

EAA Andrology Training Centre
Centre Report

2020



Riga Andrology centre, Riga, Latvia

CENTRE REPORT

History of Centre

Riga Andrology centre has been established in 2016 as a joint venture of a private Infertility Treatment and Reproductive Genetics clinic “IVF-Riga” and Andrology Research laboratory of Riga Stradins University. In 2020, a post-graduate study program (residency training program) in andrology will commence at the Medical Faculty of University of Latvia, and Riga Andrology centre will serve as a clinical and educational basis for the theoretical and clinical studies for this study program.

Andrology Research laboratory of Riga Stradins University has been established in 2004 (led by EAA full member Dr. Juris Erenpreiss), and now has become an Andrology unit of Molecular Genetics Research laboratory of University. Infertility Treatment and Reproductive Genetics clinic “IVF-Riga” has been a partner for many years in many research activities of the Andrology Research laboratory, providing a biological material from infertile men for different research projects.

Andrology is a recognized medical sub-specialty in Latvia since 2009, however, a 2 years full-time study program in andrology of the Medical Faculty of University of Latvia will be implemented now from 2020. A study program is available for medical doctors with different specialization; however, the priority is given to urologists, endocrinologists and specialists of internal medicine. Andrology centre of Infertility Treatment and Reproductive Genetics clinic “IVF-Riga” will serve as a clinical basis for most of the clinical and research activities of the 2 years andrology study program of the University of Latvia, in collaboration with Urology and Endocrinology Departments of University Hospital, and Andrology unit of University Molecular Biology Research laboratory of Riga Stradins University.

Areas of clinical attention of Riga Andrology Centre include: a) infertility diagnosis and treatment, including genetic diagnosis and counseling; b) diagnosis and treatment of sexual dysfunctions; c) diagnosis and treatment of male reproductive endocrine disorders; d) diagnosis and treatment of male accessory gland infections; e) diagnosis and treatment of uro-andrological disorders.

Main research focuses on sperm DNA integrity, genetic factors behind male infertility, male ageing, pre-implantation genetic diagnosis, population studies on

male reproductive health.

Organization of Centre

Riga Andrology centre

Head

Juris Erenpreiss, MD, PhD (EAA full member, EAA certified clinical andrologist)

Staff members

Dr. Nataliya Bozotova (urologist)

Dr. Egita Deine (urologist)

Dr. Elizaveta Sokolovska (endocrinologist)

Dr. Violeta Fodina (gynaecologist)

Dr. Irina Kovaleva (gynaecologist)

Dr. Ieva Balode (genetician)

Dr. Aigars Dzalbs (genetician, molecular genetician)

Dace Berzina, PhD (molecular genetician)

Baiba Alksere, MSci, PhD student (molecular genetician)

Evija Pimane, MSci (semen and embryology lab)

Sandra Krasucka, MSci (semen and embryology lab)

Arita Blumberga, MSci (semen and embryology lab)

Outpatient clinics

Andrology and sexology (Dr. Erenpreiss)

Gynecology and female infertility (Dr. Fodina, Dr. Kovaleva, Dr. Pozilenkova, Dr Bergmane)

Urology (Dr. Bozotova, Dr. Deine)

Endocrinology (Dr. Sokolovska)

Reproductive genetics (Dr. Balode, Dr. Dzalbs, D. Berzina, B. Alksere)

Embryology and semen laboratory

Head - E. Pimane, MSci

S. Krasucka, MSci; A. Blumberga, MSci

Ultrasound

Dr. Rozina (US specialist, all types of US investigations)

Dr. Vedmedovska (US pregnancy monitoring)

Dr. Erenpreiss (andrological US)

Ovarian stimulation, oocyte retrieval, embryo transfer

Gynaecologists Dr. Fodina, Dr. Kovaleva, Dr. Pozilenkova

Operation nurses E. Araja, E. Nekrasova, I. Garkule

Fine-needle testis aspirations/TESE

Dr. Bozotova, Dr Deine, Dr. Erenpreiss

Educational activities

For several years, the post-graduate fellows - trainees in endocrinology of Medical Faculties of Latvian Universities are undertaking 1 month theoretical and clinical studies in andrology at Riga Andrology centre (1 month training in andrology is a mandatory course for all residents in endocrinology in Latvia).

From 2020, a 2 years full time post-graduate study program (residency) in andrology will be implemented at the Medical Faculty of University of Latvia. Riga Andrology centre is serving as a clinical basis for almost all educational and teaching activities for this study program in andrology, in collaboration with Andrology unit of Molecular Genetics Research lab of Riga Stradins University, and Urology and Endocrinology Departments of Medical Faculty of University of Latvia.

