

CURRICULUM VITAE

Name: Asis Khan, Ph.D.

Citizenship: USA

Education:

1996 **B.Sc. (Honors), Physiology as major subject, Chemistry and Zoology as minor subjects,** University of Calcutta, India
1998 **M.Sc. (Master), Marine Science,** University of Calcutta, India
2003 **Ph.D., Molecular Epidemiology,** National Institute of Cholera and Enteric Diseases, India

Appointments:

2020- present **Research Microbiologist**
Animal Parasitic Disease Laboratory
Beltsville Agricultural Research Center
Agricultural Research Service
US Department of Agriculture
10300 Baltimore Avenue
Beltsville, MD 20715

2014 - 2020 **Staff Scientist**
Molecular Parasitology Section
Laboratory of Parasitic Diseases
National Institute of Allergy and Infectious Diseases
National Institute of Health,
The U.S. Department of health and Human Services (HHS)
Building 4, Room B1-06,
4 Center Drive, Bethesda, MD 20892.

Responsibilities

- Epidemiology and Population genetics of parasitic protozoan pathogens and nematode
- Detection and control programs for protozoan pathogens using multiplex qPCR and whole genome enrichment sequencing.
- Sexual recombination and the emergence of virulent protozoan parasites
- Protozoan pathogenesis and discovery of virulence factors using quantitative trait locus analysis and whole genome-based association studies
- Dysbiosis and its impact in disease outcome using murine infection model.
- Understand cryptosporidiosis by utilizing recently developed natural mice model using non-zoonotic *C. tyzzeri* strain.
- Advance and implement in vitro 3D culture method using murine intestinal organoid culture for infectious diseases including *Cryptosporidium* and *Cyclospora*.
- Actively participate in training programs such as training postdoc, students, and post-bac and evaluate and recommend changes to their projects

- Develop research approach, provide technical information and coordinate scientific activities with participating scientists, write grant proposal and scientific articles.

2012 - 2013	Research Instructor Department of Molecular Microbiology, Washington University School of Medicine, St. Louis, USA.
2008 - 2012	Staff Scientist Department of Molecular Microbiology, Washington University School of Medicine, St. Louis, USA.
2003 - 2008	Postdoctoral research associate Principal investigator: Prof L. David Sibley (Member of National Academy of Sciences, USA) Department of Molecular Microbiology, Washington University School of Medicine, St. Louis, USA.
1999-2003	Graduate research Principal investigator: Dr. G. Balakrish Nair, PhD, FNA, FNASc, FTWAS Foreign Associate of National Academy of Sciences, USA National Institute of Cholera and Enteric Diseases, Kolkatta, India

Index: h-index: 30, i10-index 40
(<https://scholar.google.com/citations?user=s2uDOzcAAAAJ&hl=en>)

Funding:

2020	NIH RO1 grant: PA-19-056: Capturing the genomic variation present in <i>Cryptosporidium</i> and cryptosporidiosis (2020-2024). Role: Collaborator. \$473,077.
2020	NIH CAN 8044367-GRI (05/21/2020 – 09/30/2021) NIAID, National Institutes of Health [Intramural] “SARS-CoV-2 Genome Origin, Mutation and Recombination Analyses in the Evolution, Epidemiology and Disease Potential of COVID-19” . Role: Co-Principal Investigator. \$120,000
2013	NIH R21 grant 1R21AI105226-01: Effector molecules for distinct pathogenesis of hyper-virulent <i>T. gondii</i> strains (2012-2014, Awarded, but declined due to NIAID position). \$275,000.

