Curriculum Vitae: Britt Drögemöller

Assistant Professor, Department of Biochemistry & Medical Genetics, University of Manitoba
Areas of interest: Pharmacogenomics | Human Genomics | Bioinformatics

CONTACT DETAILS

Telephone	+1 778 838 6518
Email address	britt.drogemoller@umanitoba.ca; britt.drogemoller@gmail.com
Website	www.drogemollerlab.com
Twitter	@brittdrog

ACADEMIC CAREER

- Postdoctoral Research Fellow, University of British Columbia, Canada — July 2014 – March 2020
- Postdoctoral Research Fellow, Stellenbosch University, South Africa — Jan 2014 - June 2014
- PhD (Genetics), Stellenbosch University, South Africa — April 2010 - Dec 2013
- MSc (Genetics), Stellenbosch University, South Africa ***Cum Laude*** — Jan 2008 - Mar 2010
- Hons (Genetics), Stellenbosch University, South Africa — Jan 2007 - Dec 2007
- BSc (Human Life) (Biol Human), Stellenbosch University, South Africa — Jan 2004 - Dec 2006

GRANTS

Co-applicant - CIHR Team Grant 2020-2025
Cannabis for symptom management in children with cancer: a demonstration project by the Canadian Childhood Cannabinoid Clinical Trials (C4T) platform ($1,499,000.00)

Co-investigator - CIHR Project Scheme Grant 2017-2022
Discovery, validation, and pre-clinical development of novel strategies to prevent anthracycline-induced cardiotoxicity ($573,750)

Co-principal investigator - BCCHR Evidence to Innovation Seed Grant 2017-2018
Genome-wide association study of L-asparaginase-induced pancreatitis in pediatric cancer ($10,747)

FUNDING and AWARDS

Awards

- Killam Postdoctoral Fellow Research Prize — 2019
- Canadian Society of Pharmacology and Therapeutics Postdoc Award — 2018
- BC Children's Hospital Research Outstanding Achievement by a Postdoctoral Fellow — 2017
- Stellenbosch University New Voices in Science Finalist — 2014
- Canadian Society of Pharmacology and Therapeutics Travel Award — 2018
- Child and Family Research Institute Trainee Travel Grant — 2015
- Childhood Cancer and Blood Research Program Trainee Travel Award — 2015
- Whitehead Scientific Travel Bursary — 2013

- Wellcome Trust Advanced Courses Bursary 2010
- Oppenheimer Memorial Trust Travel Funding 2010
- Stellenbosch University Travel Award 2010

Fellowships

- MSFHR Research Trainee Award 2017-2018
- CIHR Postdoctoral Fellowship 2017-2019
- CIHR Drug Safety and Effectiveness Cross-Disciplinary Training Program 2017-2018
- Child and Family Research Institute Hoffmeister Fellowship 2015-2016
- Stellenbosch University Postdoctoral Fellowship 2014
- L'Oréal-UNESCO for Women in Science in Sub-Saharan Africa Fellowship 2012

Scholarships

- Stellenbosch University Consolidoc Programme 2014
- South African National Research Foundation Innovation Doctoral Scholarship 2010-2013
- Stellenbosch University PhD Merit Bursary 2010-2012
- Harry Crossley Foundation Bursary 2008-2009
- South African National Research Foundation Grant-Holder Bursary 2008
- South African National Research Foundation Prestige Programme 2007
- Stellenbosch University Honours Merit Bursary 2007
- Stellenbosch University Undergraduate Merit Bursary 2004

