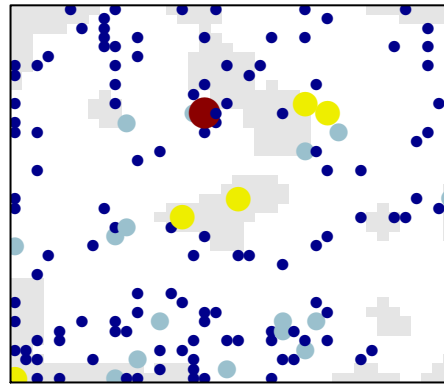
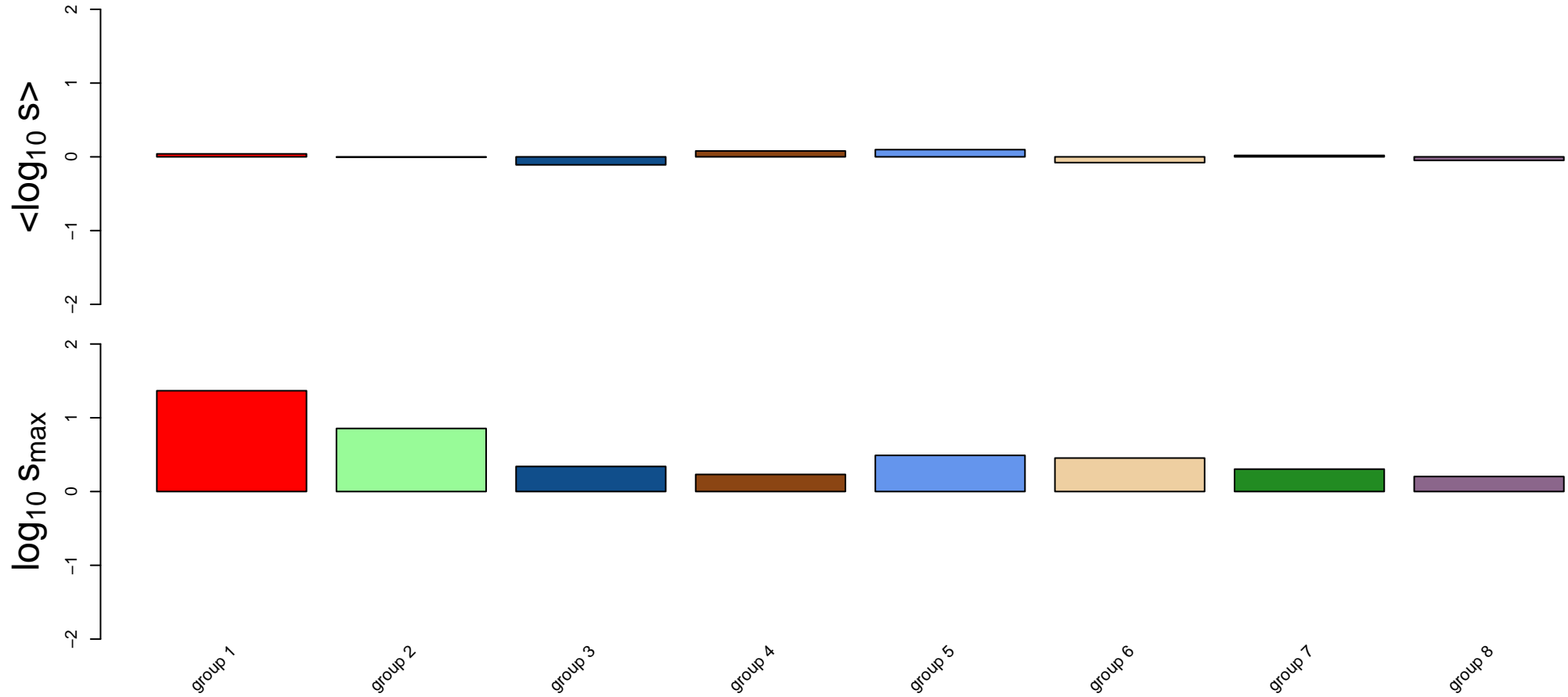
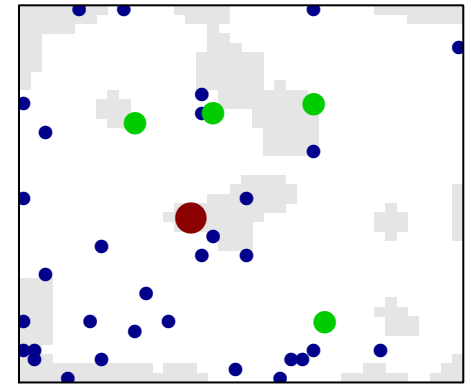