Research activities

Research activities by head of Riga Andrology centre Dr. Juris Erenpreiss and his group at Andrology unit of University have been focused on:

- 1) Elaboration of new tests for assessment of sperm DNA integrity, the biological aspects of sperm chromatin structure, and clinical significance of sperm DNA integrity in male infertility (Erenpreiss et al., 2001, 2002, 2004, 2006a, 2006b, 2008; Bungum et al., 2007; Tsarev et al., 2009; Mafhouz et al., 2009);
- 2) Reproductive health of young Latvian and European men - a research project that was started within the 5th EU framework project "Environment and Reproductive Health", and was extended further beyond this particular project (Tsarev et al., 2005; Damsgaard et al., 2016; Jorgensen et al., 2016; Erenpreiss et al., 2017). Also, the significance of seminal markers and genetic factors in relation to semen quality and male infertility has been addressed (Elzanaty et al., 2007; Puzuka et al., 2011; Stavasis et al., 2016), including the interplay between the effects of reproductive hormones and genetic factors - genes of hormones and their receptors that are modulating the effect of these hormones (Grigorova et al., 2011, 2013, 2014, 2017; Punab et al., 2015);
- 3) The latest and current studies include studies of aging men (Erenpreiss et al., 2019), pre-implantation genetic diagnosis and genetic factors behind male infertility (Fodina et al. 2019; Alksere et al., 2019).

Right now there are two PhD students involved in clinical and research activities of Riga Andrology centre.

Clinical activities

Clinical activities of Riga Andrology centre include the following outpatient clinics: Andrology and sexology; Gynecology and female infertility; Urology; Endocrinology, and Reproductive Genetics clinics. Main emphasis of the clinical activities focuses on infertility diagnosis and treatment, however, other andrological problems (sexual and erectile dysfunction, male hormonal disorders including different types of hypogonadism, MAGI), urological diseases (prostate diseases, male and female urinary problems, kidney diseases), endocrinological diseases (metabolic syndrome; thyroid, adrenal and pancreas dysfunction) and are also addressed at Riga Andrology centre.

Riga Andrology centre has a well-established Embryo and semen laboratory, which is performing semen analysis according to the WHO guidelines, and participates in annual external QC scheme provided by Lab Quality (Finland). Also "optional" semen tests (as defined by the current WHO guidelines) are run by the semen lab:

- a) sperm DNA integrity tests (by Halokit, or sperm chromatin dispersion test, and also by the Toluidine blue test that has been elaborated by a research group of Dr. Juris Erenpreiss (Tsarev et al., 2009)). We also plan to introduce the SCSA test elaborated by Dr. D. Evenson (USA) in the nearest future since flow cytometer is also available at the Infertility Treatment and Reproductive Genetics clinic "IVF-Riga"
- b) other functional tests like HBA assay, MAR test, sperm-cervical mucus interaction test in-vivo.

Ultrasound investigations of male genital tract (testicles, prostate and seminal vesicles, penis Doppler ultrasonography) are performed on the daily basis at Riga Andrology centre. Ultrasound investigations of the other urological, gynaecological and abdominal cavity organs are also routinely performed.

IVF treatment is performed on the daily basis, with several oocyte retrieval and embryo transfer procedures per day.

PESA, FNA, TESE are also performed routinely at Riga Andrology centre. Small urological operations like hydrocele surgical treatment, penile circumcisions, etc. are also performed at the operation theater of Riga Andrology centre. For bigger operations like laparoscopic or microscopic varicocele operations, and others - patients are referred to the Urological Department of University Hospital.

Genetic testing like karyotype, Y chromosome microdeletions, CFTR gene mutations, PGT-A testing, and many other genetic analyses are performed routinely at the Genetic laboratory of the Infertility Treatment and Reproductive Genetics clinic "IVF-Riga", that is adherent to the Riga Andrology centre. Patients with genetic abnormalities are counseled by andrologist, gynecologist, or clinical genetician.

