Changes of PGE$_2$ metabolism and signaling efficiency in CRC

Synthesis and local removal

- pro-inflammatory cells
- PLA$_2$
- COX1/2
- miRNA
- Paracrine / autocrine target cells

EP-receptors and pathways

- Some short-term
  - GPCR (AC/cAMP/CREB)
  - GPCR (NO/cGMP)

- Some long-term (RTK)
  - EGFR/MAPK (Ras/ERK)
  - Wtn/β-catenin
  - ErbB/PI3K/Atk
  - Il-6/RTK/PKC/IκB
  - Cytokines/death/apop/p53

Right:

- Systemic removal and elimination in
  - Liver, lung, kidney capillary cells

Left:

- Increase w/ CRC
- Decrease w/ CRC
- Pos feedback

Various responses, see figure legend