

# 1 | RNA Replication

## 1.1 | The Strands of RNA

- +Strand: reproducible RNA => could be directly translated by the ribosomes
- -Strand RNA: useless template RNA (less easy to be detected)
  - Need to be processed by RDRP (RNA-dependent RNA Polymerease)
  - Once entered the cell, RDRP goes to work copying -Strand RNA to +Strang RNA
- double-stranded RNA viron => (+, a.k.a. sense)
  - +-stranded RNA => same idea as above
  - \* strand RNA => virus comes with RDRP that convert -ssRNA to +ssRNA. Then, same idea as above.

RNA-Dependent RNA polymerease catalyze this process of RNA replication.

## 1.2 | And... Viruses!

Because of the fact that the body will usually not need to create RNA from only RNA, this mechnism is usually used by viruses to make more copies of itself within a cell.

- RNA viruses does not need host-cell polymeraese to copy RNA
- They come with polymerase that...
  - with dsRNA; takes +ssRNA and makes -ssRMA; combining the two to produce dsRNA
  - with +ssRNA, takes +ssRNA and makes temporary -ssRNA which makes more +ssRNA
  - with -ssRNA, takes -ssRNA, and makes temporary +ssRNA, which makes -ssRNA

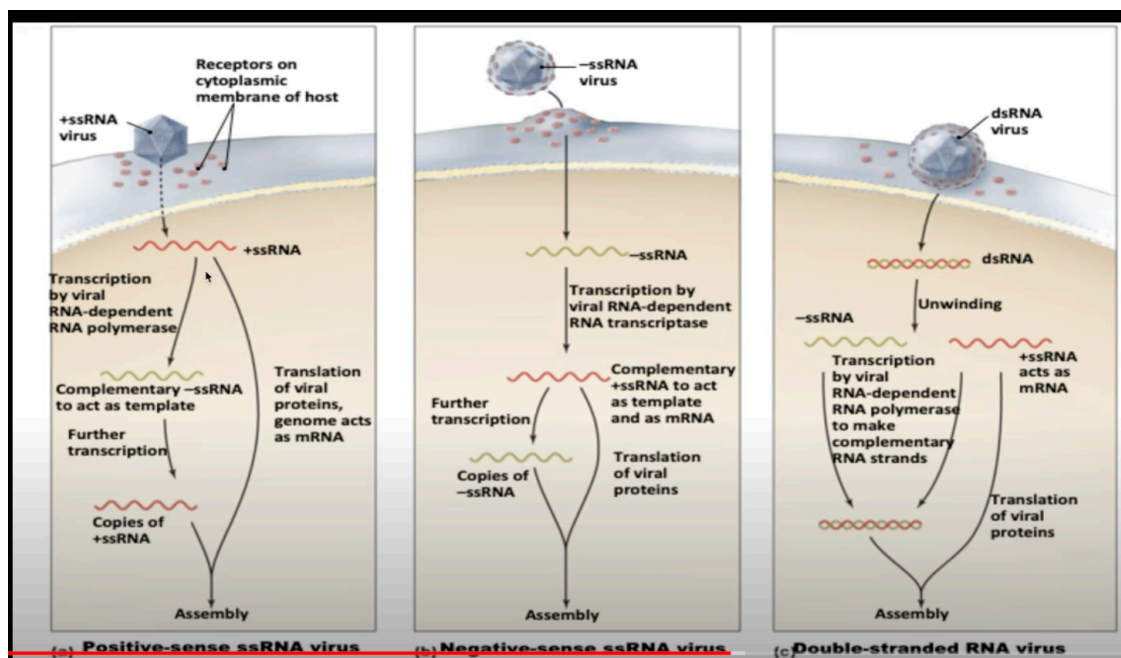


Figure 1: Screen Shot 2020-10-12 at 11.14.30 PM.png