Name and address of Centre

Riga Andrology centre, Infertility Treatment and Reproductive Genetics clinic "IVF-Riga", Zaļā iela 1, Riga, LV-1010, Latvia

Type of Centre

University
 University Hospital
 Private Centre

Other (please specify)

Clinical, educational and research activities of Riga Andrology centre are executed in tight collaboration with Post-graduate Department of Medical Faculty of University of Latvia, and Andrology unit of Molecular Genetics Research laboratory of Riga Stradins University

1. Director

Juris Erenpreiss, MD, PhD

Academician Affiliated Member Clinical Andrologist

2a. Clinical responsible

Juris Erenpreiss

Academician Affiliated Member Clinical Andrologist

2b. Clinical responsible

Violeta Fodina, MD

Academician Affiliated Member Clinical Andrologist

2c. Clinical responsible

Nataliya Bozotova, MD

Academician Affiliated Member Clinical Andrologist

3. Present Staff (*Senior Scientists*)

1) Name Aigars Dzalbs
Degree MD, PhD
Speciality Molecular and clinical genetics

Academician Affiliated Member Clinical Andrologist

2) Name Dace Berzina
Degree PhD
Speciality Molecular genetics

Academician Affiliated Member Clinical Andrologist

Insert any additional staff below (if required)

MD/Biologists/Chemists

1) Name Evija Pimane
 Degree MSci
 Speciality Biology
 Full time/part time Full time

Academician Affiliated Member Clinical Andrologist

2) Name Sandra Krasucka
 Degree MSci
 Speciality Biology
 Full time/part time Full time

Academician Affiliated Member Clinical Andrologist

3) Name Agrita Blumberga
 Degree MSci
 Speciality Biology
 Full time/part time Full time

Academician Affiliated Member Clinical Andrologist

4) Name Baiba Alksere
 Degree MSci, PhD student
 Speciality Molecular and clinical genetics
 Full time/part time Full time

Academician Affiliated Member Clinical Andrologist

5) Name Violeta Fodina
 Degree MD, PhD student
 Speciality gynaecology
 Full time/part time Full time

Academician Affiliated Member Clinical Andrologist

Insert any additional staff below *(if required)*

Nurses

- 1) Name Evita Araja, head nurse
- 2) Name Iveta Garkule, operation nurse
- 3) Name Viktorija Burve, out-patient clinic nurse

Laboratory Technicians

- 1) Name Ruta Romanosa, BSci
- 2) Name Alise Ose, BSci

Administrative Personnel

- 1) Name Nataliya Kuhare, receptionist

4. Clinical Activity

A. Outpatients: Consultations per year in the last 3 years

All outpatient consultations at IVF-Riga clinic

	2016	2017	2018	2019
New patients	1233	1414	1625	1604
Follow-up patients	9856	10525	11610	11703

Andrological outpatient consultations at IVF-Riga clinic Andrology centre

	2016	2017	2018	2019
New patients	149	290	520	504
Follow-up patients	65	424	731	803

*Only andrological consultations are listed, in addition to these there are several thousand female infertility consultations per year, provided by Gynecology outpatient clinic

Type of patients in the last years (%)	2016	2017	2018	2019
Infertility	76	71	70	74
Erectile dysfunction	23	25	28	31
Hypogonadotropic Hypogonadism	1	2	2	3
Klinefelter	0.5	1	2	2
Gynaecomastia	0.5	0.5	1	1
Varicocele	18	19	25	27
Cryptorchidism	1	1	4	7
Male sex accessory gland infections	15	13	19	24
Testicular tumours	0.5	1	2	1
Disorders of gender identity	0	0	0	0
Other				

B. Ultrasound (testis, penile, prostate) *

	2016	2017	2018	2019
Total	13	16	114	349
Controls				

* performed at the Riga Andrology centre

C. Andrological surgery procedures

	2016	2017	2018	2019
Testicular biopsies	16	18	26	12

Varicocele ligation	0	0	0	0
Prostate biopsies	0	0	0	0
BPH	0	0	0	0
Prostate cancer	0	0	0	0
Vasectomy	0	0	0	1
Vaso-vasostomy	0	0	0	0
Other				

5. A. Andrology laboratory activity

	2016	2017	2018
Semen analyses	573	589	883
Sperm antibodies	573	589	883
Seminal markers	40	30	38

5. B. Andrology laboratory activity

Sperm banking donors Yes No Sperm banking cancer patients Yes No **If yes:**

	2016	2017	2018
Number of samples	68	48	80

5. C. Histopathological evaluation of biopsies Yes No 5. D. Reproductive Hormones Assays Yes No

If yes please specify type of assays and number of samples in the last year

Reproductive Hormones Assays

(FSH, LH, testosterone, SHBG, prolactin) - 714

5. E. Y chromosome microdeletions according to EAA/EMQN guidelines Yes No

51

If yes number of tests in the past yearParticipation to the EAA quality control scheme? Yes No **If no**, specify if available in another lab of the same hospital Yes No Blood karyotyping Yes No **If no**, specify if available in another lab of the same hospital Yes No

Other genetic tests (please specify)

FISH sperm

Pre-implantation genetic diagnosis

Amniotic fluid karyotyping

Pre-implantation genetic diagnosis - yes

6. Collaborations with other Clinical Units of the University/Hospital

IVF Unit

Yes

No

If yes please specify: Children, Endocrinology, IVF, Urology, Genetics, Pathology

Riga Andrology centre collaborates with Children University Hospital; Endocrinology and Urology Departments of University Hospital. There are no University IVF units in Latvia.

