Biochemical Reversal of Aging  JOHN T.A. ELY, Radiation Studies, University of Washington — We cite our progress on biochemical reversal of aging. However, it may be circa 2 years before we have necessary substances at low cost. Meanwhile, without them, a number of measures can be adopted providing marked improvement for the problems of aging in modern societies. For example, enzymes are needed to excrete toxins that accelerate aging; Hg is the ultimate toxin that disables all enzymes (including those needed to excrete Hg itself). Low Hg level in the urine, due to loss of excretory ability, causes the diagnosis of Hg toxicity to almost always be missed. Hg sources must be removed from the body! Another example is excess sugar; hyperglycemia decreases intracellular ascorbic acid (AA) by competitively inhibiting the insulin-mediated active transport of AA into cells. Thus, immunity is impaired by low leucocyte AA. AA is needed for new proteins in aging tissues. Humans must supplement AA; their need same as in AA-synthesizing mammals.