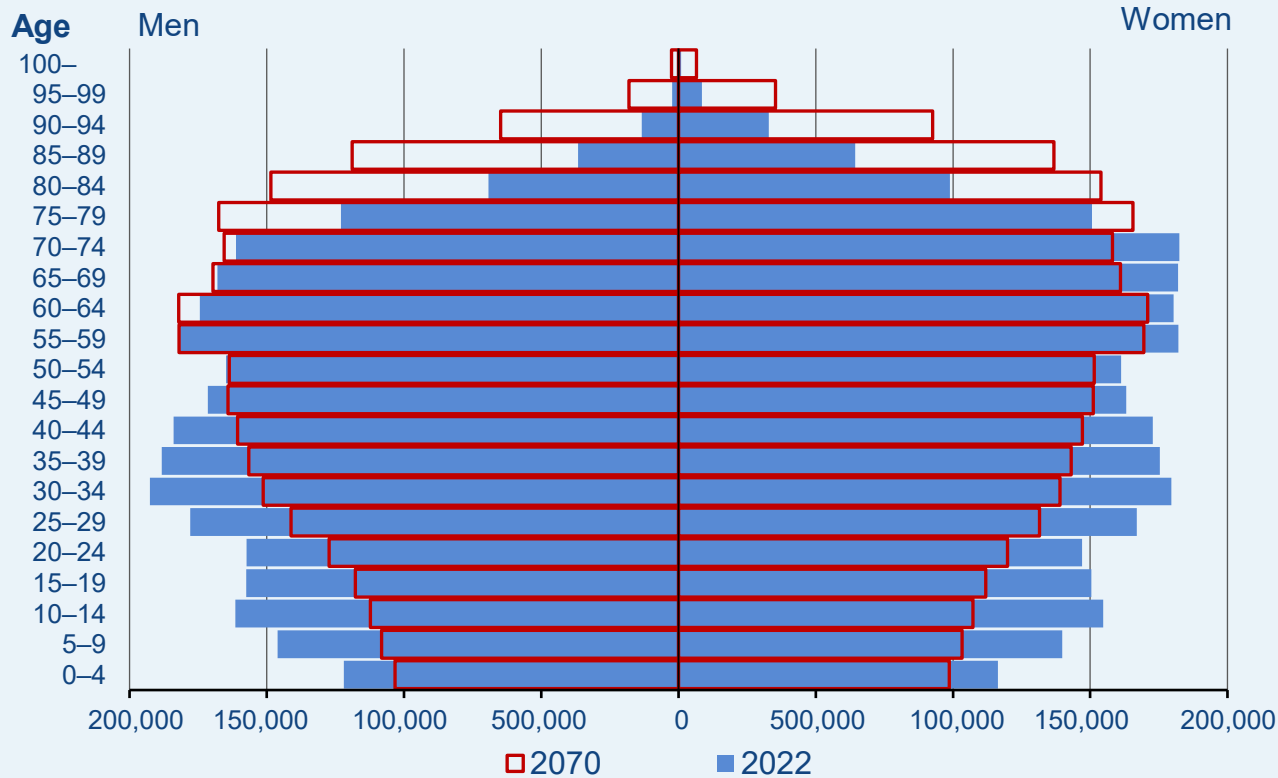
National, local and private



# Oncology/Hematology

The age structure of Finland: the number of elderly people is increasing rapidly leading to an increase in cancer cases

