**Pyrimidine Metabolism: T, C and U**

**Synthesis**

- Ribose-5-P
  - PRPP
  - Synthetase
  - PRPP
  - CPS-II
  - Glutamine → Carbamoyl-P

- Carbamoyl-P
  - Asp
  - CAA
  - DHOA
  - Orotic Acid
  - PRPP
  - OMP
  - UMP → CTP + UTP
Ribonucleotide (Inhibited by Deoxycoformycin)
Reductases

THF-CH₃
Methotrexate (MTX)
STOPS This Conversion

DHF

Thymidylate (Inhibited by 5-Fluorouracil)
Synthase

TMP

Degradation

C, T and U Nucleotides

β-Ala + β-Amidoisobutyrate

Excreted

Salvage

Pyrimidine
P-Ribosyl Transferase

Nucleoside Kinases

C, T, U

PRPP

Nucleoside Mono-P’s

ATP

ADP

Nucleotides