

Contents

REVIEW ARTICLES

- 2201-2224 Combating Antibiotic Resistance in Bacteria: The Development of Novel Therapeutic Strategies**
Fatimah A. Alqahtani, Hibah I. Almustafa, Reem S. Alshehri, Sumayah O. Alanazi and Ashraf Y. Khalifa
- 2225-2245 An Overview of Laboratory Diagnosis of Central Nervous System Viral Infections**
Sharifah Aliah Diyanah Syed Hussin, Ang-Lim Chua, Hassanain Al-Talib, Shamala Devi Sekaran and Seok Mui Wang
- 2246-2258 FIFA World Cup 2022 and the Risk of Emergence of Zoonotic Diseases**
Deepak Subedi, Saurav Pantha, Deepak Chandran, Madan Bhandari, Krishna Prasad Acharya and Kuldeep Dhama
- 2259-2269 Bovine Mastitis: Causes and Phytoremedies**
Diptimayee Acharya, Puspanjali Parida, Himansu Sekhara Mohapatra, Santi Lata Sahoo and Jyoti Ranjan Rout
- 2270-2291 Lactobacillus Species as Probiotics: Isolation Sources and Health Benefits**
Ameera M. Al-Yami, Abeer T. Al-Mousa, Sarah A. Al-Otaibi and Ashraf Y. Khalifa
- 2292-2302 Impacts and Industrial Applications of Phytic Acid and Phytase**
Madhvi Prajapati and Hardik Shah
- 2303-2309 Review on Population Pharmacokinetics of Amikacin in Paediatrics**
Keerthana Chandrasekar, T Navaswetha, Hemalatha Vasudevan, S. Naveen Kumar and K.P. Arun
- 2310-2316 A Glimpse into the Resistant Pattern of Uropathogens: An Overview**
Monalisa Debbarma, Birasen Behera, Bidyutprava Rout, Rajashree Panigrahy and Purabi Baral
- 2317-2323 Universal Coronavirus Testing to Control the Pandemic: Ethical Issues and Dilemmas**
Anusha Gopinathan, Shweta Sagar Naik, D. Maheswary, Sujith Ravi and K.V. Leela
- 2324-2336 Therapeutic and Diagnostic Approaches by using Nanotechnology in SARS-CoV-2 Infections**
Balamurali Venkatesan, Leela Kakithakara Vajravelu, Sujith Ravi, Jayaprakash Thulukanam and Om Lokesh Muthamilan
- 2337-2351 Systematic Review and Meta Analysis on Symptoms and Comorbidities Associated with COVID-19 Disease**
Swathi Jonnalagadda, Y. Prathyusha, V. Selva Kumar and Y. Aparna
- 2352-2362 Analytical Review on Membrane Water Filter using Different Materials to Prevent Microbial Activities**
Saima Parveen and Arti Malviya
- 2363-2400 Potential Role of Intensive Bird Growing during Outbreaks of Viral Zoonosis in Ukraine, Russian Federation, Kazakhstan and Belarus (on the Model Viruses Highly Pathogenic Influenza and Newcastle Diseases): Systematic Review**
Olha Chechet, Leonid Korniienko, Vitalii Ukhovskiy, Olexandr Dovgal, Sergiy Bilyk and Taras Tsarenko
- 2401-2415 Recent Advances in Methods Detecting the Dengue Virus**
Mohamed K. Alghamdi, Ahmed Bahieldin and Sherif Edris