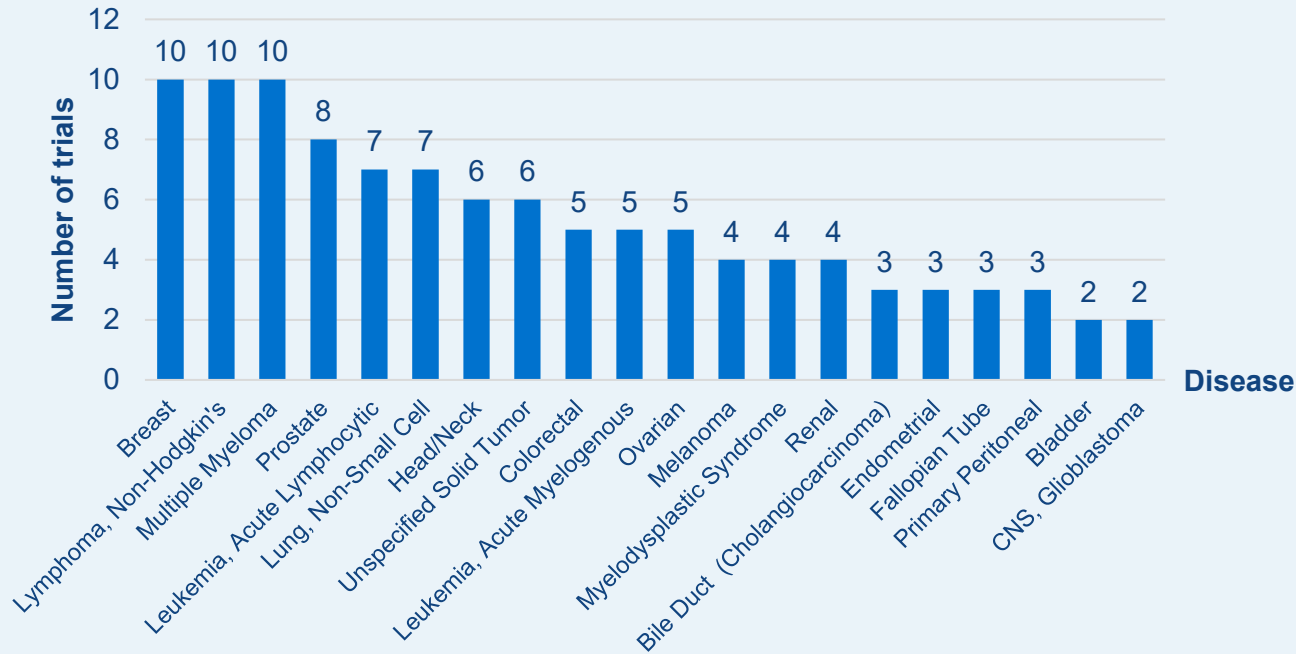
Cancer trials (industry sponsored) account for the largest share of open clinical studies in Finland



