the susceptibility of animals belonging to the same species (rabbits and mice) were noted. Renand did not obtain a single tumor among 130 mice treated for 17 months with cutaneous applications of tar. Dentici observed only 2 tumors among 86 mice tarred for 239 days. It is obvious that these results do not reflect an intrinsic refractoriness of the mice used, but are attributable to the employment of a tar lacking in carcinogenic potency. However, the investigations of Lynch, 1928; Korteweg, 1933; Parodi; Kreyberg; and Reinhard and Candee indicate that hereditary, genetic factors may account for differences in susceptibility of various strains of mice to the carcinogenic action of tar. Woglom estimated that about 70 per cent of the mice surviving for more than 4 months develop cancer regardless of the length and intensity of their exposure to tar. Borst was sceptical about the possibility of producing experimental tar cancer in 100 per cent of the animals treated with this agent. This investigator contended that reports of such results were probably due to incorrect, histological diagnosis. Observations recorded by numerous other investigators indicate that cancers can be produced in 100 per cent of mice treated adequately with a potent tar and surviving sufficiently long (Fibiger; Bang; Beck; Joannovič; Deelman; Teutschlaender; and Maisin). These conclusions are in accord with those of Branch; Boyland and Warren; Dobrovolskaia-Zavadskaia and Garrido; and Andervont, who investigated this question in mice using several, synthetic carcinogens (dibenzanthracene, methylcholanthrene) for this purpose. Although there were differences in the reactivity of diverse strains to these agents, manifested, sometimes, in variations of the length of the preparatory period necessary for the induction of the neoplastic response, Andervont claimed that these genetic differences disappear, when sufficiently high doses are used because animals of different strains become uniformly susceptible under such conditions. The use of tar with a low potency may account for differences observed in the susceptibility of different strains of mice possessing different reactivity thresholds for tar.

Among the various hereditary and constitutional factors, which have been investigated to determine the origin of such differences in susceptibility among several strains of the same species, the color of the hairy coat has attracted some attention. This is due to the pigmentary disturbances observed in man in connection with exposure to tar and pitch, and to the higher resistance of dark-pigmented races to tar and pitch cancer. It has been claimed by Yamaguchi, Nishiyama and Suzuki; Marchlewski; Grynfeltt and Harant; Ściesiński; Suzuki; Fukuda; and Reinhard and Candee that mice and rabbits having a deficiency or lack of pigment (white or albino animals) are more susceptible to tar than those showing a definite degree of pigmentation (grey, brown, or black). These contentions have been contradicted by Yamagiwa and Itchikawa; and Leroux, who found the opposite relation existing between coat color and reactivity to tar. More recent studies by Dobrovolskaia-Zavadskaia and Olch on 118 mice, belonging to 13 different, but genetically-known strains of mice