

Yearly report 2020



Faculty of Mathematics and Natural Sciences:

Department of Pharmacy

Department of Informatics

Department of Mathematics

Department of Biosciences

“I have many concerns about childbirth, afraid of being infected when I’m outdoors. It’s tough not knowing how the disease can affect me and my unborn child. There is little information about COVID-19 for pregnant women.”

Quotation from PharmaTox paper *in press*
Acta Obstet Gyn Scand.





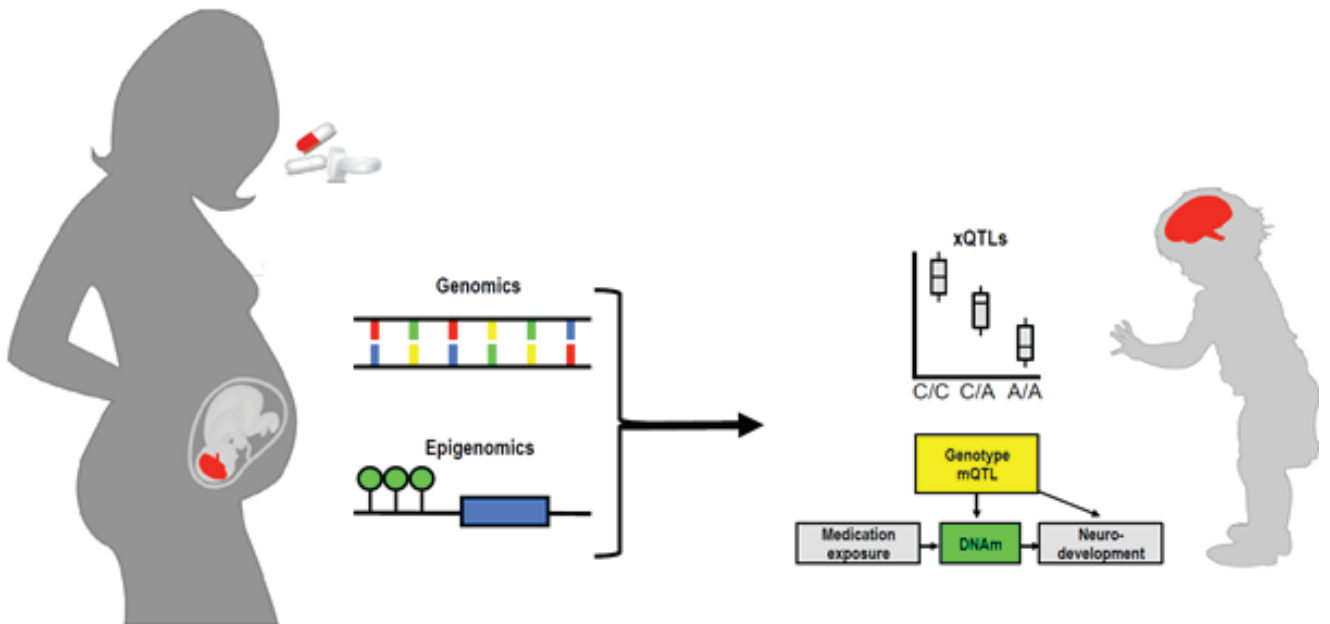
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In PharmaTox we want to unite scientists at the Faculty of Mathematics and Natural Sciences in a Strategic Life Science Research Environment to determine safety of medication on human neurodevelopment.

More than 5 million women are pregnant in the EU every year and the majority use at least one medication during pregnancy. Yet, for most medications there is almost no evidence-based information on the long-term effects on child neurodevelopment; such information is essential to foster/promote women's well-informed decisions on medication use.



TeraEpi: Teratogenicity of anti-seizure medication: the roles of epigenetics and folic acid supplements. 2021-2024.
 Funded by the Norwegian Research Council, Life Sciences, Ground breaking research!
 PharmaTox' **Kristina Gervin** is one of the project leads!

Key numbers - 2020

PharmaTox consists of over 40 researchers at the MN faculty. The initiative has 10 external partners and several collaborators within and outside of Norway. The collaboration resulted in a large number of high-impact publications and presentations in 2020.

KEY NUMBERS 2020:

2 PhD candidates defended their theses

18 international publications

10 posters/international presentations

7 major grants

Aim

PharmaTox Strategic Research Initiative was established January 1, 2015, with the aim to determine the impact of specific medications on neurodevelopment, and propose the molecular and cellular mechanisms involved. The second phase, PharmaTox 2.0, started 2019.

We wish to challenge our current understanding of how pharmaceuticals act on the nervous system and generate novel insights on molecular mechanisms of drug neurotoxicity, including pharmaco-epigenetic effects.