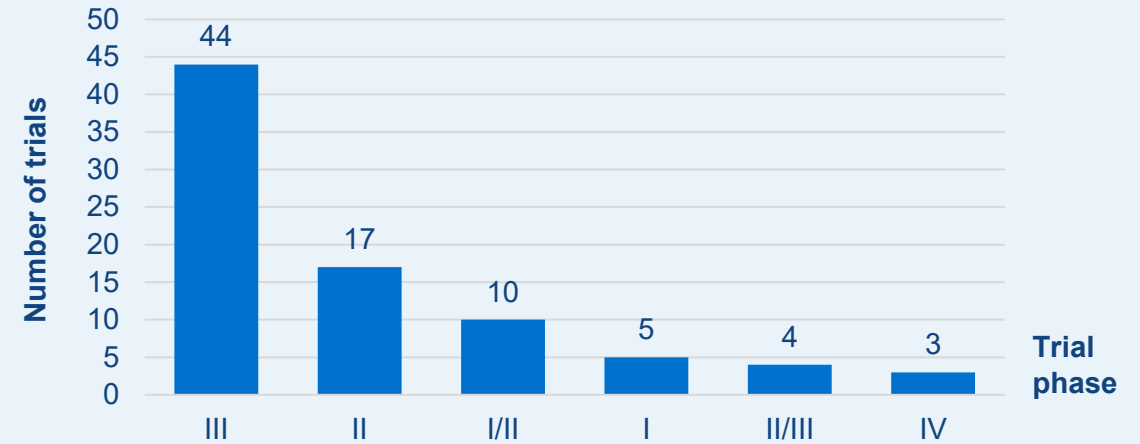


# Oncology/Hematology

Open oncology trials 2024  
(industry sponsored) by disease



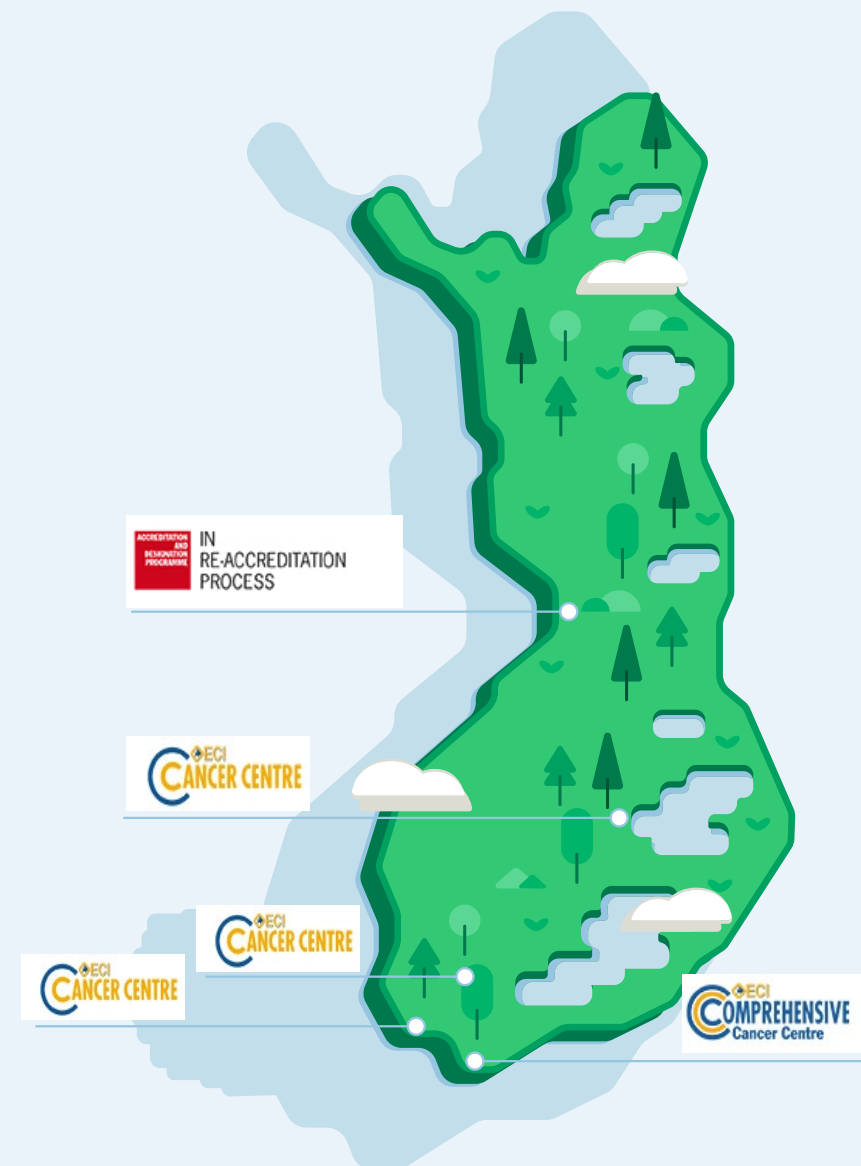
Open oncology trials 2024  
(industry sponsored) by phase



Several centers have expertise and willingness to perform studies from phase I until phase IV.

# Oncology/Hematology

- Finnish Cancer Center (FICAN) network covers the whole country.
- 5 OECI-accredited university hospitals
  - Helsinki University Hospital: Comprehensive Cancer Center (CCC) since 2014 (2nd in Europe and 1st in the Nordics). Also accredited as a member of the European Reference on Rare Adult Solid Cancers (EURACAN).
- Docrates Mehiläinen private cancer clinic (Helsinki)
  - Finnish and international patients treated in Helsinki over 15 years
  - Only Nordic private clinic. Good collaboration with university hospitals
- Well-equipped cancer clinics with cancer-specific NGS panels in clinical practice
- National cancer registry since 1953
- Finland part of DRUP\* study network (Finprove DRUP study)



