Vanessa Dumeaux, PharmD, PhD

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SUMMARY

Data science and molecular biology expert with over 15 years' experience in combining basic molecular biology, novel technology and statistical / computational approaches to health-related research. Proven track record for working in multi-disciplinary teams. Solution-focused leader capable of translating complex problems into executable plans. Dedicated and accountable professional with a passion for translating biological discoveries to human health impact.

Countries of citizenship: Canada and France

Language skills: English (fluent), French (mother tongue), Norwegian (intermediate)

PROFESSIONAL EXPERIENCE

SCIEL (Single-Cell, informatics, Experiment, Learning) Coopérative **Montreal, QC**
Founder and President *August 2020 - Present*

- SCIEL is a not-for-profit cooperative of researchers in life and computer sciences with expertise in modern -omics, data science and deep learning.
- Provide personalized consultancy and laboratory services to help our partners efficiently incorporate cutting-edge life science technologies and analytic approaches into their day-to-day operations.
- Support the research and development of novel technologies and assays

Concordia University **Montreal, QC**
Affiliated Assistant Professor, Department of Biology *June 2019 – Present*

Research Scientist, PERFORM Center, Concordia University *Nov 2017 – Present*

- Lab webpage: https://lab-dumeaux.science/
- Research lead of the microbiome2brain project: an exercise intervention trial to identify changes in the gut microbiome associated with improved brain health
- Identification of molecular processes predictive of response to therapy in breast cancer: collaborative effort investigating response to radiotherapy treatment of in-situ tumors (CIHR funded, one paper) ; lead researcher in the identification of systemic immune responses predictive of response to therapy in Her2+ breast cancer
- Establishment of a cost-effective single-cell profiling platform providing a quantitative and ultrahigh-resolution snapshot of cell and molecular states composing a human tissue or other biosystem (eg C. albicans, one preprint). Further tailoring of the platform to perform multi-modal measurements in single cells including simultaneous RNA and immune receptor sequencing or chromatin accessibility profiles to cater to the needs of ongoing projects.
- Identification of molecular markers of infertility in sperm (one patent ; four publications)
- Lead researcher for bioinformatics analysis in diverse collaborative projects: investigation of epigenetic regulation of brain or placental cell development (2 papers) ; transcriptional changes involved in C. albicans functions (4 papers)
- Reviews for funding agencies: Canadian Cancer Society, Cancer Research Society, MITACS

Dumeaux Data Science **Montreal, QC**
Research and Data Consultant *Jan 2017 – Present*

- Web: https://dumeaux.science/

- Provide pragmatic sound bioinformatics, biostatistical and project management assistance with all stages of research projects.
- Current projects involved analyses of next-generation sequencing data, project management, and mentoring of students to improve their technical skills in bioinformatics.

Concordia University **Montreal, QC**
Senior Researcher, Computational Biology Laboratory *Jan 2017 – Oct 2017*

- Development of software packages that contain the computational and statistical methods for identifying and exploring associations between sets of genes or molecular processes across matched tissues (MIxT: https://github.com/vdumeaux/mixtR) and provide a framework for building web applications that allow users to view and explore these results, and to submit queries of gene, gene sets, and pathway of interest (https://github.com/vdumeaux/mixtApp).
- Creation of two resources websites to explore blood-tumor interactions (http://mixt-blood-tumor.bci.mcgill.ca/ and tumor-stroma interactions in breast cancer (https://mixt-tumor-stroma.bci.mcgill.ca/).
- Consulting scientist for Genomic Health Inc, Redwood City, CA.

McGill university **Montreal, QC**
Senior Researcher, Breast Cancer Informatics Laboratory *November 2014 – 2017*

- Research lead for the Matched Interaction Across Tissues Program: Development of a novel computational methodology for identifying and exploring associations between sets of genes or molecular processes across tissues. Successfully identified genes and pathways in the primary breast tumor that are tightly linked to genes and pathways in the patient systemic response. Resulted in a web application, publication and several invited oral presentations.
- Co-supervision and mentoring of undergraduate and graduate students resulted in several publications.