Contents

RESEARCH ARTICLES

- 2416-2424 Efficacy of the Examination of Saliva Sample by Reverse Transcriptase-Polymerase Chain Reaction in Detection of SARS-CoV-2 in Al-Fallujah City, Iraq**
Hind Q. Jameel Al-Ani, Noor N. Al-Hayani and Raid M. Al-Ani
- 2425-2438 Sawdust Biodegradation: Cellulase and Ligninase Production via Submerged Fermentation and Glucose Production by *Streptomyces lazureus***
Fahad Abdullah Al-Dhabaan
- 2439-2450 Physico Chemical Parameters of Muskmelon Juice Enriched with Probiotic Lactic Acid Bacteria**
M. Raveendra Reddy, R. Aruna, V. Sri Latha and B. Prabhakar
- 2451-2457 Intestinal Parasitic Infections among Patients Attending a Tertiary Care Rural Hospital – A Retrospective Analysis**
S. Parimala, R. Bindu Madhavi and Sheela Vijaykumari
- 2458-2476 Evaluation of Mangrove Soil *Streptomyces* spp. Exhibiting Culture and Biochemical Variation for Determination of Antibacterial Activity**
S.J. Akshatha and Manjula Ishwara Kalyani
- 2477-2487 Production of Lovastatin using Liquid Cheese Whey by *Fusarium nectrioides* (MH173849), an Endophytic Fungi Isolated from *Euphorbia hirta***
Senthamarai Manogaran, Kannan Kilavan Packiam, Vijayakumar Lakshmi Narayanan, Chadhurthika Krishnamurthy, Devi Vijayarangam and Moni Philip Jacob Kizhakedathil
- 2488-2495 Genotypic Distribution and Antimicrobial Susceptibilities of Carbapenemase-Producing *Enterobacteriaceae* Isolated in Tertiary Care Hospital in South India**
S. Abhishek, Shweta Sagar Naik, K.V. Leela and D. Maheswary
- 2496-2506 Antifungal Chitinase Production by *Bacillus paramycoides* B26 using Squid Pen Powder as a Carbon Source**
Edy Kurniawan, Montira Leelakriangsak and Somrak Panphon
- 2507-2513 Nasal Carriage of *Staphylococcus aureus* and Associated Risk Factors among Food Handlers in a Nigerian University**
O.O. Akinola, A.N. Williams, M.I. Oniha and B.O. Ogunleye
- 2514-2520 Prevalence and Antimicrobial Susceptibility Pattern of Secondary Gram-negative Bacteria Isolated from Severe Acute Respiratory Syndrome Coronavirus Disease 2 Patients in A Tertiary Care Hospital**
Alamu Juliana, S. Ramya, K.V. Leela and Anusha
- 2521-2529 Prevalence of Hepatitis B and Hepatitis C Infections in a Tertiary Care Hospital, Telangana, India - Comparison of Pre-Pandemic and COVID-19 Pandemic times**
C. Roopa, Suryakiran Kamineni, Panthagani Narasimhulu Shilpa and Bhemathati Ranga Rao
- 2530-2542 Prognosis of Human Cytomegalovirus in Cancer Patients Undergoing Chemotherapeutic Treatment in Egypt and an Emergent Prevalence of Glycoprotein B-5**
Israa S. Shamsia, Rania Abozahra, Kholoud Baraka, Ayman Abou Shmeila and Sarah M. Abdelhamid