CO-SUPERVISION

1. **Alice Man, BSc, Department of Anesthesiology, Pharmacology & Therapeutics, University of British Columbia, Work Learn Student, 2019 –** Investigation of clinical and genomics predictors of L-asparaginase-induced pancreatitis and hypersensitivity in pediatric cancer patients
2. **Cody Lo, Medical student, University of British Columbia, MED419 flex program student, 2018 –** Investigation of *ACYP2* and *WFS1* in cisplatin-induced ototoxicity in pediatric cancer patients
   Awards: Winner of the BCCHR Summer Student Research Program Poster Competition
3. **Tan Le, BSc, Department of Pharmacy, University of British Columbia, Work Learn Student, 2018 -** A comprehensive comparison of cisplatin-induced ototoxicity grading scales
4. **Joanne Shih, BSc, Department of Pharmacy, University of British Columbia, Work Learn Student, 2015-2017** - The development of clinical practice guidelines for the implementation of *CYP2D6* genotyping to improve tamoxifen treatment. *Present Position: Pharmacist at the Pharmasave Drugs*
5. **Faatiemah Higgins, MSc, Department of Genetics, Stellenbosch University, Dec 2015** - Employing exome analysis for the identification of functional variants in candidate antipsychotic pharmacogenes*. Present Position: Genetics Researcher at the University of Valencia*
6. **Kirsten Veldsman, BSc (Hons), Department of Genetics, Stellenbosch University, Dec 2013 -** Pharmacogenetic candidate gene study of initial antipsychotic drug response in a South African first episode schizophrenia cohort *Present Position: MSc student, Stellenbosch University*
7. **Michelle Coffee, BSc (Hons), Department of Genetics, Stellenbosch University, Dec 2012 -** Bioinformatic and molecular genetic analysis of *MIR137*, *TRIM26*, *CNNM2*, *NT5C2*, *STT3A* in a South African first episode schizophrenia cohort. *Present Position: PhD student at Hannover Medical School. Awards: Hofmeyr van Schaik medal for the best fourth-year Genetics student*

8. **Ellen Ovenden, BSc (Hons), Department of Genetics, Stellenbosch University, Dec 2012** - Bioinformatic and molecular genetic analysis of *PCGEM1*, *MMP16*, *CCDC68*, *TCF4* and *CSMD1* in a first episode schizophrenia cohort. *Present Position: PhD student, Stellenbosch University*
9. **Faatiemah Higgins, BSc (Hons), Department of Genetics, Stellenbosch University, Dec 2011 -** Analysis of *DRD2* and *COMT* variants with regards to symptom severity in a South African schizophrenia cohort; *Awards: South African National Research Foundation Innovation Master's Scholarship*
10. **Enid Nieuwoudt, BSc (Hons), Department of Genetics, Stellenbosch University, Dec 2010 -** Analysis of SNPs flanking a potential schizophrenia susceptibility gene (fibroblast growth factor receptor 2, *FGFR2*) in the South African Xhosa population. *Present Position: PathCare employee*
11. **Nicole Spinas, BSc (Hons), Department of Genetics, Stellenbosch University, Dec 2010 -** Identification of carriers of two novel *CYP2D6* alleles in the Xhosa schizophrenia and control populations. *Present Position: Unistel Medical Laboratories employee*
12. **Danielle da Silva, BSc (Hons), Department of Genetics, Stellenbosch University, Dec 2009 -** Assessment of the genetic variation in *CYP2C19* in the South African Mixed Ancestry population *Present Position: QC Scientist at Kapa Biosystems*

*Stellenbosch University allows for graduate students and postdoctoral fellows to officially co-supervise Honour's projects and Master's theses, respectively

TEACHING EXPERIENCE

Lecturing experience

- ***Overview of Pharmacogenomics and Methods***
  Pharmacogenomics and Precision Medicine: Introductory and Intermediate Course, CSPT Preconference Workshop, 22 May 2018 and 11 June 2019
- ***Precision Medicine (Adverse Drug Reactions) & Genomic Medicine Workshop***
  PHAR448 Pharmaceutical Toxicology, University of British Columbia, 20 Nov 2017
- ***Genetics 778 Lectures and Tutorials on the ENCODE, 1000 Genomes and HapMap Projects***
  Department of Genetics, Stellenbosch University, April 2012, 2013 and 2014
- ***An Introduction to Pharmacogenetics***
  Department of Psychiatry, Stellenbosch University, 10 May 2011
- ***Genetics 314 Lectures* (English translation of the Afrikaans lectures)**
  Department of Genetics, Stellenbosch University, Feb-June 2008

Facilitation

- *Introduction to Clinical Research in the Medical Sciences*
  UBC Vancouver International Summer Program. Department of Pediatrics, University of British Columbia, Aug 2014 and July 2015, July 2016, July 2017, June and July 2018
- Department of Genetics, Stellenbosch University Demonstrator, undergraduate courses:
  - Biology 124, Feb-June 2007-2009
  - Genetics 244, July-Nov 2007, Genetics 214, Feb-June 2007-2008
  - Genetics 314, Feb-June 2008-2009, Genetics 344, July-Nov 2008-2009