Urology Clinic (University Hospital)

Yes

No

Endocrine Clinic (University Hospital)

Yes

No

Genetics Lab/Unit (private, adherent to Riga Andrology centre)

Yes

No

Paediatric Unit

Yes

No

Central Hospital Laboratory

Yes

No

Private Centres

Yes

No

If yes please specify:

Since other private Infertility treatment centres do not have andrology specialists and services, they are referring their patients to Riga Andrology centre

7. Clinical teaching activity

Duration of training (years):

	Number
A: Trainees in the last five years	Program will start in 2020
B: Trainees who passed EAA-ESAU\exam for Clinical Andrologist in the last 5 yrs	Program will start in 2020
C: Trainees working in the centre preparing to pass the EAA-ESAU examination	Program will start in 2020
D: PhD Students	2
E: Medical Students	1
F: Other students (MSc)	0

8. Formal Andrology teaching program

Yes

No

If yes: specify duration (years/months):

Years

Months

	Hours of formal teaching per year	Professional training (weeks/months)
Medical Students	110 hrs	6 weeks
PhD Students	120 hrs per student	12 weeks per student
Post Graduate students		
Trainees	Will be initiated in 2020	Will be initiated in 2020

Other degrees (please specify) – Trainees (residents) in endocrinology: 1 month

9. Research Activity

Biological and clinical aspects of sperm DNA integrity, and elaboration of new tests for assessment of sperm DNA integrity:

J. Erenpreiss, J. Bars, V. Lipatnikova, Je. Erenpreisa and J. Zalkalns. Comparative study of cytochemical tests for sperm chromatin integrity. *Journal of Andrology*, 2001, V.22:45-53.

Erenpreiss J., Hlevicka S., Zalkalns J., Erenpreisa Je. Effect of leukocytospermia on sperm DNA integrity: a negative effect in abnormal semen samples. *Journal of Andrology*, 2002, V.23: 717-723.

J. Erenpreisa, J. Erenpreiss, T. Freivalds, M. Slaidina, R. Krampe, E. Butikova, A. Ivanov. Toluidine blue test for sperm DNA integrity and elaboration of image cytometry algorithm. *Cytometry*, 2003, 52A(1):19-27.

J. Erenpreiss, K. Jepson, A. Giwercman, I. Tsarev, Je. Erenpreisa, M. Spano. Toluidine blue cytometry test for sperm DNA conformation: comparison with the flow cytometric sperm chromatin structure and TUNEL assays. *Human Reproduction* 2004; 19: 2277-82.

J. Erenpreiss, M. Spano, J. Erenpreisa, M. Bungum, A. Giwercman. Sperm chromatin structure and male infertility: biological and clinical aspects. *Asian Journal of Andrology* 2006; 8: 11-29.

J. Erenpreiss, M. Bungum, M. Spano, S. Elzanaty, J. Orbidans, A. Giwercman. Intra-individual variation in Sperm Chromatin Structure Assay parameters in men from infertile couples: clinical implications. *Hum Reprod*, 2006, 21: 2061-4.

Bungum M, Humaidan P, Axmon A, Spano M, Bungum L, Erenpreiss J, and Giwercman A. Sperm chromatin conformation measurement predicts the outcome of ART. *Hum Reprod*, 2007, 22:1 74-9.

J. Erenpreiss, S. Elzanaty, A. Giwercman. Sperm DNA damage in men from infertile couples. *Asian J Androl*, 2008, 10: 786-90.

R. Mahfouz, T. Said, J. Erenpreiss, R. Sharma, A. Agarwal. Association of sperm apoptosis and DNA ploidy with sperm chromatin quality in human spermatozoa. *Fertil Steril*, 2009 Apr;91(4):1110-8.

I. Tsarev, M. Bungum, A. Giwercman, J. Erenpreiss. Evaluation of male fertility potential by Toluidine Blue test for sperm chromatin structure assessment. *Hum Reprod*. 2009 Jul;24(7):1569-74.

