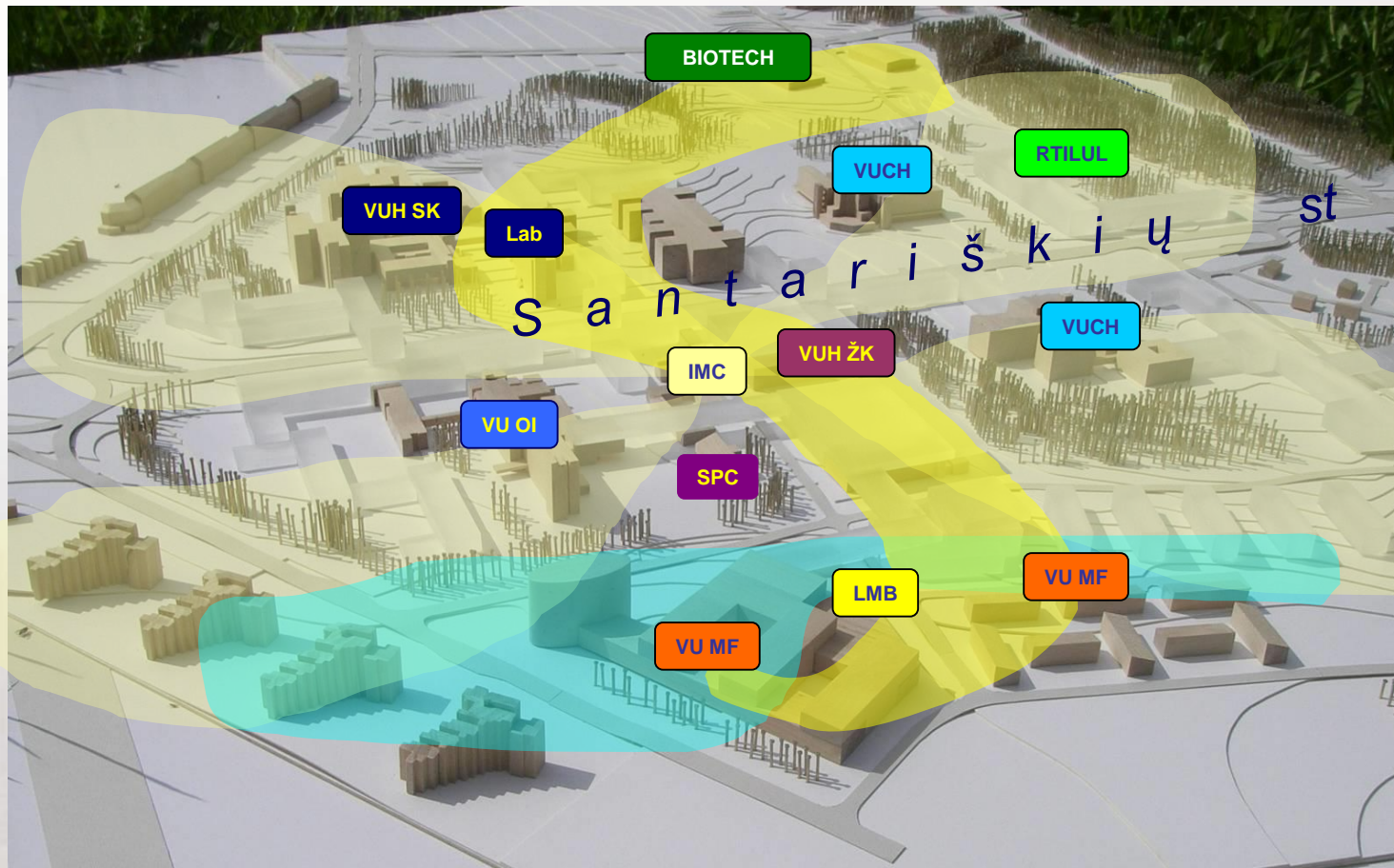


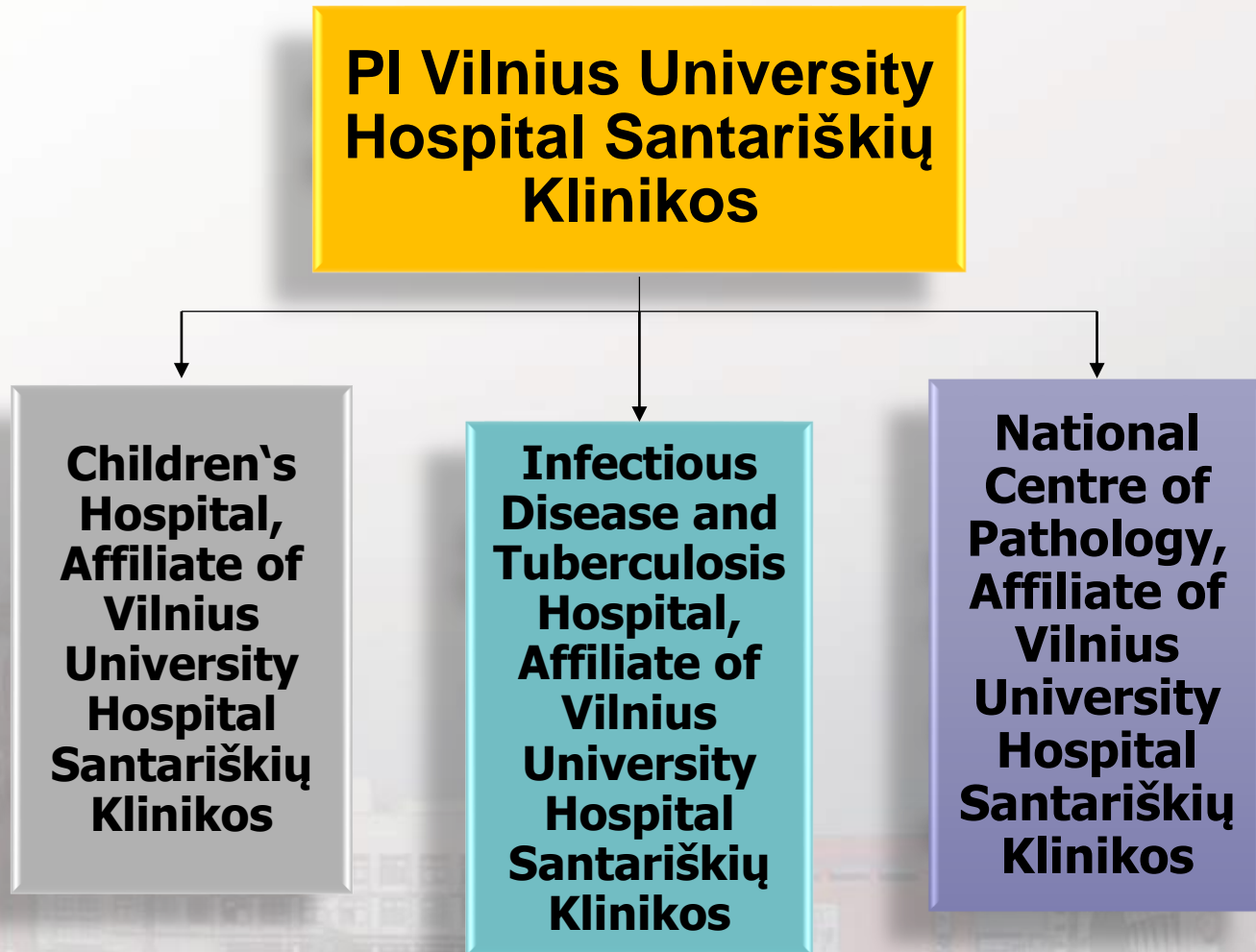
Vilnius University Hospital Santariškių Klinikos



SANTARA valley – integrated center of science, studies, clinical practice and business



Structure of the Hospital



Vilnius University Hospital Santariškių Klinikos

Activity in the Year 2013:

- 2 102 beds;
- 83 532 in-patients;
- 780 494 out-patient consultations;
- 37 472 operations.

