1. Reading journals.
2. Length of the SARS COV-2 genome: 29,903 (29 Kilobases), they range from 26 Kilobases to 32 kilobases.

Length of the MERS CoV: 30,119 (30 Kilobases).

SARS CoV-2 and MERS CoV are made up of unsegmented single-stranded RNA.

SARS CoV-2: 29.86% adenosines, 32.12% thymines, 19.63% guanines, 18.39% cytosines.

MERS CoV: 26.23% adenines, 32.53% thymines, 20.93% guanines, 20.31% cytosines.

1. SARS CoV-2 contains total of 11 genes and their names are as follows:
2. Gene = ORF1ab, GeneID:43740578
3. Gene = S, GeneID:43740568
4. Gene = ORF3a, GeneID:43740569
5. Gene = E, GeneID:43740570
6. Gene = M, GeneID:43740571
7. Gene = ORF6, GeneID:43740572
8. Gene = ORF7a, GeneID:43740573
9. Gene = ORF7b, GeneID:43740574
10. Gene = ORF8, GeneID:43740577
11. Gene = N, GeneID:43740575
12. Gene = ORF10, GeneID:43740576

MERS contains total of 10 genes and their names are as follows:

1. Gene = Orf1ab, GeneID: 14254602
2. Gene = S, GeneID: :14254594
3. Gene = ORF3, GeneID: 14254595
4. Gene = ORF4a, GeneID: 14254596
5. Gene = ORF4b, GeneID: 14254597
6. Gene = ORF5, GeneID: 14254598
7. Gene = E, GeneID: 14254599
8. Gene = M, GeneID: 14254600
9. Gene = N, GeneID: 14254601
10. Gene = ORF8b, GeneID: 19910005
11. CDS means Coding Sequences.

There are 12 Coding sequences in SARS CoV-2 genome and they are explained in detail below:

The virus genome codes 12 proteins:

* CDS: join(266..13468,13468..21555)

Gene: ORF1ab

Protein coded: ORF1ab polyprotein

* CDS: 266..13483

Gene: ORF1ab

Protein coded: ORF1a polyprotein

* CDS: 21563..25384

Gene: S

Protein coded: Surface glycoprotein

* CDS: 25393..26220

Gene: ORF3a

Protein coded: ORF3a protein

* CDS: 26245..26472

Gene: E

Protein coded: Envelope protein

* CDS: 26523..27191

Gene: M

Protein coded: Membrane glycoprotein

* CDS: 26523..27191

Gene: ORF6

Protein coded: ORF6 protein

* CDS: 27394..27759

Gene: ORF7a

Protein coded: ORF7a protein

* CDS: 27756..27887

Gene: ORF7b

Protein coded: ORF7b

* CDS: 27894..28259

Gene: ORF8

Protein coded: ORF8 protein

* CDS: 28274..29533

Gene: N

Protein coded: Structural protein

* CDS: 29558..29674

Gene: ORF10

Protein coded: ORF10 protein

There are 11 coding sequences in MERS CoV genome which code 11 proteins and they are explained in detail below:

* CDS: join(279..13433,13433..21514)

Gene: ORF1ab

Protein coded: 1AB polyprotein

* CDS: 279..13454

Gene: ORF1ab

Protein coded: 1A polyprotein

* CDS: 21456..25517

Gene: S

Protein coded: Spike protein

* CDS: 25532..25843

Gene: ORF3

Protein coded: NS3 protein

* CDS: 25852..26181

Gene: ORF4a

Protein coded: NS4A protein

* CDS: 26093..26833

Gene: ORF4b

Protein coded: NS4B protein

* CDS: 26840..27514

Gene: ORF5

Protein coded: NS5 protein

* CDS: 27590..27838

Gene: E

Protein coded: Envelope protein

* CDS: 27853..28512

Gene: M

Protein coded: Membrane protein

* CDS: 28566..29807

Gene: N

Protein coded: Nucleocapsid protein

* CDS: 28762..29100

Gene: ORF8b

Protein coded: ORF8b protein