Honors and Awards:

2019	Performance Award in recognition and appreciation of sustained high-quality work performance for calendar year 2018 from National Institute of Allergy and Infectious Diseases, NIH.
2018	Performance Award in recognition and appreciation of sustained high-quality work performance for calendar year 2017 from National Institute of Allergy and

	Infectious Diseases, NIH.
2017	Performance Award in recognition and appreciation of sustained high-quality work performance for calendar year 2016 from National Institute of Allergy and Infectious Diseases, NIH.
2016	Performance Award in recognition and appreciation of sustained high-quality work performance for calendar year 2015 from National Institute of Allergy and Infectious Diseases, NIH.
2015	Performance Award in recognition and appreciation of sustained high quality work performance for calendar year 2014 from National Institute of Allergy and Infectious Diseases, NIH.
2003-2008	Postdoctoral Research Fellowship from Washington University in St. Louis, USA
2001-2003	Senior Research Fellowship from Indian Council of Medical Research.
1999-2008	Junior Research Fellowship from Japan International Co-operation Agency (JICA) project.

Scientific Committees and Review Panels:

Guest Editor: Gene (ISSN 2073-4425, IF: 3.331), MDPI

Whole-Genome Sequencing and Population Genomics of Parasitic Infections

Website: https://www.mdpi.com/journal/genes/special_issues/Genomics_Parasitic_Infections

Editorial Board

2009-Present Journal of Bacteriological Research, 2009-Present

Ad Hoc Reviewer

2020	Emerging Infectious Disease, BMC genomics, Parasitology research
2019	Journal of Veterinary Medicine, BMC Systems Biology, BMC genomics, Parasitology research, Parasite & Vectors
2018	Infection, genetics and Evolution
2017	Infection, genetics and Evolution, Veterinary Parasitology, Scientific Reports
2016	PLoS ONE
2016	BMC Genetics
2015	International Journal for Parasitology
2012-2016	Veterinary Parasitology
2012	Infection, Genetics and Evolution
2009	Acta Tropica
2008-2009	Annals of Epidemiology
2007	Emerging Infectious Disease

Supervisory Duties:

Olivia Yanes	Postbaccalaureate training under NIAID Research Opportunities (INRO). “INRO is intended for science and medical students from populations underrepresented in biomedical research, financially disadvantaged backgrounds, or those with disabilities”. 2018.
Natalia Grube	NIH graduate summer opportunity to Advance Research Program, summer 2018 and 2019.
Helena Vogel	Veterinary students in the SIP at NIH, summer 2018.
Serena Nayee	Comparative Biomedical Scientist Training Program at NIAID, summer 2017.

Launick Saint-Fort	Post-graduation internship under NIH Undergraduate Scholarship Program (UGSP), summer 2016 to summer 2017. UGSP offers competitive scholarships to students from disadvantaged backgrounds who are committed to careers in biomedical, behavioral, and social science health-related research.
Gloria Adedoyan Pooja Tewari	Post-Bac IRTA, supported by CIFAR, 2016-2017. Summer internship under Distance Learning Center's STREMPREP Project, NIAID, NIH, summer 2015 and summer 2016. The Distance Learning Center (DLC) is a non-profit corporation whose mission is to increase the number of underrepresented minorities (African-Americans, Mexican, Native American, Native Hawaiians and Mainland Puerto Ricans) in science, technology, engineering, math and medicine (STEMM).
Kevin Williams	Summer internship under Distance Learning Center's STREMPREP Project, NIAID, NIH, summer 2015 and summer 2016. The Distance Learning Center (DLC) is a non-profit corporation whose mission is to increase the number of underrepresented minorities (African-Americans, Mexican, Native American, Native Hawaiians and Mainland Puerto Ricans) in science, technology, engineering, math and medicine (STEMM).
Lisa Deng	Department of Biology, Washington University, St. Louis, USA, summer 2009.
Samantha Piper	Division of Biology and Biomedical Sciences, Washington University, School of Medicine, St. Louis, USA, fall 2005.
Catherine Jordan	Division of Biology and Biomedical Sciences, Washington University, School of Medicine, St. Louis, USA, summer 2005.

