

Publication_2020

Website Link : <https://nii.res.in/>

1. Agarwal M, Gupta C, Mohan KV, Upadhyay PK, Jha V. (2020) Correlation of vascular endothelial growth factor with the clinical regression of tubercular granuloma. Indian J Ophthalmol. 68: 2037-2040.
2. Agrawal P, Mohanty D. (2020) A machine-learning-based method for prediction of macrocyclization patterns of polyketides and nonribosomal peptides. Bioinformatics. doi:1093/bioinformatics/btaa851.
3. Ahmad F, Kumar R, Gupta S, Rathaur S. (2020) Identification of a HSP14-3-3 in Setaria cervi and its cross-reactivity with *W bancrofti*-infected human sera. Parasite Immunol. 42: e12777.
4. Ahmad M, Dwivedy A, Mariadasse R, Tiwari S, Kar D, Jeyakanthan J, Biswal BK. (2020) Prediction of Small Molecule Inhibitors Targeting the Severe Acute Respiratory Syndrome Coronavirus-2 RNA-dependent RNA Polymerase. ACS Omega. 5:18356-18366.
5. Ahmed A, Akhade AS, Qadri A. (2020) Accessibility of O Antigens Shared between *Salmonella* Serovars Determines
6. Antibody-Mediated Cross-Protection. J Immunol. 205: 438-446.
7. Akhade AS, Atif SM, Lakshmi BS, Dikshit N, Hughes KT, Qadri A, Subramanian N. (2020) Type 1 interferon-dependent repression of NLRC4 and iPLA2 licenses down-regulation of *Salmonella* flagellin inside macrophages. Proc Natl Acad Sci U S A. 117: 29811-29822.
8. Ali A, Farooqui SR, Rai J, Singh J, Kumar V, Mishra R, Banerjea AC. (2020) HIV-1 Nef promotes ubiquitination and proteasomal degradation of p53 tumor suppressor protein by using E6AP. Biochem Biophys Res Commun. 529: 1038-1044.
9. Bhaskar A, Kumar S, Khan MZ, Singh A, Dwivedi VP, Nandicoori VK. (2020) Host sirtuin 2 as an immunotherapeutic target against tuberculosis. Elife. 9: e55415.
10. Biswas T, Misra A, Das S, Yadav P, Ramakumar S, Roy R. (2020) Interrogation of 3D-swapped structure and functional attributes of quintessential Sortase A from *Streptococcus pneumoniae*. Biochem J. doi:10.1042/BCJ20200631.
11. Chamoli M, Goyal A, Tabrez SS, Siddiqui AA, Singh A, Antebi A, Lithgow GJ, Watts JL, Mukhopadhyay A. (2020) Polyunsaturated fatty acids and p38-MAPK link metabolic reprogramming to cytoprotective gene expression during dietary restriction. Nat Commun. 11: 4865.
12. Chaouat G, Sharma S, Gupta SK. (2020) Obituary. Am J Reprod Immunol. 84: e13319.
13. Chauhan M, Modi PK, Sharma P. (2020) Aberrant activation of neuronal cell cycle caused by dysregulation of ubiquitin ligase Itch results in neurodegeneration. Cell Death Dis. 11: 441.
14. Chawla AS, Khalsa JK, Dhar A, Gupta S, Umar D, Arimbasseri GA, Bal V, George A, Rath S. (2020) A role for cell-autocrine interleukin-2 in regulatory T-cell homeostasis. Immunology. 160: 295-309.
15. Chawla M, Roy P, Basak S. (2020) Role of the NF- κ B system in context-specific tuning of the inflammatory gene response. Curr Opin Immunol. 68: 21-27.
16. Dalal N, Jalandra R, Sharma M, Prakash H, Makharia GK, Solanki PR, Singh R, Kumar A. (2020) Omics technologies for improved diagnosis and treatment of colorectal cancer: Technical advancement and major perspectives. Biomed Pharmacother. doi: 10.1016/j.biopha.2020.110648.
17. Ekka R, Gupta A, Bhatnagar S, Malhotra P, Sharma P. (2020) Phosphorylation of Rhoptry Protein RhopH3 Is Critical for Host Cell Invasion by the Malaria Parasite. mBio. 11: e00166-20.
18. Garg S, Shivappagowdar A, Hada RS, Ayana R, Bathula C, Sen S, Kalia I, Pati S, Singh AP, Singh S. (2020) Plasmodium Perforin-Like Protein Pores on the Host Cell Membrane Contribute in Its Multistage Growth and Erythrocyte Senescence. Front Cell Infect Microbiol. 10: 121.