PUBLIC ENGAGEMENT

I have prepared and delivered the following public talks

- Postdoc talks, Vancouver, Canada 2016
- New Voices in Science presentation, Stellenbosch, South Africa 2014

I have provided text interviews for the Essentials magazine, as well as the City Press, Eikestad Nuus, Saturday Star and Die Burger newspapers

VOLUNTEER and COMMUNITY SERVICE

PharmVar *CYP3A* expert panel 2020-

Pharmacogenomics Research Network Bioinformatics & Tools forum moderator 2019-

Mini Med School Kamloops and Williams Lake 6-7 May 2019
Research Jeopardy and Pharmacogenomic hands-on-activity lead

SJS/TEN 2019: From Science to Translation meeting 26-27 April 2019
Volunteer

Human, Hereditary and Health (H3) Africa 2018-
Pharmacogenomics Working Group

hackseq Steering Committee 2016-2017
This three-day genomics hackathon was the first genomics hackathon to be held in Vancouver and was held as a satellite event to the 2016 American Society for Human Genetics Meeting

BC Children's Hospital Research Institute Trainee Council 2016-2017
Co-organize events such as the *BCCHR Research Open House* and *BCCHR Career Day*

University of British Columbia Postdoctoral Association (PDA) Vice President 2015-2016
Organize monthly Social Events and co-organize events such as the *Research Day*, *3 Minute Postdoc Slam* and *Postdoc Talk Series*

Canadian Pharmacogenomics Network for Drug Safety Journal Club Organizer 2015-2018
Led a monthly journal club, which included remote participation from members across Canada, as well as international participants from Switzerland and the US.

Additional volunteer activities at the University of British Columbia

- Poster Judge
  - UBC Medical Genetics Research Day 2018
  - Genome BC's 15th Annual Genomics Forum 2017
  - Faculty of Pharmaceutical Sciences Research Symposium 2017
- DNA extraction workshop lead
  - BCCHR Research Open House 2017
  - Gairdner High School Student Symposium 2017
- Invited panel member – UBC Medical Genetics Welcome 2018
- Moderator - BCCHR Summer Student Research Program 2017
- Adjudicator - Postdoctoral Travel Award 2015
- Presenter - UBC PDFO Orientation 2015, 2016
- Tour Leader - Gairdner High School Student Symposium 2014, 2015

Volunteer activities at Stellenbosch University

- Social Committee, Department of Genetics 2009-2010
- Outreach Committee, Department of Genetics 2008-2009
- Student Councilor, Monica Residence 2006
- Cultural Student Representative Council 2006
- Monica Residence Reach Out and Give Committee 2005-2006

REVIEWING

Review Editor - Frontiers in Neurology (Neurogenetics)
Review Editor - Frontiers in Pharmacology (Pharmacogenetics and Pharmacogenomics)

Reviewer for the following South African National Research Foundation grant applications

- Competitive Programme for Rated Researchers
- Competitive Support for Unrated Researchers (CSUR) Programme
- NRF Chair

Reviewer for the following journals
BMC Genetics; Current Pharmacogenomics and Personalized Medicine; EBioMedicine; European Neuropsychopharmacology; Frontiers in Pharmacology; Genome Medicine; Genomics; Immunologic Research; Journal of Clinical Laboratory Analysis; Journal of Neural Transmission; Journal of Pharmacogenomics & Pharmacoproteomics; Nature Communications; Neuropsychiatric Disease and Treatment; Pharmacogenomics; Schizophrenia Research; Schizophrenia Research and Treatment; European Journal of Pharmacology

PROFESSIONAL SOCIETIES

- Pharmacogenomics Research Network 2017-Current
- American Society for Human Genetics 2016-Current
- Canadian Society for Pharmacology and Therapeutics 2016, 2017
- Society for Canadian Women in Science and Technology 2015-2016
- Lean In – Women in Learning and Leadership 2015-Current
- Vancouver Bioinformatics User Group 2014-Current
- Cape Unseminars in Bioinformatics 2014
- African Society of Human Genetics 2013
- Southern African Society of Human Genetics 2009-2013
- South African Genetics Society 2011,2012