A. Agarwal, J. Erenpreiss, R. Sharma. Sperm chromatin assessment. In „Textbook of Assisted Reproductive Technologies”, 2009, 3rd edition, editors D. Gardner, A. Weissman, C. Howles. Z. Shoham; Informa Healthcare, London, UK, pp. 67-85.

I. Tsarev, J. Erenpreiss. Cytochemical tests for sperm chromatin maturity. In: Zini A, Agarwal A, eds, *Sperm Chromatin: Biological and Clinical Applications in Male Infertility and Assisted Reproduction*, New York, Springer, 2011, pp. 181-188.

Erenpreiss J, Zubkova K. Cytochemical Tests for Sperm Chromatin Maturity. In: Zini A, Agarwal A, eds, *A Clinician's Guide to Sperm DNA and Chromatin Damage*. Springer International Publishing, 2018

(<http://www.springer.com/us/book/9783319718149#aboutAuthors>).

I. Tsarev, V. Gagonin, A. Giwercman, J. Erenpreiss. Semen quality in men from general Latvian population compared to other countries in Nordic-Baltic area and the impact of life style and ethnic factors. *International Journal of Andrology* 2005; 28: 208-214.

Reproductive health of infertile men, and young men from general Latvian and European populations, and its affecting factors, including anatomical, hormonal, genetic, and environmental:

J. Erenpreiss, I. Tsarev, A. Giwercman, Y. Giwercman. The impact of androgen receptor polymorphism and parental ethnicity on semen quality in young men from Latvia. *Int J Androl*, 2008, 31:477-82.

M. Grigorova, M. Punab, B. Zilaitiene, J. Erenpreiss, K. Ausmees, V. Matulevicius, I. Tsarev. N. Jorgensen, M. Laan. Genetically determined dosage of Follicle-Stimulating Hormone (FSH) affects male reproductive parameters. *Journal of Clinical Endocrinology and Metabolism*, 2011 Sep;96(9):E1534-41.

Puzuka A, Pronina N, Grinfelde I, Erenpreiss J, Lejins V, Bars J, Pliss L, Pelnena I, Baumanis V, Krumina A. Y chromosome--a tool in infertility studies of Latvian population. *Genetika*. 2011 Mar;47(3):394-400.

M. Grigorova, M. Punab, O. Poolamets, S. Sober, V. Vihlajev, B. Zilaitiene, J. Erenpreiss, V. Matulevicius, I. Tsarev, M. Laan. Study in 1790 Baltic men: FSHR Asn680Ser polymorphism affects total testes volume. *Andrology*, 2013 Mar;1(2):293-300.

Grigorova M, Punab M, Punab AM, Poolamets O, Vihlajev V, Zilaitienė B, Erenpreiss J, Matulevičius V, Laan M. Reproductive Physiology in Young Men Is Cumulatively Affected by FSH-Action Modulating Genetic Variants: FSHR -29G/A and c.2039 A/G, FSHB -211G/T. *PLoS One*. 2014 Apr 9;9(4):e94244. doi: 10.1371/journal.pone.0094244. eCollection 2014.

Punab AM, Grigorova M, Punab M, Adler M, Kuura T, Poolamets O, Vihlajev V, Žilaitienė B, Erenpreiss J, Matulevičius V, Laan M. Carriers of V-LH among 1593 Baltic men have significantly higher serum LH. *Andrology*. 2015 May;3(3):512-9. doi: 10.1111/andr.12022.

N Jørgensen, UN Joensen, J Toppari, M Punab, J Erenpreiss, B Zilaitiene, U Paasch, A Salzbrunn, M Fernandez, HE Virtanen, V Matulevicius, N Olea, TK Jensen, NE Skakkebaek, AM Andersson. Compensated reduction in Leydig cell function is associated with lower semen quality variables: A study of 8,182 European young men. *Human Reproduction*, 2016, 31(5): 947-57.

Damsgaard J, Joensen UN, Carlsen E, Erenpreiss J, Blomberg Jensen M, Matulevicius V, Zilaitiene B, Olesen IA, Perheentupa A, Punab M, Salzbrunn A, Toppari J, Virtanen HE, Juul A, Skakkebaek NE, Jørgensen N. Varicocele Is Associated with Impaired Semen Quality and Reproductive Hormone Levels: A Study of 7035 Healthy Young Men from Six European Countries. *Eur Urol*. 2016 Dec;70(6):1019-1029. doi: 10.1016/j.eururo.2016.06.044.