# Land of Neurology Know-How

National collaboration and clinical trials

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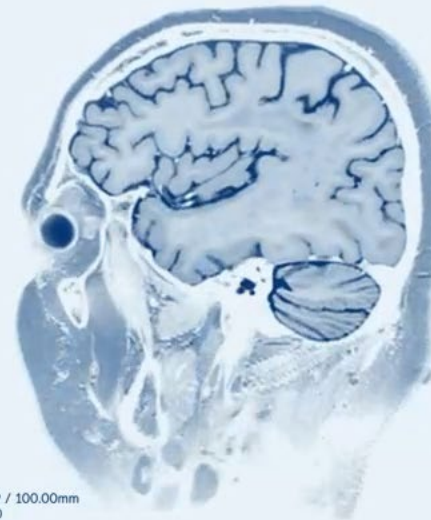
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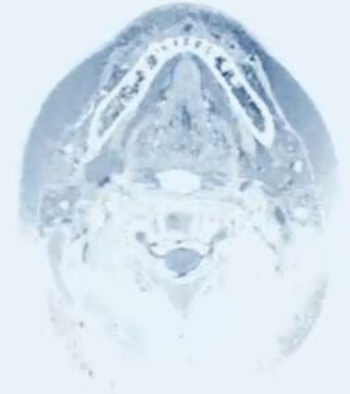
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# Clinical Trials in Neurology – Strong Know-How & Top Expertise

- Finland has strong know-how of neurological diseases and top expertise in medical imaging diagnostics.
- **The top areas:** Alzheimer's disease, mood disorders, epilepsy, insomnia, migraine and cerebral infarction



[Neurocenter Finland](#)

Specialized centers, e.g.

- [Brain Research Unit Kuopio](#)
- [Turku PET Centre](#)
- [HUS Neurology Unit](#)

# Turku PET Centre

- A National Research Institute for the use of short-lived positron emitting isotopes in the field of medical research
  - Diagnostic service for the whole country
- Unique research infrastructure
  - Including cyclotrons, radiochemistry production facilities, and imaging devices for human and animal use
  - Large selection of PET-tracers for human and animal use
  - GMP level production of numerous tracers
- Image databank
  - With >100,000 image sets that can be linked with the data from Auria Biobank and Auria Clinical Informatics

# Brain Research Unit – University of Eastern Finland

- More than 30 years of experience in clinical trials, one of the largest academic neurological clinical trial units in the Nordic countries.
- The **staff** includes doctors, research nurses, psychologists and a project specialist-controller
- In addition to testing of drugs and devices intended for the treatment of neurological diseases, research services provides capabilities to study the genetic background of diseases, risk factors, mechanisms of origin, prevention, diagnostics and biomarker studies.
- In terms of **clinical imaging**, cooperation is done with the KUH Imaging Center (structural neuroimaging, PET & SPECT) or private service providers (structural neuroimaging)
- An accredited **UEF Biomarker Laboratory** operates in connection with the unit



UNIVERSITY OF  
EASTERN FINLAND



# Land of High-Quality Vaccine Research

National network, broad experience



# Vaccine Studies

- Clinical site networks are located across Finland enabling large population-based enrollment of study subjects
  - Finnish Vaccine Research ([FVR](#))
  - Meilahti Vaccine Research Center ([Mevac](#))
  - Terveystalo
- Despite being a small nation, it is possible to quickly recruit a large number of subjects
- During 2019-2023, over 130,000 trial subjects in vaccine studies
- Large variety of indications
  - Rotavirus, Pneumococcal, Meningococcal ABCWY, Herpes Zoster, RSV, Influenza, COVID, HPV, CMV, C-diff, Lyme disease, Dengue
- Populations from pregnant women to newborns and elderly people
- Highly experienced in clinical vaccine studies in all phases (I, II, III, IV)