Moreover, we wish to be a driver of scientific renewal at the MN faculty, dedicated to research, technical training, and education. The cultural renewal lies in a strong focus on interdisciplinary teamwork, career development, creation of an inspiring learning environment, and focus on generic competencies and international leadership. The research projects within PharmaTox involve specialists in neurotoxicology, pharmacology, teratology, statistics, bioinformatics, epigenetics and epidemiology.

COVID-19 hit us hard!

PharmaTox events had to be cancelled, meeting streamed and lectures digitalized. Two PhD defenses were held digitally. But new ideas and initiatives also emerged. The PharmaTox platform enabled us to be competitive.

PharmaTox researchers are leading several international research projects focusing on risk factors, consequences and treatment of COVID-19, with a particular focus on complex populations like pregnant women. In most of these projects we capitalize on our access to Norwegian healthcare registries. The projects have been funded by the Norwegian Research Council, Nordforsk (Nordic Council of Ministers) and the European Medicines Agency. **PharmaTox researchers will contribute to knowledge about risk factors for and consequences of medication use on the COVID-19 disease.**



"I have many concerns about childbirth, afraid of being infected when I'm outdoors. It's tough not knowing how the disease can affect me and my unborn child. There is little information about COVID-19 for pregnant women."

Quotation from: Impact of the COVID-19 pandemic on the mental health status of pregnant and breastfeeding women – a multinational cross-sectional study. Michael Ceulemans, Veerle Foulon, Elin Ngo, Alice Panchaud, Ursula Winterfeld, Léo Pomar, Valentine Lambelet, Brian Cleary, Fergal O'Shaughnessy, Anneke Passier, Jonathan Luke Richardson, Titia Hompes, Hedvig Nordeng. In press (Acta Obstet Gyn Scand).

Congratulations Kristina!

The project entitled “**TeraEpi: Teratogenicity of anti-seizure medication: the roles of epigenetics and folic acid supplements**” has received funding from the Norwegian Research Council (Livsvitenskap, Banebrytende forskning (FRIPRO)).

The project capitalizes on the prior pharmacogenetic studies in PharmaTox using MoBa data, and ensures continuity of this important research field!



With funding from
**The Research
Council of Norway**

Leads: Kaja Selmer (PI; OUS). Kristina Gervin (OUS and FAI) and Marte-Helene Bjørk (UiB).

PharmaTox researchers: Kristina Gervin (OUS and FAI) and Hedvig Nordeng (FAI)

Host institution: Dep. of Research and Innovation, Div. of clinical neuroscience, Oslo University Hospital.

Partner institution at UiO: Dep. of Pharmacy, UiO

Other partner institutions are Dep. of Clinical Medicine, University of Bergen and Dep. of Neurology, Haukeland University Hospital, and National Center for Epilepsy, Oslo University Hospital.

We look forward to collaborating in this great project!

It is known that the use of antiepileptic drugs during pregnancy can have harmful effect on the fetus, but very little is known about the underlying mechanisms. In TeraEpi, researcher will examine data and DNA from the Norwegian Mother, Father and Child Cohort (MoBa). They will investigate both genetic and epigenetic mechanisms, as well as analyze whether folate supplementation during pregnancy affects these mechanisms.

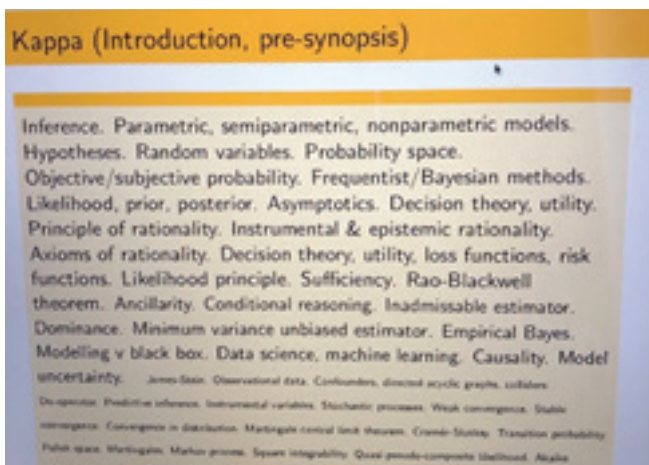




Highlights in 2020: two PharmaTox PhD defenses!