Grigorova M, Punab M, Kahre T, Ivandi M, Tõnisson N, Poolamets O, Vihlajev V, Žilaitienė B, Erenpreiss J, Matulevičius V, Laan M. The number of CAG and GGN triplet repeats in the Androgen Receptor gene exert combinatorial effect on hormonal and sperm parameters in young men. *Andrology*. 2017;5(3):495-504. Epub 2017 Mar 23.

Stavasis J, Inashkina I, Lace B, Pelnena D, Limborska S, Khrunin A, Kucinskas V, Krumina A, Piekuse L, Zorn B, Fodina V, Punab M, Erenpreiss J. A new Baltic Population-Specific Human Genetic Marker in the PMCA4 Gene. *Hum Hered*. 2016;82(3-4):140-146. Epub 2017 Nov 2.

Erenpreiss J, Punab M, Zilaitiene B, Hlevicka S, Zayakin P, Matulevicius V, Tomas Preiksa R, Jørgensen N. Semen quality of young men from the general population in Baltic countries. *Hum Reprod*. 2017;32(6):1334-1340.

Aging male:

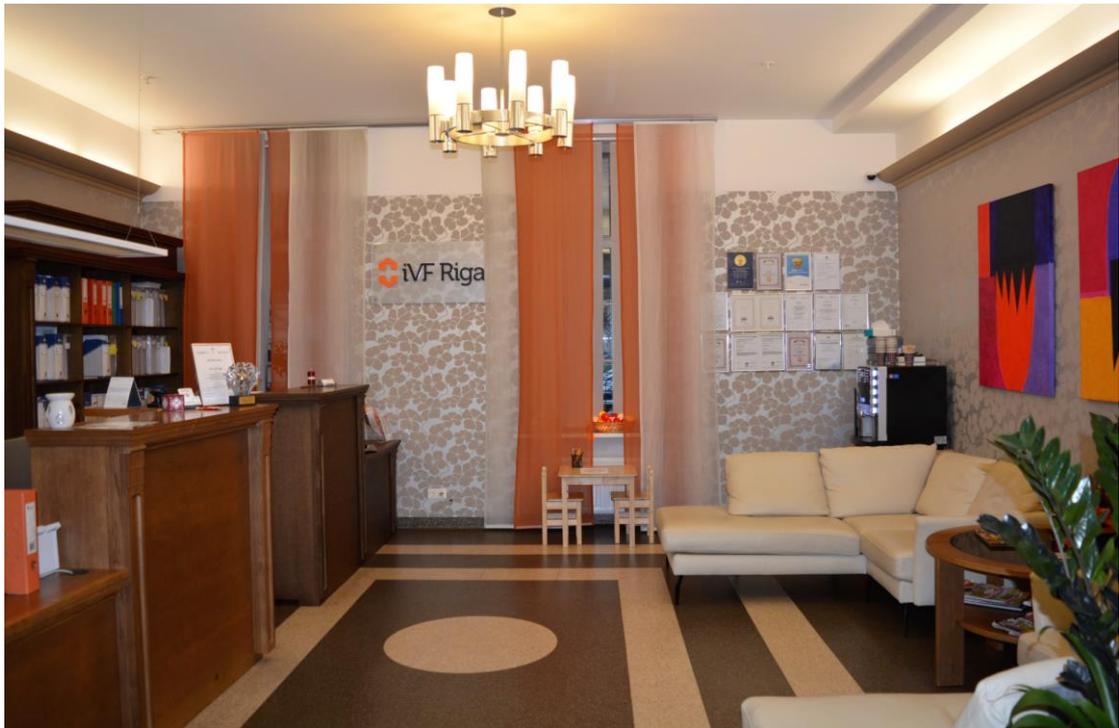
Erenpreiss J, Fodina V, Pozarska R, Zubkova K, Dudorova A, Pozarskis A. Prevalence of testosterone deficiency among aging men with and without morbidities. *Aging Male*. 2019 Jun 1:1-5.

