b. In order of importance, list of ten best papers of the candidate, highlighting the important discoveries/contributions described in them briefly (not to exceed 3000 words)

i. SARS-CoV-2 seroprevalence among the general population and healthcare workers in India, December 2020–January 2021. Manoj V. Murhekar, Tarun Bhatnagar, Jeromie Wesley Vivian Thangaraj, V. Saravanakumar, Muthusamy Santhosh Kumar, Sriram Selvaraju, Kiran Rade, C.P. Girish Kumar, R. Sabarinathan, Alka Turuk, Smita Asthana, Rakesh Balachandar, Sampada Dipak Bangar, Avi Kumar Bansal, Vishal Chopra, Dasarathi Das, Alok Kumar Deb, Kangjam Rekha Devi, Vikas Dhikav, Gaurav Raj Dwivedi, S. Muhammad Salim Khan, M. Sunil Kumar, Avula Laxmaiah, Major Madhukar, Amarendra Mahapatra, Chethana Rangaraju, Jyotirmayee Turuk, Rajiv Yadav, Rushikesh Andhalkar, K. Arunraj, Dinesh Kumar Bharadwaj, Pravin Bharti, Debdutta Bhattacharya, Jyothi Bhat, Ashrafjit S. Chahal, Debjit Chakraborty, Anshuman Chaudhury, Hirawati Deval, Sarang Dhatrak, Rakesh Dayal, D. Elantamilan, Prathiksha Giridharan, Inaamul Haq, Ramesh Kumar Hudda, Babu Jagjeevan, Arshad Kalliath, Srikanta Kanungo, Nivethitha N. Krishnan, Jaya Singh Kshatri, Alok Kumar, Niraj Kumar, V.G. Vinoth Kumar, G.G.J. Naga Lakshmi, Ganesh Mehta, Nandan Kumar Mishra, Anindya Mitra, K. Nagbhushanam, Arlappa Nimmathota, A.R. Nirmala, Ashok Kumar Pandey, Ganta Venkata Prasad, Mariya Amin Qurieshi, Sirasanambatti Devarajulu Reddy, Aby Robinson, Seema Sahay, Rochak Saxena, Krithikaa Sekar, Vijay Kumar Shukla, Hari Bhan Singh, Prashant Kumar Singh, Pushpendra Singh, Rajeev Singh, Nivetha Srinivasan, Dantuluri Sheethal Varma, Ankit Viramgami, Vimith Cheruvathoor Wilson, Surabhi Yadav, Suresh Yadav, Kamran Zaman, Amit Chakrabarti, Aparup Das, R.S. Dhaliwal, Shanta Dutta, Rajni Kant, A.M. Khan, Kanwar Narain, Somashekar Narasimhaiah, Chandrasekaran Padmapriyadarshini, **Krishna Pandey**, Sanghamitra Pati, Shripad Patil, Hemalatha Rajkumar, Tekumalla Ramarao, Y.K. Sharma, Shalini Singh, Samiran Panda, D.C.S. Reddy, Balram Bhargava, , on behalf of ICMR Serosurveillance Group. Int J Infect Dis. 2021 Jul; 108: 145–155. doi: 10.1016/j.ijid.2021.05.040

Important discovery/contribution: A third serosurvey was conducted between December 2020 and January 2021 to estimate the seroprevalence of SARS-CoV-2 infection among the general population and healthcare workers (HCWs) in India. Of the 28,598 serum samples from the general population, 4585 (16%) had IgG antibodies against the N protein, 6647 (23.2%) had IgG antibodies against the S1-RBD protein, and 7436 (26%) had IgG antibodies against either the N protein or the S1-RBD protein. Weighted and assay-characteristic-adjusted seroprevalence against either of the antibodies was 24.1% [95% confidence interval (CI) 23.0-25.3%]. Among 7385 HCWs, the seroprevalence of anti-S1-RBD IgG antibodies was 25.6% (95% CI 23.5-27.8%). Nearly one in four individuals aged ≥10 years from the general population as well as HCWs in India had been exposed to SARS-CoV-2 by December 2020.