Contents

- 2543-2550** **Panton-Valentine Leucocidin-Positive *Staphylococcus aureus* Nasal Carriers in a Tertiary Hospital in Selangor-Malaysia**
Syahirah Samsudin, Hassanain Al-Talib and Zaini Mohd Zain
- 2551-2556** **Prevalence and Clinical Characteristics of COVID-19 in Frontline Health Care Workers**
Binita Joseph Aring, Dipali Maganbhai Gavali, Pushpa Ramjibhai Kateshiya, Hitesh Kantilal Shingala and Hiral Modhbhai Gadhavi
- 2557-2567** **Production, Purification and Characterization of Extracellular Tannase from a Newly Isolated Yeast, *Geotrichum cucujoidarum***
Nishanthini Thangavelu, Priyanka Hugar and Prasanna D. Belur
- 2568-2575** **Phytochemical Analysis and Antibacterial Activities of *Kylinia nemoralis* Extracts against the Growth of some Pathogenic Bacteria**
Noor Zarina Abd Wahab and Amirul Hafizul Aiman Abd Rahman
- 2576-2579** **Bacteriological Profile and Antibiotics Sensitivity Pattern of Patients with Urinary Tract Infection in Tertiary Care Center, Pipariya, Vadodara, Gujarat**
Saurabh Chhotalal Gamit, Harsh Vinubhai Singel, Minalba Indrajeetsinh Jadeja, Aaishwarya Arvind Jain, Jay Nitin Jain, Kartik Pankaj Jain and Mansi Suresh Jain
- 2580-2591** **Optimization of Biosurfactant Production using Chrysene Degrading Bacteria Isolated from Marine Water**
Smeera Thomas, Greena Joshy and Kavitha Subbiah
- 2592-2600** **Identification and Optimization Study of Lipase Producing Bacteria Isolated from Municipal Waste and Bio-deteriorated Waste**
Harshitkumar J. Savalia and Arvindkumar Dungerechiya
- 2601-2618** **Functional Low-fat Set Yogurt Enhanced with Microbial Exo-polysaccharides-mediated Anticancer Activity**
Manal Khider, Mahmoud Zaki El-Readi, Salah Abdalrahim, Abdel Naser Zohri, Ibrahim M. Ibrahim, Hussein H. Abulreesh, Iqbal Ahmad and Khaled Elbanna
- 2619-2630** **Phenotypic and Molecular Detection of Antiseptic Resistance Genes among Clinical *Staphylococcus aureus* Isolates During COVID-19 Pandemic**
Hala Badawi, Alaa Reda, Manal El Said, Amira El-Far, Reham Magdy, Ahmed El-Shenawy and Noha Yousry
- 2631-2638** **Study of Virulence Factor Production in *Candida* Species Colonizer Isolated from Diabetic Patients**
Karishma Wasnik, Archana Wankhade and Pritam Wasnik
- 2639-2646** **Seroprevalence of Rubella IgG in Women of Reproductive Age Group in a Tertiary Care Teaching Hospital**
Lalithambica Karunakaran, Anitha Madhavan, Shyama Devadasan, Anjana Asokan and Ancy Joseph
- 2647-2658** **Plant Growth Promoting Endophytic Bacteria *Bacillus australimaris* BLR41 and *Enterobacter kobei* BLR45 Enhance the Growth of Medicinal Plant *Barleria lupulina* Lindl.**
Nikhil Kumar and Ramesh Chandra Dubey

