## Accepted Manuscript

Title: Discovering human germ cell mutagens with whole genome sequencing: insights from power calculations reveal the importance of controlling for between family variability



Authors: R.J. Webster, A. Williams, F. Marchetti, C.L. Yauk

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## ACCEPTED MANUSCRIPT

Special issue of Mutation Research - "DeMarini tribute"

Discovering human germ cell mutagens with whole genome sequencing: insights from power calculations reveal the importance of controlling for between family variability

Webster, R.J., Williams, A., Marchetti, F., & Yauk, C.L.\*

Environmental Health Science and Research Bureau, Health Canada, Ottawa, ON, K1A 0K9

\*To whom correspondence should be addressed: 50 Colombine Driveway, Ottawa, ON, K1A 0K9; Tel: 613-941-7376; Fax: 613-941-8530; email: carole.yauk@canada.ca

## Highlights

- Pedigree whole genome sequencing may be used to identify human germ cell mutagens
- Power analyses were performed to determine sample size to identify germ cell mutagens
- Modeling inter-family variability of the mutation-by-paternal age effect increased power
- Sufficient power is achieved by sampling 4-28 multi-sibling families per treatment group

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