

PERSONAL INFORMATION **Irja Lutsar**

WORK EXPERIENCE

-
- 2009–Present **Professor in Medical Microbiology and Virology**
University of Tartu, Faculty of Medicine, Department of Microbiology, Chair of Medical Microbiology and Virology (Estonia)
- 2004–2009 **Professor in Medical Microbiology and Virology**
University of Tartu, Faculty of Medicine, Department of Microbiology, Chair of Medical Microbiology and Virology (Estonia)
- 2003–2004 **Director**
Pfizer Ltd., Global Research and Development (United Kingdom)
- 1999–2003 **Clinical Project Manager**
Pfizer Ltd., Global Research and Development (United Kingdom)
- 1998–1999 **Associated Professor in Paediatrics**
Tartu University, Faculty of Medicine, Paediatric Department (Estonia)
- 1995–1998 **Fellow in paediatric infectious diseases**
Southwestern Medical Center at Dallas (United States)
- 1992–1995 **Head of Paediatric Infectious Diseases Department**
Tartu University Children's Hospital (Estonia)
- 1982–1992 **Deputy Head of the Paediatric Hospital**
Tartu University Children's Hospital (Estonia)
- 1979–1982 **Paediatrician**
Võru Hospital (Estonia)
- 1978–1979 **Internship in paediatrics**
First Children's Hospital (Estonia)

EDUCATION AND TRAINING

-
- 1995–1998 **Research Fellow in Paediatric Infectious Diseases**
Southwestern Medical School, Dallas (United States)
- 1992–1995 **PhD**
University of Tartu (Estonia)
Irja Lutsar, Doctor's Degree, 1995, (sup) Tiina Talvik, Kesknärvisüsteemi põletikulised haigused lastel (kliinilis-epidemioloogiline iseloomustus ja kaugtulemused) (Infections of the central nervous system in children (epidemiologic, diagnostic and therapeutic aspects, long term outcome)), University of Tartu,

Faculty of Medicine.

- 1978–1979 **Internship in Paediatrics**
Tallinn First Children's Hospital (Estonia)
- 1972–1978 **MD**
University of Tartu (Estonia)

ADDITIONAL INFORMATION

- Expertise**
- clinical trials
 - PK/PD
 - infectious diseases
 - clinical microbiology
 - neonatal infectious diseases
- Publications**
- 2017
- Veigure, Ruta; Aro, Rudolf; Metsvaht, Tuuli; Standing, Joseph F.; Lutsar, Irja; Herodes, Koit; Kipper, Karin
(2017). A Highly Sensitive Method for the Simultaneous UHPLC-MS/MS Analysis of Clonidine, Morphine, Midazolam and their Metabolites in Blood Plasma Using HFIP as the Eluent Additive. *Journal of Chromatography B*, 1052, 150–157. [j.jchromb.2017.03.007](https://doi.org/10.1016/j.jchromb.2017.03.007).
- Soeorg H, Huik K, Parm Ü, Ilmoja ML, Metsvaht T, Lutsar I (2017). Molecular epidemiology of *Staphylococcus epidermidis* in neonatal intensive care units. *APMIS*, 125, 63–73. [10.1111/apm.12637](https://doi.org/10.1111/apm.12637).
- Soeorg, Hiie; Metsvaht, Tuuli; Eelmäe, Imbi; Metsvaht, Hanna Kadri; Treumuth, Sirlu; Merila, Mirjam; Ilmoja, Mari-Liis; Lutsar, Irja (2017). Coagulase-Negative Staphylococci in Human Milk From Mothers of Preterm Compared With Term Neonates. *Journal of human lactation : official journal of International Lactation Consultant Association*, 33 (2), 329–340. [10.1177/0890334417691505](https://doi.org/10.1177/0890334417691505).
- Tasa, Tõnis; Metsvaht, Tuuli; Kalamees, Riste; Vilo, Jaak; Lutsar, Irja (2017). DosOpt: A Tool for Personalized Bayesian Dose Adjustment of Vancomycin in Neonates. *Therapeutic Drug Monitoring*, 39 (6), 604–613. [10.1097/FTD.0000000000000456](https://doi.org/10.1097/FTD.0000000000000456).
- Jõgi P.; Oona M.; Kaart T.; Toompere K.; Maskina M.; Koort I.; Rätsep A.; Lutsar I. (2017). Pertussis and parapertussis in children and adults with a persistent cough: an observational study. *Infection*. [10.1007/s15010-017-1095-z](https://doi.org/10.1007/s15010-017-1095-z) [ilmumas].
- Oona, M.; Kaart, T.; Toompere, K.; Maskina, T.; Koort, I.; Rätsep, A.; Lutsar, I. (2017). Läkakõha toksiooni vastaste IgG-tüüpi antikehade tase läkakõhaga patsientide hulgas ning kolme aasta jooksul pärast haiguse põdemist. *96. Eesti Arst*, 16. (Lisa 1).
- 2016
- Huik, Kristi; Avi, Radko; Pauskar, Merit; Kallas, Eveli; Jõgeda, Ene-Ly; Karki, Tõnis; Rüütel, Kristi; Talu, Ave; Abel-Ollo, Katri; Uusküla, Anneli; Carrillo, Andrew; Ahuja, Sunil K; He, Weijing; Lutsar, Irja (2016). A CCL5 Haplotype Is Associated with Low Seropositivity Rate of HCV Infection in People Who Inject Drugs. *PLoS one*, 11 (6), e0156850–e0156850. [10.1371/journal.pone.0156850](https://doi.org/10.1371/journal.pone.0156850).

