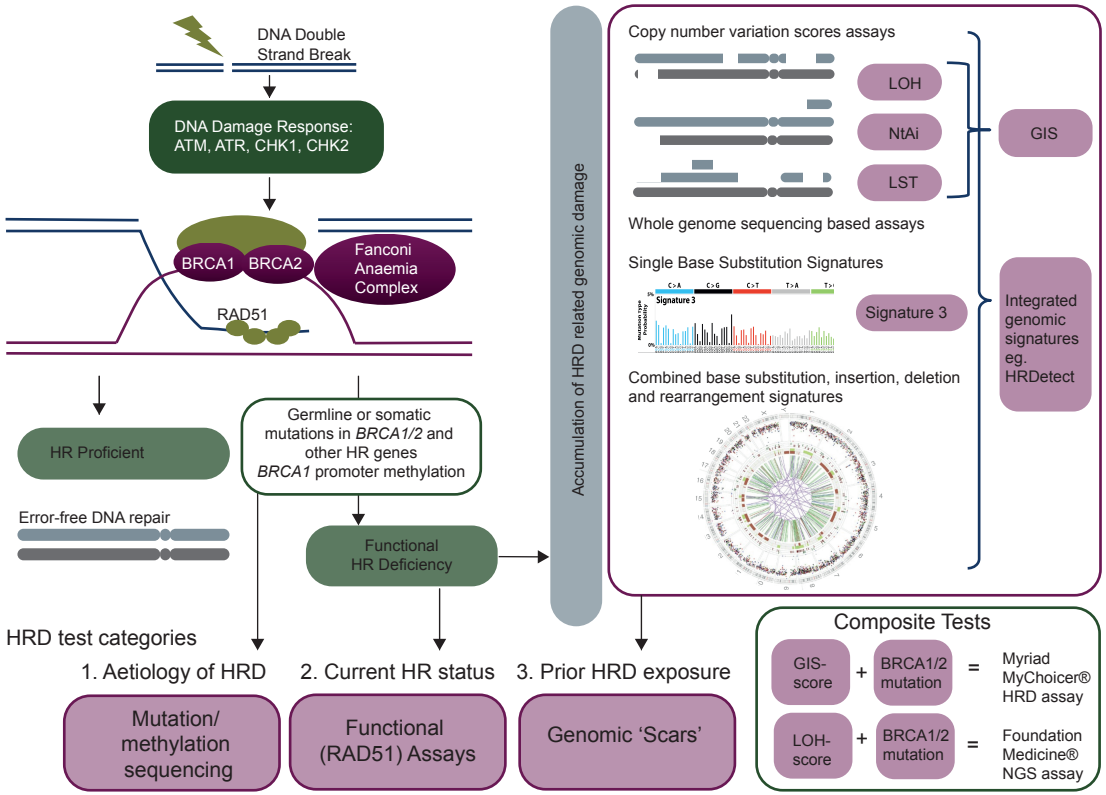
DNA Double Strand Break
DNA Damage Response: ATM, ATR, CHK1, CHK2
BRCA1
BRCA2
Fanconi Anaemia Complex
RAD51
HR Proficient
Error-free DNA repair
Germline or somatic mutations in *BRCA1/2* and other HR genes
BRCA1 promoter methylation
Functional HR Deficiency
Accumulation of HRD related genomic damage
Copy number variation scores assays
LOH
NtAi
LST
GIS
Whole genome sequencing based assays
Single Base Substitution Signatures
Signature 3
Combined base substitution, insertion, deletion and rearrangement signatures
Integrated genomic signatures eg. HRDetect
HRD test categories
1. Aetiology of HRD
2. Current HR status
3. Prior HRD exposure
Mutation/ methylation sequencing
Functional (RAD51) Assays
Genomic 'Scars'
Composite Tests
GIS-score + BRCA1/2 mutation = Myriad MyChoicer® HRD assay
LOH-score + BRCA1/2 mutation = Foundation Medicine® NGS assay