Contents

- 2659-2668** **Distribution of CTX-M, TEM, SHV Beta-lactamase Gene among the *Klebsiella pneumoniae* Clinical Isolates from Tertiary Care Centre in Palakkad, Kerala**
Ramya Kumaran, R.V. Geetha and Sabitha Baby
- 2669-2678** **Antibiotic Resistance of *Clinical Klebsiella* Isolates from Tertiary Care Hospital**
Ramya Sivaramakrishnan, K.V. Leela, R. Sujith, Shweta Naik and Sneha Priya
- 2679-2687** **Comparison of Three Phenotypic Methods of Carbapenemase Enzyme Detection to Identify Carbapenem-resistant Enterobacterales**
Amisha Piyush Khare, Anusha Gopinathan, K.V. Leela and Shweta Naik
- 2688-2694** **Antibacterial, Antifungal and Antiviral Activities of *Euphorbia Greenwayi* var. *Greenwayi* Bally & S. Carter**
Rehab Bahy, Mona H. Hetta, Mohamed N.F. Shaheen and Marwa S. Abu bakr
- 2695-2703** **Antioxidant, Antibacterial and Antiquorum Sensing Properties of Selected Wild Tea Leaves of Mountain Province**
Lichelyn Moling Nasungan
- 2704-2711** **Monitoring the Spectrum of Candidemia and its Anti-fungal Resistance in A Tertiary Care Centre – An Emerging Global Alarm**
Pavithra Selvan, Leela Kakithakara Vajravelu, Hemamalini Mohanraj and Manjula Sidlagatta Ramakrishna
- 2712-2723** **Detection of the SARS-CoV-2 Omicron Variant in COVID-19 Patients from South Tangerang Using SNP-Probes S371L and K417N**
Chris Adhiyanto, Erike A. Suwarsono, Laifa A. Hendarmin, Zeti Harriyati, Flori R. Sari, Fika Ekayanti, Endah Wulandari, Siti Kunarisasi, Mahfuzh A. Al Farisi, Devi R. Nareshwari, Suryani, Din F. Rochmawati, Ayu Latifah and H-J Freisleben
- 2724-2737** **Pectinase Production by *Aspergillus niger* and Its Applications in Fruit Juice Clarification**
Vrushali Wagh, Hirvitaben Patel, Nafisa Patel, Koteswara Rao Vamkudoth and Shanthipriya Ajmera
- 2738-2746** **Isolation and Characterization of Two PHA Producing Strains Isolated from Soil Sample of Nalgonda District**
M. Thirumala, E. Sai Krishna, P. Sindhu Priya and S. Vishnuvardhan Reddy
- 2747-2755** **Effect of *Bistorta affinis* (D. Don) and *Malcolmia cabulica* (Boiss) Essential Oils on Human and Foodborne Pathogens, Insects and Termites**
Kishwar Sultana, Bashir Ahmad, Zakia Ahmad, Abdur Rauf, Yahya S. Al-Awthan, Omar Bahattab, Sami Bawazeer, Aishma Khattak and Mohamed Fawzy Ramadan
- 2756-2763** **Bacteriological Profile and their Antibiotic Susceptibility Pattern in Bloodstream Infections in a Tertiary Care Hospital in North India**
Charanjeev Kaur and Sarbjeet Sharma
- 2764-2774** **Antidiabetic Effects and Enzymatic Antioxidant Activity of Chicken Drumstick Mushroom (*Coprinus comatus*) Extract in Diabetic Rats Model**
Nuniek Ina Ratnaningtyas, Fajar Husen, Dalia Sukmawati, Eko Setio Wibowo, Arif Rahma Hikam and Adil Aksoy