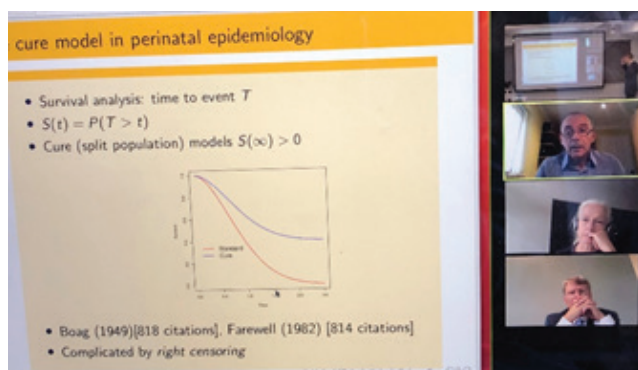
EMIL DEFENDED HIS THESIS!

Doctoral candidate **Emil Aas Stoltenberg** at the Department of Mathematics, Faculty of Mathematics and Natural Sciences, defended his thesis October 30, 2020. The thesis was entitled **“Epidemiological, Econometric, and Decision Theoretic Applications of Statistical Inference”**.



His supervisors were Professor Sven Ove Samuelsen, Professor Hedvig Marie Egeland Nordeng and Professor Nils Lid Hjort, all from the University of Oslo.

The title of Emil’s trial lecture was **“Stable convergence with applications”**.



According to the first opponent Emil has captured the whole world of statistics in the synopsis of his doctoral thesis! Quite an achievement!

MARTIN DEFENDED HIS THESIS!

Doctoral candidate **Martin Falck** at the Department of Biosciences defended his thesis November 16, 2020. The thesis was entitled **“Differentiation of human embryonic stem cells towards neural progenitor cells to study the effect of paracetamol on prenatal brain development”**.

His supervisors were Associate Professor Ragnhild Eskeland, University of Oslo; Group leader Robert Lyle, Oslo University Hospital; Professor Kristian Prydz, University of Oslo; Professor Odd Stokke Gabrielsen, University of Oslo, and Professor Rein Aasland, University of Oslo.

The title of Martin’s trial lecture was **“Human brain organoids in disease modelling and drug development”**.



Teaching and training

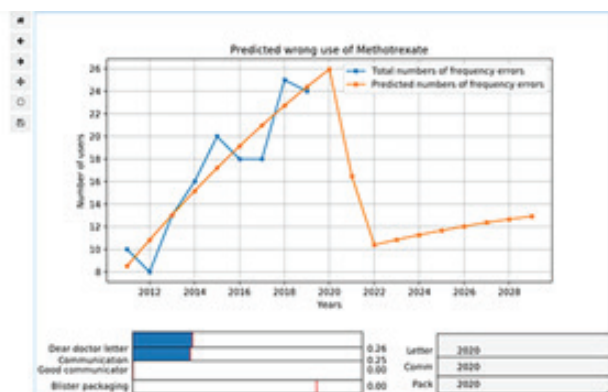
All PharmaTox PhDs and postdocs take part in several PhD schools such as NFIF, NRSN, NORBIS, Digital Life (DLNRS) and EPINOR. Training in transferable skills is an important part of these schools. Here, we present some selected events:

COLLABORATION WITH CENTRE FOR COMPUTING IN SCIENCE EDUCATION (CCSE): INTRODUCING COMPUTATIONAL SCIENCES INTO PHARMACOEPIDEMIOLOGY FARM3120

The collaboration is funded by the Center for Computing in Science Education (CCSE). The initiative came from researcher Angela Lupattelli at the Department of Pharmacy.

- Our students need more and more competence in data analysis and “computational science” in working life, and then it is important that we all now change our science teaching, she says.
- We had a very positive experience from a similar collaboration with CCSE last year.
- We had a very positive experience from a similar collaboration with CCSE last year.

She thinks the project is of great importance for the teaching at the department, and says that integration of calculations should take place gradually throughout the entire pharmacy study.



Advanced models make it possible for students to visualize complex issues. Read all about it [here!](#)

PHARMATOX LECTURE AT NATURFAGKONFERANSEN

Postdoc Christian Page, Department of Mathematics held the lecture entitled “A primer for Genetic Epidemiology.”

Date: October 13, 2020



In high throughput genetic studies, we study a large number of genetic features in each individual. While the statistical modelling of each feature can be simplistic, the large number of them poses challenges when representing and interpreting the results.

Christian gave examples on this from an ongoing study on epigenetics analysis and *in vitro* fertilisation (IVF), where he investigated what effect IVF has on the children’s epigenome.



MASTER STUDENTS FINISHED IN 2020

Nora Houdaifi. Thesis: In vitro studier i kylling-kornceller og optimalisering av studier i humane cellelinjemodeller; SH-SY5Y og NTERA2. Supervisors: N.A. Labba and R. Paulsen.

Ala Zaim Khoder. Thesis: Fordeling av og nevronal utvikling etter opioider administrert i kyllingembryo. Supervisors: M.G. Hadera and R. Paulsen.