Scientific Presentations:

Invited presentation:

Oral presentation, CBER, FDA, "Coevolution of eukaryotic pathogens with its hosts: adapt to inhospitality", 22nd July, 2020

Oral presentation, 13th European Multicolloquium of Parasitology (EMOP13) in Belgrade, Serbia, August 25-29, 2020.

Oral presentation, GNID: Evolution, Virulence and Pathogenesis, Natcher Building 45, Balcony A, National Institute of Health, Bethesda, MD. USA. March 7th, 2017.

Oral presentation, ASM Biodefense and Emerging Diseases Research Meeting. Hyatt Regency Crystal City, Arlington, Virginia, USA, February 8-10, 2016.

Other presentation:

Oral presentation, 7th International Giardia and Cryptosporidium conferences, Rouen Normandy, France, 23th to 26th June 2019.

Oral and poster presentations, Toxo14: The 14th biennial conference on the *Toxoplasma gondii* research community. Tomar, Portugal, 31st May to 4th June 2017.

Poster presentation, The 2016 Immunology Interest Group Training Workshop, National Conference Center, Leesburg, Virginia, USA, September 7-8, 2016.

Oral presentation, Integrated Microbial Biodiversity Program Meeting for the Canadian Institute for Advance Research (CIFAR). Intercontinental Hotel, Toronto, Ontario, Jun 1-4, 2016.

Oral presentation, The 13th International Congress on Toxoplasmosis and *Toxoplasma gondii* research. Gettysburg, PA, USA, 17th June to 21st June, 2015.

Oral presentation, Integrated Microbial Biodiversity Program Meeting for the Canadian Institute for Advance Research (CIFAR). Victoria, BC, Canada, May 26-29, 2015.

Poster presentation, Molecular Parasitology Meeting XXV, 2014. Marine Biological Laboratory, Woods Hole, MA, USA, 14th Sept to 18th Sept, 2014.

Oral presentation, Integrated Microbial Biodiversity Program Meeting for the Canadian Institute for Advance Research (CIFAR). Castle Hotel Liblice, Czech Republic, 25th June to 29th Jun, 2014.

Poster presentation, Molecular Parasitology Meeting XXI, 2012. Marine Biological Laboratory, Woods Hole, MA, USA, 23rd Sept to 26th Sept, 2012.

Oral and poster presentation, The 11th International Congress on Toxoplasmosis, 2011. Ottawa, Canada, 25th Jun to 29th Jun 2011.

Oral presentation, Molecular Parasitology Meeting XXI, 2010. Marine Biological Laboratory, Woods Hole, MA, USA, 12th Sept to 16th Sept, 2010.

Oral presentation, Genome Informatics, Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, USA. 27th October to 30th October, 2009.

Oral presentation, The 10th International Congress on Toxoplasmosis, 2009. Rolduc Hotel and Conference Center, Kerkrade the Netherlands, 19th Jun to 23rd Jun, 2009.

Oral presentation, The 9th International Congress on Toxoplasmosis, 2007. Chico Hot Springs, Montana, USA, 29th Jun to 2nd July, 2007.

Oral presentation, Molecular Parasitology Meeting XVI, 2005. Marine Biological Laboratory, Woods Hole, MA, USA, 11th Sept to 15th Sept, 2005.

Oral presentation, Host Parasite Interaction, Gordon Research Conferences, University of Rhode Island, West Kingston, RI 02892-0984, USA, 27th Jun to 1st July, 2004.

Poster presentation, Xth International Congress of Bacteriology and Applied Microbiology, Paris, 27th July to 1st August, 2002.

Poster presentation, 5th International Meeting on "Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases" Hyderabad, India. Nov 12-16, 2000.

Poster presentation, 4th International Symposium and Workshop on "Shiga Toxin (Verocytotoxin) - Producing *Escherichia coli* Infections" Kyoto, Japan, Oct 29 -2 Nov 2000.