Hospital Employees in 2013:

- Total: 5078 staff members;
- (302 – PhD doctors)



University Hospital – the Basis of Studies and Research



- University-based studies and scientific research;
- 500 students, 260 residents, 300 doctors in refresher courses daily;
- 94 new PhD within 2002-2014.

- Tertiary level specialized medical services;
- Science-based medicine.



Multi-profile Adult Hospital: 28 medical centres

- All therapeutic specialties, including Oncology and Neurosurgery

10 surgical centres:

- Centre of Abdominal Surgery
- Centre of Cardiac surgery
- Centre of Ear, Nose and Throat Diseases
- Centre of Eye Diseases
- Centre of Urology
- Centre of Thoracic Surgery
- Centre of Plastic and Reconstructive Surgery
- Centre of Obstetrics and Gynaecology
- Centre of Anesthesiology, Intensive Care and Pain Management
- Centre of Neurosurgery



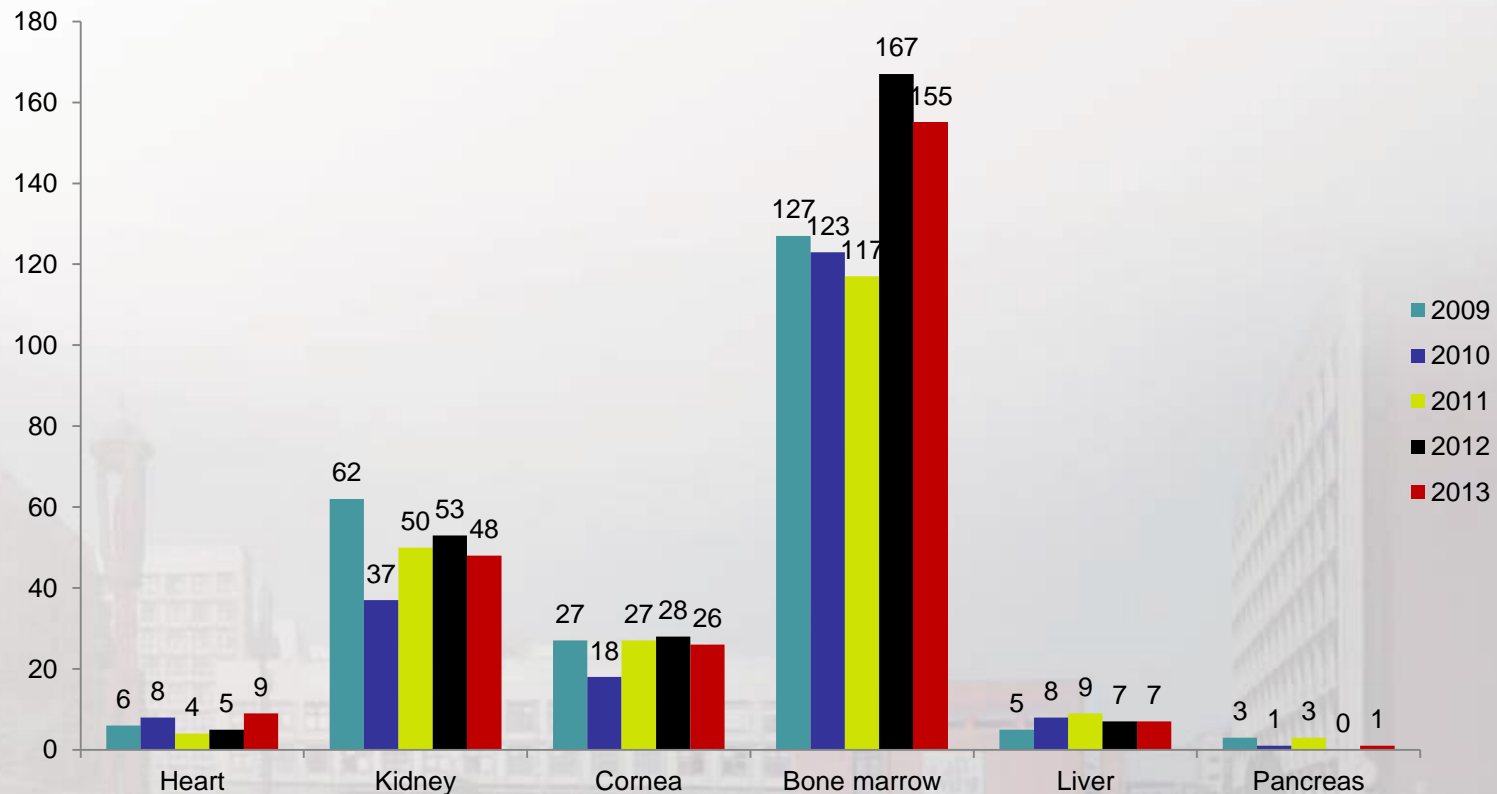
Fields we are proud of

- Transplantology
- Cardiology and Cardiosurgery
- Human Genetics
- Otosurgery
- Individualised medicine: oncology, haematology



Human Organ Transplantation 2009-2013

(Even **85 %** of all organ and tissue transplantations in our country are carried out at Santariškių Klinikos.)

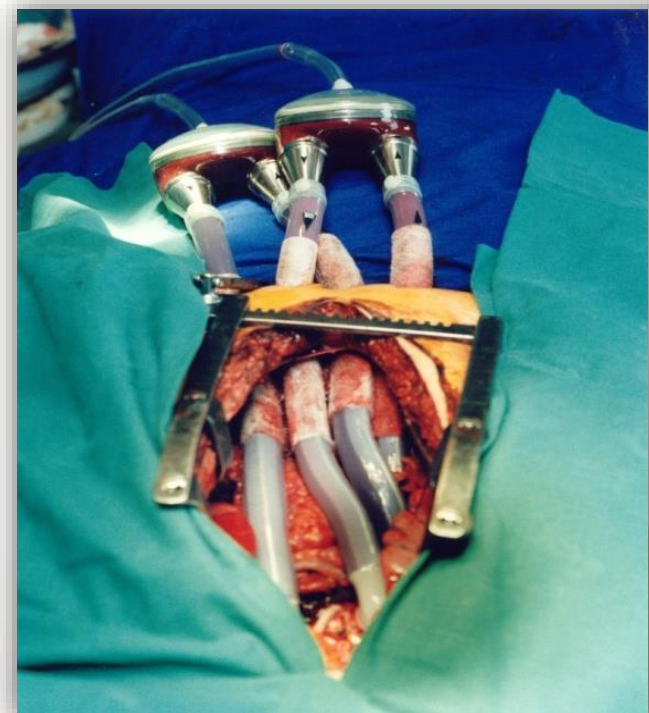


Liver transplantation (2005)

Pancreas-kidney complex transplantations (2008)

- first time in the Baltic States.