Affiliate Assistant Professor, Department of Oncology *2011 – 2014*

- R&D lead of a blood-based diagnostic test for breast cancer in collaboration with Norinnova Technology Transfer AS and Zacco IP firm in Norway: resulted in a grant funding (Proof of Concept grant, European Research Council, PI: Lund)
- Regional academic collaboration (Michael Hallett, McGill University), resulted in a grant funding from Canadian Cancer Society Research Institute and several publications. Established that the prognosis of about 20% of breast cancers are difficult to assess using only molecular properties of the tumor.
- International collaboration with the Norwegian Women and Cancer study (NOWAC). Lead researcher for bioinformatics analysis for NOWAC. Mentoring of graduate students and post-doctoral fellows to improve their technical skills in bioinformatics.
- Collaboration with international academic consortium: The European Prospective Investigation into Cancer and Nutrition and the Public Population Project in Genomics and society. Resulted in several publications.
- Development of a 40-hour lecture course providing fundamental aspects of epidemiology and biostatistics, and genomics especially with respect to large epidemiological cohorts, and bioinformatics analysis techniques relevant to such studies.
- Guest lecturer for the Computational Cancer Biology course (McGill) and for the Molecular and Clinical aspects of Cancer (Tromso).
- Member of Advisory Board in McGill Systems Biology Training Program.
- Reviewer and member of research advisory PhD thesis committees (Université de Montreal, McGill)

Associate Member, Department of Epidemiology, Biostatistics and Occupational Health *2013 – 2014*

- Member of the MSc Epidemiology Admissions Committee
- Small group teaching for the undergraduate medical program in clinical epidemiology
- Research mentor in the McGill MD,CM curriculum

Visiting Research Scientist, The Goodman Cancer Center *2010 – 2011*

- Research lead for a blood-based diagnostic test for breast cancer: successful identification of a robust and reproducible diagnostic signal specific to breast cancer reflecting an overall systemic immunosuppression of the patient. Resulted in a patent and a publication
- Peer review for EU-CORDIS Cooperation agency: Translational research in cancer: from basic to clinical research.

Maternity leave *2009 – 2010*

Paris V University **Paris, France**
Visiting post-doctoral fellow, Department of Applied Mathematics *Fall 2008 – 2009*
Development of a novel statistical methodology for the sensitive detection of low amplitude changes in blood profiles across healthy individuals. Determined the inter-individual variability in blood gene expression profiles and established the feasibility of blood gene expression profiling for disease diagnosis or prognosis.

Princeton University **Princeton, NJ**
Visiting post-doctoral fellow, Lewis-Sigler Institute for Integrative Genomics 2008 – *Fall 2008*
Establishment of a tissue-specific knowledge database to build context-specific functional relationship networks. Resulted in a publication.

Oslo University **Oslo, Norway**
Visiting post-doctoral fellow, Department of Genetics *2005 – 2008*
Sustained effort to investigate hormonal carcinogenesis using prospective observational data or as part of the European Prospective Investigation into Cancer and Nutrition (EPIC) collaboration. Identify blood-based gene expression signatures in response to diverse exposures and health status including breast cancer. Co-supervision and mentoring of graduate students: identification of systemic biological processes deregulated in breast cancer survivors experiencing late side-effects of radiotherapy including chronic fatigue and fibrosis. Resulted in several publications

ACSO preparatory school of pharmacy **Poitiers, France**
Tutor *1997 – 2000*
Small group teaching and exams practice in physiology-embryology and botany for the pharmacy entrance exams.

Pharmacie des Arcades **La Rochelle, France**
Pharmacy assistant Summer *1999*

EDUCATION

PARIS XI UNIVERSITY AND THE ARCTIC UNIVERSITY OF NORWAY **France & Norway**
PhD Molecular epidemiology *2002 – 2005*
PhD Thesis: Exposure to exogenous hormones in women: risk factors for breast cancer and molecular signature
First Class Honors
Successfully identified breast cancer risks specific to different types of oral contraceptives and menopausal treatments. Established a large blood and tumor biobank within a nation-wide Norwegian Women and Cancer (NOWAC) cohort study to integrate the molecular aspects of the disease within the context of the patient and the population. Developed several proofs of concept studies and evaluated laboratory protocols to sensitively investigate molecular changes in circulating blood cells for biomarker discovery. Resulted in several publications.

