

## Virus

Marium Ahsan<sup>1</sup>, Muhammad Akram<sup>2\*</sup>, Momina Iftikhar<sup>2</sup>, Tansif Ur Rehman<sup>3</sup>, Francisco Garcia-Sierra<sup>4</sup>, Riadh S Al-Malki<sup>5</sup>, Fethi Ahmet Ozdemir<sup>6</sup>, Gawel Solowski<sup>6</sup>, Najmiatul Fitria<sup>7</sup>, Marcos Altable<sup>8</sup>, Adonis Sfera<sup>9</sup>, K. E. Onwuka<sup>10</sup>

<sup>1</sup>Department of Eastern Medicine, Superior University Faisalabad, Pakistan

<sup>2</sup>Department of Eastern Medicine, Government College University Faisalabad-Pakistan

<sup>3</sup>Department of Law, Dadabhoj Institute of Higher Education, Pakistan

<sup>4</sup>Department of Cell Biology, Center of Research and Advanced Studies of the National Polytechnical Institute, Mexico City, Mexico.

<sup>5</sup>Department of Pharmacology and Toxicology, Faculty of Pharmacy, Umm Al Qurra University, KSA, Saudi Arabia

<sup>6</sup>Department of Molecular Biology and Genetics, Faculty of Science and Art, Bingol University, Bingol, 1200, Türkiye

<sup>7</sup>Department of Pharmacology and Clinical Pharmacy, Universitas Andalas, Indonesia

<sup>8</sup>Department of Neurology, Neuroceuta, (Virgen de Africa Clinic), Spain

<sup>9</sup>Department of Psychiatry, Patton State Hospital, USA

<sup>10</sup>Department of Pure and Industrial Chemistry, Abia State University Uturu, Nigeria. P.M.B. 2000.

**\*Corresponding Author:** Muhammad Akram, Department of Eastern Medicine, Government College University Faisalabad-Pakistan.

**Received date:** July 05, 2024; **Accepted date:** July 15, 2024; **Published date:** July 22, 2024.

**Citation:** Marium Ahsan, Muhammad Akram, Momina Iftikhar, Tansif Ur Rehman, Francisco Garcia-Sierra, et al, (2024), *Virus, J. Obstetrics Gynecology and Reproductive Sciences*, 8(5) DOI:10.31579/2578-8965/229

**Copyright:** © 2024, Muhammad Akram. This is an open-access article distributed under the terms of The Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

### Abstract:

A fascinating contradiction is suggested by the title "Virus Abstract": a meeting point between the intellectual domain of abstraction and the invisible world of microscopic organisms. It typifies a biological paradox in which minute creatures have a disproportionate impact and have the power to significantly affect living things and complex species. As a condensed summary of a virus's traits, behaviors, and evolutionary dynamics that emphasize both its biology and duality, a "Virus Summary" is used in scientific discourse. However, the term can also refer to more abstract representations of viral concepts found in literature, art, and even the digital world of cyber threats research. It also encourages the study of metaphorical, symbolic, and philosophical aspects of viral existence.

**Keywords:** infections of virus; host cell of virus; viral replication of virus; antiviral of virus

### Introduction

Viruses are regarded as mobile genetic components that most likely originated in cells and are distinguished by a protracted coevolutionary history between the virus and its host. A virion is a whole virus particle. By granting the host cell access to its DNA or RNA genome, it can express (transcribe and translate) its genome. In 2010 (Muriaux and others). A virus's nucleocapsid is encased in an outer layer of glycoproteins known as the lipid bilayer during envelope formation. This layer is created from the host's modified membrane. Virally encoded (trans) glycosylated membrane proteins cover the whole surface of the bilayer. As a result, enveloped viruses frequently display a stripe of peplomers, which are spikes or protrusions made of glycoprotein. (Ćirković et al.,2018). When a virus breaks through an intracellular cell membrane, such as the plasma membrane, it takes on an envelope that closely resembles the lipid composition of the host membrane. Glycosylated viral envelope and outer capsid proteins play a crucial role in identifying the range of hosts and antigenic makeup (San Martín et al.,2013)

