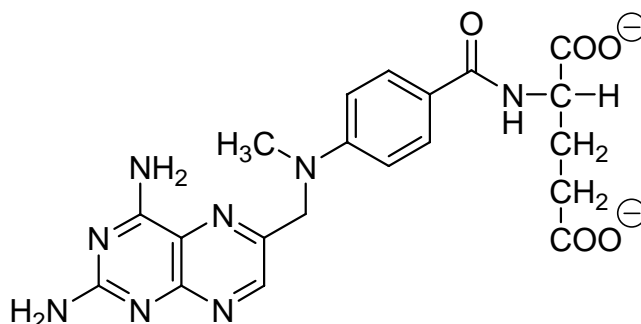


Kellogg's Product 19[®]

CHEM-643 Intermediary Metabolism
Written by Harold B. White



Page 3 - Folate Antagonists in Medicine

On the same day the O'Connor's son was born, in other parts of the hospital, other patients were being treated with antifolate drugs. Joey Jenkins, an eight year old boy with osteosarcoma, had just been infused for three hours with a lethal dose of [methotrexate](#). JJ's parents waited anxiously and probably would have a sleepless night. The rescuing antidote ([leucovorin](#)), a derivative of folic acid, would be administered twenty four hours later.

Eighty-two year old Angus MacLoed, a retired doctor, had a persistent urinary infection that was being treated with [sulfamethoxazole and trimethoprim](#). He commented to his grandson that sulfa drugs had come a long way since he prescribed [sulfanilamide](#), one of the first antibiotics, to his patients in the late 1930's ([Domagk, 1939 Nobel Prize in Medicine](#). See also [Nobel Prize winners for 1988](#))

What is the mechanism of action of each of these drugs?

Would you be concerned if the patients on these drugs regularly ate cereal supplemented with folic acid, e. g. Product 19?