Contents

- 2775-2782 Nephroprotective Activity of Green Microalgae, *Chlorella sorokiniana* Isolated from Jordanian Water**
Lidia Kamal Al-Halaseh, Mais A. Sweiss, Reem A. Issa, Rehan AlKassasbeh, Manal Ahmad Abbas, Nariman A. Al-Jawabri, Maha Nour Abu Hajleh and Ali Mahmoud Al-Samydai
- 2783-2790 Molecular Characterization of AmpC β -lactamases in *Enterobacteriaceae***
D. Bindu and Chitralekha Saikumar
- 2791-2801 Incidence and Susceptibility Patterns of Urine Bacterial Flora in Young Saudi Females**
Ashwag Shami, Samiah Al-Mijalli, Ali Somily, Reema Almasri, Rasha Alsalem and Samah Awad Abdurahim
- 2802-2809 Eugenol Affects the Germ Tube Formation and Cell Adhesion of *Candida albicans***
Anek Pootong, Chanida Chumphon, Ploirung Jangjaibun, Narissara Mungkorkeaw and Benja Norrapong
- 2810-2816 Elucidating the Effectiveness of Antibiotic Treatments in Eliminating the Black Dots Contamination from Vero Cell Line Culture**
N. Barkathullah, Joyshikh Sonowal, Gulam Mohd, Kuldeep Dhama, Krishna Bharali, Amitesh Dubey, D. Vaishnavi, B.P. Mishra, Chhabi Lal Patel and Bina Mishra
- 2817-2825 Characterization of Antibiotic Resistance Determinants of Extended Spectrum β -lactamases Producing *Enterobacteriaceae* from Cancer Patients in South India**
Aarthi Manoharan and Padma Krishnan
- 2826-2835 Isolation and Categorization of Plant Growth Promoting Endophytic Bacteria Isolated from Halophytic *Suaeda nigra* at Salt Stress Area of Srikakulam, Andhra Pradesh**
M. Sridevi, D. Sandhya Deepika and J. Lavanya
- 2836-2850 Fungal Biotransformation of Chlordiazepoxide and Evaluation of Type and Kinetics of Fungal Enzyme**
M. Keerthana and M. Vidyavathi
- 2851-2863 Studies on the Rapid and Simple DNA Extraction Method, Antibacterial Activity and Enzyme Activity Involved in Plant Biomass Conversion by *Cookeina sulcipes* and *C. tricholoma* (Cup Fungi)**
Narumon Tangthirasunun and Supattra Poeaim
- 2864-2873 Effect of Carbonyl Cyanide M-chlorophenylhydrazone on Ciprofloxacin Resistance and Biofilm Formation in Hospital-acquired Uropathogenic *Escherichia coli* and *Klebsiella pneumoniae***
Rasha Hassan El-Mahdy and Ghada El-Saeed Mashaly
- 2874-2879 *Kocuria* Species: Important Emerging Pathogens in Pediatric Patients**
Noor M. Taher
- 2880-2890 Antibacterial Effect of Silver Nanoparticles Prepared from *Sophora flavescens* Root Aqueous Extracts against Multidrug-resistance *Pseudomonas aeruginosa* and *Staphylococcus aureus***
Huda S.A. Al-Hayanni, Marwah Th. Alnuaimi, Rana AH. AL-Lami and Shaimaa M. Zaboon
- 2891-2900 Antimicrobial Property of Cassava Starch/Chitosan Film Incorporated with Lemongrass Essential Oil and Its Shelf Life**
Muhammad Iqbal Perdana, Somrak Panphon, Jareerat Ruamcharoen and Montira Leelakriangsak

Contents

- 2901-2911** **Effects of Salinity and Bioflocculation during *Euglena* sp. Harvest on the Production of Lipid, Chlorophyll, and Carotenoid with *Skeletonema* sp. as a Bioflocculant**
Herlina Septika Indahsari, Asmi Citra Malina A.R. Tassakka, Eko Nurcahya Dewi, Mochammad Yuwono and Eko Agus Suyono
- 2912-2922** **Identification and Potential Biotechnological Characterization of Lactic Acid Bacteria Isolated from White Cheese Samples**
Sumeyya Akbulut, Mustafa Ozkan Baltaci, Gulsah Adiguzel and Ahmet Adiguzel
- 2923-2933** **Frequency of Meningococcal Meningitis Susceptibility Associated TLR4 +896 A/G (rs4986790) Allele in the Saudi Population**
Ali Alisaac
- 2934-2948** **GC-MS Analysis and *In-vitro* Apoptosis Induction and Anticancer Activity of Methanol Extract of *Aspergillus terreus* against Lung Cancer**
G. Sanjotha, C.T. Shivasharana, Arun K. Shettar, Sudheer Manawadi and B.N. Devendra
- CASE REPORT**
- 2949-2953** ***Brucella melitensis* Lurking Threat in Eastern Part of Odisha - A Case Report**
Sumesh Kumar Dash, Lipika Jena, Rajashree Panigrahy, Suneeta Sahu and Santosh Singh
- 2954-2960** **Dual Fungal Infection of *Aspergillosis* and *Mucormycosis* in a COVID-19 Patient: A Rare Case Report**
Nikhil, Subhashish Das, R.V. Sowjanya Lakshmi and Princy S. Soman
- CASE SERIES**
- 2961-2967** **Post-COVID-19 Invasive Fungal Sinusitis: A Case Series from Southern India**
Madhavi S. Hullur, R. Bharathi, R. Bindu Madhavi, Arvind Natarajan, H.S. Brindha, S.M. Azeem Mohiyuddin, R. Kalyani, Anil Kumar Sakalecha, Bukke Ravindra Naik and K.N. Shashidhar