SELECTED CONFERENCES

Oral Presentations

- Drögemöller BI, Wright GEB, Rassekh SR, *et al*. Genomic analyses of L-asparaginase-induced Pancreatitis in Pediatric Cancer Patients. Canadian Society of Pharmacology and Therapeutics. Calgary, Canada, 12-14 June 2019 – ***William Mahon oral presentation award***
- Drögemöller B, Monzon J, Bhavsar A, *et al*. Careful investigation of pharmacogenomic phenotypes to uncover the roles of *ACYP2* and *WFS1* in cisplatin-induced ototoxicity. Canadian Society of Pharmacology and Therapeutics. Toronto, Canada, 23-25 May 2018

- Drögemöller B, Hisaki F, Shinya I, *et al*. Genome-wide association study of L-asparaginase-induced pancreatitis in children.
  - International Congress for Human Genetics. Kyoto, Japan, 3–7 April 2016
  - International Society of Paediatric Oncology Congress. Cape Town, South Africa, 8–11 Oct 2015
- Drögemöller B, Monzon J, Bhavsar A, et al. Genetic variation in *SLC16A5* confers protection from cisplatin-induced ototoxicity in adult testicular cancer patients. Canadian Society of Pharmacology and Therapeutics. Vancouver, Canada, 18-20 Sep 2016
- Drögemöller B, Niehaus D, Chiliza B, *et al*. The identification of novel variants associated with antipsychotic treatment response with the use of exome sequencing. Southern African Society for Human Genetics congress. Johannesburg, South Africa, 6–9 Oct 2013
- Drögemöller B, Niehaus D, Wright G, *et al.* Mining schizophrenia exome data in search of variants contributing to antipsychotic treatment response. South African Genetics & Bioinformatics Society Conference. Stellenbosch, South Africa, 10–12 Sep 2012
- Drögemöller B, Niehaus D, Wright G, *et al*. Personalized genomic profiles: applications in African psychiatric pharmacogenetics. Biological Psychiatry Congress. Stellenbosch, South Africa, 22-25 Sep 2011 - ***Best oral presentation***
- Drögemöller B, Koen L, Niehaus D, *et al*. The elucidation of *CYP2C19* sequence diversity in a South African Xhosa population. Pharmacogenomics and Personalized Medicine Meeting. Hinxton, UK, 12-15 Sep 2009
- Drögemöller B, Koen L, Niehaus D, *et al*. *CYP2C19* sequence diversity: A missing ingredient in the optimal treatment plans of South African individuals. Tygerberg Faculty of Medicine Annual Academic Day. Tygerberg, South Africa, Aug 2009 - ***Best oral presentation***
- Drögemöller B, Malan S, Koen L, *et al*. From the bench to the bedside: The elucidation of *CYP2C19* sequence diversity for implementation in optimal treatment plans in South African individuals. Biological Psychiatry Congress. Kleinmond, South Africa, 28-31 May 2009

Poster Presentations

- Drögemöller B, Wright G, Trueman J, *et al*. A pharmacogenomic investigation of the cardiac safety profiles of 5-HT_3 antagonists in children and in pregnant women. Drug safety and effectiveness network meeting. Ottawa, Canada. 20 January 2020.
- Drögemöller B, Ito S, Carleton B, Ross C, The Canadian Pharmacogenomics Network for Drug Safety Consortium. Genomic analyses to uncover the genetic predictors of L-asparaginase-induced pancreatitis.
  - The Pacific Symposium on Biocomputing (PSB), Hawaii, USA, 3-7 January 2020
  - The American Society of Human Genetics (ASHG) Meeting. Houston, TX, USA, 15–19 October 2019
  - PGRN Symposium. Houston, TX, USA, 17 October 2019
  - Canadian Society of Pharmacology and Therapeutics. Halifax, Canada, 14-17 June 2017
- Drögemöller B, Wright G, Shinya I, *et al*. Association between imputed pancreatic gene expression profiles and the development of L-asparaginase-induced pancreatitis.
  - PGRN Symposium. San Diego, CA, USA, 15–16 October 2018 - ***Honorable mention for poster presentation***
  - The American Society of Human Genetics (ASHG) Meeting. San Diego, CA, USA, 16–10 October 2018