## FVR:

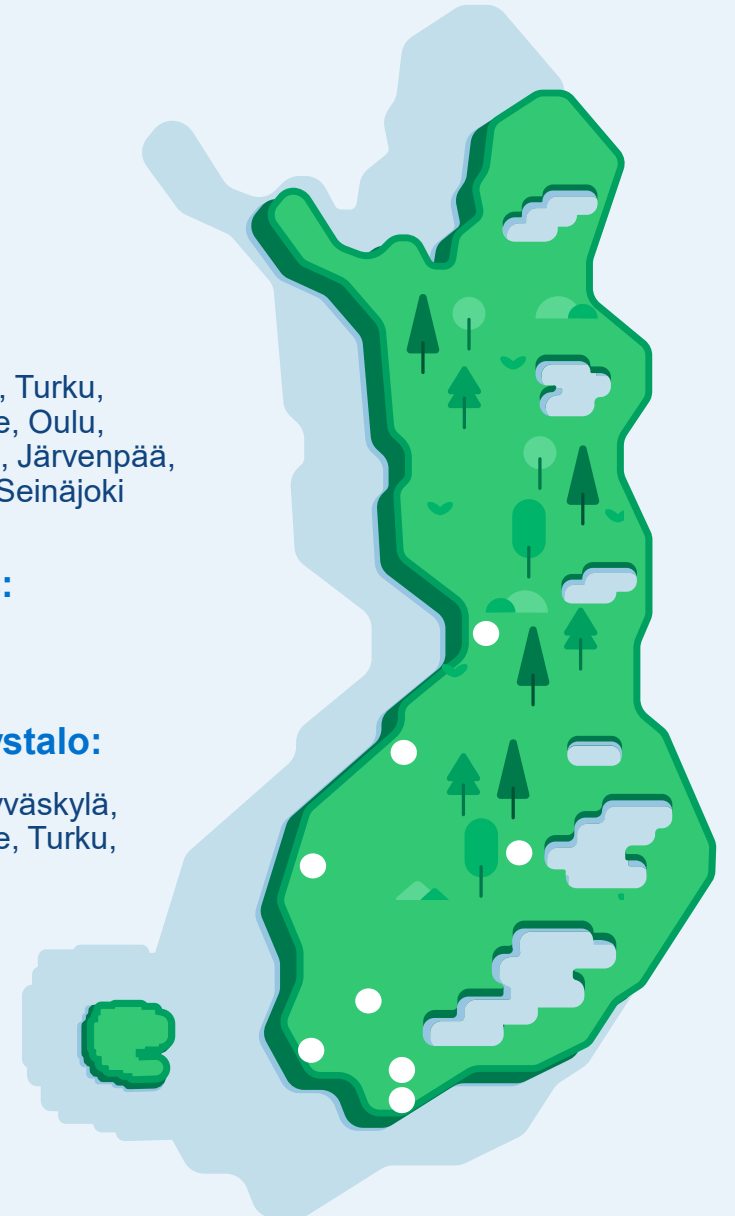
Helsinki, Turku,  
Tampere, Oulu,  
Kokkola, Järvenpää,  
Espoo, Seinäjoki

## Mevac:

Helsinki

## Terveystalo:

Oulu, Jyväskylä,  
Tampere, Turku,  
Helsinki



# Vaccine Studies – Opportunities

- Low drop-out rate, high retention rate
- Recruitment reliability is high
- GCP-trained staff, dedicated to CT only (FVR & Mevac)
- Innovations and technology, for example eISF, eICF
- Fast start of the study after the regulatory authority approvals
- Fluent and fast contract negotiations