# Colorectal cancer

all genes

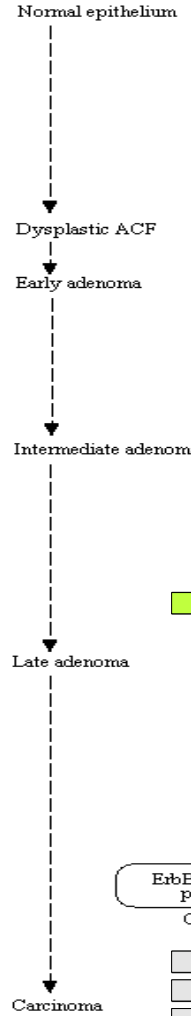


sink node genes



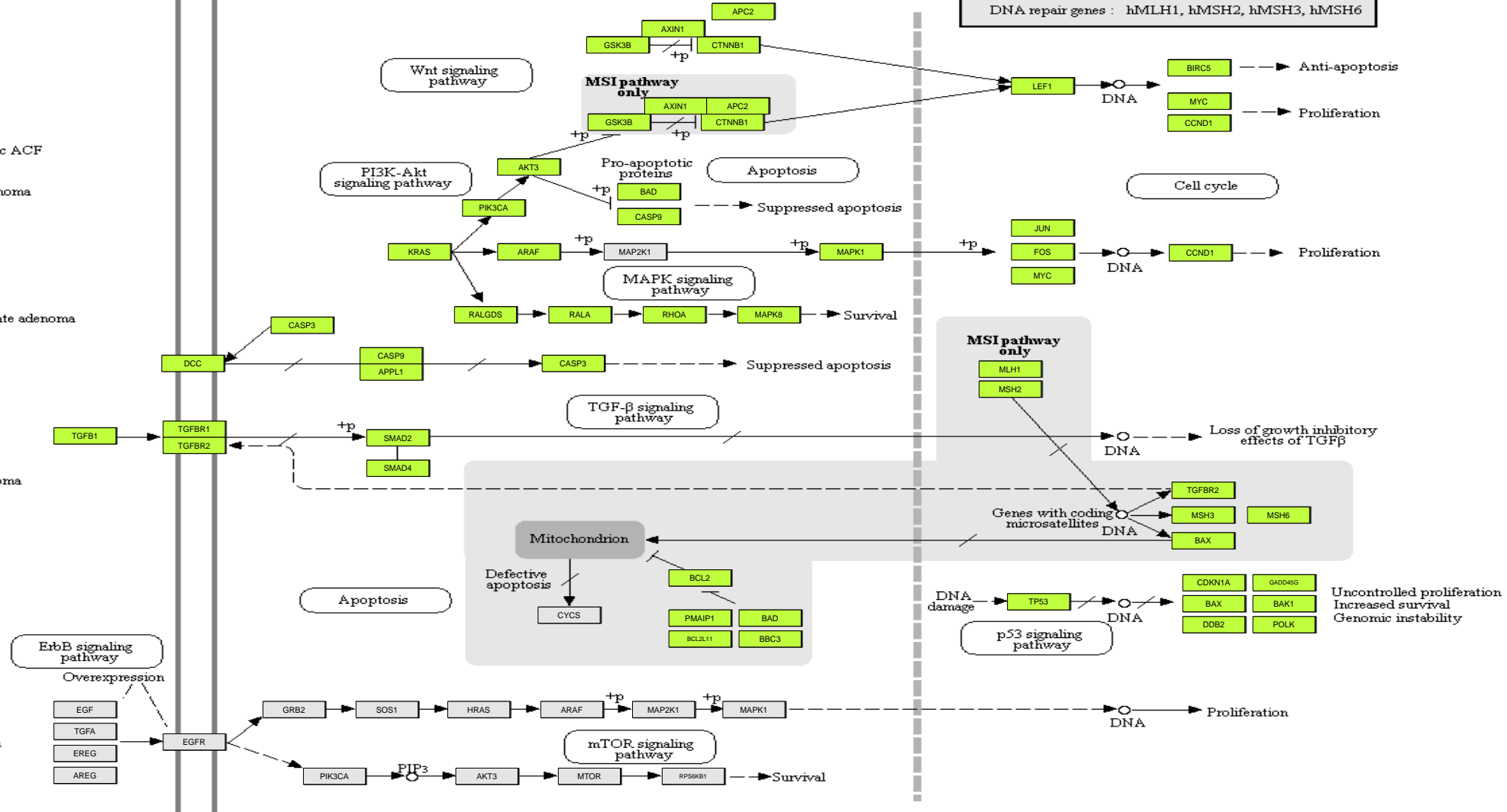
Colorectal\_cancer genes with data

**Chromosome Unstable (CIN) pathway**  
**Microsatellite Unstable (MSI) pathway**



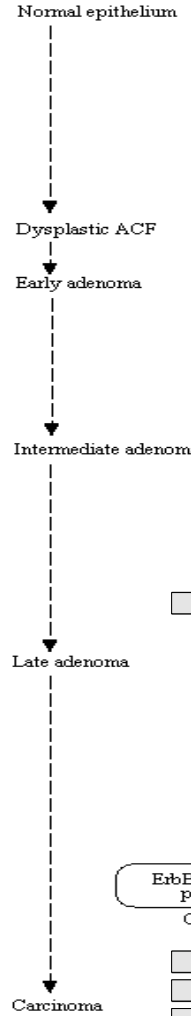
Colorectal epithelial cell

**Genetic alterations**  
 Oncogenes : β-catenin, K-Ras  
 Tumor suppressors : APC, DCC, TGFβRII, Smad2, Smad4, Bax, p53  
 DNA repair genes : hMLH1, hMSH2, hMSH3, hMSH6