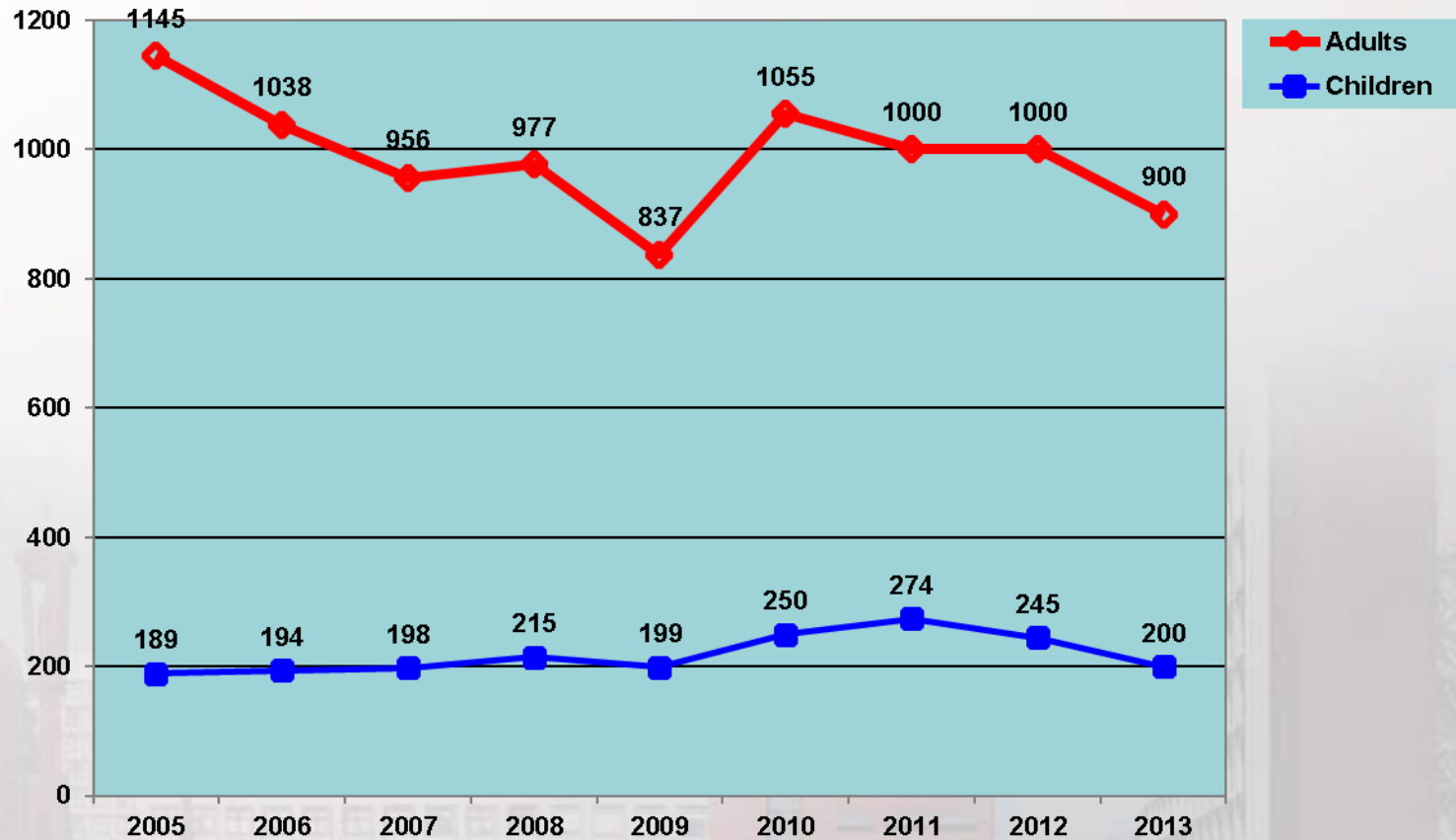




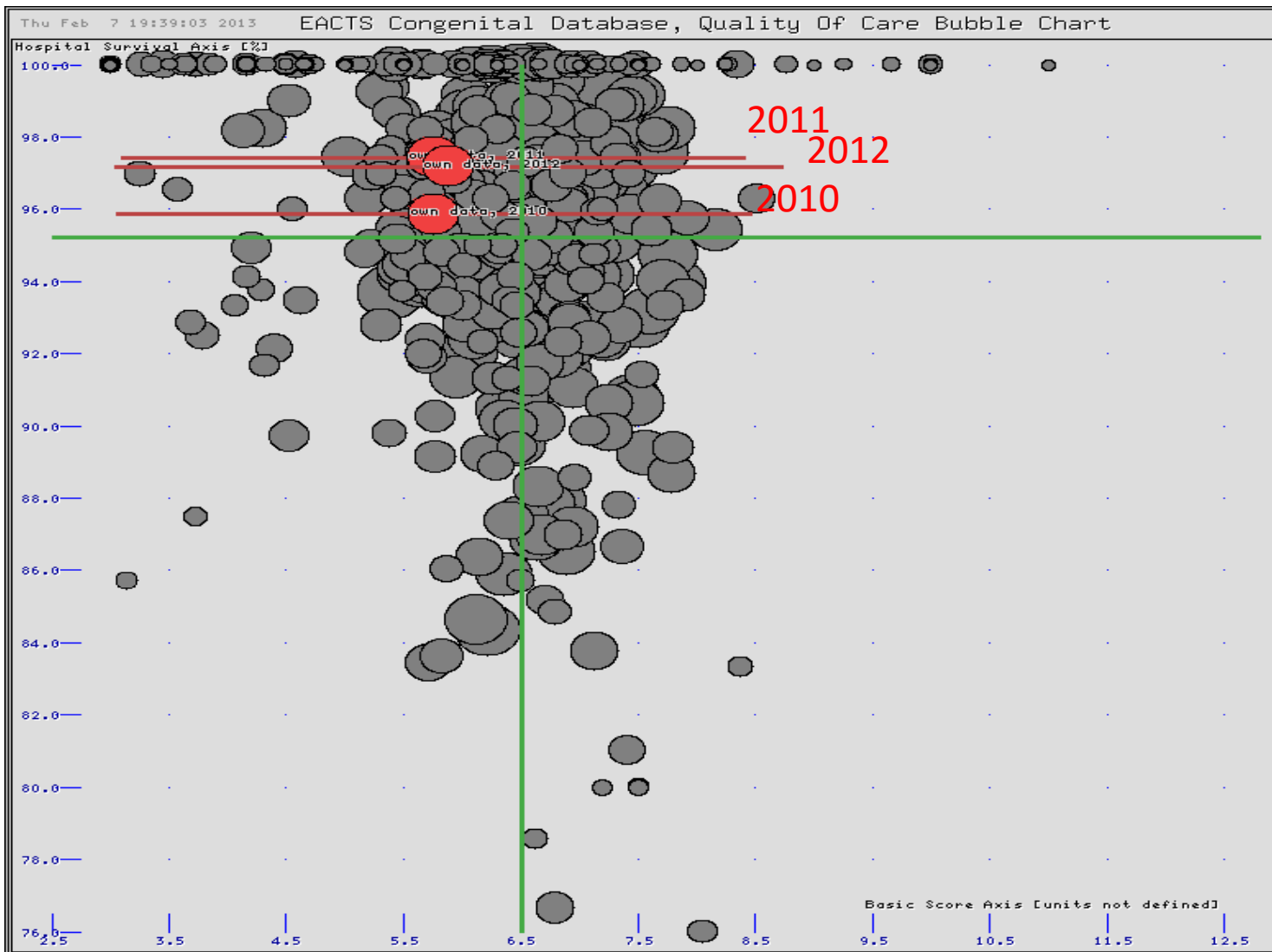
**First implants of superficial hearts
in the Baltic States (1999)**

Heart Surgery Centre

Changes in the number of operations



VUHSK rating of congenital heart defects surgery (database of European Association For Cardio- Thoracic Surgery)



Qual. of Care, Basic Score, Hosp. Surv., Hosps, Years, N/pr.s., allpat, All Proc., All.C.