Publications:

47. **Khan A[#]**, Alves-Ferreira EVC, Vogel H, Older AJ, Grigg ME. A highly specific and sensitive target enrichment sequencing (TES) for whole genome sequencing of *Cryptosporidium* directly from human fecal samples. (under preparation)

Corresponding author

46. Easton AV, Gao S, Lawton SP, Bennuru S, **Khan A**, Dahlstrom E, Oliveira RG, Kepha S, Porcella SF, Webster JP, Anderson RM, Grigg ME, Davis RE, Wang J, Nutman TB. Extensive hybridization between pig and human *Ascaris* identifies a highly interbred species complex infecting humans. bioRxiv. **2020**. doi: <https://doi.org/10.1101/2020.04.17.047407> (Accepted *eLife*)

45. **Khan A**, Fujita AW, Randle N, Regidor-Cerrillo J, Shaik JS, Shen K, Oler AJ, Quinones M, Latham SM, Akanmori DB, Cleveland S, Ryan U, Slapeta G, Schares G, Ortega-Mora LM, Dubey JP, Wastling JM, Grigg ME. Global selective sweep of a highly inbred genome of the cattle parasite *Neospora caninum*. *Proc Natl Acad Sci USA* **2019**; 116(45):22764-22773. PMID: 31818945.

44. **Khan A[#]**, Shaik JS, Sikorski P, Dubey JP, and Grigg ME. Neosporosis: an animal disease. *Engineering*, **2019**; 6(1): 10-19. doi: <https://doi.org/10.1016/j.eng.2019.02.010> (published to Special Issue on Animal Disease Research, Engineering, Elsevier; invited review)

Corresponding author

43. Shaik JS, **Khan A**, and Grigg ME. POPSICLE: A software suite to study population structure and ancestral determinates of phenotypes using whole genome sequencing data. bioRxiv. **2018**. doi: <https://doi.org/10.1101/338210>.
42. **Khan A**[#], Shaik JS, and Grigg ME. Genomics and molecular epidemiology of *Cryptosporidium* species. *Acta Tropica*. **2018**; 184:1-14. PMID: 29111140.
- # Corresponding author**
41. Iantorno SA, Durrant C, **Khan A**, Sanders MJ, Beverley SM, Warren WC, Berriman M, Sacks DL, Cotton JA, and Grigg ME. Gene expression in *Leishmania* is regulated predominantly by gene dosage. *MBio*, 2017; 12:8(5). PMID: 28900023.
40. Zhang J, **Khan A**, Kennard A, Grigg ME, and Parkinson J. PopNet: A Markov clustering approach to study population genetic structure. *Mol Biol Evol*, **2017**; 34(7):1799-1811. PMID: 28383661.
39. **Khan A**[#], and Grigg ME. *Toxoplasma gondii*: Laboratory maintenance and growth. *Curr Protoc Microbiol*, **2016**; 44:20C.1.1-20C.1.17. PMID: 28166387.
- # Corresponding author**