VICTOR-SEGALEN UNIVERSITY **Bordeaux, France**
MSc Epidemiology and Intervention in Public Health *2002*

MSc Thesis: Breast cancer and specific types of oral contraceptives: a large Norwegian cohort study.
First Class Honors

POITIERS UNIVERSITY **Poitiers, France**
Doctorate in Pharmacy *1995 – 2002*
PhamD Thesis : Contraceptifs oraux et cancer du sein : le risque est-il le même avec les estrogènes et les progestagènes ?
First Class Honors

PATENTS

Methods for identifying epigenetic modifications in sperm diagnosing infertility and identifying treatment strategies (inventor 30%, US 63/091,084 filed Oct 13, 2020)

Gene expression profile in diagnostics (inventor 50%, PCT/NO2013/050203, US Patent 14/646,010)

SELECTED ORAL PRESENTATIONS (INVITED)

Talk, 7th Annual Canadian Epigenetics Conference, November 2021

Lecture, Deep learning in health research: biomarkers of human aging, Halifax, 2021

Talk, Personalized health enabled by data science: from cells to individuals, Québec City, 2021

Seminar, Department of Health, Kinesiology and Applied Physiology, Concordia, 2019

Talk, Workshop "Systems Genetics of Cancer", Oregon Health & Science University, Portland, 2018

Seminar, MSc tumor immunology, Radboud University Medical Center, The Netherlands, 2018

Talk, CRCHUM, Montreal, 2018

Talk, Genomic Health Inc, Redwood City, CA, 2017

Talk, 16th Annual McGill Workshop on Bioinformatics, Holetown, Barbados 2017

Talk, Molecular Interception of Disease Symposium, Doha, Qatar, 2016

Talk, 15th Annual McGill Workshop on Bioinformatics, Holetown, Barbados 2016

Talk, Workshop "Systems Genetics of Cancer", Cambridge, UK, 2015

Flash talk, Canadian Cancer Research Conference, Toronto, ON, 2013

SUPERVISION

Bachelor's [n=2]

Summer 2021	Brittany French, Concordia University
2019/05 – 2019/08 Co-supervisor	Vicky Brunet, Concordia University **Thesis/Project Title:** Contribution of the brain-gut-microbiota axis in health benefits associated with exercise

Bachelor's Honours [n=1]

2018/09 – 2019/05 Alexandra Artiaga, Concordia University
Co-supervisor **Thesis/Project Title:** Single-cell sequencing of immune cells from breast cancer patients

Master's Thesis [n=2]

2019/09 – 2020/09 Alvaro Marinez Fernandez, The Arctic University of Norway
Co-supervisor **Thesis/Project Title:** Visualizing high-dimensional data

2016/03 – 2017/01 Shawn Beaulieu, McGill University
Co-supervisor **Thesis/Project Title:** Matched Interactions across Tissues

Doctorate [n=4]

2015/04 – 2018/08 Bjørn Fjukstad, The Arctic University of Norway
Co-supervisor **Thesis/Project Title:** Interactive systems for explorative analyses of high-throughput data

2010/12 – 2018/10 Oxana Garviljuk, The Arctic University of Norway (MD-PhD and incl. maternity leave)
Co-supervisor **Thesis/Project Title:** Risk factors and gene expression in endometrial cancer

2007/06 – 2011/12 Hege Landmark-Høyvik, Oslo University
Co-supervisor **Thesis/Project Title:** Genomic studies of breast cancer survivors

2006/10 – 2010/10 Jørgen Aarøe, Oslo University
Co-supervisor **Thesis/Project Title:** Genomic studies for early detection and development of breast cancer

Post-doctorate [n=1]

2013/03 – 2016/01 Charlotta Rylander, The Arctic University of Norway
Co-supervisor **Thesis/Project Title:** Gene signatures in type2 diabetes cases and controls in realtion to perfluoroalkyl acids.

