

infect monkeys by the gastro-intestinal route, even though a poliomyelitis virus is employed which regularly produces an infection in monkeys when administered by the intracerebral route. They, however, do not necessarily invalidate the possibility that the disease in man may at times be spread through the medium of milk. One must keep in mind that poliomyelitis is not a natural disease of monkeys. From our experience and those of others, it is apparently impossible to infect fully susceptible normal monkeys by caging them with incubational and sick animals. Monkeys must, therefore, enjoy a relative immunity to the disease, an immunity which is broken down only by such artificial, and relatively brutal, methods as intracerebral inoculation. The fact that monkeys are not naturally susceptible to the disease makes the solution of some of the more important questions as they relate to the human disease extremely difficult. Among such problems, for example, is an effective method of immunization against the naturally acquired disease. Whatever the intrinsic merits of any procedure may be, in so far as it applies to the protection of man against natural contact infection, it is perforce obscured in the laboratory experiment by the relatively drastic procedures necessary to induce the disease in monkeys. This condition undoubtedly also influences the solution of such epidemiologic questions as the one just referred to. The fact that man is naturally susceptible to the disease, and that monkeys are not, must therefore unquestionably occupy a prominent place in any consideration which has to do with the application of observations made on monkeys to the circumstances as they apply to man.

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**Relationship of Atopens of Timothy (*Phleum Pratense*) and Australian Rye (*Lolium Multiflorum*) Grasses as Indicated by Passive Transfer Studies.**

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There is an assumption that the atopens of timothy grass pollen contain atopens that will protect patients who are sensitive to other grasses. The basis for this belief has been the clinical evidences of satisfactory results. Coca and Grove added the weight of experi-

mental evidence to this hypothesis when they demonstrated that the timothy atopens contained the atopens of June, orchard and red top grasses. Botanical surveys of the San Francisco and peninsula areas indicate that Australian rye grass pollen is an important factor in pollen hypersensitiveness. It was of interest to determine whether the timothy atopens might contain the rye grass atopens and this question was studied experimentally on human beings by means of the local transfer technic. The observations which will be detailed elsewhere show definitely that the timothy atopen does not contain the rye grass atopen while, on the other hand, the rye grass atopen does contain the timothy atopen. It is quite evident that the treatment of patients with timothy pollen extract alone will not protect patients who are clinically exposed to rye grass pollen. On the contrary, however, a definite group of patients who are exposed to timothy pollen may be protected by the use of rye grass extract.