38. Lorenzi H*, **Khan A***, Behnke MS*, Namasivayam S, Swapna LS, Hadjithomas M, Karamycheva S, Pinney D, Brunk B, Ajioka JW, Ajzenberg D, Boothroyd JC, Boyle JP, Darde MS, Diaz-Miranda, Dubey JP, Fritz HM, Gennari SM, Gregory DB, Kim K, Saeij J, Su C, White MW, Zhu XQ, Howe DK, Rosenthal BM, Grigg ME, Parkinson J, Liu L, Kissinger JC, Roos DS, and Sibley LD. Local admixture of amplified and diversified secreted pathogenesis determinants shapes mosaic *Toxoplasma gondii* genomes. *Nat Commun*, **2016** Jan 7;7:10147. PMID: 26738725.
- * Co-first authors
37. Behnke MS*, **Khan A***, Lauron EJ, Jimah JR, Wang Q, Tolia NH, and Sibley LD. Rhoptry proteins ROP5 and ROP18 are major murine virulence factors in genetically divergent South American strains of *Toxoplasma gondii*. *PLoS Genet*, **2015**; 11(8):e1005434. eCollection 2015 Aug. PMID: 26291965
- * Co-first authors
36. Shaik JS, **Khan A**, Beverly SM, and Sibley LD. REDHORSE-REcombination and Double crossover detection in Haploid Organisms using next-geneRation SEquencing data. *BMC Genomics*, **2015**; 16(1):133. PMID: 25766039.
35. Behnke MS, **Khan A**, and Sibley LD. Genetic mapping reveals that sinefungin resistance in *Toxoplasma gondii* is controlled by a putative amino acid transporter locus that can be used as a negative selectable marker. *Eukaryot Cell*, **2015**; 14(2): 140-148. PMID: 25480939
34. **Khan A***, Shaik JS*, Behnke M, Wang Q, Dubey JP, Lorenzi HA, Ajioka JW, Rosenthal BM, and Sibley LD. NextGen sequencing reveals short double crossovers contribute disproportionately to genetic diversity in *Toxoplasma gondii*. *BMC Genomics*, **2014**; 15:1168. PMID: 25532601.
- * Co-first authors
33. Dubey JP, Sykes JE, Shelton GD, Sharp N, Verma SK, Calero-Bernal R, Viviano J, Sundar N, **Khan A**, and Grigg ME. *Sarcocystis caninum* and *Sarcocystis svanai* n. spp. (Apicomplexa: Sarcocystidae) associated with severe myositis and hepatitis in the domestic dog (*Canis familiaris*). *J Eukaryot Microbiol*, **2014**; PMID: 25256157.
32. **Khan A**, Ajzenberg D, Mercier A, Demar M, Simon S, Darde ML, Wang Q, Verma SK, Rosenthal BM, Dubey JP, and Sibley LD. Geographic Separation of domestic and wild strains of *Toxoplasma gondii* in French Guiana correlates with a monomorphic version of chromosome 1a. *PLoS Negl Trop Dis*, **2014** 8(9):e3182. PMID: 25233228.
31. Dubey JP, Van Why K, Verma SK, Choudhary S, Kwok OC, **Khan A**, Behnke MS, Sibley LD, Ferreira LR, Oliveira S, Weaver M, Stewart R, and Su C. Genotyping *Toxoplasma gondii* from wildlife in Pennsylvania and identification of natural recombinants virulent to mice. *Vet Parasitol*, **2014**; 200:74-84. PMID: 24332401.

