Pathology, Epidemiology, DNA, Informatics and Genetics: A Research Enabling Enterprise What the resource is, how it is used, & opportunities for future use

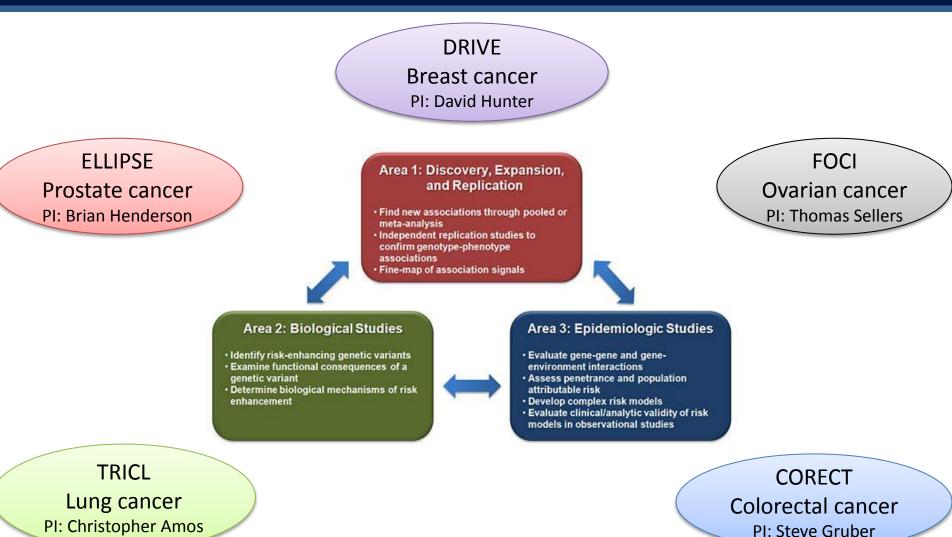
Oncoarray Studies

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Pathology, Epidemiology, DNA, Informatics and Genetics: A Research Enabling Enterprise

Genetic Associations and Mechanisms in Oncology (GAME-ON)



OncoArray Network

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Initiated by GAME-ON investigators and other international partners to gain new insight into the genetic architecture and mechanisms underlying colorectal, breast, prostate, lung and ovarian cancers.

The **OncoArray Consortium** plans to perform germline genotyping of 425,000 blood samples pooled from consortium members by July 2014

OncoArray is a custom genotyping chip from Illumina that includes 533,000 SNPs

- 275k tagSNPs forming a genome-wide backbone
- Variants of interest from 5 cancer GWAS
- Variants from fine-mapping studies
- \circ $\,$ Loci from other cancers
- Drug metabolism
- Radiation response
- o BMI
- Height
- Breast density

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Genome-Wide Genotyping Studies in Colorectal Cancer

Colorectal Transdisciplinary (CORECT) Study GWAS n=10,000 Axiom array n=10,000 Oncoarray n=43,800

PEDIGREE CRC studies

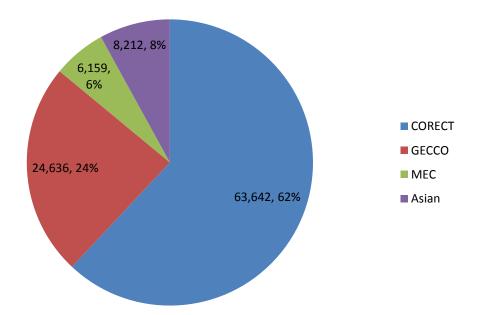
Colon-CFR

| | CRC | Controls |
|----------------------|------|----------|
| CCFR1 GWAS | 1175 | 999 |
| CCFR2 GWAS | 795 | 2234 |
| CCFR Axiom/OncoArray | 3053 | |
| Total | 5023 | 3233 |

MCCS CRC

| | CRC | Controls |
|-----------|-----|----------|
| Axiom | 504 | 504 |
| OncoArray | 221 | 221 |
| Total | 725 | 725 |

Total CRC cases and controls n=102,650 GWAS, OncoArray and Axiom data



To access CORECT Consortium genotype data – concept application form

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PEDIGREE Experience

Access to large well characterised resources

Access to International consortia through PEDIGREE participation

Benefits from experienced and world leading researchers in project design (EOI) and manuscript preparation (manuscript registration form)