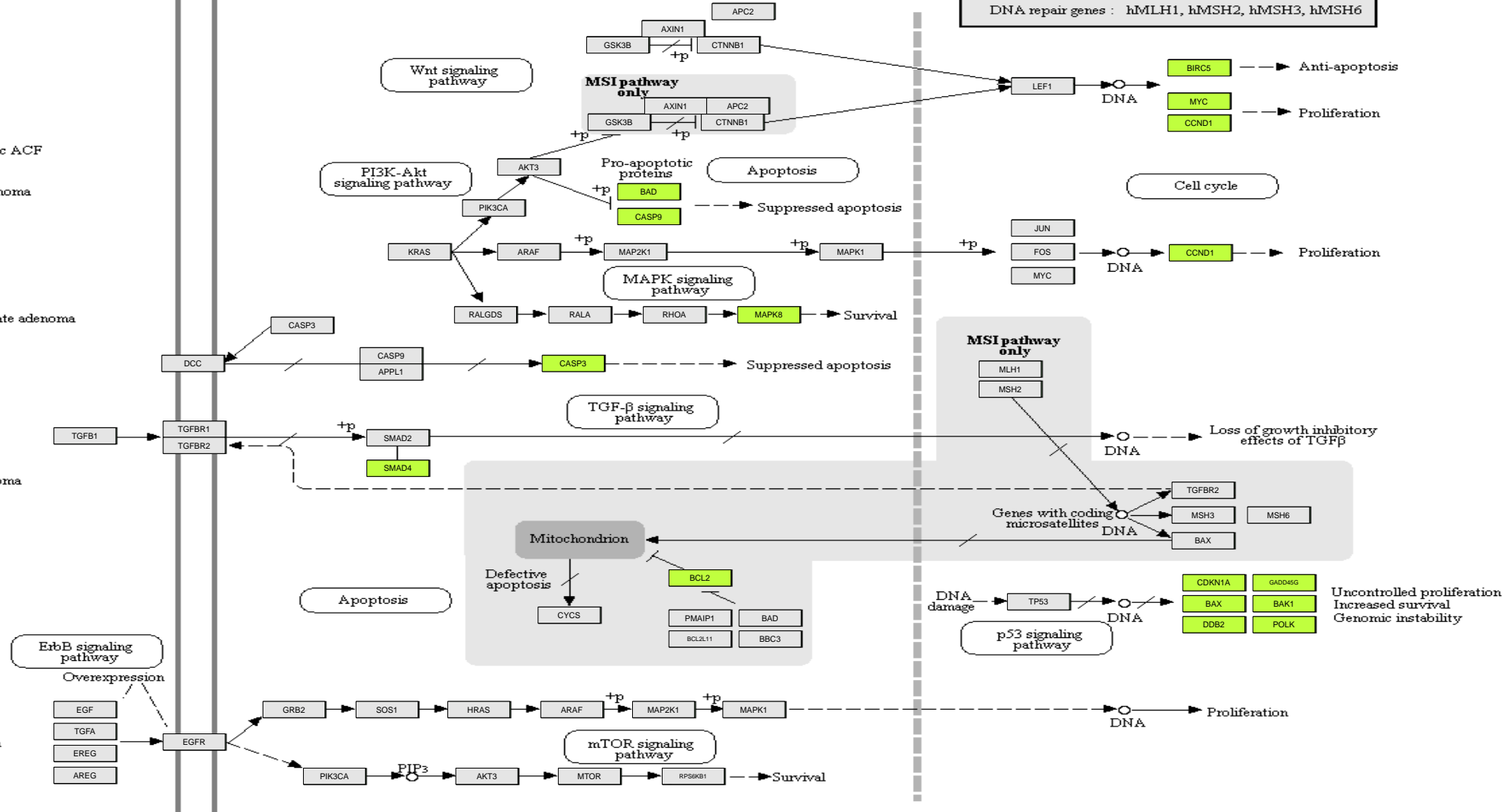
Colorectal\_cancer sink nodes

**Chromosome Unstable (CIN) pathway**  
**Microsatellite Unstable (MSI) pathway**



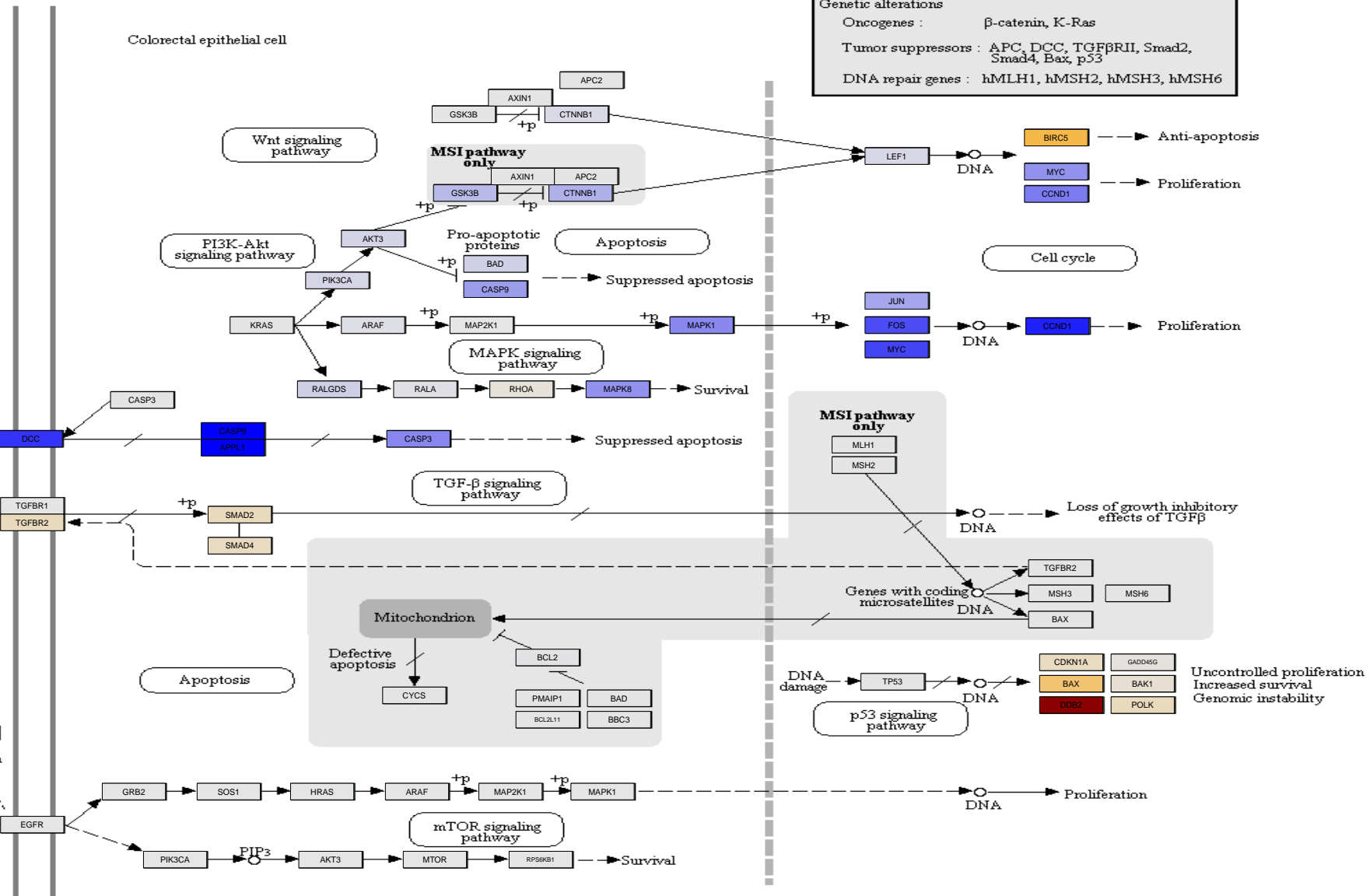
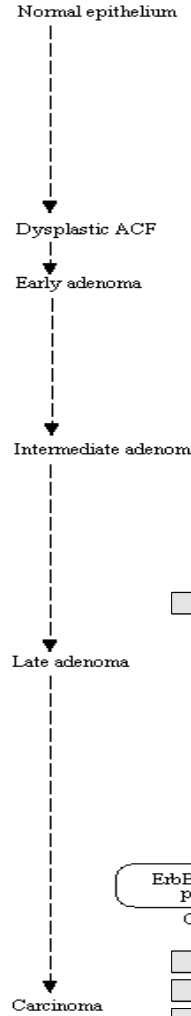
Colorectal epithelial cell