Visiting researchers

Over years, several international students visited the lab at McGill University. They often have a strong background in molecular biology but required training in statistics, programming, and data science. A few have a strong background in programming or machine learning but conversely lacked knowledge in biology and health data science.

04/2015-06/2015 Bjorn Fjukstad, PhD student, The Arctic University of Norway, Norway
08/2013-11/2013 Charlotta Rylander, Postdoctoral fellow, The Arctic University of Norway, Norway
04/2013-08/2013 Oxana Gavrilyuk, PhD student, The Arctic University of Norway, Norway
03/2010-02/2011 Margarethe Biong, PhD student, Institute for Cancer Research, Oslo, Norway
01/2010-06/2010 Hege Landmark-Høyvik, PhD student, Norwegian Radium Hospital, Oslo, Norway

OTHER CONTRIBUTIONS

Organization of international meetings

I host a workshop together with Dr Hallett at the McGill-Bellairs Research Institute in Holetown, Barbados each year (https://www.mikehallett.science/barbados/). We typically invite ~40 researchers from a specific community related to cancer, systems biology or bioinformatics. As such the meetings are tremendously multi-disciplinary, bringing together basic researchers in the life sciences including molecular oncology, genomics and biotech fields, quantitative sciences such as bioinformatics and biostatistics, and clinician scientists. The week-long workshop in this environment provides an important opportunity to discuss new results and open research challenges in depth.

2021 Encoding and decoding function in the genome. (cancelled due to covid-19)
2020 Emerging model systems. With colleagues at NYU and University of Toronto

2019 Single cell and massively parallel approaches.
2018 The Reef Microbiome. With David Walsh, Concordia.
2017 Cancer and the immune system. With Therese Sorlie, Oslo, Norway
2016 Genetic Networks. With B Andrews and C Boone, University of Toronto
2015 Precursors to breast cancer and tumor evolution . With T Sorlie, Oslo, Norway
2014 20 years of microRNA research, current challenges . With T Duchaine, McGill.
2013 Modern biomarkers in breast cancer . With Sylvie Mader, Université de Montréal
2012 Gene regulatory networks . With Tim Hughes, University of Toronto
2011 Systems approaches in translational breast cancer research.

Thesis examiner

08/2021	Anne Heidi Skogholt (PhD defense), NTNU, University of Trondheim, Norway
11/2019	Nandita Norhona (Predoc), Institute for Research in Immunology and Cancer, Canada

University Committee

2020	Ed Whitlock Award, PERFORM Centre, Concordia, Canada
2013	McGill MSc Epidemiology Admissions Committee, McGill, Canada
2011-14	Advisory Board in McGill Systems Biology Training Program, McGill, Canada

RESEARCH AWARDS AND FUNDING

Under review [n=4]

Principal Applicant — Identification of functional epigenomic regions in sperm that are environmentally responsive and associate with fertility and embryo development, Grant, Operating
Funding Source:
2022/02 - 2027/02 CIHR Project Grant
Total Funding –1,150,000 (Canadian dollar)
Other Applicants : Sarah Kimmins (Nominated Principal Applicant), Romain Lambrot, Clifford Librach, Sergey Moskovtsev, Stewart Russel,

Co-applicant — A Genomics-Driven Model to Elucidate the Mechanism of Progression to Predict Invasive Recurrence after Breast-Conserving Surgery for DCIS Grant, Operating
Funding Source:
2022/02 - 2027/02 CIHR Project Grant
Total Funding –4,660,000 (Canadian dollar)
Other Applicants : Eileen Rakovitch (Nominated Principal Applicant), Michael Hallett (Principal Applicant), Ezra Hahn (Principal Applicant), Anne Martel, Sharon Nofech-Mozes, Lawrence Paszat, Danielle Rodin, Rinku Sutradhar, William Tran, Timothy Whelan, Torsten Nielsen

