EAA Andrology Training Centre

Centre Report

2023

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 2022, a post-graduate study program (residency training program) in andrology commenced at Riga Stradins University, and Riga Andrology centre is serving 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 Riga Stradins University has started from 2022. 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. Georgijs Kirakozovs (urologist)
Dr. Egita Deine (urologist)
Dr. Tatjana Zake (endocrinologist)
Dr. Violeta Fodina (gynaecologist)
Dr. Irina Kalvane (gynaecologist)
Dr. Alina Seleznova (gynaecologist)
Dr. Natalija Pozilenkova (gynaecologist)
Dr. Ieva Grinfelde (genetician)
Dr. Liene Kornejeva (genetician)
Dr. Aigars Dzalbs (genetician, molecular genetician)
Dace Enkure, PhD (molecular genetician)
Andris Grunskis, MSci (head, semen and embryology lab)
Ruta Romanosa, MSci (semen and embryology lab)
Arita Blumberga, MSci (semen and embryology lab)
Santa Cielava, MSci (semen and embryology lab)

Outpatient clinics
Andrology and sexology (Dr. Erenpreiss)
Gynecology and female infertility (Dr. Fodina, Dr. Kalvane, Dr. Pozilenkova, Dr. Seleznova)
Urology (Dr. Kirakozovs Dr. Deine)
Endocrinology (Dr. Zake)
Reproductive genetics (Dr. Kornejeva, Dr. Grinfelde, Dr. Dzalbs)

Embryology and semen laboratory
Head - Andris Grunskis, MSci
Ruta Romanosa, MSci
Arita Blumberga, MSci
Santa Cielava, 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. Kalvane, Dr. Pozilenkova, Dr. Seleznova
Operation nurses E. Araja, E. Nekrasova, I. Garkule

Fine-needle testis aspirations/TESE
Dr. Kirakozovs, Dr. Deine, Dr. Erenpreiss

Research team
Linda Gailite, MD, PhD
Agrita Puzuka, assist.prof.
Baiba Alksere, PhD student
Violeta Fodina, PhD student
Marija Lazovska, MSci

Educational activities

For four years, the post-graduate fellows - trainees in endocrinology of Medical Faculties of Latvian Universities are undertaking 3 month theoretical and clinical studies in andrology at Riga Andrology centre (3 month training in andrology is a mandatory course for all residents in endocrinology in Latvia).
From 2022, a 2 years full time post-graduate study program (residency) in andrology has been implemented at the Riga Stradins University post-graduate curriculum, as a sub-speciality for urologists, endocrinologists, gynecologists, internal medicine specialists. 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.
In 2022, the first trainee (urologist) was enrolled into this andrology program at our Centre.

Research activities

Research activities by head of Riga Andrology centre Dr. Juris Erenpreiss and his group at Andrology unit of Riga Stradins 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; Stavusis 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 (Alksere et al., 2019; Fodina et al. 2021), genome instability (based on whole exome studies) research in men with severe male factor infertility (Puzuka et al., 2021).

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 sheme provided by Lab Quality (Finland). Also functional 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)).
b) other functional tests like HBA assay, MAR test, sperm-cervical mucus interaction test in-vivo, red-ox potential of semen by MyOXSYS test

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, gyneacologist, or clinical genetician.

8

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	x

Other (please specify): Clinical, educational and research activities of Riga Andrology centre are executed in tight collaboration with Post-graduate Department of Riga Stradins University, and Andrology unit of Molecular Genetics Research laboratory of Riga Stradins University

1. Director Juris Erenpreiss, MD, PhD

Academician [x] Affiliated Member [ ] Clinical Andrologist [x]

2a. Clinical responsible Juris Erenpreiss

Academician [x] Affiliated Member [ ] Clinical Andrologist [x]

2b. Clinical responsible Violeta Fodina, MD

Academician [ ] Affiliated Member [ ] Clinical Andrologist [ ]

2c. Clinical responsible Egita Deine, 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 Enkure
Degree: PhD
Speciality: Molecular genetics