Hallvard Austin Wæhler. Thesis: Investigating the Effects of Paracetamol on Neuronal Differentiation Using High Throughput Imaging and Analysis. Supervisors: R. Eskeland, N.A. Labba, C.A.M. Progida and G.K. Sandve.

PHARMATOX GUEST RESEARCHERS

Marleen Van Gelder. Assistant Professor in Epidemiology / scientific coordinator of the Pregnancy and Infant Development (PRIDE) Study, Radboud University, Nijmegen, **The Netherlands**, March 2020. Antiemetic drug utilization in pregnancy.

Julia do Amaral. Departamento de Genética – UFRGS, Porto Alegre, **Brazil**, March 2020. Genetic vulnerability to teratogens.

Nhung Trinh. Researcher, Pierre Louis Doctoral School of Public health, epidemiology and biomedical information sciences, University of Paris, **France**, August – October 2020. Utilisation of antibiotics in Pregnancy – (interrupted) time-series analysis.

Justine Bénévent. Assistant Professor, Perinatal and reproductive pharmaco epidemiologi, Toulouse University Hospital, **France**, September 2020 – September 2021. Risk of childhood cancer after prenatal exposure to thyroid therapy – a Nordic registry based study.

UIO: LIFESCIENCE SUMMER STUDENT PROJECTS

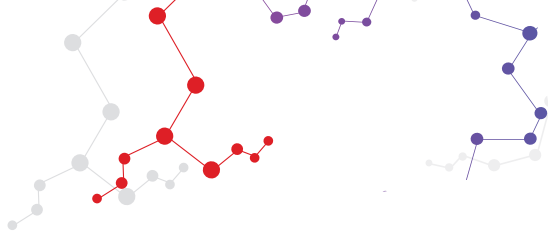
Medication Information Sources and needs among women and HCP

Report. IMI ConcePTION project, Kristin Strenger Rosnes, master in nutrition.

Patient-centered approaches to aid women's decision- making on antidepressant use in the perinatal period

Ludvig Daae Bjørndal, Psychology student.





Ten simple rules for quick and dirty scientific programming

Gabriel Balaban^{1,2*}, Ivar Grytten¹, Knut Dagestad Rand³, Lonneke Scheffer¹, Geir Kjetil Sandve^{1,2}

1. Biomedical Information Group, Department of Informatics, University of Oslo, Oslo, Norway
2. PharmaTox Strategic Research Initiative, Faculty of Mathematics and Natural Sciences, University of Oslo, Oslo, Norway
3. Institute of Medical Microbiology, Oslo University Hospital, Rikshospitalet, Oslo Norway

Publications

PharmaTox postdoc Gabriel Balaban's first submitted paper. Congratulations!

18 PharmaTox papers were published in 2020.

10 oral or poster presentations were given.