Co-applicant — Understanding the impact of radical changes in diet and the microbiome on brain function and structure, Grant, Operating
Funding Source:
2021/10-2024/10 Weston Brain Foundation
Total Funding – 1,500,000 (Canadian dollar)
Other Applicants : Simon Bacon, Kim Lavoie, Sylvie Belleville, Tamara Cohen, Angela Alberga, Marie-Claude Audet, Sylvia Santosa

Co-applicant — Identifying molecular mechanisms underlying the regulatory role of sperm chromatin in embryo development and adult disease, Grant, Operating
Funding Source:
2021/02 - 2024/02 CIHR Project Grant
Total Funding –1,300,000 (Canadian dollar)

Other Applicants : Sarah Kimmins (Nominated Principal Applicant), Romain Lambrot

Awarded [n=2]

Co-applicant — High-resolution mapping of cancer immunity for HER2+ breast cancer patients, Grant, Operating
Funding Source:
2020/04-2022/03 — Concordia University OVPGRS, Team Accelerator Program
Total Funding - 40,000 (Canadian dollar)
Other Applicants : Michael Hallett, Peter Darlington

Co-applicant — DCIS-Precise: A Genomics-Driven Model for Predicting DCIS Response to Radiation, Grant, Operating
Funding Source:
2018/4 - 2022/3 — CIHR Project Grant
Total Funding - 910,352 (Canadian dollar)
Portion of Funding Received - 1 (Canadian dollar)
Principal Applicants : Eileen Rakovitch; Michael Hallett

Completed [n=7]

Principal Applicant — Enhancing molecular biology research in human health at the PERFORM Centre, Grant, Equipment
Funding Source:
2019/03-2020/03 — PERFORM Centre, Equipment
Total Funding – 75,000 (Canadian dollar)
Other Applicants: Thien Thanh Dang-Vu, Peter Darlington, Tamara Cohen, Jean-Philippe Gouin, Michael Hallett, Marie-Eve Rivard, Sylvia Santosa

Principal Applicant — Contribution of the brain-gut-microbiota axis in health benefits associated with exercise, Grant, Operating
Funding Source:
2019/03-2020/03 — PERFORM Centre, Starting Project Funds
Total Funding – 25,000 (+25,000 in-kind) (Canadian dollar)
Other Applicants: Simon Bacon, Linda Booij, Tamara Cohen, Najmeh Khalili-Mahani, Michael Hallett, Tom Hazell

Co-applicant — High-resolution mapping of cancer immunity for HER2+ breast cancer patients, Grant, Operating
Funding Source:
2020/03-2021/03 — Concordia University OVPGRS, Team Start-Up Program
Total Funding - 20,000 (Canadian dollar)
Other Applicants : Michael Hallett, Peter Darlington

Collaborator — Next generation predictive signatures for breast cancer, Grant, Operating
Funding Source:
2010/7 - 2013/7 — Genome Quebec, Genomics Research in Human Health
Total Funding - 1,449,560 (Canadian dollar)
Portion of Funding Received - 1 (Canadian dollar)
Principal Applicant : Michael Hallett

Principal Applicant — Interactions between the tumour-microenvironment and the systemic response of breast cancer patients, Grant, Operating
Funding Source:
2014/8 - 2017/8 — Canadian Cancer Society Research Institute (CCSRI)
Total Funding - 199,860 (Canadian dollar)
Portion of Funding Received - 199,860 (Canadian dollar)
Co-Applicant : Michael Hallett

Co-applicant — A gene expression test in blood for breast cancer, Contract
Funding Source:
2015/4 - 2016/9 — European Research Council (ERC), Proof of concept
Total Funding - 150,000 (Euro)
Portion of Funding Received - 40,000 (Euro)
Principal Applicant: Eiliv Lund

Co-applicant — Transcriptomics in cancer epidemiology, Contract
Funding Source:
2009/9 - 2014/9 — European Research Council (ERC), IDEAS
Total Funding - 2,900,000 (Canadian dollar)
Portion of Funding Received - 450,000 (Canadian dollar)
Principal Applicant : Eiliv Lund

PUBLICATIONS

Names of (co-)supervised student are underlined

Pepin AS, Lafleur C, Lambrot R, **Dumeaux V**, Kimmins S. Genetic-epigenetic interactions in paternal transgenerational inheritance of metabolic disorders. Biorxiv 2021.