19. Goyal A, Baruah A, Mukhopadhyay A. (2020) The genetic paradigms of dietary restriction fail to extend life span in *C. elegans*.
20. Gupta A, Puliye J, Garg B, Upadhyay P. (2020) Mean core to peripheral temperature difference and mean lactate levels in first 6 hours of hospitalisation as two indicators of prognosis: an observational cohort study. BMC Pediatr. 20: 515.

23. Gupta N, Jagadish N, Surolia A, Suri A. (2020) Erratum: Heat shock protein 70-2 (HSP70-2) a novel cancer testis antigen that promotes growth of ovarian cancer. *Am J Cancer Res.* 10: 1919-1920. Erratum for: *Am J Cancer Res.* 2017 Jun 7: 1252-1269.
24. Hakiem OR, Parijat P, Tripathi P, Batra JK. (2020) Mechanism of HrcA function in heat shock regulation in *Mycobacterium*
25. tuberculosis. *Biochimie.* 168: 285-296.
26. Hashemzadeh MS, Mohammadi M, Ghaleh HEG, Sharti M, Choopani A, Panda AK. (2020) Expression, solubilization, refolding and final purification of recombinant proteins as expressed in the form of "classical inclusion bodies" in *E. coli*. *Protein Pept Lett.* doi: 10.2174/092986652799200729182831.
27. Jagadish N, Devi S, Gupta N, Suri V, Suri A. (2020) Knockdown of A-kinase anchor protein 4 inhibits proliferation of triple-negative breast cancer cells in vitro and in vivo. *Tumour Biol.* 42: 1010428320914477.
28. Jaijyan DK, Govindasamy K, Singh J, Bhattacharya S, Singh AP. (2020) Establishment of a stable transfection method in Babesia microti and identification of a novel bidirectional promoter of Babesia microti. *Sci Rep.* 10: 15614.
30. Jalandra R, Yadav AK, Verma D, Dalal N, Sharma M, Singh R, Kumar A, Solanki PR. (2020) Strategies and perspectives to develop SARS-CoV-2 detection methods and diagnostics. *Biomed Pharmacother.* 129: 110446.
31. Jatana N, Ascher DB, Pires DEV, Gokhale RS, Thukral L. (2020) Human LC3 and GABARAP subfamily members achieve functional specificity via specific structural modulations. *Autophagy.* 16: 239-255.
32. Kalia A, Agrawal M, Gupta N. (2020) CD8 T cells are crucial for humoral immunity establishment by SA14-14-2 live attenuated Japanese encephalitis vaccine in mice. *Eur J Immunol.* doi:1002/eji.202048745.
33. Karan S, Mohapatra A, Sahoo PK, Garg LC, Dixit A. (2020) Structural-functional characterization of recombinant Apolipoprotein A-I from Labeo rohit demonstrates heat-resistant antimicrobial activity. *Appl Microbiol Biotechnol.* 104: 145-159.
34. Kaushal N, Kumari S, Jhelum H, Sehgal D. (2020) In vitro and in vivo characterization of the interaction, proinflammatory,
35. immunomodulatory and antigenic properties of capsular polysaccharide from *Streptococcus pneumoniae* serotype 1. *Int J Biol Macromol.* 143: 521-532.
36. Khandelwal M, Manglani K, Gupta S, Tiku AB. (2020) Gamma radiation improves AD pathogenesis in APP/PS1 mouse model by potentiating insulin sensitivity. *Heliyon.* 6: e04499.
37. Khurana S, Bhardwaj N, Kumar S, Sagar S, Pal R, Soni KD, Aggarwal R, Malhotra R, Mathur P. (2020) Crosstalk between T Helper Cell Subsets and Their Roles in Immunopathogenesis and Outcome of Polytrauma Patients. *Indian J Crit Care Med.* 24: 1037-1044.
38. Kumar A, Dhiman D, Shah C. (2020) Sestrins: Darkhorse in the regulation of mitochondrial health and metabolism. *Mol Biol Rep.* 47: 8049-8060.
40. Kumar S, Dhembla C, P H, Sundd M, Patel AK. (2020) Differential expression of structural and functional proteins during bean common mosaic virus-host plant interaction. *Microb Pathog.* 138: 103812.
41. Kumar S, Yadav PK, Srinivasan R, Perumal N. (2020) Selection of animal models for COVID-19 research. *Virus disease.* 31: 1-6.
42. Lochab S, Singh Y, Sengupta S, Nandicoori VK. (2020) *Mycobacterium tuberculosis* exploits host ATM kinase for survival advantage through SecA2 secretome. *Elife.* 9: e51466.