Transposition correction of large blood vessels.
0 % mortality since 2010

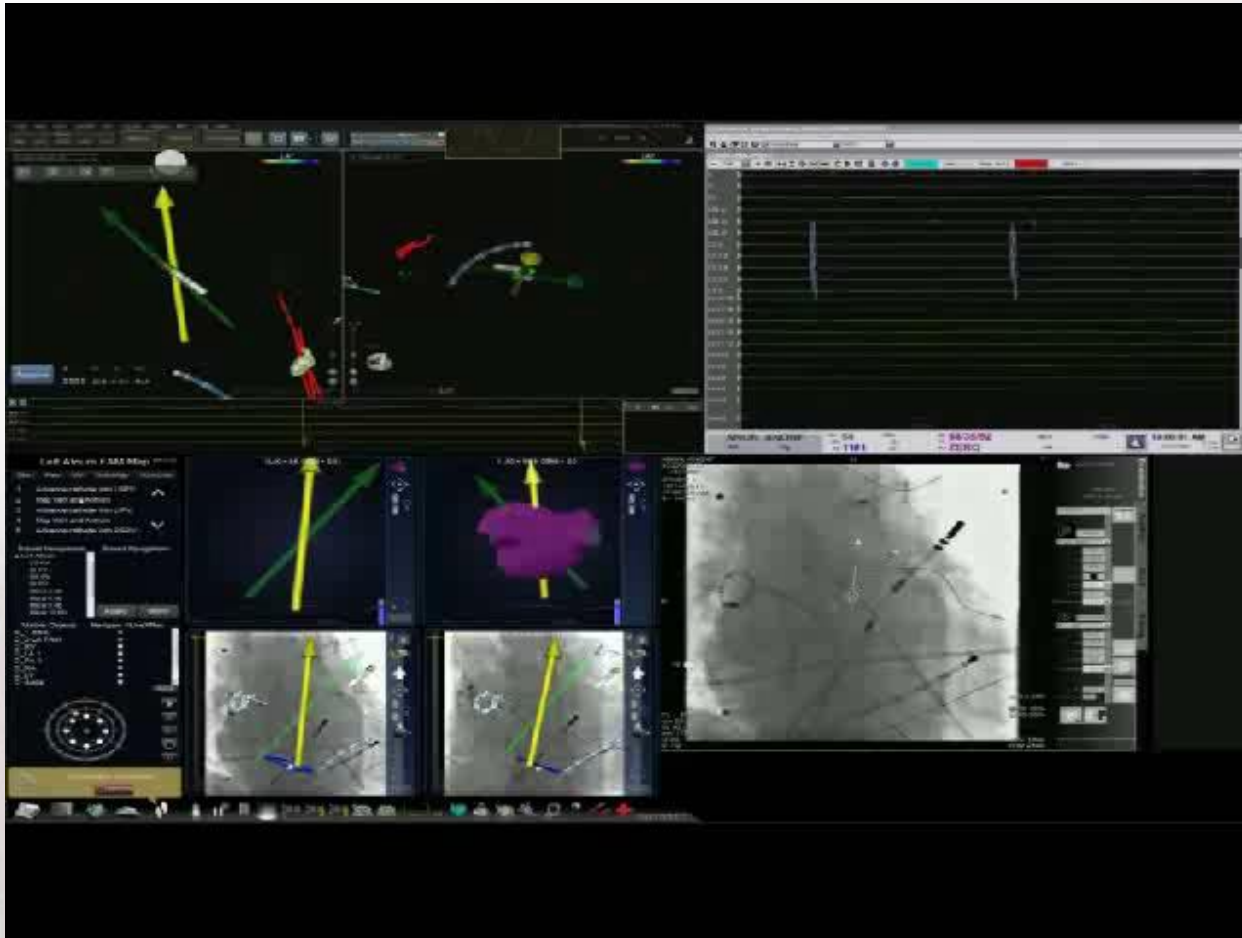


Heart Surgery Centre

Off Pump Transapical Implantation Of Artificial Chordae To Correct Mitral Regurgitation. Single Center Experience. Early Results. The biggest experience in the world.



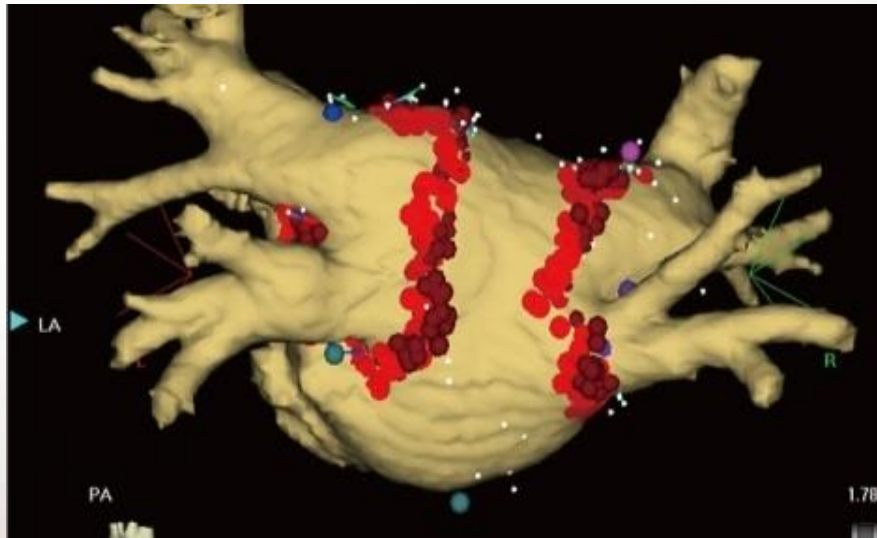
Magnetic Navigation system Stereotaxis Niobe 2