30. Su C*, **Khan A***, Zhou P, Majumdar D, Ajzenberg D, Darde ML, Zhu XQ, Ajioka JW, Rosenthal BM, Dubey JP, and Sibley LD. Globally diverse *Toxoplasma gondii* isolates comprise six major clades originating from a small number of distinct ancestral lineages. *Proc Natl Acad Sci USA*, **2012**; 109(15):5844-5849. PMID: 22431627.
* Co-first authors
29. **Khan A***, Miller N*, Roos DS, Dubey JP, Ajzenberg D, Darde ML, Ajioka JW, Rosenthal BM, and Sibley LD. A monomorphic haplotype of chromosome Ia is associated with widespread success in clonal and nonclonal populations of *Toxoplasma gondii*. *MBio*. **2011** 8; 2(6). pii: e00228-11. PMID: 22068979.
* Co-first authors
28. Skillman KM, Diraviyam K, **Khan A**, Tang K, Sept D, and Sibley LD. Evolutionarily divergent, unstable filamentous actin is essential for gliding motility in apicomplexan parasites. *PLoS Pathog*, **2011**; 7(10):e1002280. Epub 2011 Oct 6. PMID: 21998582.
27. Mashayekhi M, Sandau MM, Dunay IR, Frickel EM, **Khan A**, Goldszmid RS, Sher A, Ploegh HL, Murphy TL, Sibley LD, and Murphy KM. CD8 α (+) dendritic cells are the critical source of interleukin-12 controls acute infection by *Toxoplasma gondii* tachyzoites. *Immunity*, **2011**; 35(2):249-259. PMID: 21867928.
* Reviewed by Faculty of 1000 Biology.
26. Behnke M, **Khan A**, Wootton J, Dubey JP, and Sibley LD. Virulence differences in *Toxoplasma* mediated by amplification of polymorphic pseudokinases. *Proc Natl Acad Sci USA*. **2011**; 108(23):9631-9636. PMID: 21586633.
25. **Khan A**, Dubey JP, Su C, Ajioka JW and Rosenthal BM, and Sibley LD. Genetic analyses of atypical *Toxoplasma gondii* strains reveals a forth clonal lineage in North America. *Int J Parasitol*, **2011**; 41(6):645-655. PMID: 21320505.
* Accepted for cover page.
24. **Khan A**, Behnke MS, Dunay IR, White M, and Sibley LD. Phenotypic and gene expression changes among type I strains of *Toxoplasma gondii*. *Eukaryot Cell*. **2009**; 8(12):1828-1836. PMID: 19801420.
23. Sibley LD, **Khan A**, Ajioka JW and Rosenthal BM. Genetic diversity of *Toxoplasma gondii* in animals and humans. *Philos Trans R Soc Lond B Biol Sci*. **2009**; 364(1530):2749-2761. PMID: 19687043.
22. Sibley LD, Qiu W, Fentress S, Taylor SJ, **Khan A**, and Hui R. Forward genetics in *Toxoplasma gondii* reveals a family of rhoptyr kinases that mediates pathogenesis. *Eukaryot Cell*. **2009**; 8(8):1085-1093. PMID: 19465561.
21. **Khan A***, Taylor S*, Ajioka JW, Rosenthal BM, and Sibley LD. Selection at a single locus leads to widespread expansion of *Toxoplasma gondii* lineages that are virulent in mice. *PLoS Genet*. **2009** Mar;5(3):e1000404. Epub 2009 Mar 6. PMID: 19266027.
* Co-first authors.
Reviewed by Faculty of 1000 Biology.
20. **Khan A**, Fux B, Su C, Dubey JP, Darde ML, Ajioka JW, Rosenthal BM and Sibley LD. Recent transcontinental sweep of *Toxoplasma gondii* driven by a single monomorphic chromosome. *Proc Natl Acad Sci USA*. **2007**; 104(37):14872-14877. PMID: 17804804.
* Featured in i) Sweeping through *Toxoplasma*, Editor's Choice; *Science*, **2007**; 317:1651-1652.
ii) *Toxoplasma*'s shared heritage, In this issue *Proc Natl Acad Sci USA*. **2007**; 104(37):14872.
19. Belfort-Neto R, Nussenblatt V, Rizzo L, Muccioli C, Silveira C, Nussenblatt R, **Khan A**, Sibley LD, Belfort R Jr . High prevalence of unusual genotypes of *Toxoplasma gondii* infection in pork