Bettauer V, Costa ACBP, Omran RP, Massahi S, Kirbizakis E, Simpson S, **Dumeaux V**, Law C, Whiteway M, Hallett MT. A deep learning approach to capture the essence of Candida albicans morphologies Biorxiv 2021.

Lismer A, Lambrot R, Lafaleur C, **Dumeaux V**, Kimmins S. An experimental guide to track the consequences of environmental exposures from sperm chromatin to the pre-implantation embryo. STAR Protocols 2021;2:100602.

Lambrot R, Chan D, Shao X, Aarabi M, Moskovtsev S, Librach C, Trasler J, **Dumeaux V***, Kimmins S*. Whole genome sequencing of H3 lysine 4 tri-methylation and DNA methylation in human sperm reveals regions of overlap and exclusion linked to fertility, development and epigenetic inheritance. Cell Reports 2021;36:109418. ***co-corresponding author**

Lismer A, **Dumeaux V**, Lafleur C, Lambrot R, Brind'Amour J, Lorincz M, Kimmins S. Histone H3 lysine 4 trimethylation in sperm is transmitted to the embryo and implicated in diet-induced phenotypes in offspring. Developmental Cell 2021; 56: 671-686.

Simpson S, Bettauer V, Ramachandran A, Kramer S, Mahon S, Medina M, Valles Y**, Dumeaux V**, Valles H, Walsh S, Hallett MT. A metagenomic-based study of two sites from the Barbadian reef system. Biorxiv 2021.

Costa ACBP, Omran RP, Law C, **Dumeaux V**, Whiteway M. Signal-mediated localization of *Candida albicans* pheromone response pathway components. G3 2021:11(3):jkaa033.

Shrivastava M, Feng J, Coles M, Clark B, Islam A, **Dumesaux V**, Whiteway M. Modulation of the complex regulatory network for methionine biosynthesis in fungi. Genetics 2021;217(2):iyaa049.

Lismer A, Siklenka K, Lafleur C, **Dumeaux V***, Kimmins S*. Sperm histone H3 lysine 4 trimethylation is altered in a genetic mouse model of transgenerational epigenetic inheritance. Nucleic Acid Research 2020, gkaa712. ***co-corresponding author**

Tamming RJ, **Dumeaux V**, Jiang Y, Shafiq S, Langlois L, Ellegood J, Qiu LR, Lerch JP, Bérubé NG. Atrx deletion in neurons leads to sexually-dimorphic dysregulation of miR-137 and spatial learning and memory deficits. Cell Reports 2020; 31:e107838.

Bhattad GJ, Jeyarajah MJ, McGill MG, **Dumeaux V**, Okae H, Arima T, Lajoie P, Bérubé NG, Renaud S. Histone deacetylase 1 and 2 drive differentiation and fusion of progenitor cells in human placental trophoblasts. Cell Death and Disease 2020;11:311.

Bettauer V, Massahi S, Khurdia S, Costa ACBP, Omran RP, Khosravi N, Simpson S, Harb M, **Dumeaux V**, Whiteway M, Hallett MT. Candida albicans exhibits distinct cytoprotective responses to anti-fungal drugs that facilitate the evolution of drug resistance. Biorxiv 2020.

Rakovitch E, Sutradhar R, Hallett M, Thompson AM, Gu S, **Dumeaux V**, Whelan TJ, Paszat L. The time-varying effect of radiotherapy after breast-conserving surgery for DCIS. Breast cancer research and treatment 2019; 178: 221–230.