International publications

1. Ten simple rules for quick and dirty scientific programming. **G. Balaban**, G. Grytten, K.D. Rand, L. Scheffer, **G.K. Sandve**. Accepted, PLoS Computational Biology.
2. The cure model in perinatal epidemiology. **E.A. Stoltenberg**, **H.M.E. Nordeng**, **E. Ystrom**, **S.O. Samuelson**. Stat Methods Med Res. 2020 October 29; (10):2783-2794.
3. Prenatal medication exposure and epigenetic outcomes: a systematic literature review and recommendations for prenatal pharmacoepigenetic studies. **E. W. Olstad**, **H.M.E. Nordeng**, **K. Gervin**. In Revision, Epigenetics.
4. Genetic susceptibility to drug teratogenicity - a systematic literature review. J.A. Gomes, **E.W. Olstad**, T.W. Kowalski, **K. Gervin**, F.S.L. Vianna, L. Schüler-Faccini, **H.M.E. Nordeng**. Submitted, Target journal: Frontiers in Genetics.
5. Longitudinal methods for modeling exposures in pharmacoepidemiologic studies in pregnancy. **M.E. Wood**, **A. Lupattelli**, K. Palmsten, G. Bandoli, C. Hurault-Delarue, C. Damase-Michel, C.D. Chambers, **H.M.E. Nordeng**, M.M.H.J. van Gelder. In revision, Epid Reviews.
6. Response to: modelling paternal exposure as a negative control. **M.E. Wood**, J.M. Cohen, **E. Ystrom**, **H.M.E. Nordeng**, S. Hernandez-Diaz. Int J Epidemiol. 2020 April 24; dyaa055. doi: 10.1093/ije/dyaa055. Epub ahead of print. PMID: 32330933.
7. Prenatal paracetamol exposure and neurodevelopmental outcomes in preschool-aged children. **J.N. Trønnes**, **M. Wood**, **A. Lupattelli**, **E. Ystrom**, **H.M.E. Nordeng**. Paediatr Perinat Epidemiol. 2020 May; 34(3):247-256. doi: 10.1111/ppe.12568. Epub. 2019 August 25; PMID: 31448449.
8. Rheumatoid Arthritis Patients, Both Newly Diagnosed and Methotrexate Treated, Show More DNA Methylation Differences in CD4⁺ Memory Than in CD4⁺ Naïve T Cells. K. Guderud, L.H. Sunde, S.T. Flåm, M.T. Mæhlen, M.D. Mjaavatten, S. Lillegraven, A.B. Aga, I.M. Evenrød, E.S. Norli, B.K. Andreassen, S. Franzenburg, A. Franke, E.A. Haavardsholm, S. Rayner, **K. Gervin**, B.A. Lie. Front Immunol. 2020 February 14; 11:194. doi: 10.3389/fimmu.2020.00194. PMID: 32117312; PMCID: PMC7033478.
9. Extending balance assessment for the generalized propensity score under multiple imputation. **A.S.J. Frank**, D.S. Matteson, H.K. Solvang, **A. Lupattelli**, **H.M.E. Nordeng**. Epidemiol. Methods 2020; 20190003. <https://doi.org/10.1515/em-2019-0003>.
10. The effect of prenatal exposure to benzodiazepines and z-hypnotics on pregnancy length, birth weight and other perinatal outcomes. A prospective study with data from the Norwegian Mother, Father and Child Cohort and the Norwegian Medical Birth Registry. **A. Huitfeldt**, **L.M. Sundbakk**, S. Skurtveit, M. Handal, **H.M.E. Nordeng**. JAMA Open. 22 June; online.
11. Thyroid hormone replacement therapy patterns in pregnant women and perinatal outcomes in the offspring. Pharmacoepidemiology and Drug Safety. **A.S. Frank**, **A. Lupattelli**, H.M. Meltzer, D.S. Matteson, **H.M.E. Nordeng**. 2020; 29(1): 111-121. DOI: 10.1002/pds.4927.
12. Modeling exposures of medications used episodically during pregnancy: triptans as a motivating example. **G.M.E. Harris**, **M. Wood**, **H.M.E. Nordeng**. Pharmacoepidemiol Drug Saf. 2020 August 3; doi: 10.1002/pds.5089.



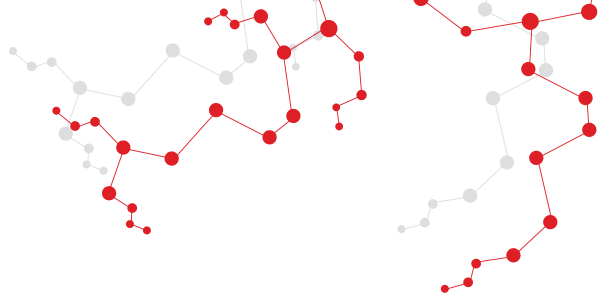
13. Fertility treatment and oral contraceptive discontinuation for identification of pregnancy planning in routinely collected health data - an application to analgesic and antibiotic utilisation. **S. Hjorth, M. Wood, F. Tauqeer, H. Nordeng**. BMC Pregnancy and Childbirth. 2020 20:731.
14. Impact of the COVID-19 pandemic on the mental health status of pregnant and breastfeeding women – a multinational cross-sectional study. M. Ceulemans, V. Foulon, **E. Ngo**, A. Panchaud, U. Winterfeld, L. Pomar, V. Lambelet, B. Cleary, F. O’Shaughnessy, A. Passier, J.L. Richardson, T. Hompes, **H.M.E. Nordeng**. *in press*, Acta Obstet Gyn Scand.
15. Thyroid hormone replacement therapy in pregnancy and motor function, communication skills, and behavior of preschool children: The Norwegian Mother, Father, and Child Cohort Study. S. van den Broek, A. **Lupattelli**, **A.S. Frank**, L.S. Haug, **H.M.E. Nordeng**. Pharmacoepidemiol Drug Saf. 2020; 1–11. <https://doi.org/10.1002/pds.5184>

Preprint in medRxiv:

16. Anti-thyroid drug use during the first trimester of pregnancy and the risk of birth defects in offspring: systematic review and meta-analysis of observational studies with methodological considerations. D.R. Morales, L. Fonkwen, **H.M.E. Nordeng**. <https://medrxiv.org/cgi/content/short/2020.06.10.20127233v1>
17. Mediation analysis in sibling designs: an application to the effect of prenatal antidepressant exposure on toddler depression mediated by gestational age at birth. **M.E. Wood**, E.M. Eilertsen, **E. Ystrom, H.M.E. Nordeng**, S. Hernandez-Diaz. MS <https://medrxiv.org/cgi/content/short/2020.06.11.20128496v1>