# Land of Pediatric Expertise

National network and specialized units



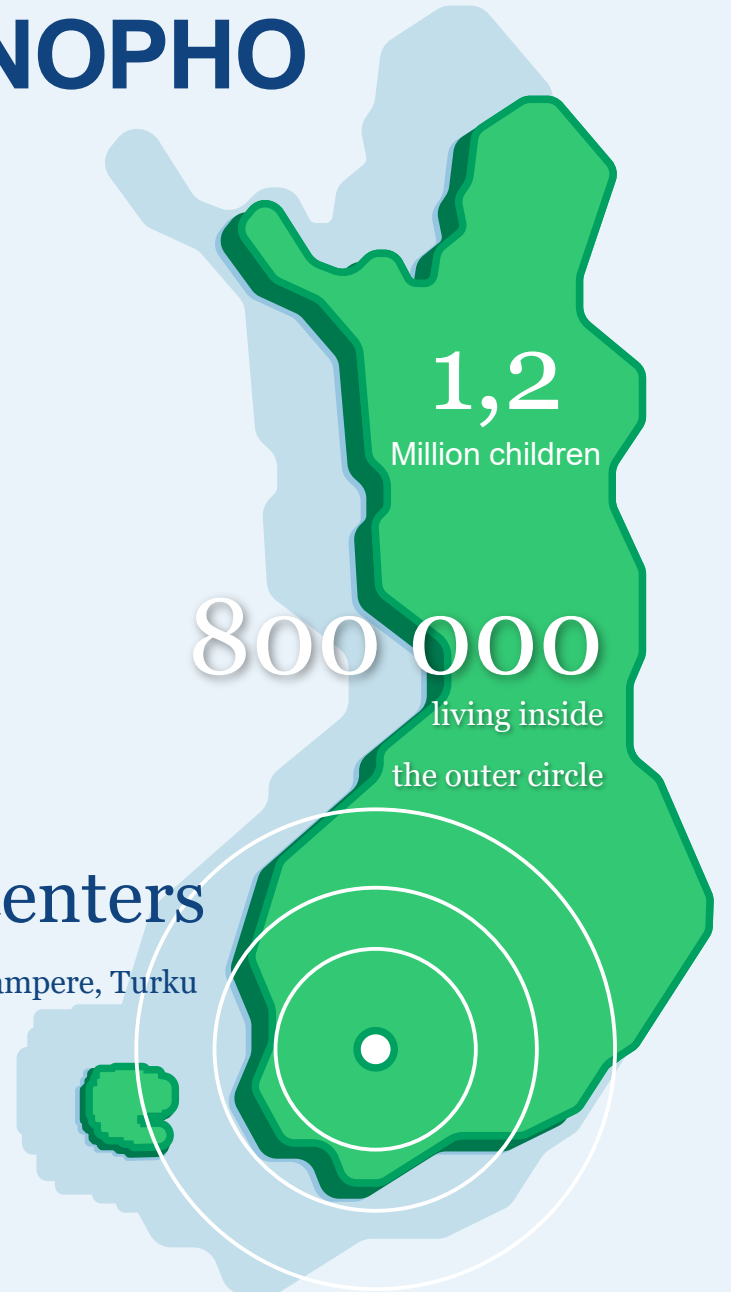
# FINPEDMED, NORDICPEDMED, NOPHO

- Finnish Investigators Network for Pediatric Medicines (FINPEDMED) operates in Finland and additionally manages a larger collaborative network, Nordic Investigators Network for Pediatric Medicines (NORDICPEDMED), sharing mutual Investigators' Registry and the electronic Service Request portal, which are both administrated by FINPEDMED
- All university hospital pediatric clinics are a part of Nordic Society of Paediatric Haematology and Oncology (NOPHO)