- Drögemöller B, Monzon J, Bhavsar A, *et al*. Genetic variation in *SLC16A5* confers protection from cisplatin-induced ototoxicity in adult testicular cancer patients.
  - Canadian Society of Pharmacology and Therapeutics. Toronto, Canada, 23-25 May 2018
  - BC Children's Hospital Research – Evidence to Innovation Research Day. Vancouver, Canada, 24 Nov 2016 - ***Best basic science poster presentation; Best overall poster presentation***
  - American Society of Human Genetics. Vancouver, Canada, 18-22 Oct 2016
- Drögemöller B, Ito S, Carleton B, Ross C, The Canadian Pharmacogenomics Network for Drug Safety Consortium. Imputation of predicted gene expression profiles to uncover the pathways involved in drug-induced pancreatitis.
  - BC Children's Hospital Research – Evidence to Innovation Research Day. Vancouver, Canada, 28 Oct 2017 - ***Best basic science poster presentation***
  - The Biology of Genomes Meeting. Cold Spring Harbour Laboratories, USA, 9-13 May 2017.
- Drögemöller B, Hisaki F, Shinya I, *et al*. Genome-wide association study of L-asparaginase-induced pancreatitis in children.
  - CFRI Trainee Research Forum. Vancouver, Canada, 18 June 2015 - ***Best poster presentation***
  - Pediatric Research Day. Vancouver, Canada, 6 March 2015
- Drögemöller B, Niehaus D, Wright G, *et al*. The use of exome sequencing for antipsychotic pharmacogenomic application in South African schizophrenia patients.
  - Biological Psychiatry Congress. Wild Coast Sun, South Africa. 29 Aug–1 Sep 2013
  - African Society of Human Genetics Meeting. Accra, Ghana, 19-21 May 2013 - ***Best poster presentation***
- Drögemöller B, Niehaus D, Wright G, *et al*. Well-characterised cohorts and exome data: investigating antipsychotic pharmacogenomics in the South African context.
  - Personal Genomes and Medical Genomics Meeting. Cold Spring Harbour Laboratories, USA, 14-17 Nov 2012
  - The American Society for Human Genetics Annual Meeting. San Francisco, USA, 6-10 Nov 2012
- Drögemöller B, Wright G, Niehaus D, *et al*. The sequencing era: Are pharmacogenetic profiles becoming a reality?
  - Joint International Conference of the African and Southern African Societies of Human Genetics. Cape Town, South Africa, 6-9 March 2011
  - Pharmacogenomics and Personalized Therapy Meeting. Cold Spring Harbor Laboratories, USA, 17-21 Nov 2010
- Drögemöller B, Malan S, Koen L, *et al*. Analysis of sequence diversity in the *CYP2C19* gene in a unique South African population. South African Society of Human Genetics Congress. Stellenbosch, South Africa, 5-8 April 2009
- Drögemöller B, Malan S, Koen L, *et al*. Analysis of sequence diversity in the *CYP2C19* gene that could affect oxidative metabolism of therapeutic agents. The 15th Biannual National Congress of the South African Society of Psychiatrists. George, South Africa, 10-14 Aug 2008

INVITED PRESENTATIONS

- Drögemöller B. The role of genomics driven discoveries in the development of safer and more effective treatments. The Sydney Brenner Institute for Molecular Bioscience, The University of Witwatersrand, South Africa, 23 July 2019
- Drögemöller B. Uncovering the genetics of severe adverse drug reactions to chemotherapy. Canadian Society of Pharmacology and Therapeutics Postdoctoral Award. Calgary, Canada, 13 June 2019
- Drögemöller B, Hisaki F, Shinya I, Carleton B, Ross C. Genome-wide association study of L-asparaginase-induced pancreatitis in pediatric cancer patients. BCCHR Evidence to Innovation Research Day. Vancouver, Canada, 27 Nov 2018
- Drögemöller B. Employing pharmacogenomic findings to inform drug-repurposing strategies: Cimetidine as a potential otoprotectant. Canadian Society of Pharmacology and Therapeutics. Halifax, Canada, 14-17 June 2017
- Drögemöller B. The use of exome sequencing to elucidate the genetic component of antipsychotic response. Seminar for the Division of Molecular Biology and Human Genetics. Bellville, South Africa, 21 Nov 2011