- meat samples from Erechim, Southern Brazil. *An Acad Bras Cienc.* **2007**; 79(1): 11-14. PMID: 17401480.
18. Hajra TK, Bag PK, Das SC, Mukherjee S, **Khan A**, Ramamurthy T. Development of a simple latex agglutination assay for detection of shiga toxin-producing *Escherichia coli* (STEC) by using polyclonal antibody against STEC. *Clin Vaccine Immunol.* **2007**; 14(5): 600-604. PMID: 17344348.
 17. Fux B, Nawas J, **Khan A**, Gill DB, Su C, and Sibley LD. *Toxoplasma gondii* strains defective in oral transmission are also defective in developmental stage differentiation. *Infect Immun.* **2007**; 75(5): 2580-2590. PMID: 17339346.
 16. Djurkovic-Djakovic O, Klun I, **Khan A**, Nikolic A, Knezevic-Usaj S, Bobic B, and Sibley LD. A human origin type II strain of *Toxoplasma gondii* causing severe encephalitis in mice. *Microbes Infect.* **2006**; 8(8): 2206-2212. PMID: 16797199.
 15. **Khan A**, Jordan C, Muccioli C, Vallochi AL, Rizzo LV, Bellfort R Jr, Vitor RW, Silveira C, and Sibley LD. Genetic divergence of *Toxoplasma gondii* strains associated with ocular toxoplasmosis, Brazil. *Emerg. Infect Dis.* **2006**; 12(6): 942-949. PMID: 16707050.
 14. **Khan A***, Böhme U*, Kelly KA*, Adlem E, Brooks K, Simmonds M, Mungall K, Quail MA, Arrowsmith C, Chillingworth T, Churcher C, Harris D, Collins M, Fosker N, Fraser A, Hance Z, Jagels K, Moule S, Murphy L, O'Neil S, Rajandream MA, Saunders D, Seeger K, Whitehead S, Mayr T, Xuan X, Watanabe J, Suzuki Y, Wakaguri H, Sugano S, Sugimoto C, Paulsen I, Mackey AJ, Roos DS, Hall N, Berriman M, Barrell B, Sibley LD, and Ajioka JW. Common inheritance of chromosome Ia associated with clonal expansion of *Toxoplasma gondii*. *Genome Research.* **2006**; 16(9): 1119-1125. PMID: 16902086.
* Co-first authors.
 13. **Khan A**, Su C, German M, Storch GA, Clifford DB, and Sibley LD. Genotyping of *Toxoplasma gondii* strains from immunocompromised patients reveals high prevalence of type I strains. *J. Clin. Microbiol.* **2005**; 43(12): 5881-5887. PMID: 16333071.
 12. Das SC, **Khan A**, Panja P, Datta S, Sikdar A, Yamasaki S, Takeda Y, Bhattacharya SK, Ramamurthy T, and Nair GB. Dairy farm investigation on Shiga toxin-producing *Escherichia coli* (STEC) in Kolkata, India with emphasis on molecular characterization. *Epidemiol. Infect.* **2005**; 133(4):617-626. PMID: 16050506.
 11. **Khan A**, Taylor S, Su C, Mackey AJ, Boyle J, Cole R, Glover D, Tang K, Paulsen IT, Berriman M, Boothroyd JC, Pfefferkorn ER, Dubey JP, Ajioka JW, Roos DS, Wootton JC, and Sibley LD. Composite genome map and recombination parameters derived from three archetypal lineages of *Toxoplasma gondii*. *Nucl. Acids Res.* **2005**; 33(9): 2980-2992. PMID: 15911631.
* Accepted for cover page.
 10. **Khan A**, Datta S, Das SC, Ramamurthy T, Khanam J, Takeda Y, Bhattacharya SK, and Nair GB. Shiga toxin producing *Escherichia coli* infection: current progress & future challenges. *Indian J Med Res.* **2003**; 18:1-24 Review. PMID: 14748461.
 9. Pandey M, **Khan A**, Das SC, Sarkar B, Kahali S, Chakraborty S, Chattopadhyay S, Yamasaki S, Takeda Y, Nair GB and Ramamurthy T. Association of cytolethal distending toxin locus *cdtB* with enteropathogenic *Escherichia coli* isolated from patients with acute diarrhea in Calcutta, India. *J Clin Microbiol.* **2003**; 41(11): 5277-5281. PMID: 14605183.
 8. Datta S, Chattopadhyay S, Balakrish Nair G, Mukhopadhyay AK, Hembram J, Berg DE, Rani Saha D, **Khan A**, Satra A, Bhattacharya SK and Chowdhury A. Virulence genes and neutral DNA markers of *Helicobacter pylori* isolates from different ethnic communities of West Bengal, India. *J Clin Microbiol.* **2003**; 41(8): 3737-3743. PMID: 12904384.
 7. Datta S, **Khan A**, Nandy RK, Rehman M, Sinha S, Chattopadhyay S, Das SC, and Nair GB. Environmental isolates of *Aeromonas* spp. harboring the *cagA*-like gene of *Helicobacter pylori*. *Appl Environ Microbiol.* **2003**; 69(7): 4291-4295. PMID: 12839817.