ii. Pharmacovigilance of Miltefosine in Treatment of Visceral Leishmaniasis in Endemic Areas of Bihar, India. **Krishna Pandey**, Vidyanand Ravidas, Niyamat A. Siddiqui, Sanjay K. Sinha, Rakesh B. Verma, Tripurari P. Singh, A. C. Dhariwal, R. K. Das Gupta, Pradeep Das. Am J Trop Med Hyg. 2016 Nov 2; 95(5): 1100–1105. doi: 10.4269/ajtmh.16-0242

Important discovery/contribution: In this study, we report AEs in a large patient cohort of VL treated with miltefosine. The purpose of this pharmacovigilance study was to assess adverse

drug reactions (ADRs)/AE of miltefosine treatment under unrestricted condition in the field setup. Miltefosine has been found to be very effective and extremely safe for use in adults. However, because of long half-life, it can be a candidate for development of resistance. It is the number one drug for treatment of PKDL as per NVBDCP guidelines as well. No side effects of miltefosine in pregnant women reported in this study attracts a comprehensive study to establish its use in pregnant women or women of child-bearing age without use of contraceptive measures.

iii. Evaluation of rK-39 Strip Test Using Urine for Diagnosis of Visceral Leishmaniasis in an Endemic Region of India. Dharmendra Singh, **Krishna Pandey,** Vidya Nand Rabi Das, Sushmita Das, Neena Verma, Alok Ranjan, Sekhar Chandra Lal, Kamal Roshan Topno, Shubhankar Kumar Singh, Rakesh Bihari Verma, Ashish Kumar, Abul Hasan Sardar, Bidyut Purkait, Pradeep Das. Am J Trop Med Hyg. 2013 Feb 6; 88(2): 222–226. doi: 10.4269/ajtmh.2012.12-0489

Important discovery/contribution: The aim of the present study was to evaluate the existing rK-39 immunochromatographic nitrocellulose strips test (ICT) with some modification in human urine for diagnosis of VL. The test was performed on both sera and urine samples on the same 786 subjects (365 confirmed VL and 421 control subjects). The sensitivity of the rK-39 ICT in serum was 100%, whereas the specificity was 93.8%, 100%, and 96.2% in healthy controls from endemic, non-endemic, and other infectious diseases, respectively. However, in urine samples, the test showed 96.1% sensitivity and 100% specificity. Considering sensitivity and feasibility of the test in the field, rK-39 ICT using urine samples can be an alternative to conventional invasive VL diagnosis.

iv. Efficacy and Safety of Amphotericin B Emulsion versus Liposomal Formulation in Indian Patients with Visceral Leishmaniasis: A Randomized, Open-Label Study. Shyam Sundar, **Krishna Pandey**, Chandreshwar Prasad Thakur, Tara Kant Jha, Vidya Nand Ravi Das, Neena Verma, Chandra Shekhar Lal, Deepak Verma, Shahnawaz Alam, Pradeep Das. PLoS Negl Trop Dis. 2014 Sep; 8(9): e3169. Published online 2014 Sep 18. doi: 10.1371/journal.pntd.0003169

Important discovery/contribution: The authors evaluated the efficacy and safety of an alternate treatment option, i.e. single infusion of preformed amphotericin B (AmB) lipid emulsion (ABLE) in comparison with that of liposomal formulation (LAmB). In this multicentric, open-label study, 500 patients with VL were randomly assigned in a 3:1 ratio to receive 15 mg/kg single infusion of either ABLE (N = 376) or LAmB (N = 124). Initial cure (Day 30/45), clinical improvement (Day 30) and long term definitive cure (Day 180) were assessed. ABLE 15 mg/kg single infusion had favorable efficacy and was well tolerated. Considering the demographic profile of the population in this region, a single dose treatment offers advantages in terms of compliance, cost and applicability.

v. To evaluate efficacy and safety of amphotericin B in two different doses in the treatment of post kala-azar dermal leishmaniasis (PKDL). Vidya Nand Rabi Das, Niyamat Ali Siddiqui, Biplab Pal, Chandra Shekhar Lal, Neena Verma, Ashish Kumar, Rakesh Bihari Verma, Dhirendra Kumar, Pradeep Das, **Krishna Pandey**. PLoS One. 2017; 12(3): e0174497. doi: 10.1371/journal.pone.0174497