PUBLICATIONS

Google scholar metrics - http://bit.ly/BDrogemollerPublications
Citations: 761
h-index: 15
i10-index: 21

Total number of publications: 44
Number of first author publications: 15

1. Gibson KM[#], Morishita KA, Dancey P, **Drögemöller B**, Xhan X, Graham J, Hancock REW, Foell D, Benseler S, Luqmani R, Bohm M, Rosenberg AM, Cabral DA, Ross CJ, Brown KL, on behalf of the PedVas investigators network. Identification of novel ADA2 (CECR1) gene variants and varied clinical phenotype in pediatric vasculitis. *Arthritis Rheumatol*. 2019; doi: 10.1002/art.40913. [Epub ahead of print]
   [#]*Performed work under my mentorship*
2. **Drögemöller B,** Wright G, Lo C[#], Le T[#], Brooks B, Bhavsar A, Rassekh S, Ross C, Carleton B. Pharmacogenomics of cisplatin-induced ototoxicity: Successes, shortcomings and future avenues of research. *Clin Pharmacol Ther*. 2019;106:350-9.
   [#]*Performed work under my supervision*
3. **Drögemöller B***, Wright G*, Shih J[#], Aminkeng F, Amstutz U, Hayden MR, Ross C, Carleton B; CPNDS Clinical Recommendation Group. *CYP2D6* as a treatment decision aid for ER-positive non-metastatic breast cancer patients: a systematic review with accompanying clinical practice guidelines. *Breast Cancer Res Treat*. 2019;173:521-32.
   **These authors contributed equally to the work;* [#]*Performed work under my supervision*
   - PharmGKB Annotation of CPNDS Guideline for tamoxifen and CYP2D6
4. van Kuilenburg ABP*, Tarailo-Graovac M*, Richmond PA*, **Drögemöller BI,** Pouladi MA, Leen R, Brand-Arzamendi K, Dobritzsch D, Dolzhenko E, Eberle MA, Hayward B, Karbassi F, Jones MJ, Kobor

MS, Koster J, Kumari D, Li M, McDonald C, Meijer J, NguyenC, Rajan-Babu I-S, Scherer SW, Sim B, Trost B, Tseng LA, Turkenburg M, van Vugt JJFA, Veldink J, Walia J, Wang Y, van Weeghel M, Wright GEB, Xu X, Yuen RKC, Zhang J, Ross CJ, Wasserman WW, Geraghty M, Santra S, Wanders RJA, Wen X-Y, Waterham HR, Usdin K, van Karnebeek CDM. An etiologic repeat expansion in glutaminase deficiency. *N Engl J Med.* 2019;380:1433-41.
**These authors contributed equally to the work*
- First study to identify an expanded section of DNA as the cause of a rare genetic metabolic disorder

5. Wright GEB, Collins JA, Kay C, McDonald C, Dolzhenko E, Xia Q, Bečanović K, **Drögemöller BI**, Semaka A, Nguyen CM, Trost B, Richards F, Bijlsma EK, Squitieri F, Ross CJD, Scherer SW, Eberle MA, Yuen RKC, Hayden MR. Length of uninterrupted CAG repeats, independent of polyglutamine size, results in increased somatic instability and hastens age of onset of Huntington disease. *Am J Hum Genet*. 2019;104(6):1116-26.

