

## Contents

### REVIEW ARTICLES

- 2972-2988** **Old Enemy with a New Face: Re-emerging Monkeypox Disease – An Update**  
Md. Aminul Islam, Mizbahul Karim Hemo, Hitesh Chopra, Mohammad Ruhul Amin, Prosun Bhattacharya and Kuldeep Dhama
- 2989-2999** **Monkeypox Viruses: Resurgence of Global Threat to Mankind**  
K. Manju, H.K. Ranjini, S. Niranjana Raj, S. Chandra Nayak, Raghuraj Singh Chouhan, Ashwini Prasad, B.P. Harini, M.N. Nagendra Prasad, S. Satish and Syed Baker
- 3000-3012** **An overview on Monkeypox, Current Paradigms and Advances in its Vaccination, Treatment and Clinical Management: Trends, Scope, Promise and Challenges**  
Varruchi Sharma, Diwakar Aggarwal, Anil Kumar Sharma, Deepak Chandran, Ajay Sharma, Hitesh Chopra, Talha Bin Emran, Abhijit Dey and Kuldeep Dhama
- 3013-3024** **An International Outburst of New Form of Monkeypox Virus**  
Kiran Dobhal, Pallavi Ghildiyal, A.N.M. Ansori and Vikash Jakhmola
- 3025-3035** **Monkeypox: A Review in Indian Context**  
Uzma Tayyaba, Asfia Sultan, Fatima Khan, Shariq Ahmed and Iqbal Ahmad
- 3036-3047** **An Estimation of Five-decade Long Monkeypox Case Fatality Rate: Systematic Review and Meta-analysis**  
Md. Aminul Islam, Tanvir Ahammed, Syed Toukir Ahmed Noor, Mohammad Nayeem Hasan, M. Nazmul Hoque, Ananda Tiwari, Harapan Harapan, Kuldeep Dhama, Tofazzal Islam and Prosun Bhattacharya
- 3048-3061** **Human-to-Human Transmission of Monkeypox Virus Old Virus with a New Face**  
Poonam Joshi, Aanchal Loshali, Yogita Ale, Gulafshan Parveen, Purabi Saha and Vikas Jakhmola
- 3062-3071** **Monkeypox Disease: History, Epidemiology, Threat Assessment, and Management Strategies**  
Nikhil Nath, Kuldeep Dhama and Talha Bin Emran
- 3072-3082** **Monkeypox Virus: Lessons Learnt**  
Sunanda Kulshrestha, Amisha Rastogi and Anjana Goel

### MINI REVIEWS

- 3083-3095** **Major Advances in Monkeypox Vaccine Research and Development – An Update**  
Deepak Chandran, V.G. Nandanagopal, Malu Gopan, K. Megha, C.R. Hari Sankar, M.K. Muhammad Aslam, V. Vishnu Savanth, M. Pran, Firzan Nainu, Mohd. Iqbal Yattoo, Mohammad Ebad Ur Rehman, Hitesh Chopra, Talha Bin Emran, Abhijit Dey, Anil K. Sharma, AbdulRahman A. Saied and Kuldeep Dhama
- 3096-3105** **Candidate Vaccines and Therapeutics against Monkeypox Infection**  
Nidhi Nainwal and Vikash Jakhmola
- 3106-3118** **Changing Patterns in the Spread of Human Monkeypox: A Dangerous New Development in Disease Epidemiology**  
Deepak Chandran, P. Hridya, Diya Prasanth, D. Abernaa, A.V. Kaaviya, P.S. Sivani Menon, D. Vinodhini, M.K. Muhammad Aslam, M. Pran, V. Vishnu Savanth, Firzan Nainu, Mohd. Iqbal Yattoo, Mohammad Ebad Ur Rehman, Hitesh Chopra, Talha Bin Emran, Abhijit Dey, Anil K. Sharma and Kuldeep Dhama

## Contents

- 3119-3129 Systematic Review On New Face of Monkeypox Virus**  
Shilpa Rana, Pooja Negi, Meena Devi, Mansi Butola, Arif Nur Muhammad Ansori and Vikash Jakhmola
- 3130-3137 A Review Article on Monkeypox, Infection Transmission, Prevention, Vaccination and Role of Health Care**  
Mayur Wanjari, Sampada Late, Amruta Kothe, Pragati Alnewar, Pratiksha Munjewar, Vaishnavi Kantode, Ranjana Sharma, Seema Singh, Jaya Gawai, Vaishali Taksande, Deeplata Medhe and Abhyuday Meghe

- 3138-3143 Monkeypox and Hand-Foot-Mouth Disease Outbreak in India: A Double Trouble?**  
Subhashree Mohapatra and Rahul Mohandas

### RESEARCH ARTICLES

- 3144-3154 Computational Purposing Phytochemicals against Cysteine Protease of Monkeypox Virus: An In-silico Approach**  
Poonam Bansal, Mahiti Gupta, Sonali Sangwan, Gurpreet Kaur Bhati, Seema Ramniwas, Deepak Chandran, Abhijit Dey, Kuldeep Dhama and Hardeep Singh Tuli
- 3155-3167 The Mpox Disease: Awareness and Apprehensions among the Medical Undergraduates and Nursing Staff**  
Shariq Ahmed, Md. Mobasshir Hassan, Fatima Khan, Asfia Sultan and Mohammad Salman Shah
- 3168-3178 Tecovirimat as a Potential Bioavailable inhibitor against MPXVgp158 Established through Molecular Dynamic Simulations and Docking Studies**  
Varruchi Sharma, Anil Panwar, Vivek Kumar Garg, Hardeep Singh Tuli, Sonal Datta, Anil K Sharma, Abhijit Dey, Deepak Chandran and Kuldeep Dhama

### SHORT COMMUNICATIONS

- 3179-3184 Marburg Virus and Monkeypox Virus: The Concurrent Outbreaks in Ghana and the lesson learned from the Marburg Virus Containment**  
Ranjit Sah, Abdullah Reda, Basant Ismail Lashin, Abdelaziz Abdelaal, Aroop Mohanty, Abdelmonem Siddiq and Bijaya Kumar Padhi
- 3185-3188 Impact of Three Outbreaks on Mpox Prevention Program in Iraq: Lessons and Recommendations**  
Ahmed A. Mosa and Nawfal R. Hussein
- 3189-3191 Prevention, Vaccination, Management and Infection Control of Monkeypox Outbreak: an Update Global Recommendation for the Next Year 2023**  
Sirwan Khalid Ahmed
- 3192-3197 Genesis of Monkeypox**  
Abdul Basit, Jasni Mohamad Zain, Hafiza Zoya Mojahid and Mushtaq Ali