43. Malik A, Pal R, Gupta SK. (2020) EGF-mediated reduced miR-92a-1-5p controls HTR-8/SVneo cell invasion through activation of MAPK8 and FAS which in turn increase MMP-2/-9 expression. *Sci Rep.* 10: 12274.
44. Meena J, Kumar R, Singh M, Ahmed A, Panda AK. (2020) Modulation of immune response and enhanced clearance of *Salmonella typhi* by delivery of Vi polysaccharide conjugate using PLA nanoparticles. *Eur J Pharm Biopharm.* 152: 270-281.
45. Minhas V, Kumar R, Moitra T, Singh R, Panda AK, Gupta SK. (2020) Immunogenicity and contraceptive efficacy of recombinant fusion protein encompassing Sp17 spermatozoa-specific protein and GnRH: Relevance of adjuvants and microparticles based delivery to minimize number of injections. *Am J Reprod Immunol.* 83: e13218.

46. Mishra A, Mohan KV, Nagarajan P, Iyer S, Kesarwani A, Nath M, Moksha L, Bhattacharjee J, Das B, Jain K, Sahu P, Sinha P,
47. Velapandian T, Upadhyay P. (2020) Peripheral blood-derived monocytes show neuronal properties and integration in immune-deficient rd1 mouse model upon phenotypic differentiation and induction with retinal growth factors. *Stem Cell Res Ther.* 11: 412.
48. Mishra R, Banerjea AC. (2020) Neurological Damage by Coronaviruses: A Catastrophe in the Queue! *Front Immunol.* 11: 565521.
49. Mishra R, Bhattacharya S, Rawat BS, Kumar A, Kumar A, Niraj K, Chande A, Gandhi P, Khetan D, Aggarwal A, Sato S, Tailor P, Takaoka A, Kumar H. (2020) MicroRNA-30e-5p has an Integrated Role in the Regulation of the Innate Immune Response during Virus Infection and Systemic Lupus Erythematosus. *iScience.* 23: 101322.
50. Mishra R, Lahon A, Banerjea AC. (2020) Dengue Virus Degrades USP33-ATF3 Axis via Extracellular Vesicles to Activate Human Microglial Cells. *J Immunol.* 205: 1787-1798.
51. Mishra S, Sevak JK, Das A, Arimbasseri GA, Bhatnagar S, Gopinath SD. (2020) Umbilical cord tissue is a robust source for mesenchymal stem cells with enhanced myogenic differentiation potential compared to cord blood. *Sci Rep.* 10: 18978.
52. Mohanty S, Barik P, Debata N, Nagarajan P, Devadas S. (2020) iCa²⁺ Flux, ROS and IL-10 Determines Cytotoxic, and Suppressor T Cell Functions in Chronic Human Viral Infections. *Front Immunol.* 11: 83.
53. Naiyer A, Islam A, Hassan MI, Ahmad F, Sundd M. (2020) Backbone and side chain 1H, 15N and 13C chemical shift assignments of the molten globule state of L94G mutant of horse cytochrome-c. *Biomol NMR Assign.* 14: 37-44.
54. Ozcan L, Ghorpade DS, Tabas I. (2020) Targeting soluble DPP-4 for insulin resistance: Origin matters. *J Clin Endocrinol Metab.* doi: 10.1210/clinem/dgaa902.
55. Pitale DM, Kaur G, Baghel M, Kaur KJ, Shaha C. (2020) Halictine-2 antimicrobial peptide shows promising anti-parasitic activity against Leishmania spp. *Exp Parasitol.* 218: 107987.
56. Pradhan BS, Bhattacharya I, Sarkar R, Majumdar SS. (2020) Pubertal down-regulation of Tetraspanin 8 in testicular Sertoli cells is crucial for male fertility. *Mol Hum Reprod.* 26: 760-772.
57. Quadiri A, Kalia I, Kashif M, Singh AP. (2020) Identification and characterization of protective CD8+T-epitopes in a malaria vaccine candidate SLTRiP. *Immun Inflamm Dis.* 8: 50-61.
58. Rajan S, Sau AK. (2020) The alpha helix of the intermediate region in hGBP-1 acts as a coupler for enhanced GMP formation. *Biochim Biophys Acta Proteins Proteom.* 1868: 140364.
59. Rajarajan S, C EA, Jose B, Correa M, Sengupta S, Prabhu JS. (2020) Identification of colorectal cancers with defective DNA damage repair by immunohistochemical profiling of mismatch repair proteins, CDX2 and BRCA1. *Mol Clin Oncol.* 13: 57.
