factors have a larger part in the ordinary human cancer than does heredity. Wood stated that the observations made in connection with the work on carcinogenic chemicals had resulted in a change in our notions as to the hereditary possibilities, and that it seemed probable that ultimately we may have to give up the idea of genetic relationships to cancer.

Bauer noted that only three neoplastic conditions in man can be traced to inherited factors (xeroderma pigmentosum, polyposis intestini, and neuroblastoma retinae). For all other tumors a monomeric inheritance can be excluded, in the opinion of this investigator, who does concede that hereditary factors may favor the action of exogenous, carcinogenic agents or endogenous, metabolic, or hormonal blastogenic disturbances. Crabtree called attention to the fact that an excessive, familial incidence of cancer does not necessarily imply the presence of a hereditary, genetic factor in the genesis of the disease, as common environmental agents may play a part in bringing about an excessive, familial cancer mortality. This applies especially to cancers of the skin, lip, and lung, while cancers of the female breast and internal sex organs are less likely dependent upon the action of environmental factors.

It may be possible that hereditary factors determine in a limited way the degree of susceptibility of different individuals to the various occupational, carcinogenic agents, and may account in part for the variations observed in the length of the exposure and latency periods. It is quite obvious, on the other hand, that practically all individuals will respond with a cancerous development to these agents when exposed to them sufficiently long and intensely. Any differences apparent in individual reactivity are not due to genetic factors, but to variations in the degree of exposure, and to endogenous and exogenous conditions influencing the degree of individual resistance (degree of pigmentations, sebum production, vascularization of skin in solar cancer, and availability of endogenous and exogenous detoxicants in chemical cancers).

The sum total of data available on the relationship of heredity to cancerigenesis indicates that the influence of heredity on this process remains, in general, in the same order in which hereditary factors act upon all other normal and pathological vital activities (Webster), such as metabolism and infections. There does not exist any more reason for exaggerating the role of heredity in regard to cancer, than there is for denying its part in modifying the reactivity and response of the body to the various extrinsic and intrinsic carcinogenic agents.

B. Congenital Mutation

In addition to an inherited susceptibility to cancer, there exists a nonhereditary congenital susceptibility. The neoplasias observed in twins, especially those of the homologous type, affecting often the same organ and appearing frequently at the same period of life, belong apparently to this type