6. Zazuli Z, Otten LS[#], **Drögemöller BI**, Medeiros M, Monzon JG, Wright GEB, Kollmannsberger CK, Bedard PL, Chen Z, Gelmon KA, McGoldrick N, Kitchlu A, Vijverberg SJH, Masereeuw R, Ross CJD, Liu G, Carleton BC, Maitland-van der Zee AH. Outcome Definition Influences the Relationship Between Genetic Polymorphisms of ERCC1, ERCC2, SLC22A2 and Cisplatin Nephrotoxicity in Adult Testicular Cancer Patients. *Genes (Basel)*. 2019;10(5). pii: E364.
[#]*Performed work under my mentorship*

7. Wright GEB, Amstutz U, **Drögemöller BI**, Shih J, Rassekh SR, Hayden MR, Carleton BC, and Ross CJD. Pharmacogenomics of vincristine-induced peripheral neuropathy implicates pharmacokinetic and inherited neuropathy genes. *Clin Pharmacol Ther*. 2019;105:402-10.
- Pharmacogenomics of Vincristine-Induced Peripheral Neuropathy Implicates Pharmacokinetic and Inherited Neuropathy Genes

8. Wright G, **Drögemöller B**, Ross C, Carleton B. Genome-wide association studies of drug induced liver injury make progress beyond the HLA region. *Gastroenterology.* 2019;pii: S0016-5085(19)41123-2.

9. Tanoshima R, Khan A, Biala AK, Trueman JN, **Drögemöller BI,** Wright GEB, Hasbullah JS, Groeneweg GSS, Ross CJD, Carleton BC. Analyses of Adverse Drug Reactions Nationwide Active Surveillance Network: Canadian Pharmacogenomics Network for Drug Safety (CPNDS) database. *J Clin Pharmacol* 2019;59:356-63.

10. van Karnebeek CDM, Ramos RJ, Wen X-Y, Tarailo-Graovac M, Gleeson JG, Skrypnyk C, Brand-Arzamendi K, Karbassi F, Issa MY, van der Lee R, **Drögemöller BI**, Koster J, Rousseau J, Campeau PM, Wang Y, Cao F, Li M, Ruiter J, Ciapaite J, Kluijtmans LAJ, Willemsen MAAP, Jans JJ, Ross CJ, Wintjes LT, Rodenburg RJ, Huigen MCDG, Jia Z, Waterham HR, Wasserman WW, Wanders RJA, Verhoeven-Duif NM, Zaki MS, Wevers RA. Bi-allelic GOT2 Mutations Cause a Treatable Malate-Aspartate Shuttle-Related Encephalopathy. *Am J Hum Genet*. 2019;105:534-48.

11. Matthews AM, Blydt-Hansen I Jabri BA, Andersen J, Tarailo-Graovac M, Price M, Selby K, Demos M, Connolly M, **Drogemoller B**, Shyr C, Mfeniwumbo J, Elliot A, Lee J, Ghani A, Stockler S, Salvarinova R, Vallance H, Sinclair G, Ross CJ, Wasserman WW, McKinnon ML, Horvath G, Goez H, van Karnebeek CD. Atypical Cerebral Palsy: Genomics analysis enables precision medicine. *Genet Med.* 2019;21:1621-8.

12. Johnstone DL, Al-Shekaili HH, Tarailo-Graovac M, Wolf NI, Ivy AS, Roussell Y, Kernohan KD, Kosuta C, Ban K, van Roermund CWT, Al-Thihli K, Abdelrahim RA, Haaxma CA, Olson H, Demarest S, Sigurdardottir LY, Arnold GL, Gerkes E, Bosma M, Ciapaite J, Jans J, Koolen DA, Kamsteeg EJ, **Drögemöller B**, Ross CJ, Cho MT, Wasserman W, Bui T, Violante S, Houten SM, Wevers R, Lines MA, Ekker M, Dyment DA, Boycott KM, Lepage N, Wanders RJA, Verhoeven-Duif N, Friedman JM, Pena IA*, van Karnebeek CDM*. PLPHP deficiency: Clinical, genetic, biochemical, and mechanistic insights. *Brain*. 2019;142:542-59.

13. Pérez-Torras S, Mata-Ventosa A, **Drögemöller B**, Tarailo-Graovac M, Meijer J, Meinsma R, van Cruchten AG, Kulik W, Viel-Oliva A, Bidon-Chanal A, Ross CJ, Wassermann WW, van Karnebeek CD, Pastor-Anglada M, van Kuilenburg ABP. Deficiency of perforin and hCNT1, a novel inborn error of pyrimidine metabolism, associated with a rapidly developing lethal phenotype due to multi-organ failure. *Biochim Biophys Acta Mol Basis Dis*; 2019; pii: S0925-4439(19)30013-4.