60. Raninga N, Nayeem SM, Gupta S, Mullick R, Pandita E, Das S, Deep S, Sau AK. (2020) Stimulation of GMP formation in hGBP1 is mediated by W79 and its effect on the antiviral activity. *FEBS J.* doi:1111/febs.15611.
61. Ranjan V, Mishra A, Kesarwani A, Mohan KV, Lal SN, Puliye J, Upadhyay P. (2020) Mother-to-Child Transfer of Reactivated Varicella-Zoster Virus DNA and Varicella-Zoster IgG in Pregnancy. *Viral Immunol.* 33: 72-76.
62. Saha I, Jaiswal H, Mishra R, Nel HJ, Schreuder J, Kaushik M, Singh Chauhan K, Singh Rawat B, Thomas R, Naik S, Kumar H, Tailor P. (2020) RelB suppresses type I Interferon signaling in dendritic cells. *Cell Immunol.* 349: 104043.
63. Sahu P, Mohan KV, Aggarwal S, Arindkar S, Mahesh Kumar J, Kumar Upadhyay P, Ramakrishna G, Nagarajan P. (2020) Apoptosis-inducing factor deficient mice fail to develop hepatic steatosis under high fat high fructose diet or bile duct ligation. *Cell Biochem Funct.* doi: 10.1002/cbf.3579.
64. Saini M, Jha AN, Tangri R, Qudratullah MD, Ali S. (2020) MN1 overexpression with varying tumor grade is a promising predictor of survival of glioma patients. *Hum Mol Genet.* doi:1093/hmg/ddaa231.
65. Sarkar RK, Sen Sharma S, Mandal K, Wadhwa N, Kunj N, Gupta A, Pal R, Rai U, Majumdar SS. (2020) Homeobox transcription factor Meis1 is crucial to Sertoli cell mediated regulation of male fertility. *Andrology.* doi: 10.1111/andr.12941.
66. Shankar S, Prasad K M, Kashif M, Kalia I, Rai R, Singh A P, Pandey K C. (2020) A nonpeptidyl molecule modulates apoptosis-

70. like cell death by inhibiting *P. falciparum* metacaspase-2. *Biochem J.* 477: 1323-1344.
71. Sharma A, Goyal S, Yadav AK, Kumar P, Gupta L. (2020) In-silico screening of plant-derived antivirals against main protease, 3CLpro and endoribonuclease, NSP15 proteins of SARS-CoV-2. *J Biomol Struct Dyn.* 8: 1-15.
72. Sharma N, Akhade AS, Ismaeel S, Qadri A. (2020) Serum-borne lipids amplify TLR-activated inflammatory responses. *J Leukoc Biol.* doi: 10.1002/JLB.3AB0720-241RR.
73. Shelly A, Gupta P, Ahuja R, Srichandan S, Meena J, Majumdar T. (2020) Impact of Microbiota: A Paradigm for Evolving Herd Immunity against Viral Diseases. *Viruses.* 12: 1150.
74. Singh A, Upadhyay V, Singh A, Panda AK. (2020) Structure-Function Relationship of Inclusion Bodies of a Multimeric Protein. *Front Microbiol.* 11: 876.
75. Singh J, Pandey M, Ramachandran VG, Banerjea AC. (2020) Genetic and Functional Characterization of HIV-1 Vpu from HIV-1-Infected North Indian Population. *Biores Open Access.* 9: 209-218.
76. Singh J, Ronsard L, Pandey M, Kapoor R, Ramachandran VG, Banerjea AC. (2020) Molecular and genetic characterization of natural variants of HIV-1 Nef gene from North India and its functional implication in down-regulation of MHC-I and CD-
77. 4. *Curr HIV Res.* doi:2174/1570162X18666200925160755.
78. Singh M, Hassan N, Verma D, Thakur P, Panda BP, Panda AK, Sharma RK, Mirza A, Mansoor S, Alrokayan SH, Khan HA, Ahmad P, Iqbal Z. (2020) Design of expert guided investigation of native L-asparaginase encapsulated long-acting cross-linker-free poly (lactic-co-glycolic) acid nanoformulation in an Ehrlich ascites tumor model. *Saudi Pharm J.* 28: 719-728.
