David C Muller, PhD

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EDUCATION

University of Melbourne, Australia

Doctor of Philosophy (Epidemiology and Biostatistics)

Awarded 2012

- Topics: Biomarkers of hormone activity and risk of prostate and breast cancers; Comparison of methods of analysis for family based case-control studies
- Advisors: A/Professor Gianluca Severi, Professor Dallas English, and Professor Graham Giles
- Coursework component: Probability and Distribution Theory (98%), Principles of Statistical Inference (95%)

University of Queensland, Australia

BA, Psych (Hons)

February 2001 – December 2004

EMPLOYMENT HISTORY School of Public Health Imperial College London

Research associate October 2015 – present

Genetic Epidemiology Group International Agency for Research on Cancer

Postdoctoral fellow January 2013 – October 2015

Cancer Epidemiology Centre, Cancer Council Victoria

Research Officer Statistician 2006 - 2012

School of Population Health, University of Melbourne

Sessional tutor (biostatistics) 2008 - 2012

Cancer Epidemiology Centre, Cancer Council Victoria

Data Manager 2005 – 2006

School of Psychology, University of Queensland

Research assistant 2005

Awards

International Agency for Research on Cancer (IARC) and Cancer Council Australia

IARC postdoctoral fellowship award

2012

Prostate Cancer Foundation Australia

Student Travel Award

2011

Publications

Since 2009 I have published 23 peer reviewed papers, among which I have been lead or co-lead author on 12, and corresponding author on 11.

* indicates equal contribution

indicates corresponding authorship

Anantharaman D, **Muller DC**, Lagiou P, Ahrens W, Holcatova I, Merletti F et al. "Combined effects of smoking and HPV16 in oropharyngeal cancer". *Int J Epidemiol*. In Press.

Muller DC[#], Johansson M, Zaridze D, Moukeria A, Janout V, Holcatova I, et al. "Circulating Concentrations of Vitamin B6 and Kidney Cancer Prognosis: A Prospective Case-Cohort Study". *PLoS ONE*. 2015 Oct 27;10(10):e0140677.

- Muller DC[#], Scelo G, Zaridze D, Janout V, Holcatova I, Navratilova M, et al. "Circulating 25-Hydroxyvitamin D3 and Survival after Diagnosis with Kidney Cancer". *Cancer Epidemiol Biomarkers Prev.* 2015 Aug 1;24(8):127781.
- Wozniak MB, Scelo G, **Muller DC**, Moukeria A, Zaridze D, Brennan P. "Circulating microRNAs as non-invasive biomarkers for early detection of non-small-cell lung cancer". *PLoS ONE*. 2015 May 12;10(5):e0125026
- Johansson M*, Fanidi A*, **Muller DC***, Bassett JK*, Midttun Ø, Vollset SE, et al. "Circulating Biomarkers of One-Carbon Metabolism in Relation to Renal Cell Carcinoma Incidence and Survival". J Natl Cancer Inst. 2014 Dec 1;106(12):dju327.
- Agogo GO, der Voet H van, Veer P vant, Ferrari P, Leenders M, **Muller DC**, et al. "Use of Two-Part Regression Calibration Model to Correct for Measurement Error in Episodically Consumed Foods in a Single-Replicate Study Design: EPIC Case Study". *PLoS ONE*. 2014 Nov 17;9(11):e113160.
- **Muller DC**[#], Fanidi A, Midttun Ø, Steffen A, Dossus L, Boutron-Ruault M-C, et al. "Circulating 25-Hydroxyvitamin D3 in Relation to Renal Cell Carcinoma Incidence and Survival in the EPIC Cohort". Am J Epidemiol. 2014 Sep 8;kwu204.
- Engeset D, Braaten T, Teucher B, Kühn T, Bueno-de-Mesquita HB, ..., **Muller DC** et al. Fish consumption and mortality in the European Prospective Investigation into Cancer and Nutrition cohort. Eur J Epidemiol. 2014 Nov 7;114.
- Ferrari P, Licaj I, **Muller DC**, Andersen PK, Johansson M, Boeing H, et al. "Lifetime alcohol use and overall and cause-specific mortality in the European Prospective Investigation into Cancer and nutrition (EPIC) study". *BMJ Open.* 2014 Jul 1; 4(7)
- Severi G, FitzGerald LM^* , **Muller DC***, Pedersen J^* , Longano A, Southey MC, et al. "A three-protein biomarker panel assessed in diagnostic tissue predicts death from prostate cancer for men with localized disease". Cancer Medicine. 2014 Jun 1.
- Papa N, Lawrentschuk N, **Muller D**, MacInnis R, Ta A, Severi G, Millar J, Syme R, Giles G, Bolton D: "Rural residency and prostate cancer specific mortality: results from the Victorian Radical Prostatectomy Register". *Australian and New Zealand journal of public health*. 2014.
- Bolton DM, Ta A, Bagnato M, **Muller D**, Lawrentschuk NL, Severi G, Syme RR, Giles GG: "Interval to biochemical recurrence following radical prostatectomy does not affect survival in men with low-risk prostate cancer". World journal of urology. 2014; 32(2), 431.
- Hussain SM, Wang Y, **Muller DC**, Wluka AE, Giles GG, Manning JT, Graves S, Cicuttini FM: "Association between index-to-ring finger length ratio and risk of severe knee and hip osteoarthritis requiring total joint replacement". *Rheumatology*. 2014; 53(7), 1200.
- **Muller DC** $^{\#}$: "Second to fourth digit ratio: A predictor of disease in later life?". *Maturitas.* 2013; 75(1): 1.
- **Muller DC**[#], Manning JT, Hopper JL, English DR, Giles GG, Severi G: "No strong association between second to fourth digit ratio (2D:4D) and adult anthropometric measures with emphasis on adiposity". *Ann Hum Biol.* 2013; 40(2): 201.
- Muller $DC^{\#}$, Baglietto L, Manning JT, McLean C, Hopper JL, English DR, Giles GG, Severi G: "Reply to comment on: 'Second to fourth digit ratio (2D:4D), breast cancer risk factors, and breast cancer risk: a prospective cohort study"'. Br J Cancer. 2013; 108(3): 743.
- Muller DC[#], Giles GG, Sinclair R, Hopper JL, English DR, Severi G: "Age-dependent associations between androgenetic alopecia and prostate cancer risk". *Cancer Epidemiol Biomarkers Prev.* 2013; 22(2): 209.
- Muller $DC^{\#}$, Baglietto L, Manning JT, McLean C, Hopper JL, English DR, Giles GG, Severi G: "Second to fourth digit ratio (2D:4D), breast cancer risk factors, and breast cancer risk: a prospective cohort study". Br J Cancer. 2012; 107(9): 1631.
- Muller DC[#], Giles GG, Manning JT, Hopper JL, English DR, Severi G: "Second to fourth digit ratio (2D:4D) and prostate cancer risk in the Melbourne Collaborative Cohort Study". Br J Cancer.