**Genetic alterations**  
 Oncogenes :  $\beta$ -catenin, K-Ras  
 Tumor suppressors : APC, DCC, TGF $\beta$ RII, Smad2, Smad4, Bax, p53  
 DNA repair genes : hMLH1, hMSH2, hMSH3, hMSH6



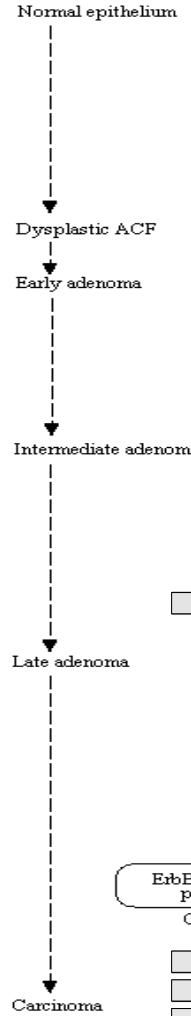
Colorectal\_cancer group 1

Chromosome Unstable (CIN) pathway  
Microsatellite Unstable (MSI) pathway

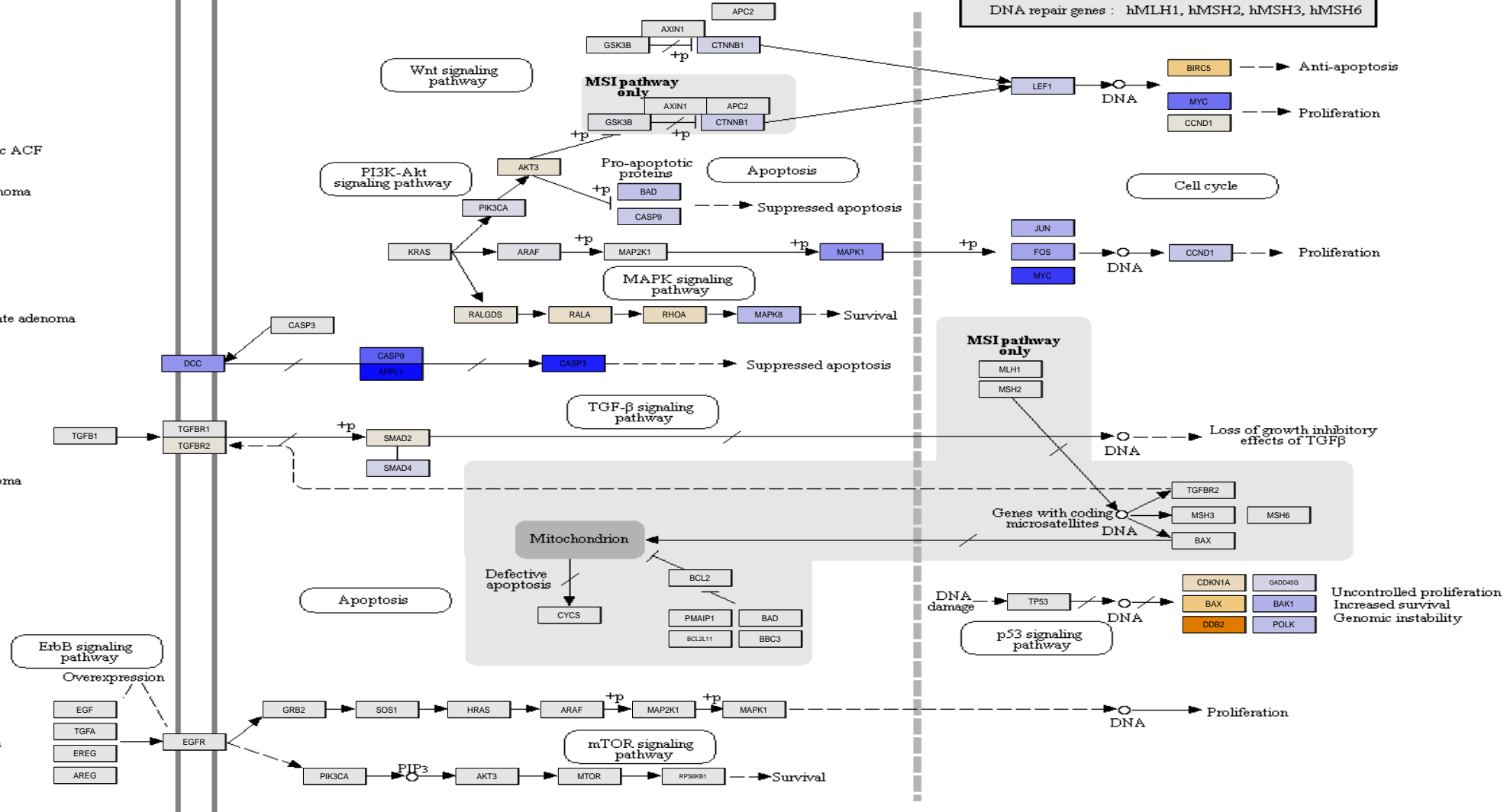


Colorectal\_cancer group 2

Chromosome Unstable (CIN) pathway  
Microsatellite Unstable (MSI) pathway

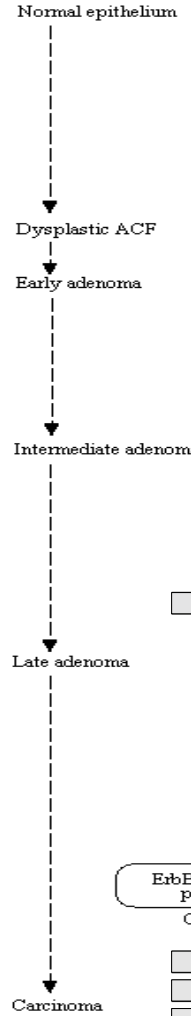


Colorectal epithelial cell

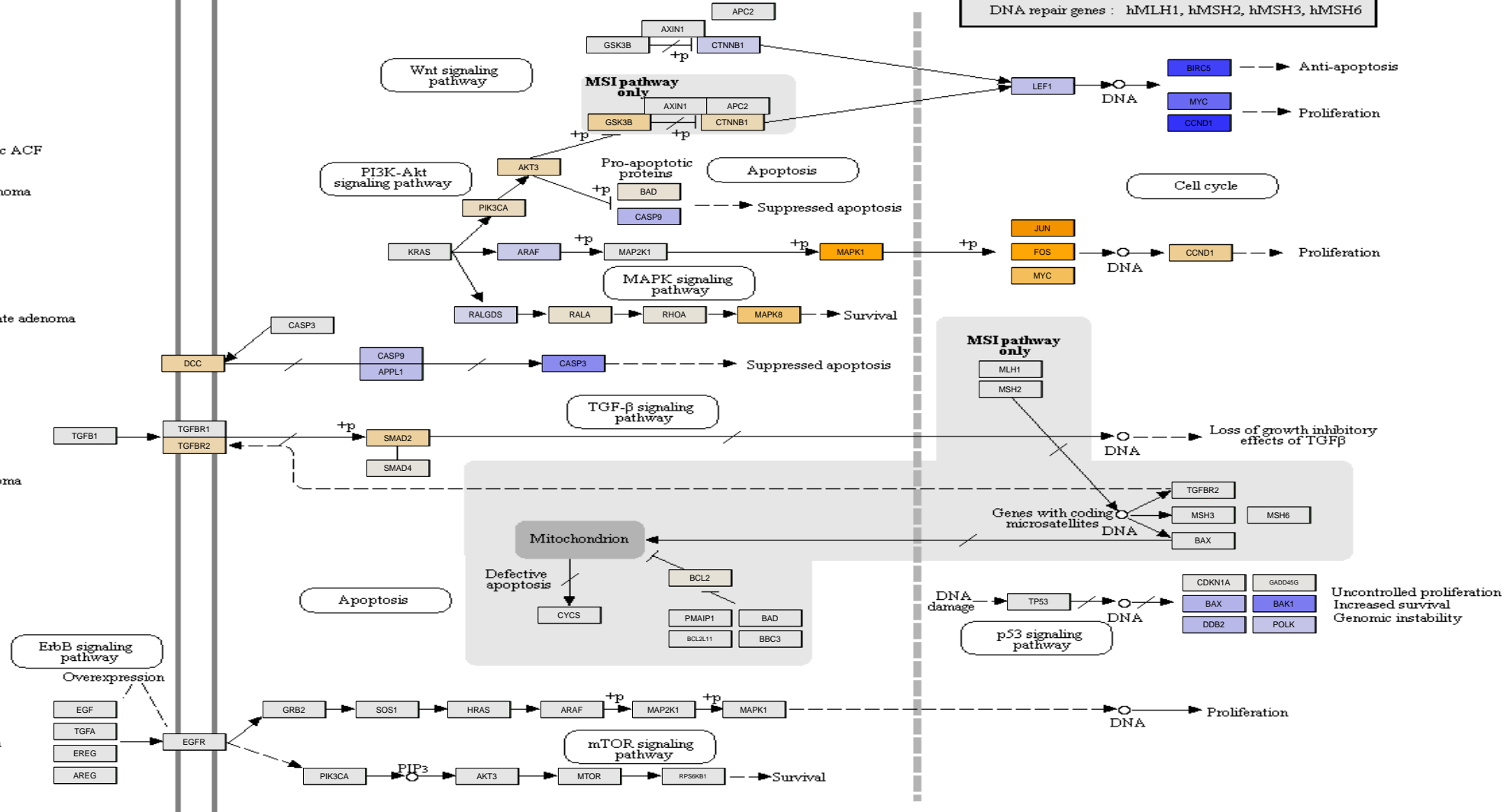


Colorectal\_cancer group 3

Chromosome Unstable (CIN) pathway  