Germovsek, Eva; Kent, Alison; Metsvaht, Tuuli; Lutsar, Irja; Klein, Nigel; Turner, Mark A; Sharland, Mike;

Nielsen, Elisabet I; Heath, Paul T; Standing, Joseph F (2016). Development and Evaluation of a Gentamicin Pharmacokinetic Model That Facilitates Opportunistic Gentamicin Therapeutic Drug Monitoring in Neonates and Infants. *Antimicrobial agents and chemotherapy*, 60 (8), 4869–4877.10.1128/AAC.00577-16.

Folgori, Laura; Bielicki, Julia; Ruiz, Beatriz; Turner, Mark A; Bradley, John S; Benjamin, Daniel K; Zaoutis, Theoklis E; Lutsar, Irja; Giaquinto, Carlo; Rossi, Paolo; Sharland, Mike (2016). Harmonisation in study design and outcomes in paediatric antibiotic clinical trials: a systematic review. *The Lancet. Infectious diseases*, 16 (9), 178–189.10.1016/S1473-3099(16)00069-4.

Nellis, Georgi; Metsvaht, Tuuli; Varendi, Heili; Lass, Jana; Duncan, Jennifer; Nunn, Anthony J; Turner, Mark A; Lutsar, Irja (2016). Product Substitution as a Way Forward in Avoiding Potentially Harmful Excipients in Neonates. *Paediatric drugs*, 18 (3), 221–230.10.1007/s40272-016-0173-5.

Pantazis, Nikos; Touloumi, Giota; Meyer, Laurence; Olson, Ashley; Costagliola, Dominique; Kelleher, Anthony D; Lutsar, Irja; Chaix, Marie-Laure; Fisher, Martin; Moreno, Santiago; Porter, Kholoud; , (2016). The impact of transient combination antiretroviral treatment in early HIV infection on viral suppression and immunologic response in later treatment. *AIDS (London, England)*, 30 (6), 879–888.10.1097/QAD.0000000000000991.

Brauer, Age; Telling, Kaidi; Laht, Mailis; Kalmus, Piret; Lutsar, Irja; Remm, Maido; Kisand, Veljo; Tenson, Tanel (2016). Plasmid with colistin resistance gene *mcr-1* in ESBL-producing *Escherichia coli* strains isolated from pig slurry in Estonia. *Antimicrobial agents and chemotherapy*, 60 (11), 6933–36.10.1128/AAC.00443-16.

Avi, Radko; Pauskar, Merit; Karki, Tõnis; Kallas, Eveli; Jõgeda, Ene-Ly; Margus, Tõnu; Huik, Kristi; Lutsar, Irja (2016). Prevalence of drug resistance mutations in HAART patients infected with HIV-1 CRF06_cpx in Estonia. *Journal of Medical Virology*, 88 (3), 448–454.10.1002/jmv.24361.

Kallas, Eveli; Huik, Kristi; Türk, Silver; Pauskar, Merit; Jõgeda, Ene-Ly; Šunina, Marina; Karki, Tõnis; Des Jarlais, Don; Uusküla, Anneli; Avi, Radko; Lutsar, Irja (2016). T Cell Distribution in Relation to HIV/HBV/HCV Coinfections and Intravenous Drug Use. *Viral immunology*, 0–0.vim.2016.0057.

Kallas, Eveli; Huik, Kristi; Türk, Silver; Pauskar, Merit; Jõgeda, Ene-Ly; Šunina, Marina; Karki, Tõnis; Des Jarlais, Don; Uusküla, Anneli; Avi, Radko; Lutsar, Irja (2016). Differences in T cell distribution and CCR5 expression in HIV-positive and HIV-exposed seronegative persons who inject drugs. *Medical microbiology and immunology*, 205 (3), 231–239.10.1007/s00430-015-0444-8.