International oral / poster presentations

1. Prenatal exposure to NSAIDs and risk of ADHD: a follow-up study in the Norwegian Mother, Father, and Child Cohort. **S. Hjorth**. ISPE. 2020 September 16. (digital conference).
2. Lessons on Nordic data sharing learned from: Risk of childhood cancers after prenatal exposure to medications – a Nordic registry-based study. **S. Hjorth**. DSFE yearly meeting. 2020 October 26. (digital conference).
3. In utero opioid exposure and risk of ADHD in childhood: A Scandinavian registry study. M. Handal, S. Skurtveit, I.O. Lund, I. Odsbu, **H.M.E. Nordeng, A. Lupattelli**, H. Kieler, B. Öztürk, M. Nørgaard, T. Reichborn-Kjennerud, **M. Wood**, S. Hernandez-Diaz, M. Mahic. EuroDURG conference, Hungary. 2020.
4. How to identify pregnancy planning in routinely collected health data? **S. Hjorth, M. Wood, F. Tauqeer, H.M.E. Nordeng**. ISPE. 2020 September 16. (digital conference).
5. Maternal Use Of Antidepressant Medication In Pregnancy And Risk Of Gestational Diabetes Mellitus. **A. Lupattelli**, F. Barone-Adesi, **H.M.E. Nordeng**. ISPE. 2020 September 16. *Reprod Toxicol.* 2020 October ;97:4. doi: 10.1016/j.reprotox.2020.04.032. (digital conference).
6. Gestational Weight Gain Following Use Of Antidepressant Medication In Pregnancy: Results From The Norwegian Mother And Child Cohort Study. **A. Lupattelli**, F. Barone-Adesi, **H.M.E. Nordeng**. ISPE. 2020 September 16. *Reprod Toxicol.* 2020 October; 97:5. doi: 10.1016/j.reprotox.2020.04.010. PMID: 33353709. (digital conference).
7. Association Between Antidepressant Treatment During Pregnancy And Postnatal Self-Harm Ideation: A Cross-Sectional, Multinational Study Using The Edinburgh Postnatal Depression Scale. J. Vallee, Y. Wong, E. Mannino, **A. Lupattelli**. ISPE. 2020 September 16. (digital conference).
8. Unmeasured confounding by maternal personality traits on the association between prenatal medication exposures and child developmental outcomes. **A. Lupattelli**, K. Vamsæter, **E. Ystrøm, H.M.E. Nordeng**. ISPE. 2020 September 16. (digital conference).



9. Antiemetic prescription fills during pregnancy: a drug utilization study among 762,437 pregnancies in Norway. M.M.H.J. van Gelder, **H.M.E. Nordeng**. ISPE. 2020 September 16. (digital conference).
10. Perinatal use of triptans and other drugs - a nationwide drug utilization study. **F. Tauqeer, M. Wood, S. Hjorth, A. Lupattelli, H.M.E. Nordeng**. ISPE. 2020 September 16. (digital conference).and Medisinerbloggen 2020 September 29. (digital conference).

Public dissemination and media coverage

The PharmaTox Strategic Research Initiative and our research projects have received good media coverage in 2020. Several of the PharmaTox members have actively been disseminating information about PharmaTox and our research focus through public lectures and interviews.

Lay press (selected):

Et steg nærmere tryggere genredigering, Aftenposten, Ragnhild Eskeland, førsteamanuensis, Institutt for medisinske basalfag (IMB) and Senter for kreftcelle-reprogrammering (CanCell), University of Oslo, 12 March 2020, and Medisinerbloggen 29 September 2020.

Svangerskaps lengden påvirker barnets DNA metylering, NRK.no, Ragnhild Eskeland, førsteamanuensis, Institutt for medisinske basalfag (IMB) and Senter for kreftcelle-reprogrammering (CanCell), University of Oslo, 7 March 2020.

[Helseforskarar manglar data, men oppdagar det ikkje](#)

forskning.no | Angela Lupattelli og Hedvig Nordeng

[Felles europeisk forskingsatsing mot svangerskapsdepresjon](#)

forskning.no | Angela Lupattelli

[Fleire for tidlege fødsjar hjå gravide som tok angst- og sovemedisin](#)

forskning.no | Hedvig Nordeng

[- Negative funn er òg nyttige](#)

Titan | Sarah Hjorth Andersen

[Masterstudentar utviklar læringsressurs for masterstudentar](#)

FAI | Pari Faraj og Linda Tran (Angela Lupattelli)