Important discovery/contribution: We aimed to compare the efficacy and safety of amphotericin B in two different doses (0.5mg/kg vs 1mg/kg) in a prospective randomized trial in 50 PKDL patients. The lower dose appears to have fewer adverse events however, nephrotoxicity remains a problem in both regimens. The 0.5mg/kg regimen may be considered instead of the higher dosage however safer treatments remain critical for PKDL treatment.

vi. Efficacy and Safety of Liposomal Amphotericin B for Visceral Leishmaniasis in Children and Adolescents at a Tertiary Care Center in Bihar, India. **Krishna Pandey**, Biplab Pal, Niyamat Ali Siddiqui, Vidya Nand Rabi Das, Krishna Murti, Chandra Shekhar Lal, Neena Verma, Rajendra Babu, Vahab Ali, Rakesh Kumar, Pradeep Das. Am J Trop Med Hyg. 2017 Nov 8; 97(5): 1498–1502. doi: 10.4269/ajtmh.17-0094

Important discovery/contribution: Our finding indicates that liposomal amphotericin B at 10 mg/kg body weight is safe and effective in children. Results of our study support the use of single dose liposomal amphotericin B in all age group populations for elimination of kala-azar from the Indian subcontinent.

vii. Para-kala-azar dermal Leishmaniasis cases in Indian subcontinent – A case series. Rakesh Kumar, Vidya Nand Rabi Das, Roshan Kamal Topno, Biplab Pal, Adnan Imam, Kanhaiya Agrawal, Anima Singh, Krishna Murti, Chandra Shekhar Lal, Neena Verma, Pradeep Das, **Krishna Pandey**. Pathog Glob Health. 2016 Oct; 110(7-8): 326–329. doi: 10.1080/20477724.2016.1258163

Important discovery/contribution: In this study, we have reported a series of nine para-kala-azar dermal leishmaniasis cases with detailed clinico-epidemiological profile along with its management. The increasing number of such cases, especially when we are knocking at the door of kala-azar elimination demands special attention to understand the various clinical and epidemiological aspects to cope up in future.

viii. Knowledge, attitude and practices towards visceral leishmaniasis among HIV patients: A cross-sectional study from Bihar, India. Devipriya J. S., Ashok Kumar Gupta, Rajendra Babu Veeri, Pavan Garapati, Rishikesh Kumar, Sameer Dhingra, Krishna Murti, Ravichandiran V., **Krishna Pandey**. PLoS One. 2021; 16(8): e0256239. doi: 10.1371/journal.pone.0256239

Important discovery/contribution: The study determined a remarkable gap in the knowledge attitude and practices towards VL among PLHIV. This underscores the need of augmented health education initiatives for PLHIV in endemic areas for good VL awareness and preventive practices.

ix. Assessment of quality of life using WHOQOL-BREF in patients with visceral leishmaniasis. Rajendra Babu Veeri, Ashok Kumar Gupta, Biplab Pal, Niyamat Ali Siddiqui, Devi Priya, Pradeep Das, **Krishna Pandey**. Health Qual Life Outcomes. 2019; 17: 53. Published online 2019 Mar 28. doi: 10.1186/s12955-019-1112-2

Important discovery/contribution: This study was aimed to assess the impact of quality of life using WHOQOL-BREF in patients with visceral leishmaniasis (VL). VL significantly impaired the patients' (QOL) in all four domains (physical, psychological, social relationship and environmental). Physical domain was significantly the most affected domain.

x. Assessment of quality of life in patients with post kalaazar dermal leishmaniasis. Biplab Pal, Krishna Murti, Niyamat Ali Siddiqui, Pradeep Das, Chandra Shekhar Lal, Rajendra Babu,

Manoj Kumar Rastogi, **Krishna Pandey**. Health Qual Life Outcomes. 2017; 15: 148. Published online 2017 Jul 24. doi: 10.1186/s12955-017-0720-y

Important discovery/contribution: This study aimed to assess the health related quality of life in patients with post-kala-azar dermal leishmaniasis for the first time. PKDL significantly impaired the patient's quality of life. Further studies to assess the impact of treatment on quality of life in these patients are recommended.