Costa ACBP, Omran RP, Correia-Mesquita TO, **Dumeaux V**, Whiteway M. Screening of Candida albicans GRACE library revealed a unique pattern of biofilm formation under repression of the essential gene ILS1. Scientific reports 2019; 9:918

Islam A, Tebbji F, Mallick J, Regan H, **Dumeaux V**, Omran RP, Whiteway M. Mms21: A Putative SUMO E3 Ligase in Candida albicans That Negatively Regulates Invasiveness and Filamentation, and Is Required for the Genotoxic and Cellular Stress Response. Genetics 2019;211:579-95.

Fjukstad B, **Dumeaux V**, Hallett M, Bongo LA. Reproducible Data Analysis Pipelines for Precision Medicine. Biorxiv 2018

Traboulsi T, El Ezzy M, **Dumeaux V**, Audemard E, Mader S. Role of SUMOylation in differential ERα transcriptional repression by SERMs and pure antiestrogens in breast cancer cells. Oncogene 2018 (Epub ahead of print).

Dumeaux V, Fjukstad B, Fjosne HE, Frantzen JO, Holmen MM, Rodegerdts E, Schlichting E, Bongo LA, Lund E, Hallett M. Interactions between the tumor and the blood systemic response of breast cancer patients. PloS Computational Biology 2017 2017;13(9): e1005680.

Fjukstad B, **Dumeaux V**, Olsen KS, Lund E, Hallett M, and Bongo LA (2017). Building Applications for Interactive Data Exploration in Systems Biology. In Proceedings of the 8th ACM International Conference on Bioinformatics, Computational Biology, and Health Informatics (Boston, Massachusetts, USA: ACM), pp. 556-561.

Paquet ER, Lesurf R, Tofigh A, **Dumeaux V**, Hallett M. Detecting pathway activation in breast cancer in an absolute, single patient manner. Breast Cancer Research 2017 (Epub ahead of print)

Dumeaux V, Ursini-Siegel J, Flatberg A, Fjosnes HE, Frantzen JO, Holmen MM, Rodegerdts E, Schlichting E, Lund E. Gene expression changes in circulating blood cells informs on the host's response to the presence of breast cancer. International Journal of Cancer 2015;1:656-67.

Tofigh A*, Suderman M*, Paquet E, Livingstone J, Bertos N, Saleh S, Zhao H, Souleimanova M, Cory S, Lesurf R, Shahalizadeh S, Garcia Lopez N, Riazalhosseim Y, Omeroglu A, Urisini-Siegel J, Park

M, **Dumeaux V**, Hallett M. The prognostic ease and difficulty of invasive breast carcinoma. Cell Reports 2014;9:129-41.

Gavrilyuk O, Braaten T, Weiderpass E, Skeie G, **Dumeaux V**, Lund E. High coffee consumption and different brewing methods in relation to postmenopausal endometrial cancer risk in the Norwegian Women and Cancer Study. BMC Women's Health 2014;14-48.

Ritte R, Tikk K, Lukanova A, Tjønneland A, Olsen A, Overvad K, Dossus L, Fournier A, Clavel-Chapelon F, Grote V, Boeing H, Aleksandrova K, Trichopoulou A, Lagiou P, Trichopoulos D, Palli D, Berrino F, Mattiello A, Tumino R, Sacerdote C, Quirós JR, Buckland G, Molina-Monte E, Chirlaque MD, Ardanaz E, Amiano P, Bueno-de-Mesquita HB, van Gils CH, Peeters PHM, Wareham N, Khaw KT, Key TJ, Travis RC, Weiderpass E, **Dumeaux V**, Lund E, Sund M, Andersson A, Romieu I, Rinaldi S, Vineis P, Merritt MA, Riboli E and Kaaks R. Reproductive factors and risk of hormone receptor positive and negative breast cancer: A cohort study. BMC Cancer 2013;13:584.

Landmark-Høyvik H, **Dumeaux V**, Nebdal D, Lund E, Tost J, Kamatani Y, Renault V, Børresen-Dale AL, Kristensen V, Edvardsen H. Genome-wide association study in breast cancer survivors reveals SNPs associated with gene expression of genes belonging to MHC class I and II. Genomics 2013;102:278-87.