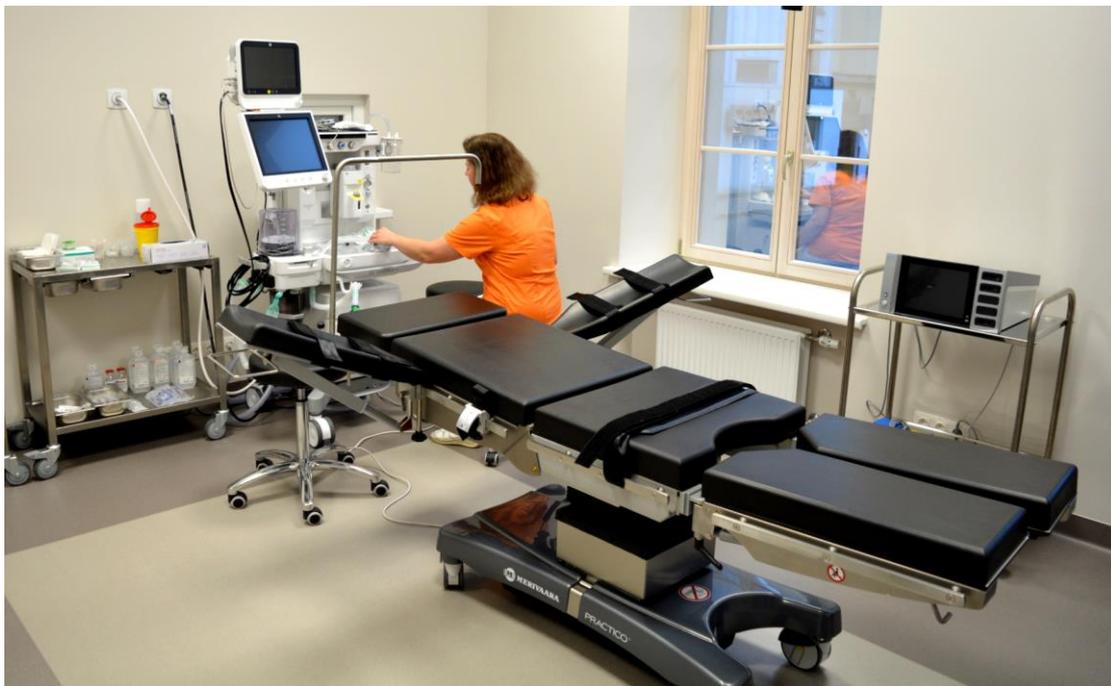
10. Research Funding

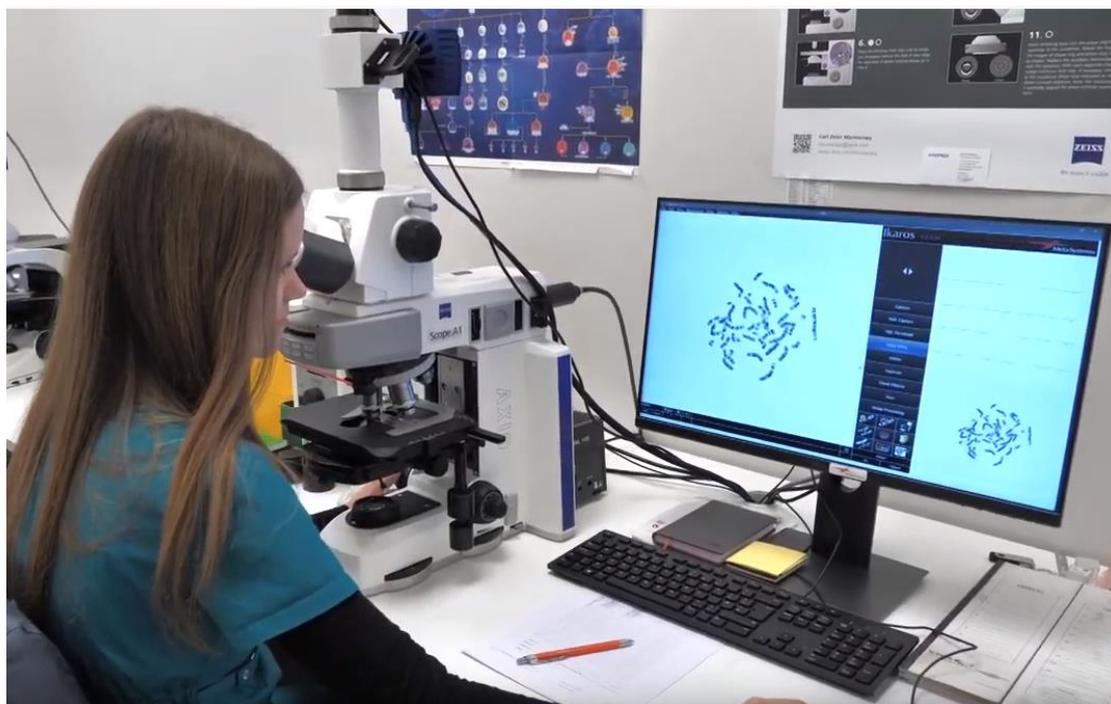
Year	2016
Total amount (€)	52000
Funding Source(s)	Latvian Council of Sciences grant

