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Observations on uricolysis, with particular reference to the "uric acid infarcts" of the newborn.

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Mendel and Mitchell demonstrated that in the embryo pig the enzymes concerned with purin metabolism appear at different stages of development, the uricolytic power not appearing until after birth and being feeble during the first months of extra-uterine life. If the same late development of uricolytic power were present in the human fetus it would explain the occurrence of deposits of urates in the kidneys of newborn infants. Schittenhelm and Schmidt alone have studied uricolysis by infantile and fetal tissues, and have claimed to get active uricolysis. This result is questionable, because later work by Kunzel and Schittenhelm indicate absence of uricolysis by adult tissues. We have found no evidence whatever of uricolytic activity on the part of fetal tissues at any stage of development, nor of adult tissues. The latter observation is in harmony with the negative results obtained by Wiechowski in experiments *in vitro* and *in vivo*, and indicates that the human body has little if any power to destroy uric acid. The statements in the older literature that allantoin is found in the urine of pregnant women has been disputed by Wiechowski, and our failure to demonstrate uricolysis by human placenta as well as other fetal or adult human tissues points in the same direction.

Additional observations are the demonstration of active uricolysis by the liver of the guinea pig, absence of uricolysis by spleen, bone marrow and probably the leucocytes of the dog, and the apparent absence of inhibitory power of dog serum upon uricolysis by dog liver.

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Studies on the life cycle of Paramecium.

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A year ago I reported to this society the results obtained up to that time on the life cycle of *Paramecium* when subjected to a