

## Capability of Multiplication of Viruses in Host Tissues [Abstract Only]

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## Capability of multiplication of viruses in host tissues [abstract only]

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The ability of viruses to replicate depends on a variety of cellular functions. Approaches to identifying specific determinants of host range or tissue tropism require closely related viruses with different host ranges, and cells that differ in their ability to support replication. With several viruses, such approaches have identified structures and processes that determine tropism and the susceptibility of cells to infection. With some viruses, e.g. picornaviruses and retroviruses, susceptibility to infection may be determined by the presence of structures on the cell surface that serve as receptors in attachment and penetration. With other viruses, the ubiquitous presence of receptors on cell surfaces precludes determination of susceptibility at this level. With myxoviruses and paramyxoviruses, the ability to multiply in a tissue depends on a host cell protease that is required to activate the virus protein responsible for penetration, i.e. the F protein of parainfluenza viruses and the HA protein of influenza virus, and the presence of a suitable host protease is a determinant of host range, tissue tropism, and virulence of these viruses.

*Note. Unfortunately Dr Scheid's full paper did not become available after the meeting. In view of the importance of replication to virus pathogenicity the reader is recommended the following reviews, which cover most of the points raised in Dr Scheid's verbal presentation and other relevant matters.*

Harry Smith, F.R.S.

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