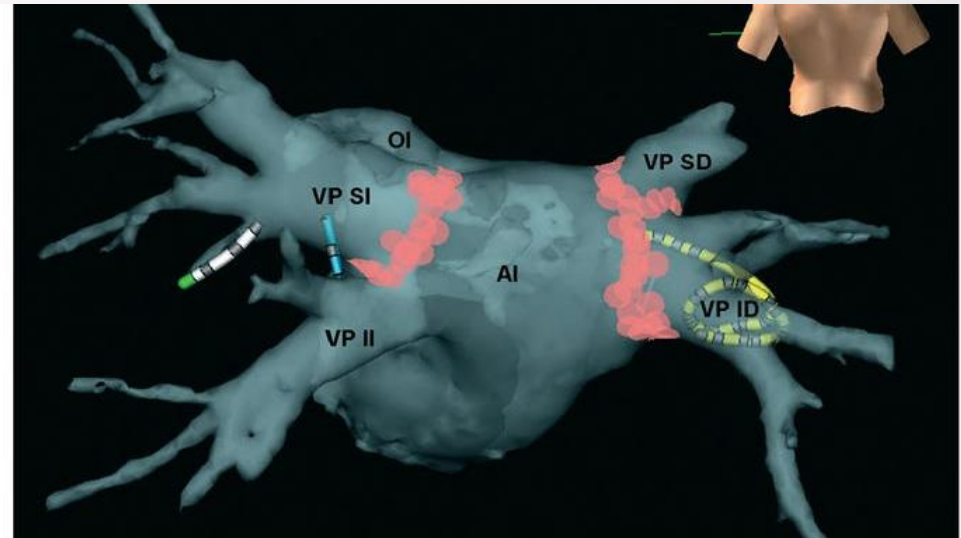
Video



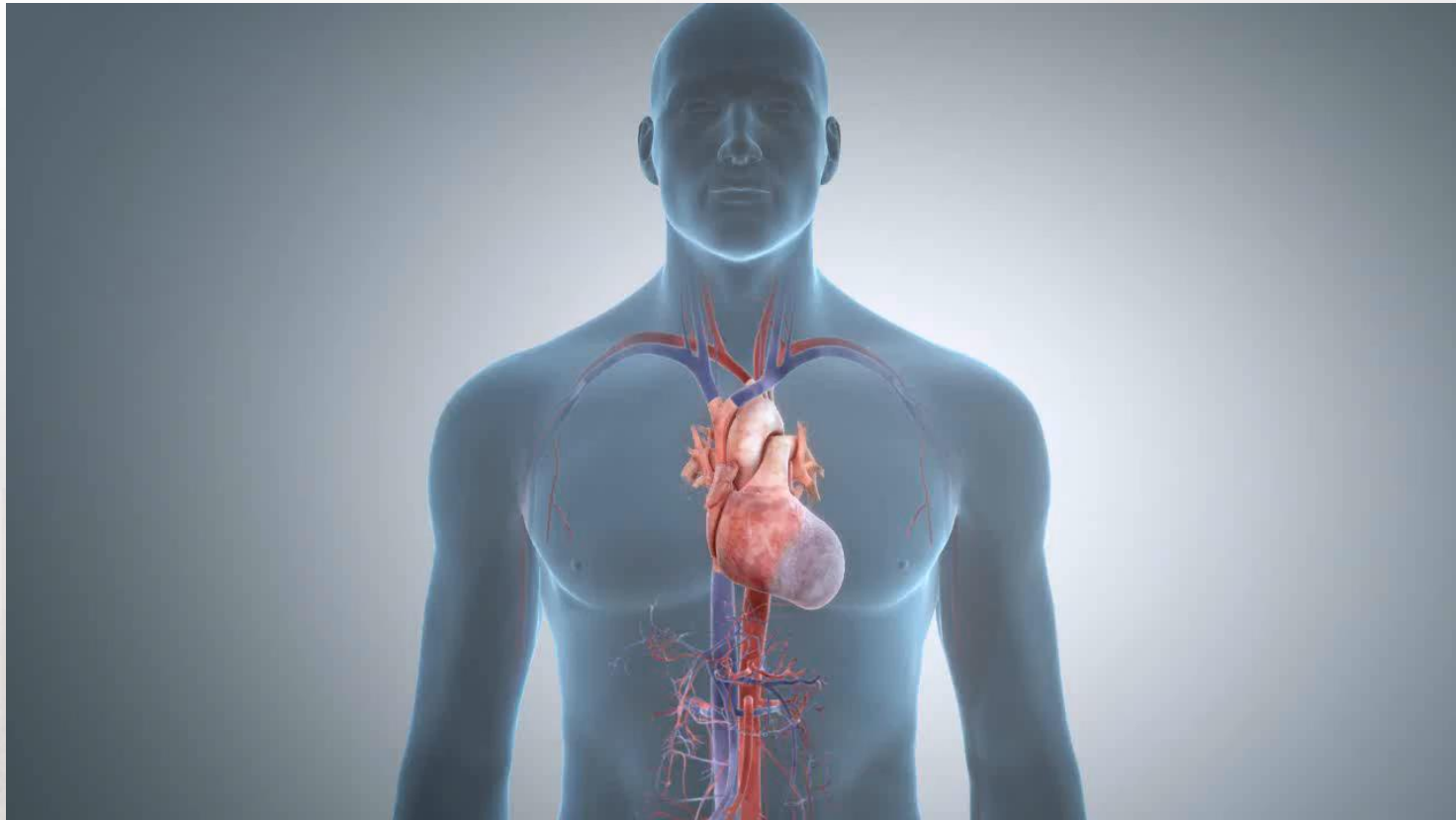
PVI using CARTO 3



PVI using Navx Ensite



BioVentrix Procedural Animation - Revivent TC TransCatheter Ventricular Enhancement System



Video



Hybrid operating-room and hybrid implantation of aorta valve



- first time in Eastern Europe (2009)



In 2013, for the first time in the world, a minimally invasive cardiac surgery (after myocardial infarction, with heart failure and left ventricular aneurysm) without stopping the heart and without cardiopulmonary bypass system was performed at VUH SK.





- Biggest children/adult otosurgical center in Baltic States
- 400-500 hearing reconstructive operations yearly
- 160 cochlear implantation operations



- Molecular and individualised medicine – oncology, haematology, pathology, genetics.

Bone Marrow Transplant Rates per 10 million Inhabitants in Europe in 2012

Autologous (self)

HSCT - rates in Europe 2012

Allogeneic (donor)

HSCT - rates in Europe 2012



Autologous transplants per 10 million population

- 0
- 1 - 100
- 101 - 200
- 201 - 300
- 301 - 400
- > 400

LTU – 410 Tx / 10 mio. inhabitants

- Nigeria
- Algeria, Iran, Jordan, Kazakhstan, Saudi Arabia, South Africa, Tunisia
- Lebanon
- Israel

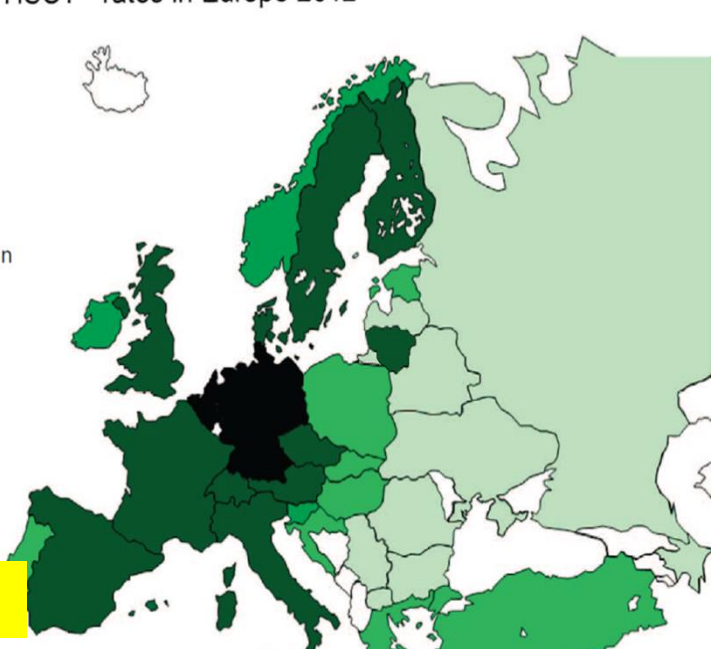


Allogeneic transplants per 10 million population






- 0 or no report
- 1 - 50
- 51 - 100
- 101 - 150
- 151 - 200
- 201 - 300
- > 300

LTU – 230 Tx / 10 mio. inhabitants

- Algeria, Iran, Kazakhstan, Nigeria, South Africa, Tunisia
- Jordan, Lebanon, Saudi Arabia
- Israel



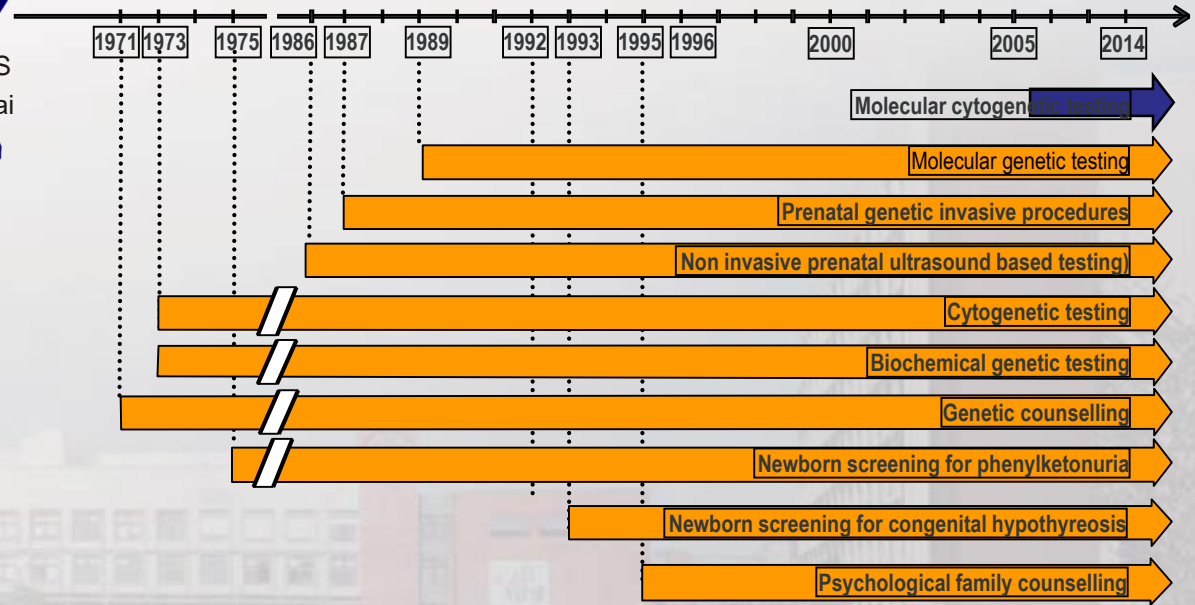
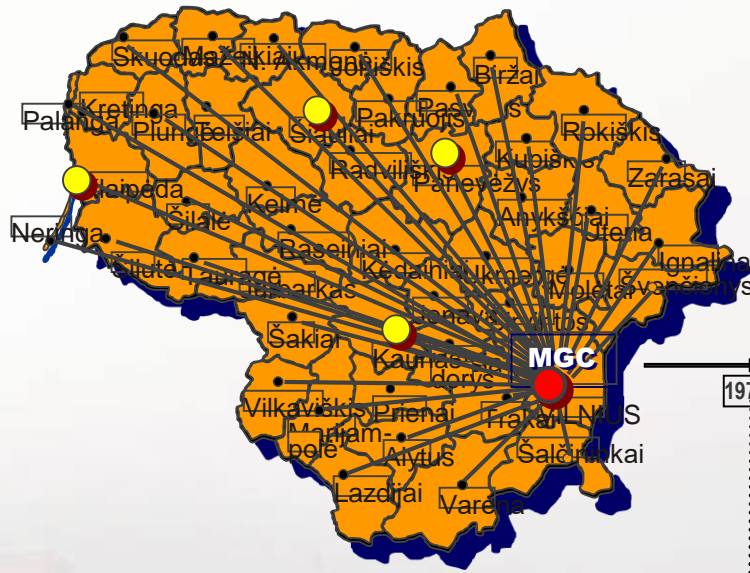
International cooperation in the field of Oncohematology