79. Singh M, Sori H, Ahuja R, Meena J, Sehgal D, Panda AK. (2020) Effect of N-terminal poly histidine-tag on immunogenicity of
80. Streptococcus pneumoniae surface protein SP0845. *Int J Biol Macromol.* 163: 1240-1248.
81. Singhal A, Virmani R, Naz S, Arora G, Gaur M, Kundu P, Sajid A, Misra R, Dabla A, Kumar S, Nelliisser J, Molle V, Gerth U, Swaroop A, Sharma K, Nandicoori VK, Singh Y. (2020) Methylation of two-component response regulator MtrA in mycobacteria negatively modulates its DNA binding and transcriptional activation. *Biochem J.* 477: 4473-4489.
82. Singhvi P, Sanuja A, Srichandan S, Panda AK. (2020) Bacterial Inclusion Bodies: A Treasure Trove of Bioactive
83. Proteins. *Trends Biotechnol.* 38: 474-486.
84. Solanki AK, Panwar D, Kaushik H, Garg LC. (2020) Molecular docking analysis of P2X7 receptor with the beta toxin from Clostridium perfringens. *Bioinformation.* 16: 594-601.
85. Sreekanth V, Kar A, Kumar S, Pal S, Yadav P, Sharma Y, Komalla V, Sharma H, Shyam R, Sharma RD, Mukhopadhyay A, Sengupta S, Dasgupta U, Bajaj A. (2020) Bile Acid Tethered Docetaxel-based Nanomicelles Mitigate Tumor Progression through Epigenetic Changes. *Angew Chem Int Ed Engl.* doi: 10.1002/anie.202015173.
86. Srivastava R, Gupta SK, Naaz F, Sen Gupta PS, Yadav M, Singh VK, Singh A, Rana MK, Gupta SK, Schols D, Singh RK. (2020)
87. Alkylated benzimidazoles: Design, synthesis, docking, DFT analysis, ADMET property, molecular dynamics and activity against HIV and YFV. *Comput Biol Chem.* 89: 107400.
88. Tripathi P, Singh LK, Kumari S, Hakiem OR, Batra JK. (2020) ClpB is an essential stress regulator of Mycobacterium
89. tuberculosis and endows survival advantage to dormant bacilli. *Int J Med Microbiol.* 310: 151402.
90. Uddin F, Srivastava M. (2020) Strand-specific detection of overlapping transcripts via purification involving denaturation of biotinylated cDNA. *Biotechniques.* 69: 141-147.
91. Umar D, Das A, Gupta S, Chattopadhyay S, Sarkar D, Mirji G, Kalia J, Arimbasseri GA, Durdik JM, Rath S, George A, Bal V. (2020) Febrile temperature change modulates CD4 T cell differentiation via a TRPV channel-regulated Notch-dependent pathway. *Proc Natl Acad Sci U S A.* 117: 22357-22366.
92. Vaish U, Kumar AA, Varshney S, Ghosh S, Sengupta S, Sood C, Kar HK, Sharma P, Natarajan VT, Gokhale RS, Rani R. (2020)
93. Author Correction: Micro RNAs upregulated in Vitiligo skin play an important role in its aetiopathogenesis by altering TRP1 expression and keratinocyte-melanocytes cross-talk. *Sci Rep.* 10: 2166.
94. Valissery P, Thapa R, Singh J, Gaur D, Bhattacharya J, Singh A P, Dhar S K (2020), Potent in vivo antimalarial activity of

95. water-soluble artemisinin nano-preparations. RSC Adv., 10: 36201–36211.
96. Vandana, Shankar S, Prasad KM, Kashif M, Kalia I, Rai R, Singh AP, Pandey KC. (2020) A nonpeptidyl molecule modulates apoptosis-like cell death by inhibiting *P. falciparum* metacaspase-2. Biochem J. 477: 1323-1344.
97. Verma S, Kang AK, Pal R, Gupta SK. (2020) BST2 regulates interferon gamma-dependent decrease in invasion of HTR-8/SVneo cells via STAT1 and AKT signaling pathways and expression of E-cadherin. Cell Adh Migr. 14: 24-41.
98. Yadav J, Dikshit N, Ismaeel S, Qadri A. (2020) Innate Activation of IFN- γ -iNOS Axis During Infection With *Salmonella* Represses the Ability of T Cells to Produce IL-2. Front Immunol. 11: 514.
99. Yadav J, Ismaeel S, Qadri A. (2020) Lysophosphatidylcholine Potentiates Antibacterial Activity of Polymyxin B. Antimicrob Agents Chemother. 64: e01337-20.
100. Zohib M, Maheshwari D, Pal RK, Freitag-Pohl S, Biswal BK, Pohl E, Arora A. (2020) Crystal structure of the GDP-bound GTPase domain of Rab5a from *Leishmania donovani*. Acta Crystallogr F Struct Biol Commun. 76: 544-556.