Literature Review

Option 1: NCBI Site

Search strategy in title/abstract:

1. ((Gene OR Synonyms) AND (Germline OR Germ-line OR Inherited OR Genetic Predisposition to Disease[MeSH Major Topic]) AND (Risk OR Odds Ratio OR Hazard Ratio OR Standardized Incidence Ratio) AND (Any Diseases of Interest) AND
2. (Cancer or Adenocarcinoma) AND (Site/ Organ)
3. Gene-specific inclusions based upon reviews

Gene Synonyms based upon lit review and Cancer Gene Census for Germline Mutate cancer genes: <http://www.sanger.ac.uk/genetics/CGP/Census/germline_mutation.shtml>

Saved to an NCBI account

**Inclusion Criteria**

1. Reporting of risk, odds, ratio, hazard ratio, relative risk, cumulative risk, or standardized incidence ratio
2. If reporting on a gene variant, then include if:
   1. It is a common variant (such as a founder mutation variant)
   2. If a penetrance of variant is provided

**Exclusion Criteria**

1. Paper not published in English
2. Family studies of less than 20 families
3. The paper reports on a gene other than gene of interest (paper is captured b/c gene of interest is in abstract) \*
4. Full text of article could not be obtained (should be very rare).
5. The paper reports on a spectrum of gene variants but without any penetrance or prevalence information
6. The paper reports data that have subsequently been entirely included in larger studies
7. Paper reports study not conducted in humans
8. The confidence interval is includes lower bounds less than 1

\* If the paper reports on MLH6, but the gene-specific lit review is for MLH1, make sure the MLH6 paper is among those obtained by the MLH6 search.

Option 2

Use NCBI online resources to obtain all relevant papers denoting gene penetrance, prevalence, and important gene modifiers.

If those papers also cited a key paper not already identified from the online resource, we added that to the list of relevant papers.

Option 3: Google Scholar

<https://scholar.google.com/>

Custom time range: 2007-2016

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Select relevant papers for each gene/cancer combination

1. Save full text of relevant papers as a PDF which have been renamed in camelcase as FirstAuthorYearJournalTitle.
2. Papers are relevant if they include:
   1. Meta analysis/review of gene and increased cancer risk
   2. Sturdy of specific gene mutation carriers and cancer development
   3. Study includes risk or odds ratio or hazard ratio or standardarized incidence ratio specifically for gene/ cancer combination

Select one final paper per gene/cancer combination

1. Choose final paper based on:
   1. Meta analysis/review.
   2. Study population size.
   3. Confidence interval
   4. Number of citations by other papers.