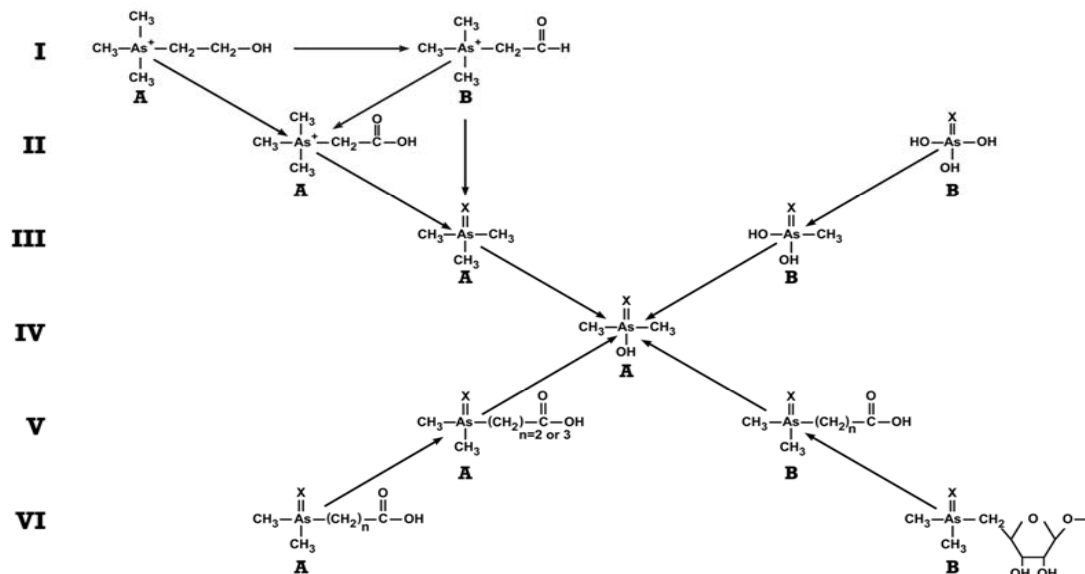




For Science Issue 3
Samuel Cohen

Web of Arsenic Metabolism

- Aggregate exposure to arsenic should include all sources of arsenic
 - Inorganic As in food and water
 - Complex organic arsenicals in food
 - Arsenosugars
 - Arsenofatty acids
 - Arsenobetaine
- How does chemical form affect metabolism and toxicity?



- Complex organic arsenicals and inorganic arsenic share common metabolites

Relevance to Humans

Clinical Manifestations and Arsenic Methylation After a Rare Subacute Arsenic Poisoning Accident

Y. Xu, Y. Wang, Q. Zheng, B. Li, X. Li, Y. Jin, X. Lv, G. Qu, and G. Sun.

Toxicol. Sciences, 10: 278-284, 2008.

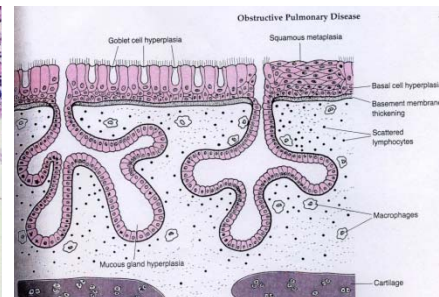
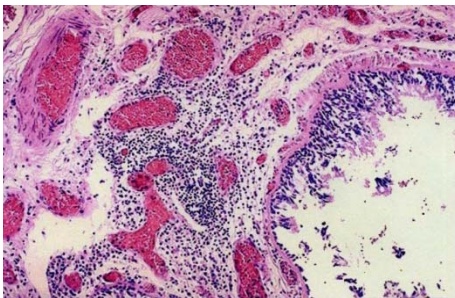
Observations

High exposure

DMA^V & TMAO in urine

Hematuria in 1/3 of exposed group

HUMAN CHRONIC BRONCHITIS



SKIN: ACTINIC KERATOSIS