6. Chakraborty S, **Khan A**, Kahali S, Faruque SM, Yamasaki S, and Ramamurthy T. Infantile diarrhoea associated with sorbitol-fermenting, non-shiga toxin-producing *Escherichia coli* O157:H-. *Eur J Clin Microbiol Infect Dis.* **2003**; 22(5):324-326. PMID: 12736791.
5. **Khan A**, Nandi RK, Das SC, Ramamurthy T, Khanam J, Shimizu T, Yamasaki S, Bhattacharya SK, Chicumpa W, Takeda Y, and Nair GB. Environmental isolates of *Citrobacter braakii* that agglutinate with *Escherichia coli* O157 antiserum but do not possess the genes responsible for the biosynthesis of O157 somatic antigen. *Epidemiol. Infect.* **2003**; 130(2): 179-186. PMID: 12729185.
4. Sinha S, Chakraborty R, De K, **Khan A**, Datta S, Ramamurthy T, Bhattacharya SK, Takeda Y, and Nair GB. Escalating association of *Vibrio cholerae* O139 with cholera outbreaks in India. *J Clin Microbiol.* **2002**; 40(7): 2635-2637. PMID: 12089294.
3. **Khan A**, Das SC, Ramamurthy T, Sikdar A, Khanam J, Yamasaki S, Takeda Y, and Nair GB. Antibiotic resistance, virulence gene, and molecular profiles of Shiga toxin-producing *Escherichia coli* isolates from diverse sources in Calcutta, India. *J Clin Microbiol.* **2002**; 40(6): 2009-2015. PMID: 12037056.
2. **Khan A**, Yamasaki S, Sato T, Ramamurthy T, Pal A, Datta S, Chowdhury NR, Das SC, Sikdar A, Tsukamoto T, Bhattacharya SK, Takeda Y, and Nair GB. Prevalence and genetic profiling of virulence determinants of non-O157 Shiga Toxin-Producing *Escherichia coli* isolated from cattle, beef and humans, Calcutta, India. *Emerg. Infect Dis.* **2002**; 8(1): 54-62. PMID: 11749749.
1. Basu A, Garg P, Datta S, Chakraborty S, Bhattacharya T, **Khan A**, Ramamurthy S, Bhattacharya SK, Yamasaki S, Takeda Y, and Nair GB. *Vibrio cholerae* O139 in Calcutta, 1992-1998: incidence, antibiograms, and genotypes. *Emerg. Infect Dis.* **2000**; 6(2): 139-147. PMID: 10756147.

Book Chapter:

3. Darde ML, Mercier A, Su C, **Khan A**, and Grigg ME. Molecular epidemiology and population structure of *Toxoplasma gondii*. *Toxoplasma Gondii, 3rd Edition*, The model apicomplexan: perspectives and Methods. Edited by Professor Louis M. Weiss and Professor Kami Kim. Academic Press, ISBN: 978-0-12-396481-6.
2. **Khan A**, Taylor S, Su C, Sibley LD, Paulsen I, and Ajioka JW. Genetics and genome organization of *Toxoplasma gondii*. *The Biology of Toxoplasma gondii*. *Toxoplasma: Molecular and Cellular Biology*. Edited by James W. Ajioka and Dominique Soldati. Horizon Bioscience, ISBN 13:978-1-904933-34-2.
1. Taylor S, **Khan A**, Su C, and Sibley LD. Pathogenicity and virulence in *Toxoplasma gondii*. *Toxoplasma: Molecular and Cellular Biology*. Edited by James W. Ajioka and Dominique Soldati. Horizon Bioscience, ISBN 13:978-1-904933-34-2.