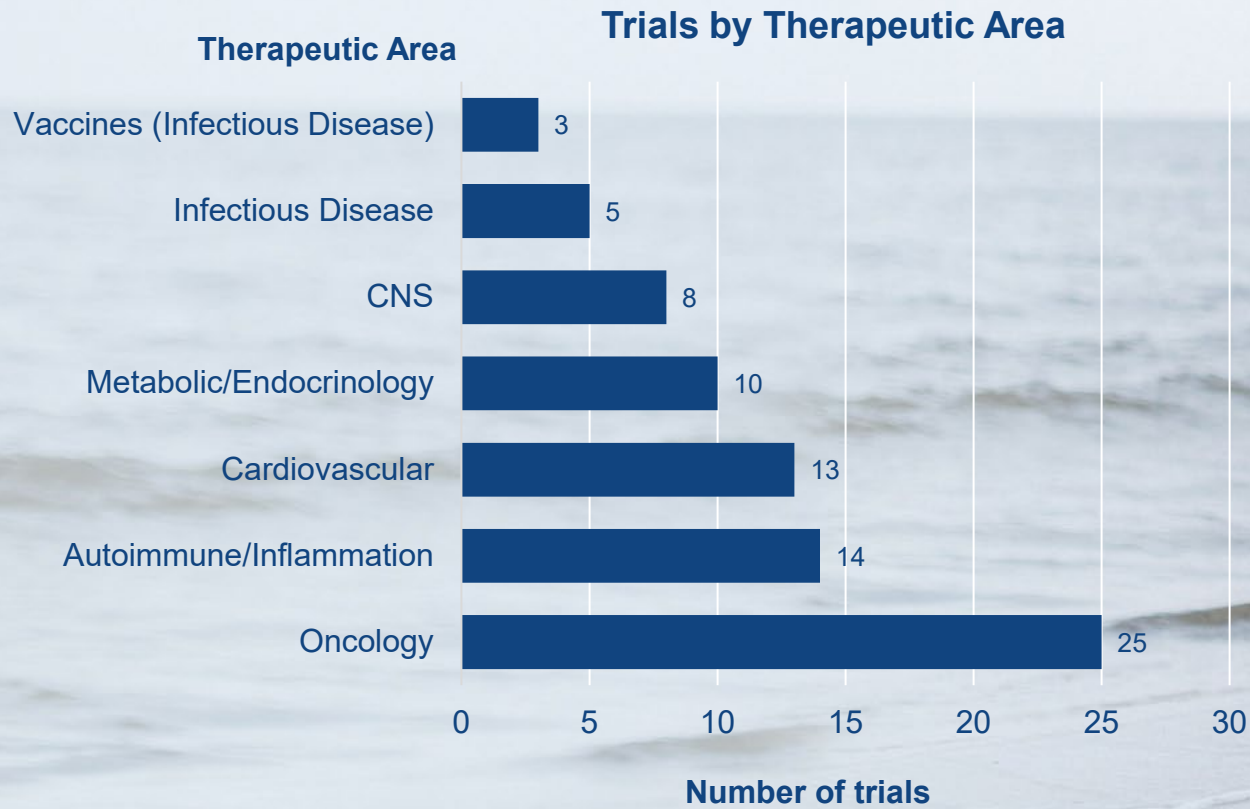
**FINPEDMED**®

Finnish Investigators Network for Pediatric Medicines  
Det nationella nätverket för forskning av barnläkemedel  
Kansallinen lastenlääkkeiden tutkimusverkosto



# Pediatric Clinics in Finland

78 ongoing pediatric clinical trials across phase I–IV (2024)