Years	Organization	Website	Logo
2003	European Group for Blood and Marrow Transplantation	www.ebmt.org	
2010	European Leukemia Net	www.leukemia-net.org	
2010	Nordic Society of Pediatric Haematology and Oncology	www.nopho.org	
2012	European Organisation for Research and Treatment of Cancer: <ul style="list-style-type: none"> • Leukemia group • Soft Tissue and Bone Sarcoma group 	www.eortc.org	
2013	The Haemato-Oncology Foundation for Adults in the Netherlands	www.hovon.nl	



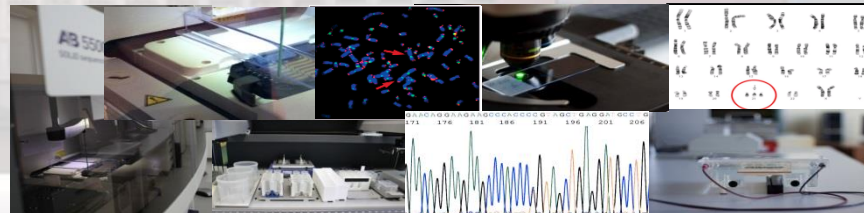
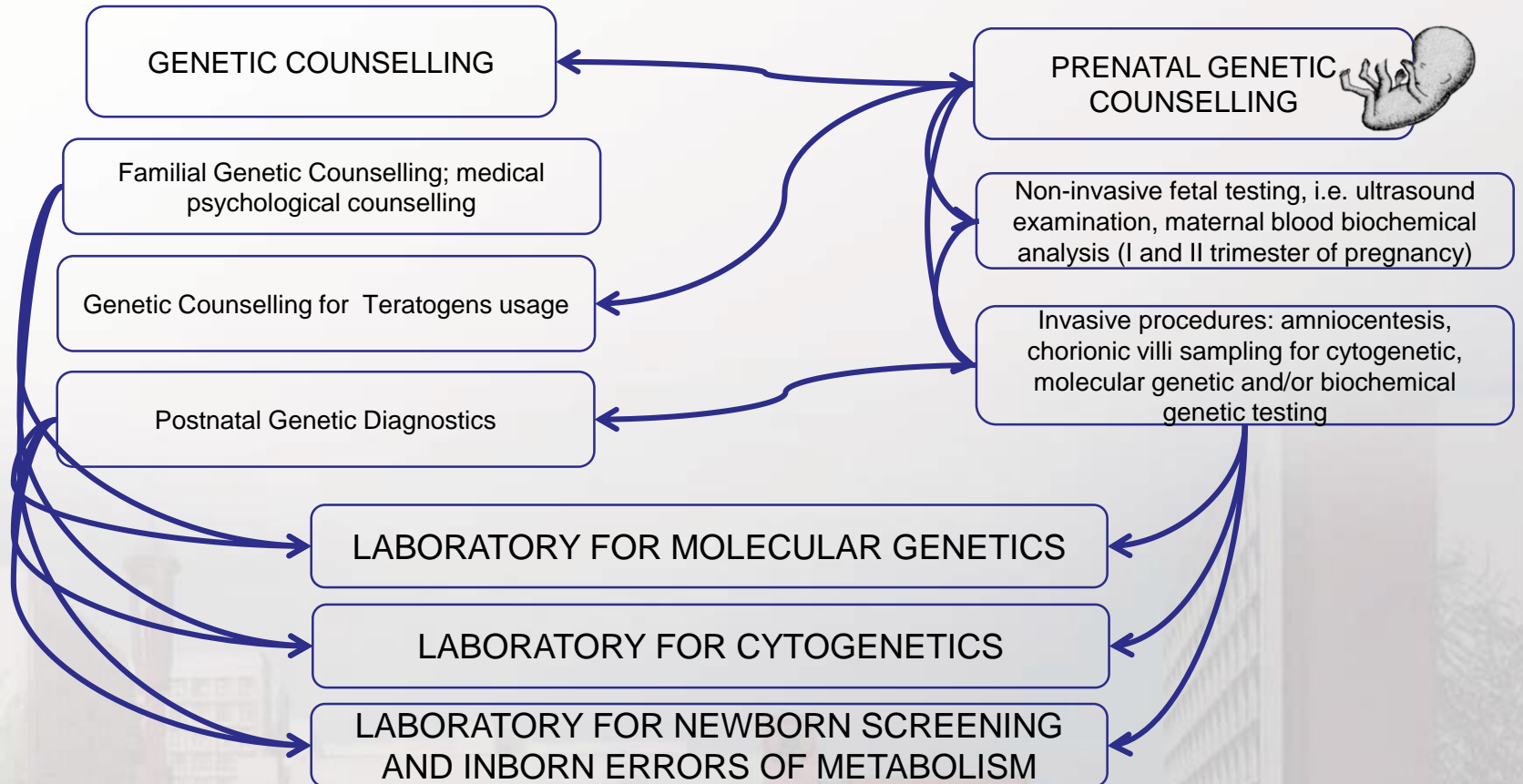


Centre for Medical Genetics Services





Centre for Medical Genetics Structure





Newborn Screening & Diagnostics of Inborn Errors of Metabolism

CENTRE FOR MEDICAL GENETICS,

Vilnius University Hospital Santariskiu Klinikos

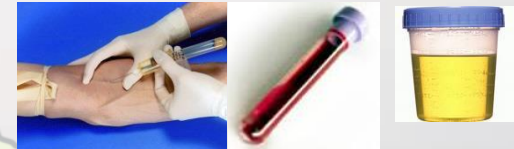
-the **single and unique centre** for diagnostics of rare inborn errors of metabolism in Lithuania

Newborn screening



- Newborn screening is one of the nation's most successful public health programs – diagnostics of the treatable **rare disorders** before irreversible clinical signs.
- In Lithuania newborns are screened for 2 disorders:
 - **Phenylketonuria** (since 1975) & **Congenital hypothyreosis** (since 1993)
- ~30 000 newborns are screened / 1 year
- **7-10 cases** of both disorders are diagnosed / 1 year
- **Plans for 2015** – newborn screening for congenital adrenal hyperplasia and galactosemia.