Year	2017-2019
Total amount (€)	5500 per year
Funding Source(s)	University funding

CENTRE PHOTOS







FULL LIST OF PUBLICATIONS (with IF) of staff members from the last 5 years

Punab AM, Grigorova M, Punab M, Adler M, Kuura T, Poolamets O, Vihljajev V, Žilaitienė B, Erenpreiss J, Matulevičius V, Laan M. Carriers of V-LH among 1593 Baltic men have significantly higher serum LH. *Andrology* (IF 3.3). 2015 May;3(3):512-9.

N Jørgensen, UN Joensen, J Toppari, M Punab, J Erenpreiss, B Zilaitiene, U Paasch, A Salzbruun, M Fernandez, HE Virtanen, V Matulevicius, N Olea, TK Jensen, NE Skakkebaek, AM Andersson. Compensated reduction in Leydig cell function is associated with lower semen quality variables: A study of 8,182 European young men. *Human Reproduction* (IF 5.5). 2016, 31(5): 947-57.

Damsgaard J, Joensen UN, Carlsen E, Erenpreiss J, Blomberg Jensen M, Matulevicius V, Zilaitiene B, Olesen IA, Perheentupa A, Punab M, Salzbrunn A, Toppari J, Virtanen HE, Juul A, Skakkebaek NE, Jørgensen N. Varicocele Is Associated with Impaired Semen Quality and Reproductive Hormone Levels: A Study of 7035 Healthy Young Men from Six European Countries. *Eur Urol.* (IF 17.6). 2016 Dec;70(6):1019-1029.

Grigorova M, Punab M, Kahre T, Ivandi M, Tõnisson N, Poolamets O, Vihljajev V, Žilaitienė B, Erenpreiss J, Matulevičius V, Laan M. The number of CAG and GGN triplet repeats in the Androgen Receptor gene exert combinatorial effect on hormonal and sperm parameters in young men. *Andrology* (IF 3.3). 2017;5(3):495-504. Epub 2017 Mar 23.

Stavusis J, Inashkina I, Lace B, Pelneņa D, Limborska S, Khrunin A, Kucinskas V, Krumina A, Piekuse L, Zorn B, Fodina V, Punab M, Erenpreiss J. A new Baltic Population-Specific Human Genetic Marker in the PMCA4 Gene. *Hum Hered (IF 0.5)*. 2016;82(3-4):140-146.

Perminov D, Voložonoka L, Korņejeva L, Jokste-Pļmane E, Blumberga A, Krasucka S, Seimuškina N, Kovaļova I, Fodina V. First preimplantation genetic testing case for monogenic disease in Latvia. *Gynecol Endocrinol (IF 1.4)*. 2017;33(sup1):47-49.

Erenpreiss J, Punab M, Zilaitiene B, Hlevicka S, Zayakin P, Matulevicius V, Tomas Preiksa R, Jørgensen N. Semen quality of young men from the general population in Baltic countries. *Hum Reprod (IF 5.5)*. 2017;32(6):1334-1340

Volozonoka L, Perminov D, Korņejeva L, Alksere B, Novikova N, Pīmane EJ, Blumberga A, Kempa I, Miskova A, Gailīte L, Fodina V. Performance comparison of two whole genome amplification techniques in frame of multifactor preimplantation genetic testing. *J Assist Reprod Genet (IF 2.8)*. 2018 Aug;35(8):1457-1472.

Erenpreiss J, Zubkova K. Cytochemical Tests for Sperm Chromatin Maturity. In: Zini A, Agarwal A, eds, *A Clinician's Guide to Sperm DNA and Chromatin Damage*. Springer International Publishing, 2018 (<http://www.springer.com/us/book/9783319718149#aboutAuthors>).

Maksimenko J, Irmejs A, Trofimovičs G, Bērziņa D, Skuja E, Purkalne G, Miklaševičs E, Gardovskis J. High frequency of pathogenic non-founder germline mutations in *BRCA1* and *BRCA2* in families with breast and ovarian cancer in a founder population. *Hered Cancer Clin Pract (IF 2.0)*. 2018 Jun 5;16:12.

Erenpreiss J, Fodina V, Pozarska R, Zubkova K, Dudorova A, Pozarskis A. Prevalence of testosterone deficiency among aging men with and without morbidities. *Aging Male (IF 2.5)*. 2019 Jun 1:1-5.

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