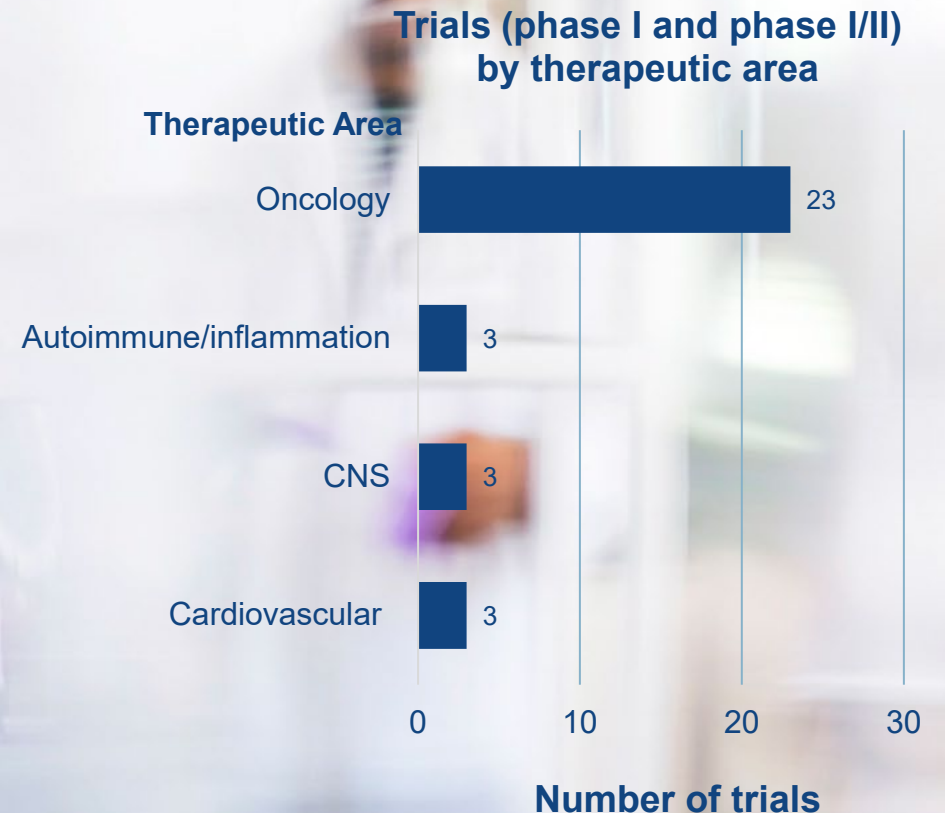


# Land of Phase I Research Specialists



# Land of Phase I Expertise

- Finland has specialized research centers dedicated to clinical trials, equipped with state-of-the-art facilities and technologies. These centers are tailored to meet the unique demands of phase I studies, providing a controlled environment for early-stage studies.
- Despite a small population, Finland excels in efficient participant recruitment and retention due to strong healthcare infrastructure and collaboration with local healthcare providers. This ensures the success of phase I trials.
- Knowledge and capability to perform phase I studies e.g. in the following research centers: CRST, FONK, HUS
  - 16 ongoing phase I studies 2024
  - 16 ongoing phase I/II studies



# Research Opportunities in Private Sector

Case Terveystalo



17  
clinic hospitals

370  
clinics



# Terveystalo – The Largest Healthcare Service Company in Finland

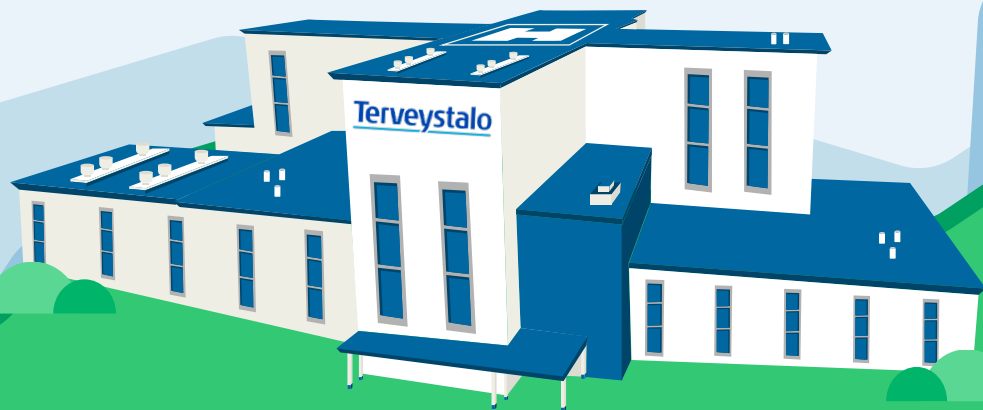
- 3,5 million visits to physicians per year
- Clinical trials
- [trials@terveystalo.com](mailto:trials@terveystalo.com)

**25,000**  
corporate customers

**1 300,000**  
individual customers

**700,000**  
people receiving  
occupational healthcare services

**12%**  
of appointments with  
physicians in Finland



# Clinical Research Services Turku – CRST Oy

- Two centrally located sites: Helsinki and Turku, accessible to over 50% of the Finnish population
- CRST has conducted over 250 trials, including over 100 phase I trials
- CRST scientific team is well-known for their strong scientific rigor
- Proven track record in development of drugs approved by EMA and FDA
- Offers services for later phase trials – SMO model
- Own phase I units support first-in-human trials – full service model
- General public trust in scientific research supports recruitment



**THANK  
YOU**