Selective screening of inborn errors of metabolism



- Laboratory investigations according to clinical symptoms
- ~ 2000 specific laboratory investigations pointed to diagnostics of rare metabolic disorders are performed / 1 year
- 10 – 15 cases of rare disorders are diagnosed / 1 year



Laboratory for newborn screening and diagnostics of inborn errors of metabolism



Children's hospital

Affiliate of Vilnius University Hospital Santariskiu Clinic's

Provides the highest level of secondary and tertiary level health care for newborns and childrens up to 18 years old.

634 beds:

- **388** beds in Santariskes (9 NICU, 12 PICU beds, 20 day surgery), day surgery, day care and palliative care beds are included
- **246** beds in other location:
- **50** TB beds
- **196** beds for child development, rehabilitation and sanatorium treatment
- **26 000 hospital admissions**
- **200 000 outpatient visits**
- **34 000 Emergency department visits**
- Staff (n=1616)

290 doctors

680 nurses

646 other staff



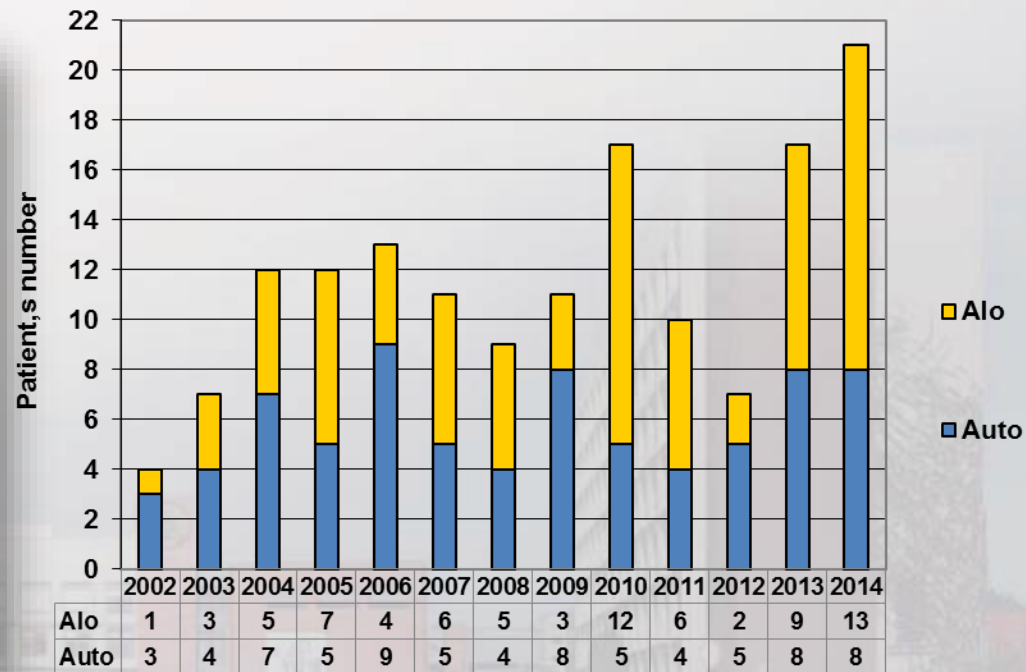
Neonatology centre is leader in newborn and infant care in Lithuania. 300 newborns treated each year in the NICU, 95% of preterm babies survive. The youngest baby was saved weighed only 493 grams.

The Newborn Emergency Team brings the most serious cases from the whole territory of Lithuania to this Centre.



The biggest **Oncohaematology centre** for children in the Baltic States

151 bone marrow transplantations were done since 2002 y. We has been able to match outcomes and results to other famous European centres.



National Centre of Pathology, Affiliate of Vilnius University Hospital Santariskiu Klinikos

- The largest pathology service in Lithuania, more than 30 years experience in pathologic diagnostics.
- The team consist of around 100 employes. Expert pathologists, trained technicians and other medical stuff perform about 40 000 biopsies, 60 000 cytopatology cases per year.
- Broad spectrum of pathology tests, including more specialized services (nephropathology, hematopathology, dermatopathology, muscle pathology).
- 10 years experience of College of American Pathologists Accreditation (2000-2010 years).
- The largest customers are Vilnius University Hospital Santariskiu Klinikos, Vilnius University Oncology Institute as well as up to 200 small and large health care units in Lithuania.



National Centre of Pathology, Affiliate of Vilnius University Hospital Santariskiu Klinikos

- The diagnostic services, along with expertise in pathology informatics, form solid basis for development of digital pathology platform, enabling new approaches in quantitative tissue-based testing.
- The Center embodies the Digital and Molecular Pathology Laboratory of the Santara Valley with rapidly growing involvement in research projects and services.



Clinical Trials at VUH SK

- Started in VUH SK – since 1992
- Clinical trials are conducted in all the centres of VUH SK
- All clinical trials are coordinated by Department of Clinical Pharmacology
- About 100 preliminary contracts or intention letters on clinical trials are signed at VUH SK yearly;
- Over 50 new clinical trial contracts are signed yearly (comp. with 96 new protocols in Lithuania in 2011);
- Simultaneously, at least 90-100 clinical trials on medicinal products are carried on in various centres of the hospital.



Centre of Informatics and Development

Santariskiu klinikos is a regional leader in e-health and medical informatics

- We self developed and integrated Hospital information system
- We give access for our patients through Internet patient record;
- We fully integrated our information system with Laboratory information systems LIS, Picture Archiving and Communication System PACS, Pathology information system, etc;
- We have developed nationwide Online booking system



This block contains three screenshots of medical software interfaces. The top screenshot shows a patient record page for "EPIKRIZĖ" (Summary) for a patient named "VILNIAUS UNIVERSITETINIS NEUROLOGIJOS IR UROLOGIJOS CENTRAS GINEKOLOGIJOS SKYRIUS". It includes patient details like name, address, and date of birth, and a section for "Klinicine diagnoze" (Clinical diagnosis) with a list of symptoms. The middle screenshot shows a table of patient appointments with columns for date, time, specialist, and status. The bottom screenshot shows a patient profile for "RASA KIZLAITIENE" with her photo and contact information, including phone numbers and email address. The background of the screenshots is a blurred image of a modern hospital building.



Centre of Informatics and Development

International eHealth projects

- ICTforHealth
- PrimCareIT
- CARRE
- Baltic eHealth
- eHealth for Regions
- R-Bay

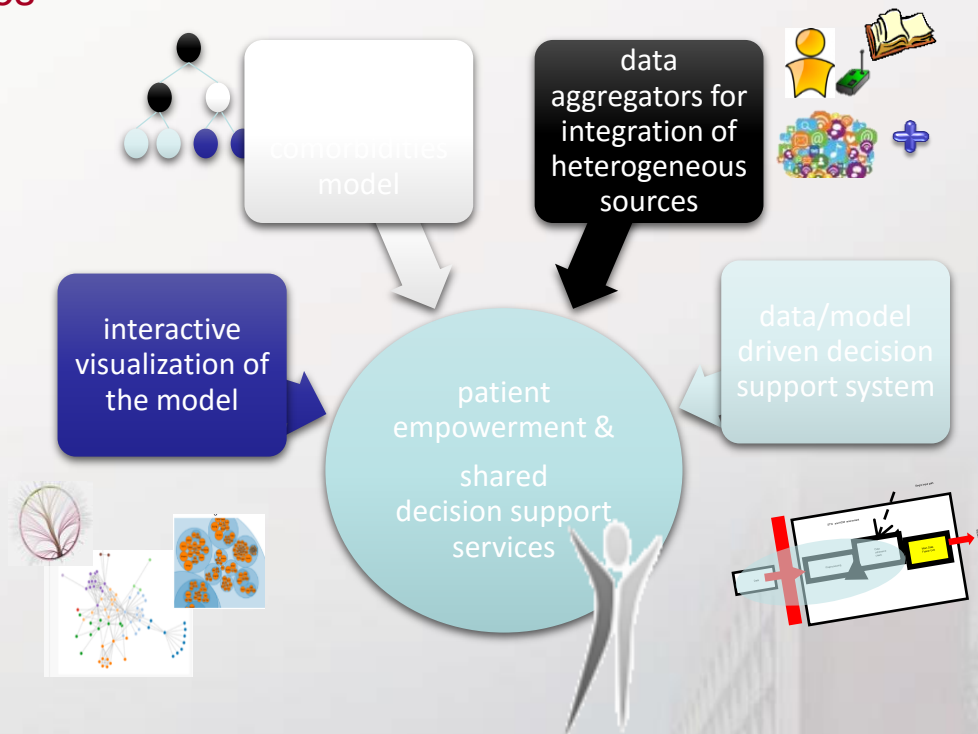


CARRE

www.carre-project.eu

personalized patient empowerment & shared decision support for
cardiorenal disease and comorbidities