González CA, Megraud F, Buissonniere A, Lujan Barroso L, Agudo A, Duell EJ, Boutron-Ruault MC, Clavel-Chapelon F, Palli D, Krogh V, Mattiello A, Tumino R, Sacerdote C, Quirós JR, Sanchez-Cantalejo E, Navarro C, Barricarte A, Dorronsoro M, Khaw KT, Wareham N, Allen NE, Tsilidis KK, Bas Bueno-de-Mesquita H, Jeurnink SM, Numans ME, Peeters PH, Lagiou P, Valanou E, Trichopoulou A, Kaaks R, Lukanova-McGregor A, Bergman MM, Boeing H, Manjer J, Lindkvist B, Stenling R, Hallmans G, Mortensen LM, Overvad K, Olsen A, Tjonneland A, Bakken K, **Dumeaux V**, Lund E, Jenab M, Romieu I, Michaud D, Mouw T, Carneiro F, Fenge C, Riboli E. Helicobacter pylori infection assessed by ELISA and by immunoblot and noncardia gastric cancer risk in a prospective study: the Eurgast-EPIC project. Ann Oncol 2012;23:1320-4.

Rylander C, **Dumeaux V**, Olsen KS, Waaseth M, Sandanger TM, Lund E. Using blood gene signatures for assessing effects of exposure to perfluoroalkyl acids (PFAAs) in humans: the NOWAC postgenome study. Int J Mol Epidemiol Genet 2011;2:207-16.

Fortier I, Doiron D, Little J, Ferretti V, L'Heureux F, Stolk RP, Knoppers BM, Hudson TJ, Burton PR; **International Harmonization Initiative**. Is rigorous retrospective harmonization possible? Application of the DataSHaPER approach across 53 large studies. Int J Epidemiol 2011;40:1314-28.

Waaseth M, Olsen KS, Rylander C, Lund E, **Dumeaux V**. Sex hormones and gene expression signatures in peripheral blood from postmenopausal women – the NOWAC postgenome study. BMC Medical Genomics 2011;4:29.

Landmark-Høyvik H, **Dumeaux V**, Reinertsen KV, Edvardsen H, Fosså SD, Børresen-Dale AL. Blood gene expression profiling of breast cancer survivors experiencing fibrosis. Int J Radiat Oncol Biol Phys 2011;79:875-83.

Dumeaux V, Olsen SK, Paulssen RH, Børresen-Dale AL, Lund E. Deciphering blood gene expression variation – The postgenome NOWAC study. PLoS Genetics 2010;6:e1000873.

Lund E and **Dumeaux V**. Towards a more functional concept of causality in cancer research. Int J Mol Epidemiol Genet 2010;15:124-33.

Gu F, Schumacher FR, Canzian F, Allen NE, Albanes D, Berg CD, Berndt SI, Boeing H, Bueno-de-Mesquita HB, Buring JE, Chabbert-Buffet N, Chanock SJ, Clavel-Chapelon F, **Dumeaux V**, J Michael Gaziano JM, Giovannucci E, Haiman CA, Hankinson SE, Hayes RB, Henderson BE, Hunter DJ, Hoover

RN, Johansson M, Key TJ, Khaw KT, Kolonel LN, Lagiou P, Lee IM, Lemarchand L, Lund E, Ma J, Onland-Moret NC, Overvad K, Rodriguez L, Sacerdote C, Sanchez MJ, Stampfer MJ, Stattin PE, Stram DO, Thomas G, Thun MJ, Tjonneland AM, Trichopoulos D, Tumino R, Virtamo J, Weinstein SJ, Willett WC, Yeager M, Zhang SM, Kaaks R, Riboli E, Ziegler RG, Kraft PL. Eighteen Insulin-like Growth Factor (IGF) pathway genes, circulating levels of IGF-1 and its binding protein (IGFBP-3), and risk of prostate and breast cancer. CEBP 2010;19:2877-87.

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