Academician ☐ Affiliated Member ☐ Clinical Andrologist ☐

3) Name: Linda Gailite
Degree: MD, PhD
Speciality: Molecular and clinical genetics

Academician ☐ Affiliated Member ☐ Clinical Andrologist ☐

4) Name: Agrita Puzuka
Degree: MD, PhD
Speciality: Biology and molecular genetics

Academician ☐ Affiliated Member ☐ Clinical Andrologist ☐

Insert any additional staff below *(if required)*

MD/Biologists/Chemists

1) Name: Andris Grunskis
   Degree: MSci
   Speciality: Biology
   Full time/part time: Full time

Academician ☐ Affiliated Member ☐ Clinical Andrologist ☐

2) Name: Ruta Romanosa
   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 Jekaterina Lisovska, head nurse
2) Name Natālija Salimova, operation nurse
3) Name Dace Avotiņa, out-patient clinic nurse

Laboratory Technicians

1) Name Ruta Romanosa, BSci
2) Name Santa Cielava, BSci

Administrative Personnel

1) Name Nataliya Kuhare, receptionist
Ilze Pudzha,receptionist

4. Clinical Activity

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

All outpatient consultations at IVF-Riga clinic

	2020	2021	2022
New patients	1325	1704	1819
Follow-up patients	12212	12273	14887

Andrological outpatient consultations at IVF-Riga clinic Andrology centre

	2020	2021	2022
New patients	603	758	795
Follow-up patients	711	867	955

B. Ultrasound (testis, penile, prostate) *

	2020	2021	2022
Total	361	376	361
Controls			

** performed at the Riga Andrology centre*

C. Andrological surgery procedures

	2020	2021	2022
Testicular biopsies	6	15	17

Type of patients in the last years (%)	2020	2021	2022
Infertility	74	62	59
Erectile dysfunction	23	29	32
Hypogonadotropic Hypogonadism	2	5	8
Klinefelter	1	2	2
Gynaecomastia	1	2	2
Varicocele	20	21	23
Cryptorchidism	5	5	7
Male sex accessory gland infections	19	20	22
Testicular tumours	1	1	2
Disorders of gender identity	0	0	0
Other			

C. Andrological surgery procedures

	2020	2021	2022
Testicular biopsies	6	15	17
Varicocele ligation	0	0	0
Prostate biopsies	0	0	0
BPH	0	0	0
Prostate cancer	0	0	0
Vasectomy	0	0	0
Vaso-vasostomy	0	0	0
Other (circumcisions, spermatocele, hydrocele)	19	24	27

5. A. Andrology laboratory activity

	2020	2021	2022
Semen analyses	938	1024	1010
Sperm antibodies	938	1024	1010
Seminal markers	6	8	9

5. B. Andrology laboratory activity

Sperm banking donors Yes [x] No [ ]

Sperm banking cancer patients Yes [x] No [ ]

If yes:			
	2020	2021	2022
Number of samples	50	22	32

5. C. Histopathologial evaluation of biopsies Yes (externally) [x] No [ ]

5. D. Reproductive Hormones Assays Yes [x] No [ ]

If yes please specify type of assays and number of samples in the last year
Reproductive Hormones Assays
(FSH, LH, testosterone, SHBG, prolactin) - 845 (done externally at central laboratory, by chemiluminescence-based immunoassays)

5. E. Y chromosome microdeletions according to EAA/EMQN guidelines	Yes [x]	No [ ]
If yes number of tests in the past year	46	
Participation to the EAA quality control scheme?	Yes [ ]	No [x]
If no, specify if available in another lab of the same hospital	Yes [ ]	No [ ]
Blood karyotyping	Yes [x]	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 [x]	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 [x]	No [ ]
Endocrine Clinic (University Hospital)	Yes [x]	No [ ]
Genetics Lab/Unit (private, adherent to Riga Andrology centre)	Yes [x]	No [ ]
Paediatric Unit	Yes [x]	No [ ]
Central Hospital Laboratory	Yes [x]	No [ ]
Private Centres	Yes [x]	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): 2

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

8. Formal Andrology teaching program Yes [x] 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 per year
PhD Students	120 hrs per student	24 weeks per year
Post Graduate students		
Trainees	96 hrs per year	44 weeks per year
Other degrees (please specify) – Trainees (residents) in endocrinology: 3 months		

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.