- understanding nature of comorbidity
- informed estimation of disease progression
- personalized alerting, planning, education



This project was supported by
the European Commission

FP7-ICT-2013-611140 STREP
duration: Nov 2013 – Oct 2016
EC contribution: 2.573,755€



DUTH



OU



BED



VULSK



KTU



PIAP



Centre of Informatics and Development

Prestigious national representation

- VIVAPORT portal received the award during ISfTeH Conference (Takamatsu, Japan 2013) for the “International cooperation”
- National Clinical Decision Support System (NKSPS) has been recognized as the best in “The future of telemedicine technology” nomination



... And more of International project activities

- North Investment Bank investment projects
- EU Structural Funds
- EEA-NOR financial mechanism projects
- FP6, FP7 projects
- INTERREG IIIB, IV C
- Leonardo da Vinci program
- COST B17 program
- Telemedicine networking project

Other international clinical and scientific programs

Project portfolio since 2006: over 100 MEUR



Positron emission tomography (PET)

(opened in 22 of January, 2015)

Radiology Diagnostic Center of Vilnius University Hospital has opened new and modern molecular diagnostics complex of Positron emission tomography / computed tomography (PET / CT). Brand new 500 square meter building has installed the latest generation and the most modern PET / CT machine in the Baltic States.

Researches of molecular diagnostics complex will be conducted in accordance with the most advanced technologies in nuclear medicine.



Molecular diagnostics complex of Positron emission tomography /computed tomography (PET / CT)

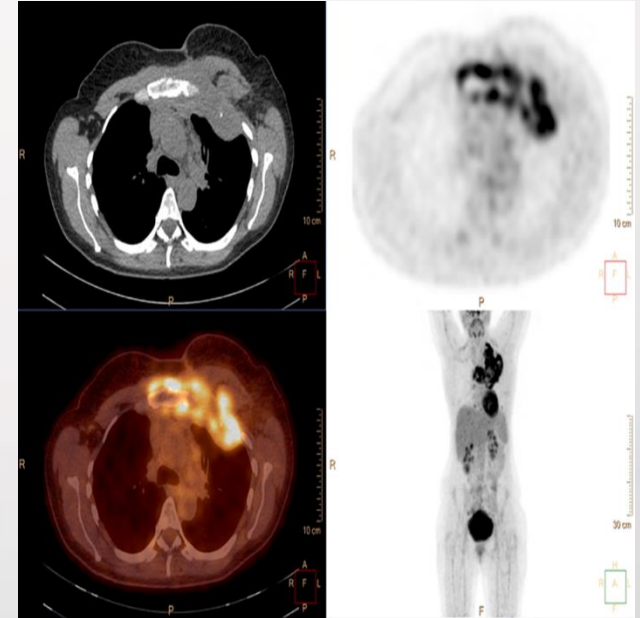


(Opened in
22 of
January,
2015)



Positron emission tomography (PET)

- Positron emission tomography (PET) is a nuclear medicine, functional imaging technique that produces a three-dimensional image of functional processes in the body. PET is a specialized radiology procedure used to examine various body tissues to identify certain conditions. PET may also be used to follow the progress of the treatment of certain conditions. PET is most commonly used in the fields of neurology, oncology, and cardiology, applications in other fields are currently being studied.
- PET / CT research allows to assess the therapeutic response at the cellular level, thus optimizing patient-administered treatments.
- PET / CT research often allow to refuse other expensive methods with limited diagnostic value.



Centre of Obstetrics and gynecology

Departments and subdepartment

1. Obstetrics department.
2. Pregnancy pathology department
3. Neonatal department.
4. Gynecology department.
5. Perinatology coordination center
6. Gynecology outpatient unit.
7. IV th Operating bloc



Centre of Obstetrics and gynecology

Department of Gynecology:

Provides highest level consultations for women with different gynecological problems.

Specializes in endoscopic surgery, urogynecology, onkogynecology areas.

Department is increasingly seeking to apply minimally invasive treatment methods for our patients in order to make them recover and be able to go home as soon as possible . There was made one of the first and most effective female urinary incontinence (TVT, TOT), pelvic organ prolapse correction surgery.

Department is also practising peritoneal hyperthermic chemotherapy (HiPeCo) in order to treat recurrent ovarian cancer (from 2011).

Department of Births:

- modern and advanced maternal care, diagnosis and treatment methods,
- the latest condition of the fetus analysis methods,
- the performance of all surgical interventions and obstetric surgery.



Centre of Obstetrics and gynecology

- 1) The Department of Obstetrics implements the most advanced technologies and modern medical equipment. Department boasts a highly-qualified medical staff and a dedicated team of nurses and support staff. It has emergency room, 6 delivery rooms and maternity unit with 35 beds. Delivery rooms provide an intimate atmosphere. Staff makes every effort to ensure the active role of mothers in decisions regarding treatment. They are committed to ensure the safety of mother and baby during labour and delivery. If there is no contraindication, mother stays with a baby from the first moment after childbirth. All women receive guidance about baby care and breastfeeding and get a support during their recovery from birth. We have 5 wards with improved accommodation facilities for additional charges. We provide lectures on different topics for pregnant women and women after childbirth.
- 2) Pregnancy pathology department treats high-risk pregnancy women who are experiencing complications during the pregnancy that endanger their health or the health of the foetus. The department has 22 beds, of which 8 belongs for Day Care Unit.
- 3) The Department of Neonatology provides care and treatment for newborn infants born in our clinic. It has 4 beds for neonatal intensive care and 6 beds for neonatal pathology.
- 4) Gynecology department treats a broad range of medical conditions among women at different stages in their lives - from puberty to post-One of the department's specialties is oncogynecology. The department provides modern surgical genecology, has 30 beds, of which 16 belongs to Day Care Surgery Unit.
- 5) Perinatology Coordination Centre provides care for pregnant women by doctors who are experienced in ultrasound scanning. Ultrasound scans are performed to the highest standards and are backed up with informative



Department of Neurosurgery

Patients in Neurosurgery department get high (3-chronic) level of service with the newest, most modern operating theater and wards.

- Modern neuronavigation system enables doctors to see which part of the patients brain they touch.
- Department has a machine which allows to measure not only the rate of cerebral blood flow, but also a volume.
- For minimally invasive surgery we use endoscopic equipment .
- Operating rooms are equipped with special, laminar ceiling, when the flow of air blown from the patient, which means that any air-borne infection is difficult to get into the patient's body.
- Wards of department are equipped with a comfortable filter door (it is important to have an infection) we also special wards for the disabled people.
- Patients have the opportunity to listen to audio books, watch movies, chat with their to learn more about their illness and treatment because the beds are equipped with tablet c



Department of Neurosurgery



**(Opened in 1st of July,
2014)**



Development

Centre of Urology
and Nephrology
(2006)



Development

Centre of
Laboratory
Diagnostics (2007)



Development

New building for Obstetrics and Surgery 25.000 sq.m. - opened in 2013



Development

New Emergency department (2015)



Vilnius University Hospital Santariškių klinikos

Thank you for your attention.



Visit us at: www.santa.lt