14. **Drögemöller BI**, Brooks B, Critchley C, Monzon JG, Wright GEB, Liu G, Renouf DJ, Kollmannsberger CK, Bedard PL, Hayden MR, Gelmon KA, Carleton BC, Ross CJD. Further evidence for the role of *ACYP2* and *WFS1* pharmacogenomic variants in the development of cisplatin-induced ototoxicity in testicular cancer patients. *Clin Cancer Res.* 2018;24:1866-71.

15. Kowalec K*[#], Wright G*, **Drögemöller B**, Aminkeng F, Bhavsar A, Kingwell E, Yoshida E, Traboulsee A, Marrie R, Kremenchutzky M, Campbell T, Duquette P, Chalasani N, Wadelius M, Hallberg P, Xia Z, De Jager P, Ross C, Tremlett H, Carleton B. A novel pharmacogenomic risk locus for interferon-beta induced liver injury in multiple sclerosis. *Nat Genet.* 2018;50:1081-5.
**These authors contributed equally to the work; [#]Performed work under my mentorship*
- First-ever genetic marker for drug risk in MS
- Genetic Variant in Multiple Sclerosis Patients Associated With Treatment-Induced Liver Damage
- Genetic marker for drug risk in multiple sclerosis offers path toward precision medicine

16. Horvath GA, Zhao Y, Tarailo-Graovac M, Boelman C, Gill H, Shyr C, Lee J, Blydt-Hansen I, **Drögemöller BI**, Moreland J, Ross CJ, Wasserman WW, Masotti A, Slesinger PA, van Karnebeek CDM. Gain-of-function *KCNJ6* Mutation in a Severe Hyperkinetic Movement Disorder Phenotype. *Neuroscience.* 2018;384:152-64.

17. Schlingmann KP, Bandulik S, Mammen C, Jensen RH, Tarailo-Graovac M, Baumann M, König J, Lee JJY, **Drögemöller B**, Imminger K, Beck B, Altmüller J, Thiele H, Waldegger S, van`t Hoff W, Kleta R, Warth R, Vilsen B, van Karnebeek CDM, Bockenhauer D, Konrad M. Germline de-novo mutations in *ATP1A1* cause renal hypomagnesemia, refractory seizures and intellectual disability. *Am J Hum Genet*. 2018;103:808-16.

18. Wen X-Y, Rakic B, Brand-Arzamendi K, Tarailo-Graovac M, Willems A, Huijben K, Pan X, El-Rass S, Selby K, Philip A, Yun J, Lehman AM, Zijlstra F, Bakar AA, **Drögemöller B**, Ross CJ, Wasserman WW, Vallance H, van Scherpenzeel M, Karbassi, Hoskings M, Wevers RA, Pshezhetsky AV, van Karnebeek CDM, Lefeber DJ. Sialic acid catabolism by N-acetylneuraminate pyruvate lyase is essential for muscle function. *JCI Insight*; 2018;3:pii: 122373.

19. van Kuilenburg ABP, Tarailo-Graovac M, Meijer J, **Drogemöller BI**, Vockley J, Maurer D, Dobritzsch D, Ross CJ, Wassermann W, Meinsma R, Zoetekouw L, Hennekam RCM, van Karnebeek CDM. Genome sequencing reveals a novel genetic mechanism underlying dihydropyrimidine dehydrogenase deficiency: a novel missense variant c.1700G>A and a large intragenic inversion in *DPYD* spanning intron 8 to intron 12. *Hum Mutat*. 2018;39:947-53.

20. **Drögemöller BI***, Monzon JG*, Bhavsar AP, Borrie AE, Brooks B, Wright GEB, Liu G, Renouf DJ, Kollmannsberger CK, Bedard PL, Aminkeng F, Amstutz U, Hildebrand CA, Gunaretnam EP, Critchley C, Chen Z, Brunham LR, Hayden MR, Ross CJD, Gelmon KA, Carleton BC. Association Between *SLC16A5* Genetic Variation and Cisplatin-Induced Ototoxic Effects in Adult Patients With Testicular Cancer. *JAMA Oncol.* 2017;3:1558-62.
**These authors contributed equally to the work*
- Gene Tied to Cisplatin-induced Hearing Loss in Testicular Cancer

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