Microsatellite Unstable (MSI) pathway

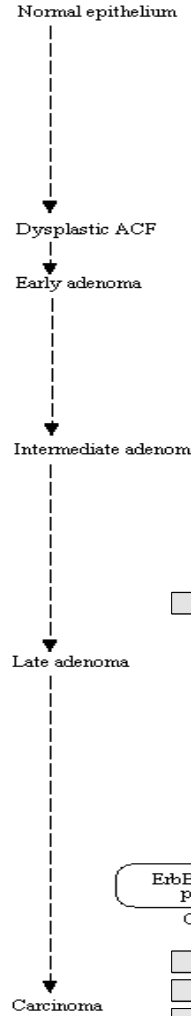


Colorectal epithelial cell

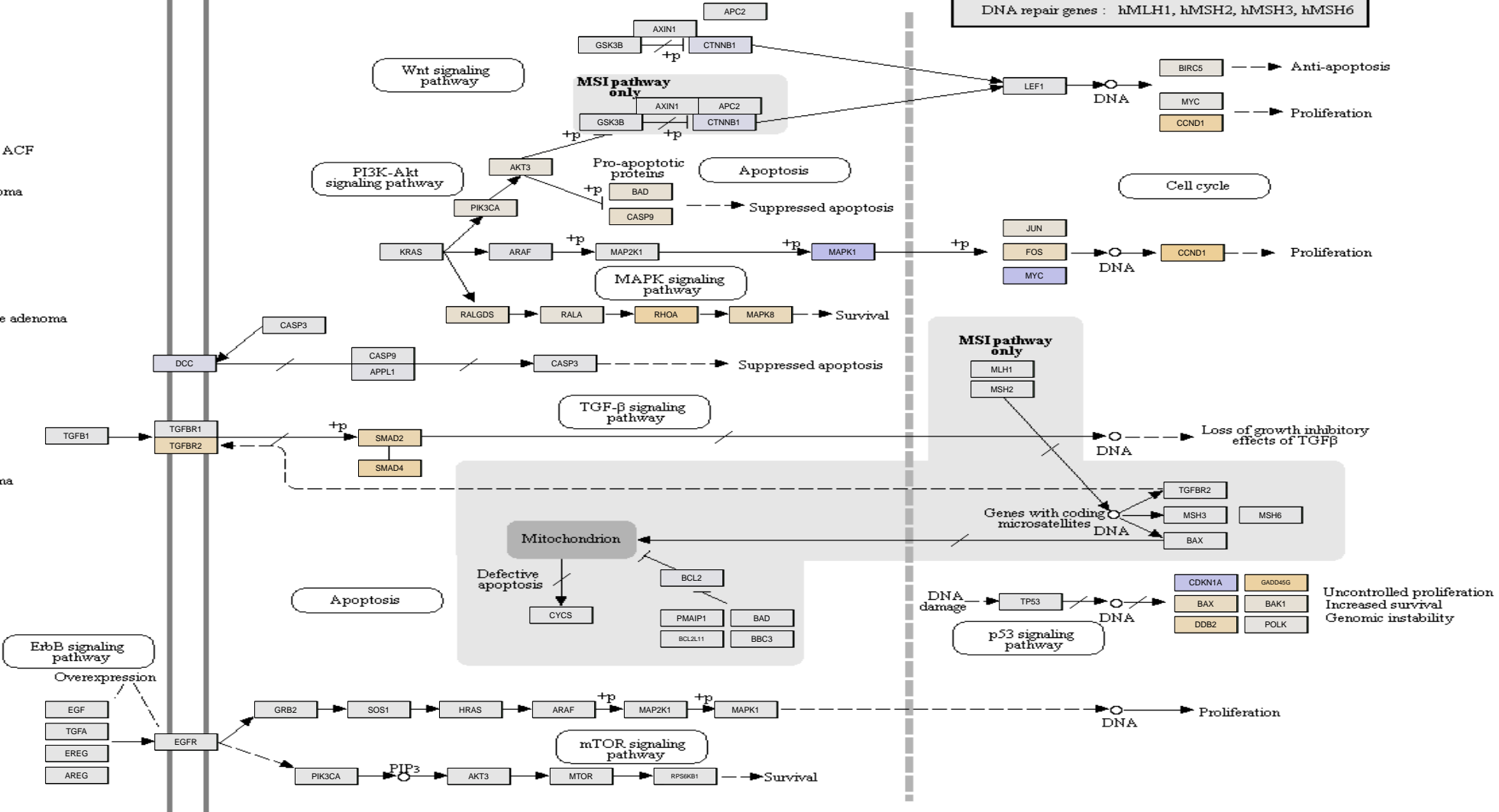


Colorectal\_cancer group 4

Chromosome Unstable (CIN) pathway  
Microsatellite Unstable (MSI) pathway

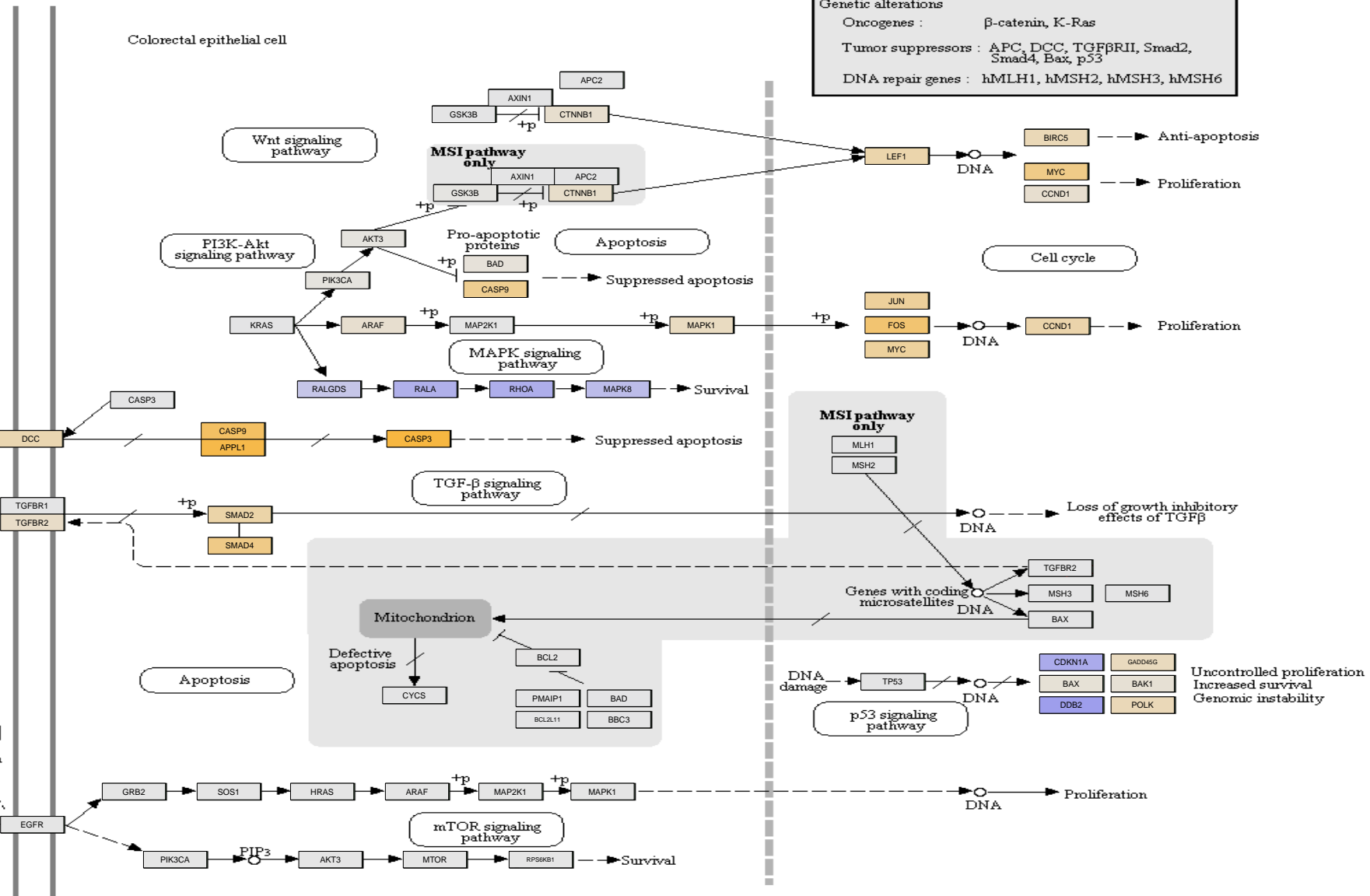
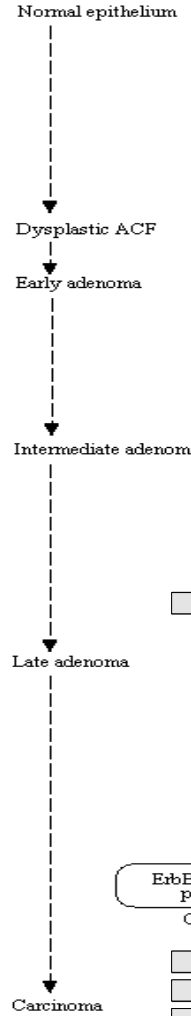