Jõgeda, Ene-Ly; Avi, Radko; Pauskar, Merit; Kallas, Eveli; Karki, Tõnis; Des Jarlais, Don; Uusküla, Anneli; Lutsar, Irja; Huik, Kristi (2016). Human T-lymphotropic virus types 1 and 2 are rare among intravenous drug users in Eastern Europe. *Infection, genetics and evolution : journal of molecular epidemiology and evolutionary*

- genetics in infectious diseases, 43, 83–85.10.1016/j.meegid.2016.05.022.
- Padari, Helgi; Oselin, Kersti; Tasa, Tõnis; Metsvaht, Tuuli; Lõivukene, Krista; Lutsar, Irja (2016). Coagulase negative staphylococcal sepsis in neonates: do we need to adapt vancomycin dose or target? BMC Pediatrics, 16 (1), 206–206.10.1186/s12887-016-0753-0.
- Laisaar, K.T.; Raag, M.; Lutsar, I.; Uusküla, A. (2016). People living with HIV in Estonia: engagement in HIV care in 2013. Eurosurveillance, 21 (43), x–x.10.2807/1560-7917.ES.2016.21.43.30380.
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- Jõgi, P.; Oona, M.; Toompere, K.; Lutsar, I. (2015). Estimated and reported incidence of pertussis in Estonian adults: A seroepidemiological study. Vaccine, 33 (38), 4756–4761.10.1016/j.vaccine.2015.08.007.
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- Parm, Ülle; Metsvaht, Tuuli; Ilmoja, Mari-Liis; Lutsar, Irja (2015). Gut colonization by aerobic microorganisms is associated with route and type of nutrition in premature neonates. Nutrition Research, 35 (6), 496–503.10.1016/j.nutres.2015.04.006.
- Metsvaht, Tuuli; Nellis, Georgi; Varendi, Heili; Nunn, Anthony; Graham, Susan; Rieutord, Andre; Storme, Thomas; McElnay, James; Mulla, Hussain; Turner, Mark; Lutsar, Irja (2015). High variability in the dosing of commonly used antibiotics revealed by a Europe-wide point prevalence study: implications for research and dissemination. BMC Pediatrics, 15 (41), 1–10.10.1186/s12887-015-0359-y.
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- Rhee, S.-Y.; Blanco, J.L.; Jordan, M.R.; Taylor, J.; Lemey, P.; Varghese, V.; Hamers, R.L.; Bertagnolio, S.; de Wit, T.F.R.; Aghokeng, A.F.; Albert, J.; Avi, R.; Avila-Rios, S.; Bessong, P.O.; Brooks, J.I.; Boucher, C.A.B.; Brumme, Z.L.; Busch, M.P.; Busmann, H.; Chaix, M.-L. ... Shafer, R.W. (2015). Geographic and Temporal

Trends in the Molecular Epidemiology and Genetic Mechanisms of Transmitted HIV-1 Drug Resistance: An Individual-Patient- and Sequence-Level Meta-Analysis. *PLOS Medicine*, 12 (4), e1001810.10.1371/journal.pmed.1001810.

Parm, Ü.; Niitvägi, E.; Beljaev, K.; Aro, T.; Aotäht, E.; Raska, K.; Epstein, J.; Oona, M.; Lutsar, I. (2015). Puukborreliosis Saaremaal. *Eesti Arst*, 94 (4), 203–210.

Taba, P.; Lutsar, I. (2015). Chronic infectious inflammatory diseases of the central nervous system. In: Deisenhammer, F.; Sellebjerg, F.; Teunissen, C.E.; Tumani, H. (Ed.). *Cerebrospinal Fluid in Clinical Neurology* (211–245). Springer.10.1007/978-3-319-01225-4_15.

Soeorg H, Huik K, Parm Ü, Ilmoja ML, Metsvaht T, Lutsar I. (2015). Molecular epidemiology of *Staphylococcus epidermidis* colonizing gastrointestinal tract of neonates hospitalized to intensive care unit. The 25th European Congress of Clinical Microbiology and Infectious Diseases, April 25-28, 2015, Copenhagen, Denmark..

Soeorg H, Metsvaht T, Eelmäe I, Merila M, Ilmoja ML, Lutsar I. (2015). Colonization of gastrointestinal tract (GIT) of preterm neonates with *Staphylococcus epidermidis* (SE) present in mother's own unpasteurized breast milk (BM). The 33rd Annual Meeting of the European Society for Paediatric Infectious Diseases, May 12-16, 2015, Leipzig, Germany..

