

What the resource is, how it is used, & opportunities for future use

Colorectal Cancer

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PEDIGREE

Pathology, Epidemiology, DNA, Informatics and Genetics:

A Research Enabling Enterprise

Resources

Colon Cancer Family Registry (CCFR)

Australasian CCFR

Genetics and Epidemiology of Colorectal Cancer Consortium (GECCO)

ColoRectal
Transdisciplinary Study
(CORECT)

Melbourne Cohort
Collaborative Study (MCCS)

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Resources

International
Mismatch Repair
Consortium (IMRC)

Europe
Asia
Nth America
Sth America
Australasia
Africa

Serrated Polyposis study (SPS)

Canada
Australia
New Zealand
USA

Resources

DATA

- Lifestyle data
- Family history
- Clinical data
- Blood
- DNA
- CRC tumour tissue
- Colon polyp tissue
- Genotype data (GWAS, EWAS, WES, WGS)

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- Genetic and environmental determinants
- Risk estimation
- Gene discovery (sequencing, CNVs)
- Prognosis
- Prevention
- Epigenetics (methylation)



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Opportunities for future use

- Validation of risk prediction (genetic and environmental)
- Risk factors stratified by innate (genetic) risk
- Deep analysis of SNP, sequencing, and methylation data (and tumour!)
- Identification of risk reduction strategies (translation)
- Whole exome, whole genome, whole methylome, SNP data available
- Investment in genotyping and epigenetic typing for incident CRCs.