2011; 105(3): 438.

Muller DC[#], Giles GG, Bassett J, Morris HA, Manning JT, Hopper JL, English DR, Severi G: "Second to fourth digit ratio (2D:4D) and concentrations of circulating sex hormones in adulthood". Reprod Biol Endocrinol. 2011; 9: 57.

Severi G, Baglietto L, **Muller DC**, English DR, Jenkins MA, Abramson MJ, Douglass JA, Hopper JL, Giles GG: "Asthma, asthma medications, and prostate cancer risk". *Cancer Epidemiol Biomarkers Prev.* 2010; 19(9): 2318.

Muller DC[#], Severi G, Baglietto L, Krishnan K, English DR, Hopper JL, Giles GG: "Dietary patterns and prostate cancer risk". Cancer Epidemiol Biomarkers Prev. 2009; 18(11): 3126.

Kelsall HL, Baglietto L, **Muller D**, Haydon AM, English DR, Giles GG: "The effect of socioeconomic status on survival from colorectal cancer in the Melbourne Collaborative Cohort Study". *Soc Sci Med.* 2009; 68(2): 290.

Bowey JA, **Muller D**: "Phonological recoding and rapid orthographic learning in third-graders silent reading: A critical test of the self-teaching hypothesis". *Journal of Experimental Child Psychology*. 2005; 92(3): 203.

Conference Presentations

Muller DC: "Second to fourth digit ratio and breast cancer risk in the Melbourne Collaborative Cohort Study". Conference of the Australasian Epidemiological Association, 21 September 2011, Perth.

Muller DC: "Analysis of family case-control studies in Stata". Australia and New Zealand Stata Users Group Meeting, 17 September 2011, Fremantle.

POSTER PRESENTATIONS

Muller DC: "A model incorporating spirometry to predict absolute risk of lung cancer: The UK Biobank prospective cohort study". American Association for Cancer Research Annual Meeting, 18-22 April 2015, Philadelphia.

Muller DC: "Estimates of association in family case-control studies: simulation based estimates of bias". Conference of the Australasian Epidemiological Association, 20-21 September 2011, Perth.

Muller DC: "Second to fourth digit ratio and prostate cancer risk in the Melbourne Collaborative Cohort Study". 12th Australasian Prostate Cancer Conference, 3-5 August 2011, Melbourne.

Muller DC: "Second to fourth digit ratio, adult circulating hormones, and prostate cancer risk in the Melbourne Collaborative Cohort Study". Conference of the Australasian Epidemiological Association, 29 September - 1 October 2011, Sydney.

Professional Activities

I am lead statistician for the Lung Cancer Cohort Consortium (LC3), and member of the European Prospective Investigation into Cancer and nutrition Statistical and lung cancer working groups. I have acted as a peer reviewer for numerous journals including The BMJ, International Journal of Cancer, British Journal of Cancer, and Cancer Epidemiology Biomarkers and Prevention. I am a member of the American Association for Cancer Research.

TECHNICAL SKILLS

R, Stata, Mata, Bayesian MCMC simulation packages (Stan, JAGS, OpenBUGS/WinBUGS), some Linux/Unix shell scripting, some C++, standard productivity tools in Linux and MS Windows.