Nellis, Georgi; Varendi, Heili; Lutsar, Irja; Metsvaht, Tuuli (2015). Kõik Euroopa vastsündinutele manustatavad teadaolevate kõrvaltoimetega abained ei ole hädavajalikud. *Eesti Arst: TÜ Arstiteaduskonna aastapäeva teaduskonverents*, Tartu, Eesti, 2015. 12.

Nellis, Georgi; Lutsar, Irja; Varendi, Heili; Turner, Mark; Metsvaht, Tuuli (2015). Potentially harmful excipients in medicines prescribed in neonatal intensive care units (NICUs) – product substitution as a way forward. *J Pediatr Neonat Individual Med: 1st Congress of joint European Neonatal Societies (jENS)*, Budapest, Hungary, 2015. 10.7363/040212.

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Jõgi, P.; Oona, M.; Lutsar, I. (2015). Pertussis epidemiology and clinical characteristics in Estonia. 3rd Baltic Paediatric Congress, Riga, Lativa, 19-21 August, 2015.

Jõgi, P.; Oona, M.; Toompere, K.; Lutsar, I. (2015). Estimated versus reported incidence of pertussis in Estonian adults. 25th European Congress of Clinical Microbiology and Infectious Diseases, Copenhagen, Denmark, April 25-28, 2015.

Jõgi, P.; Oona, M.; Epstein, J.; Lutsar, I. (2015). Epidemiology of pertussis in Estonian infants over the last 25 years. 33rd Annual Meeting of the European Society for Paediatric Infectious Diseases. Leipzig, Germany, May 12-16, 2015.

- Kogermann, Karin; Putrins, Marta; Lippus, Markus; Smidt, Imbi; Truusalu, Kai; Lutsar, Irja; Tenson, Tanel
 (2015). Development of Escherichia coli systemic infection model for monitoring persisters and antibiotic susceptibility. In: .ECCMID 2015 Copenhagen, Denmark, 25-28 April 2015. ECCMID 2015 Copenhagen, Denmark, 25-28 April 2015.
- Kogermann, Karin; Putriņš, Marta; Lippus, Markus; Smidt, Imbi; Truusalu, Kai; Lutsar, Irja; Tenson, Tanel
 (2015). Bacterial phenotypic heterogeneity – single-cell level methods to study antimicrobial susceptibility during infection. In: .6th BBBB Conference on Pharmaceutical Sciences, 10.-12.09.2015, Helsinki, Finland.
 2014
- Huik, K.; Avi, R.; Uibopuu, H.; Pauskar, M.; Margus, T.; Karki, T.; Krispin, T.; Kool, P.; Rütel, K.; Talu, A.;
 Abel-Ollo, K.; Uusküla, A.; Carrillo, AQ.; He, W.; Ahuja, SK.; Lutsar, I. (2014). Association between HIV-1 tropism and CCR5 human haplotype E in a Caucasian population. *Jaids-Journal of Acquired Immune Deficiency Syndromes*, 66 (3), 239–244.10.1097/QAI.000000000000127.
- Lutsar, I.; Chazallon, C.; Carducci, FI.; Trafojer, U.; Abdelkader, B.; de Cabre, VM.; Esposito, S.; Giaquinto, C.; Heath, PT.; Ilmoja, ML.; Katragkou, A.; Lascoux, C.; Metsvaht, T.; Mitsiakos, G.; Netzer, E.; Pugni, L.;
 Roilides, E.; Saidi, Y.; Sarafidis, K.; Sharland, M. ... Aboulker, JP. (2014). Current management of late onset neonatal bacterial sepsis in five European countries. *European Journal of Pediatrics*, 173 (8), 997–1004.10.1007/s00431-014-2279-5.
- Mitt, P.; Metsvaht, T.; Adamson, V.; Telling, K.; Naaber, P.; Lutsar, I.; Maimets, M. (2014). Five-year prospective surveillance of nosocomial bloodstream infections in an Estonian paediatric intensive care unit. *Journal of Hospital Infection*, 86 (2), 95–99.10.1016/j.jhin.2013.11.002.
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- Avi, R; Huik, K; Pauskar, M; Ustina, V; Karki, T; Kallas, E; Jõgeda, EL; Krispin, T; Lutsar, I (2014). Transmitted drug resistance is still low in newly diagnosed human immunodeficiency virus type 1 CRF06_cpxinfected patients in Estonia in 2010. *Aids Research and Human Retroviruses*, 30 (3), 278–283.10.1089/aid.2012.0357.
- Kõljalg, S.; Telling, K.; Huik, K.; Murruste, M.; Saarevet, V.; Pauskar, M.; Lutsar, I. (2014). First report of *Wohlfahrtiimonas chitiniclastica* from soft tissue and bone infection at an unusually high northern latitude. *Folia Microbiologica*, 60 (2), 155–158.10.1007/s12223-014-0355-x.
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- Soeorg H, Huik K, Parm Ü, Ilmoja ML, Metsvaht T, Lutsar I. (2014). Vancomycin-heteroresistance in *Staphylococcus epidermidis* colonizing neonates in neonatal intensive care units. The 32nd Annual Meeting of the European Society for Paediatric Infectious Diseases, May 6-10, 2014, Dublin, Ireland..
- Jõgi, P.; Oona, M.; Toompere, K.; Epstein, J.; Lutsar, I. (2014). Does the number of boosters and the diagnostic method influence the notification of pertussis? 32th Annual Meeting of the European Society for Paediatric Infectious Diseases. Dublin, Ireland, May 6-10.. 2013
- Oeser, C; Lutsar, I; Metsvaht, T; Turner, MA; Heath, PT; Sharland, M (2013). Clinical trials in neonatal sepsis. *The Journal of Antimicrobial Chemotherapy*, 68 (12), 2733–2745.10.1093/jac/dkt297.
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Projects