Colorectal epithelial cell



Colorectal\_cancer group 5

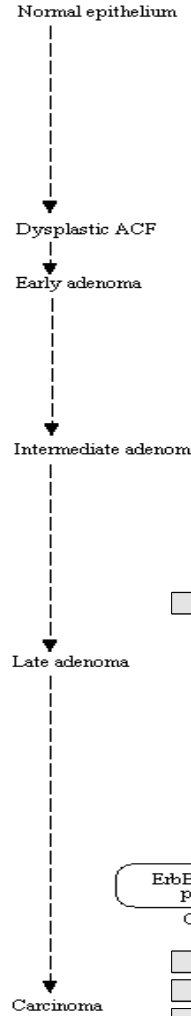
Chromosome Unstable (CIN) pathway  
Microsatellite Unstable (MSI) pathway



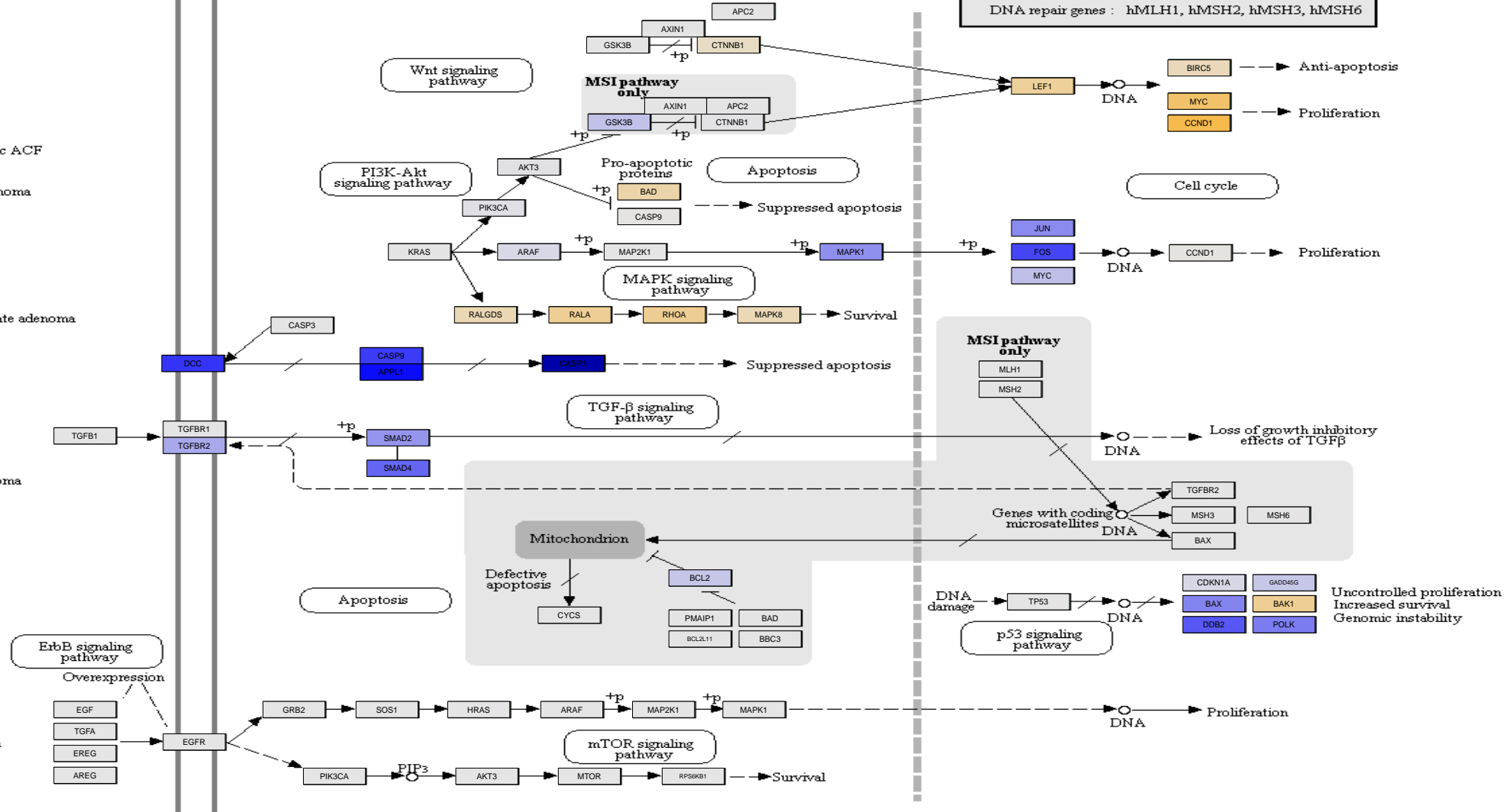


Colorectal\_cancer group 6

**Chromosome Unstable (CIN) pathway**  
**Microsatellite Unstable (MSI) pathway**

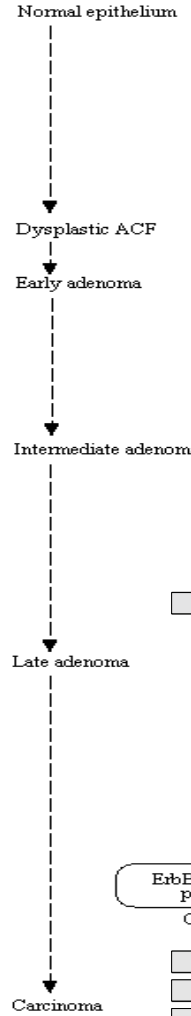


Colorectal epithelial cell

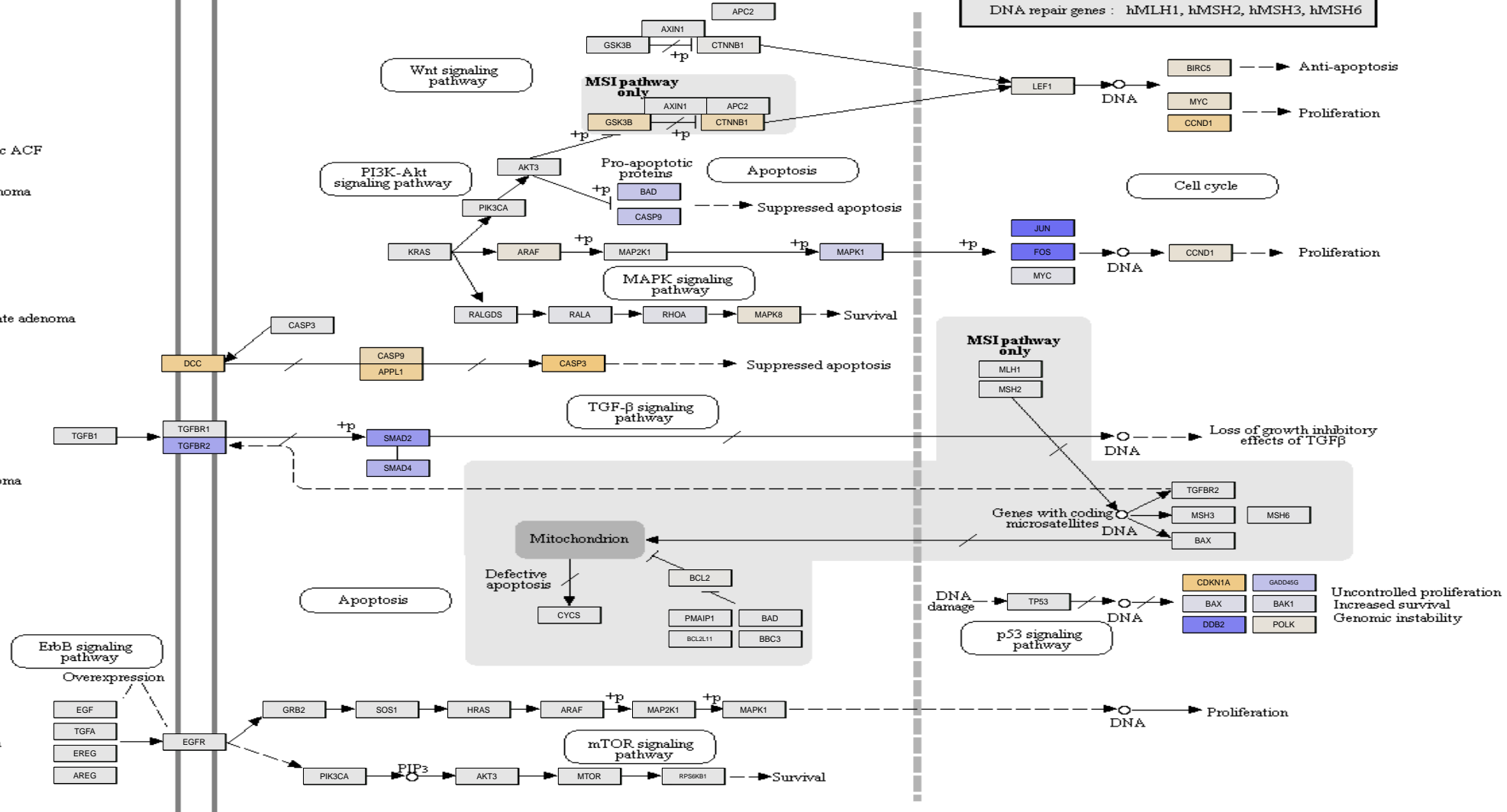


Colorectal\_cancer group 7

Chromosome Unstable (CIN) pathway  
Microsatellite Unstable (MSI) pathway



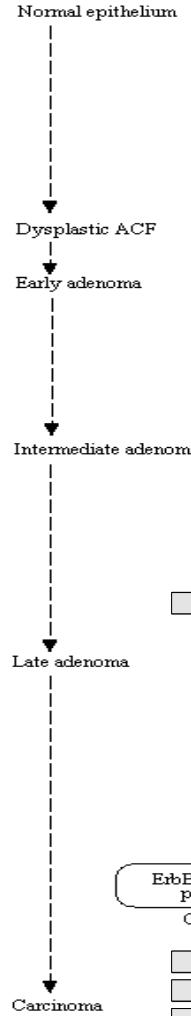
Colorectal epithelial cell



Genetic alterations  
Oncogenes : β-catenin, K-Ras  
Tumor suppressors : APC, DCC, TGFBR1/2, Smad2, Smad4, Bax, p53  
DNA repair genes : hMLH1, hMSH2, hMSH3, hMSH6

Colorectal\_cancer group 8

Chromosome Unstable (CIN) pathway  
Microsatellite Unstable (MSI) pathway



Colorectal epithelial cell

