

Scientists contest long-held belief on measles virus

Measles, a contagious disease, does not enter the body only through airways and lungs, as has long been suspected, according to a new study.

The study has found that "replication in the airways is not required and that a virus replicating only in immune cells causes measles in monkeys".

The study, by Roberto Cattaneo, a Mayo Clinic virologist, could have major implications for treatment.

The findings could help physicians better understand how measles virus, which can be reprogrammed to eliminate cancer cells, spreads in its host.

The research may also help improve the efficacy and safety of cancer therapy and lead to a better understanding of how viruses similar to measles function. It would enable the creation of more effective vaccines for other diseases.

The research team generated a measles virus that cannot enter the airway epithelium and showed that it spread in lymphocytes, cells of the immune system, and remained virulent.

Researchers also showed as they predicted in a new model of infection, that the virus could not cross the respiratory epithelium on its way out of the lungs and was not shed from infected monkeys.

From a scientific perspective, the study challenges a widely held assumption about this common contagion.

The researchers cite two recent medical texts on the measles virus that say it infects the upper respiratory epithelium before spreading to the rest of the body.

In light of their findings, the investigators say those statements will have to be revised.

The findings were reported in the online edition of The Journal of Clinical Investigation.

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