Current grants & projects

Infection and immunocompromised host - from mechanisms to translation into clinical practice

Väikesemahulise teaduse infrastruktuuri kaasajastamine teadusteema SF0180004s12 raames
Development of research-based functional dairy foods and establishment of innovative biotechnological applications/platforms for food enterprises (microbiological, biochemical and clinical approach).

Laste seeninfektsioonide rahvusvaheline võrgustik

Pharmacokinetics of intravenous phenobarbital and lidocaine in the treatment of neonatal seizures of term neonates in therapeutic hypothermia

Appropriate dosing of antibiotics in severe infections

Bridging the gap in knowledge and practice of prevention and care for HIV in Estonia

Translational research for improvement of diagnostics and treatment of neuroimmunological diseases

Memberships

European Society for Paediatric Infectious Diseases

Estonian Society of Infectious Diseases

Estonian Society for Paediatrics

Fellowship award of the European Society for Paediatric Infectious Diseases in 1995

 Editorial Board of *The Pediatric Infectious Diseases Journal*

Other Relevant Information

Administrative responsibilities

2012 - ... Estonian Science Agency, Member of Evaluation Committee

2011 - ... senat member of University of Tartu

2010 - ... European Society for Paediatric Infectious Diseases - board member

2007 - ... EMEA, Paediatric Committee, member

2005 - ... EMEA, Scientific Advisory Group on anti-infectives

2006 - 2012 Estonian Science Foundation, Expert Committee of Health Sciences, chair

2002 - 2005 European Society for Paediatric Infectious Diseases, Member of scientific committee

1998 - 1999 Estonian Infectious Diseases Society, president

1994 - 1994 Congress of Estonian Pediatric Association, Tallinn - member of organizing committee

1993 - 1993 2nd International Meeting of Baltic Association of Child Neurology, Riga - member of organizing committee

1993 - 1993 International symposium Impact of the environment to children's health, Tartu - secretary general

1992 - 1994 Estonian Infectious Diseases Society, Board member

1991 - 1991 1st International Meeting of Baltic Association of Child Neurology, Tartu - secretary

general

1990 - 1995 Estonian Pediatric Association, Board member

1990 - 1993 Baltic Association of Child Neurology, Board member

1989 - 1989 Congress of Estonian Pediatric Association, Tallinn - member of organizing committee

Honours & Awards

2010, Irja Lutsar; Estonian Government Annual Award in Medical Sciences

2010, Yearly Award, Health - Irja Lutsar; Infektsioonide käsitus omandatud immuunpuudulikkusega isikutel

1995, Irja Lutsar; European Society for Pediatric Infectious Diseases fellowship award

1994, Irja Lutsar; Estonian Government award in medical science,

1994 European Society for Pediatric Infectious Diseases fellowship award

Field of research

3. Health, 3.7. Clinical Medicine (Infections in neonates, their pathogenesis and management. Infections of the central nervous system in children, their pathogenesis, treatment and long term outcome. Pharmacokinetic and pharmacodynamic properties of anti-infective agents in children. HIV infection, the importance of recombinant viruses in the disease process.)

3. Health, 3.7. Clinical Medicine, B510 Infections