Funding

APPROVED PROPOSALS

Project title	Funding agency and scheme	Total sum (Mill NOK)	Status, date	Scientist(s) involved
TeraEpi: Teratogenicity of anti-seizure medication: the roles of epigenetics and folic acid supplements	NFR (FRIPRO)	8,8	2021-2023	K. Gervin (one of 3 project leads). H. Nordeng
EU-COVID-19: a multinational registry-based linkage study with focus on risk and protective factors, clinical outcomes and mental health	NFR (Emergence call for research on COVID-19)	4,97	2020-2021	H. Nordeng (PI), A. Lupattelli
Nordic COHERENCE: Nordic Collaborative Health Register Network for Covid-19 Epidemiology	Nordforsk Nordic Health Data Research Projects on COVID-19	9,95 3,85 (UiO)	2020-2022	H. Nordeng (WP lead)
Doctor AI2 – Artificial Intelligence mining of the Adaptive Immune system to develop an immunodiagnostics platform	NFR (IKTPLUSS)	8,8	2021-2023	G.K. Sandve (project lead)
LINEing Development and Cancer – 1 PhD student	IMB, UiO		2020-2024	R. Eskeland, A. Mathelier and S. Nakken
NorMed-PreCCS: Nordic Medications in Pregnancy and Childhood Cancer Study	Nordic Cancer Union	0,5	2021	H. Nordeng (PI), S. Hjorth
CONSIGN: Covid-19 infectiOn aNd medicineS In pregnancy	European Medicines Agency (EMA)	0,5	2020-2021	H. Nordeng (WP lead), A. Lupattelli

NordForsk is an organisation under the Nordic Council of Ministers.

Two ERC COC finalist projects, non-funded:

- H. Nordeng: UiOGenerationSafe: Neurodevelopmental Safety of Medications in Pregnancy - an integrated pharmaco-omics approach
- E. Ystrøm: The PsychoGeography of Intergenerational Mobility: Early life socioeconomic position, mental health, and educational performance (GeoGen)

These will be improved and submitted in 2021 (EY) and 2022 (HN).

Submitted application, decision pending:

INTPART (International Partnerships for Excellent Education and Research) scheme, NFR:
iAPOGEE: International Alliance for PharmacoGenetic Epidemiology Excellence.

Grants for educational activities:

- **MatNat study quality funding for the development of programmes, courses and teaching:**
Development of digital teaching material for master course FARM5220: (medication errors with use of metotrexate, MS drugs in pregnancy using WHO VigiBase ICSR data).
- **CCSE – Center for Computing in Science Education:**
Integration of data analysis and computation into teaching activities at the Department of Pharmacy, course FARM5220, 4 students summer 2019.

PhamaTox-members 2020

Name	Position	Institute	Role (funding)
Hedvig Nordeng	Professor	FAI	PharmaTox head
Ragnhild Eskeland	Ass. professor	IMB	PharmaTox leader group
Ragnhild Paulsen	Professor	FAI	PharmaTox leader group
Geir Kjetil Sandve	Professor	IFI	PharmaTox leader group
Sven Ove Samuelsen	Professor	MI	PharmaTox leader group
Robert Lyle	Professor	FAI	PharmaTox leader group
Eivind Ystrøm	Professor	FAI	PharmaTox member – ERC STG
Mollie Wood	Guest researcher	FAI	Previous PharmaTox postdoc
Gabriel Balaban	Postdoc	IFI	Funded by PharmaTox 2.0
Christian Page	Postdoc	MI	Funded by PharmaTox 2.0
Emilie Willoch Olstad	PhD	FAI	Funded by PharmaTox 2.0
Emil Aas Stoltenberg	PhD	MI	Funded by PharmaTox
Martin Falck	PhD	IBV	Funded by PharmaTox
Mussi Ghezu Hadera	Postdoc	FAI	Funded by PharmaTox
Kristina Gervin	Postdoc	FAI	Funded by PharmaTox and ERC STG
Nils Anders Labba	PhD	FAI	Funded by PharmaTox - Innovation
Mari Spildrejorde	PhD	OUS	PharmaTox member - FRIMEDBIO
Magnus Leithaug	Lab researcher	OUS	PharmaTox member
Athina Samara	Researcher	IBV/KI	PharmaTox member
Angela Lupattelli	Researcher	FAI	PharmaTox member – NFR-YRT
Helle Wallach Kildemoes	Researcher	FAI	PharmaTox member – ERC STG
Nhung Trinh	Postdoc	FAI	PharmaTox member – NFR YRT
Socheat Chen	Postdoc	FAI	PharmaTox member – IMI ConcePTION
Lene Maria Sundbakk	PhD	FAI	PharmaTox member – MN (KD)
Johanne Naper	PhD	FAI	PharmaTox member - ERC STG
Gerd Marie Eskerud	PhD	FAI	PharmaTox member – Ekstrastiftelsen (NKS)
Sarah Hjort Andersen	PhD	FAI	PharmaTox member - ERC STG
Mona Gaarder	Technician	FAI	PharmaTox member
Cecilie Morland	Assoc. Prof.	FAI	PharmaTox member
Jannike Mørch Andersen	Assoc. Prof.	FAI	PharmaTox member
Alena Hadzic	PhD	FAI	PharmaTox member
Linda Thøring Øverberg	PhD	FAI	PharmaTox member
Marvin Lambertus	PhD	FAI	PharmaTox member
Samuel Geiseler	Postdoc	FAI	PharmaTox member
Eivind Hovig	Professor	IFI	PharmaTox member
Camilla Esguerra	Professor	IFI	PharmaTox associate member
Knut Liestøl	Professor	IFI	PharmaTox associate member
Ingrid Glad	Professor	MI	PharmaTox associate member
Ignacio Cuervo	PhD	IBV	PharmaTox member
Beata Nadratowska-Wesolowska	Researcher	IMB	PharmaTox member
Naima Azouzi	Postdoc	IMB	PharmaTox member
Ankush Sharma	Postdoc	IBV/FAI	PharmaTox member
Guro C. Mustorp	Master in Biosciences	IMB	PharmaTox master student
Hallvard Wæhler	Master in Biosciences	IMB	PharmaTox master student
Lavinia Schuler-Faccini, Genetics Dpt., Biosciences Institute, Federal University of Rio Grande do Sul (UFRGS), Porto Alegre, Brazil	Professor	Brazil	PharmaTox QLS partner
Christina Chambers, Center for Better Beginnings, School of Medicine, University of California, San Diego	Professor	USA	PharmaTox QLS partner