### Infections of virus

Infections caused by viruses, which are microscopic creatures that replicate within their own cells, are known as viral infections. Although viruses can

infect most other regions of the body, they are most usually responsible for respiratory and digestive disorders. (Newton et al.,2016)

### Host Cell of virus

A virus can only infect a cell that has its receptors on it; a virus cannot infect a cell that lacks these receptors. Opening. The virus enters the cell by its genetic material. Fusion with the membrane, which occurs more frequently in viruses that are enclosed, is a common pathway of viral entrance. (Hagglund et al.,2004)

### Viral Replication of virus

the process by which virions are made, released, bound, penetrated, and uncoated. Viral proteins bind to host cell surface proteins early in the infection process. There, they use certain receptors to establish connections with both their host cells and themselves.

(Fehr et al.,2018)

### Antiviral of virus

Antiviral drugs, such as those used to treat Ebola and the flu, can reduce the symptoms and shorten the course of a disease. Your body might be free of these infections thanks to them. Herpes, HIV, and hepatitis are a few examples of long-term viral diseases. (Samuel et al.,2001)

## Conclusion

Viruses are common yet mysterious, and they play a crucial role in biological variety and evolution. These tiny organisms have complex roles in ecosystems but are frequently only seen through the prism of human illnesses. They also operate as intermediaries of genetic exchange between organisms, forming microbial communities and influencing the cycle of nutrients. In addition to their ecological significance, viruses have a significant negative influence on human health and can cause anything from the ordinary cold to worldwide pandemics. Viral research has contributed to discoveries in molecular biology, biotechnology, and medicine by revealing intricate mechanisms of infection, replication, and host interaction.

## References

1. Ćirković V. (2018). Phylogenetic analysis of hantaviral molecular evolution in different rodent species. Универзитет у Београду.
2. Fehr AR, Jankevicius G, Ahel I, Perlman S. (2018). Viral macrodomains: unique mediators of viral replication and pathogenesis. *Trends in microbiology*. 26(7):598-610.
3. Hagglund R, Roizman B. (2004). Role of ICP0 in the strategy of conquest of the host cell by herpes simplex virus *Journal of virology*. 78(5):2169-2178.
4. Muriaux D, Darlix JL. (2010). Properties and functions of the nucleocapsid protein in virus assembly. *RNA biology*. 7(6):744-753.
5. Maslov DA, Opperdoes FR, Kostygov AY, Hashimi H, Lukeš J, Yurchenko V. (2019). Recent advances in trypanosomatid research: genome organization, expression, metabolism, taxonomy and evolution. *Parasitology*. 146(1):1-27.
6. Newton AH, Cardani A, Braciale TJ. (2016). The host immune response in respiratory virus infection: balancing virus clearance and immunopathology. In *Seminars in immunopathology* (Vol. 38, pp. 471-482). Springer Berlin Heidelberg.
7. Samuel CE. (2001). Antiviral actions of interferons. *Clinical microbiology reviews*. 14(4):778-809.
8. San Martin C. (2013). Structure and assembly of complex viruses. *Subcell Biochem*. 68:329-360.



This work is licensed under Creative Commons Attribution 4.0 License

To Submit Your Article, Click Here:

[Submit Manuscript](#)

DOI:10.31579/2578-8965/229

### Ready to submit your research? Choose Auctores and benefit from:

- fast, convenient online submission
- rigorous peer review by experienced research in your field
- rapid publication on acceptance
- authors retain copyrights
- unique DOI for all articles
- immediate, unrestricted online access

At Auctores, research is always in progress.

Learn more <https://www.auctoresonline.org/journals/obstetrics-gynecology-and-reproductive-sciences>