

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 toksiini 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.

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.

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impact of transient combination antiretroviral treatment in early HIV infection on viral suppression and immunologic response in later treatment. *AIDS (London, England)*, 30 (6),

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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

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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

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of mecA-positive coagulase-negative staphylococci (MR-CoNS) in breast milk (BM) of mothers of preterm

neonates. The 34th Annual Meeting of the ESPID, May 10-14, 2016, Brighton, UK. European Society for

Paediatric Infectious Diseases,.

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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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among intravenous drug users. *Infection, genetics and evolution*, 30, 175–180.10.1016/j.meegid.2014.12.023.

Mulla, Hussain; Yakkundi, Shirish; McElnay, James; Lutsar, Irja; Metsvaht, Tuuli; Varendi, Heili; Nellis, Georgi; Nunn, Anthony; Duncan, Jennifer; Pandya, Hitesh; Turner, Mark (2015). An observational study of

blood concentrations and kinetics of methyl- and propyl-parabens in neonates. *Pharmaceutical research*, 32 (3),

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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.; Bussmann, H.; Chaix, M.-L. ... Shafer, R.W. (2015). Geographic and Temporal

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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).

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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

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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 vastündinutele manustatavad teadaolevate kõrvaltoimetega abained ei ole hädavajalikud. Eesti Arst: TÜ Arstiteaduskonna

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forward. J Pediatr Neonat Individual Med: 1st Congress of joint European Neonatal Societies (jENS), Budapest, Hungary, 2015. 10.7363/040212.

Rööp, Tiiu; Parm, Ülle; Metsvaht, Tuuli; Ilmoja, Mari-Liis; Lutsar, Irja; Mändar, Reet. (2015). Collection of

antibiotic resistant microbes of neonatal origin in the Human Microbiota Biobank (HUMB) at the Department

of Microbiology, University of Tartu. XXXIV ECCO meeting: European Culture Collections as tools in research and biotechnology, Institut Pasteur (CRBIP) in Paris, France, 27-29 May, 2015.

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Paediatric Congress, Riga, Latvia, 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; Putrinš, 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, A.Q.; He, W.; Ahuja, S.K.; Lutsar, I. (2014). Association between HIV-1 tropism and CCR5 human haplotype E in a Caucasian population. *J AIDS-Journal of Acquired Immune Deficiency Syndromes*, 66 (3), 239–244.10.1097/QAI.000000000000127.
- Lutsar, I.; Chazallon, C.; Carducci, F.I.; Trafojer, U.; Abdelkader, B.; de Cabre, VM.; Esposito, S.; Giaquinto, C.; Heath, P.T.; Ilmoja, M.L.; Katragkou, A.; Lascoux, C.; Metsvaht, T.; Mitsiakos, G.; Netzer, E.; Pugni, L.; Roides, E.; Saidi, Y.; Sarafidis, K.; Sharland, M. ... Aboulker, J.P. (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.
- Turner, MA.; Duncan, J.C.; Shah, U.; Metsvaht, T.; Varendi, H.; Nellis, G.; Lutsar, I.; Yakkundi, S.; McElroy, J.C.; Pandya, H.; Mulla, H.; Vaconsin, P.; Storme, T.; Rieutord, A.; Nunn, A.J. (2014). Risk assessment of neonatal excipient exposure: Lessons from food safety and other areas. *Advanced Drug Delivery Reviews*, 73, 89–101.10.1016/j.addr.2013.11.003.
- Avi, R.; Huik, K.; Pauskar, M.; Ustina, V.; Karki, T.; Kallas, E.; Jõgeda, E.L.; 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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and Neonatal Individualized Medicine, 3 (1), 1–10.10.7363/030115.

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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.

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Garazzino, S; Lutsar, I; Bertaina, C; Tovo, PA; Sharland, M (2013). New antibiotics for paediatric use: A

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Group Members (incl. Lutsar I). (2013). The antibiotic resistance and prescribing in European Children project: a neonatal and pediatric antimicrobial web-based point prevalence survey in 73 hospitals worldwide. *The Pediatric Infectious Disease Journal*, 32 (6), e242–e253.10.1097/INF.0b013e318286c612.

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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