News

Read all about our activities here: <https://www.mn.uio.no/farmasi/english/research/groups/pharmatox/news/>



[PharmaTox at Naturfagkonferansen](#)

Postdoc Christian presenting at Naturfagskonferansen
14 October 2020!

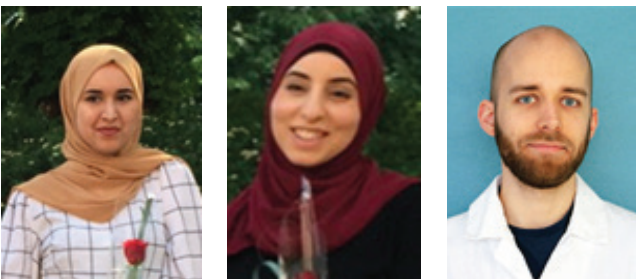
Published October 15, 2020 4:43 PM



[The PharmaTox Qualitative Life Sciences \(QLS\) Honors Visiting Scholar program](#)

The PharmaTox Qualitative Life Sciences (QLS) Honors Visiting Scholar program hosts researchers within (pharmaco-/genetic-) epidemiology, biostatistics and/or bioinformatics at the Pharmacoepidemiology and Drug Safety Research Group at the Faculty of Mathematics and Natural Sciences, University of Oslo.

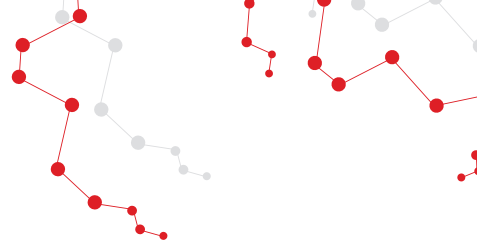
Published October 19, 2020 4:38 PM.



[Congratulations, PharmaTox masterstudents!](#)

Nora Houdaifi, Ala Zaim Khoder and Hallvard Austin Wæhler defended their master thesis this spring/summer.

Published August 19, 2020 8:17 AM



[Visiting PharmaTox scientist Nhung Trinh](#)

Nhung's research as part of the PharmaSafe team will focus on **antibiotic prescription fills in pregnant and breastfeeding women**, and on the effectiveness and safety of antidepressant medication use during pregnancy and after childbirth.

Published August 10, 2020 3:49 PM



[New PharmaTox postdoc - Christian Page](#)

Christian will continue his work on pregnancy health, and bridge methodological and epidemiological research in pregnancy safety and reproductive biology.

Published May 18, 2020 9:00 AM



[PharmaTox yearly report 2019](#)

Read the PharmaTox yearly report to see what PharmaTox researchers achieved in 2019.

Published March 2, 2020 3:58 PM





REPORT EDITOR: Hedvig M.E. Nordeng

E-MAIL: h.m.e.nordeng@farmasi.uio.no

LAYOUT: Laila Torstveit

WEB: www.mn.uio.no/farmasi/english/research/groups/pharmatox/

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