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.

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 measurment 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).

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, Vihljajev 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, Vihljajev 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 Salzbruun, M Fernandez, HE Virtanen, V Matulevicius, N Olea, TK Jensen, NE Skakkebæk, 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, Skakkebæk 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, 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*. 2017;5(3):495-504. Epub 2017 Mar 23.

Stavusis 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. 2020 Dec;23(5):901-905. doi: 10.1080/13685538.2019.1621832. Epub 2019 Jun 1.

Genetic factors in male and female infertility:

Fodina V, Dudorova A, Alksere B, Dzalbs A, Vedmedovska N, Andersone S, Una C, Juris Erenpreiss, Dace B. The application of PGT-A for carriers of balanced structural chromosomal rearrangements. Gynecol Endocrinol. 2019;35(sup1):18-23. doi: 10.1080/09513590.2019.1632091.

Alksere B, Berzina D, Dudorova A, Conka U, Andersone S, Pimane E, Krasucka S, Blumberga A, Dzalbs A, Grinfelde I, Vedmedovska N, Fodina V, Erenpreiss J. Case of Inherited Partial AZFa Deletion without Impact on Male Fertility. Case Rep Genet. 2019 Oct 31;2019:3802613. doi: 10.1155/2019/3802613.

Puzuka A, Alksere B, Gailite L, Erenpreiss J. Idiopathic Infertility as a Feature of Genome Instability. Life (Basel). 2021 Jun 29;11(7):628.

Fodina V, Dudorova A, Erenpreiss J. Evaluation of embryo aneuploidy (PGT-A) and endometrial receptivity (ERA) testing in patients with recurent implantation failure in ICSI cycles. Gynecol Endocrinol. 2021;37(sup1):17-20.

V. Fodina, A. Dudorova, J. Erenpreiss. Reasons and Mechanisms of Recurrent Failed Implantation in IVF. In: Wei-Hua Wand, ed. "Infertility and Assisted Reproduction," ISBN 978-1-83962-825-2. IntechOpen, 2021, doi: 10.5772/intechopen.98301.http://mts.intechopen.com/articles/show/title/reasons-and-mechanisms-of-recurrent-failed-implantation-in-ivf

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Lidaka L, Bekere L, Lazdane G, Lazovska M, Dzivite-Krisane I, Gailite L. Role of Single Nucleotide Variants in the *YAP1* Gene in Adolescents with Polycystic Ovary Syndrome. Biomedicines. 2022 Jul 13;10(7):1688. doi:10.3390/biomedicines10071688.

Vainshelbaum NM, Salmina K, Gerashchenko BI, Lazovska M, Zayakin P, Cragg MS, Pjanova D, Erenpreisa J. Role of the Circadian Clock "Death-Loop" in the DNA Damage Response Underpinning Cancer Treatment Resistance. Cells. 2022 Mar 3;11(5):880. doi: 10.3390/cells11050880.

Volozonoka L, Miskova A, Gailite L. Whole Genome Amplification in Preimplantation Genetic Testing in the Era of Massively Parallel Sequencing. Int J Mol Sci. 2022 Apr 27;23(9):4819. doi: 10.3390/ijms23094819.

Volozonoka L, Miskova A, Kornejeva L, Kempa I, Bargatina V, Gailite L. A systematic review and standardized clinical validity assessment of genes involved in female reproductive failure. Reproduction. 2022 Apr 22;163(6):351-363. doi: 10.1530/REP-21-0486.

10. Research Funding

Year	2020-2022
Total amount (€)	20000 EUR per year
Funding Source(s)	University funding

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

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