

**ADIL**

[**ADIL.349752@2freemail.com**](mailto:ADIL.349752@2freemail.com)

Department of Paediatrics and Child Health

**Profile:**

A dedicated Molecular Biologist with 6+ years of exceptional experience in the Molecular biology, Infectious Disease, Staff management, Quality control and Laboratory safety control with expertise in Real Time PCR, Taqman array card and Conventional PCR.

**Scholastic Records:**

**2007-2008** Master of Science (M.Sc) Biotechnology, University of Karachi, University ofKarachi, Pakistan

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| **2004-2007** | Bachelor of Science (B.Sc. Hons) Biotechnology, University of Karachi, |
|  | University of Karachi, Pakistan |
| **2000** | Intermediate Science (HSSC**)** Board of Intermediate Education Karachi |
| **1998** | Matriculation (SSC**)** Board of Secondary Education Karachi |

**Key Skills**

* Laboratory Safety Management.
* Hospital Health & Safety Management .
* Molecular Biologist (Molecular Diagnostic).
* Research Scientist Infectious diseases.
* Training coordinator of lab training program.
* Nucleic acid extraction(DNA/RNA) and PCR Technique .
* QC coordinator of research lab.

**Professional (Work)Experience**

* Working as a Research Associate & QC Coordinator in “Molecular Diagnostic Infectious

Disease Research Lab”department of Paediatric, The Aga Khan University and Hospital Karachi Pakistan.(18th Oct.2011 to Present)

* Worked as a “Asst. Medical Technologist in “Molecular Diagnostic Infectious Disease

Research Lab”department of Paediatric, The Aga Khan University and Hospital Karachi Pakistan**.(** 25th Jan.2010 to 17th Oct 2011)

**Job Responsibilities**

Responsible for

* Carrying out experimental work (related to project).
* Optimizing and trouble shooting of Molecular assays(PCR, Extraction,Gel electrophoresis).
* Performing Total Nucleic extraction from Blood, Stool, CSF, nasopharyngeal swab.
* Performing Real time PCR for the detection of pneumococcus, Hib (Haemophilus Influenzae Type B), neisseria meningitis from blood /CSF.
* Performing Taq Man Array Card technique (TLDA) for detection of multi Enteric pathogen from Stool sample of Children.
* Performing LUMINEX PCR assay for detection of Respiratory pathogens.
* Performing Conventional PCR for detection of Noro virus, Astro Virus,Sapo virus and strains of E.coli(ETEC,EAEC,EPEC).
* Training of Phlebotomist and Primary health workers for safe sample collection and transportation to lab.
* Performing Gel electrophoresis for post PCR detection.
* Writing protocols and SOPs.
* Bio banking.
* Reviewing the literatures.
* Daily QC maintenance of lab equipment.
* Working with lab technicians and investigators in preparing requested specimens to be available .
* Demonstrating the molecular biology technique to under graduate and post graduate students.
* Reporting the lab results .
* Looking after the routine maintenance of various facilities present in Research lab.
* Looking after activity of lab safety such as Biohazard materials, PPE, Chemical handling, Usage 0f MSDS file etc.
* Conducting Safety Trainings and Risk management for junior staff.
* Responsible for inventory management (Ordering purchasing etc).
* Responsible for Shipment of specimens,reagents etc.
* Preparing data for weekly meetings.
* Preparing monthly duty roster for working staff .

**Practical Experience**:

* Extraction of DNA / RNA/TNA from Blood, Serum, Stool & body fluids.
* ELISA.
* Detection of Salmonella typhi by ABI real-time Fast PCR system.
* Clinical Diagnostic Serology (Conventional ELISA and Molecular Diagnostics, PCR Assays for HIV, HCV, HBV and MTB) and Real-time PCR.
* Gel electrophoresis and Gel documentation.
* Isolation/cultivation and culturing of the bacteria.
* Conventional / Gradient PCR.
* Real-time PCR.
* Nested PCR.
* DNA extraction by in house method.
* Sybr Green assay.
* Luminex magpix Post PCR technique.
* TLDA (Taqman array card**).**
* Cell culture.
* SDS PAGE.
* Gram staining.

**Research Experience:**

* Molecular Characterization of “G” and “P” Rotavirus Genotyping in children from urban poor areas of Karachi, Pakistan.

Involves detection and genotyping of Rota virus by ELISA and PCR respectively.

* Testing for enteric pathogens “Global Enteric Multicenter Study

A case control study involves the detection and characterization of enteric pathogen in Children under 5 years of age, includes viral and protozoal immunoassay, stool cultures, Astro virus, Sapovirus, Norovirus detection by RT-PCR and pathogenic *E.coli* strain typin by PCR.

* Prospective, Cluster Randomized, Controlled Evalution of the Impect of Zinc and Or Micronutrient supplementation on intestinal flora, Diarrheal Disease

Burden, Intestinal Mucosal and Growth among Cohorts of Children in Pakistan.

A general cohort study involves detection and characterization of enteric pathogen in Children under 5 years of age, includes viral and protozoal immunoassay, stool cultures, Astro virus, Sapovirus, Norovirus detection by RT-PCR and pathogenic *E.coli* strain typing by PCR.

* Etiology, Risk Factors and Interaction of Enteric Infection and Malnutrition and the Consequences for Child Health and Development.

A Birth Cohort study involves detection and characterization of enteric pathogen in Children and infants, includes viral and protozoal immunoassay, stool cultures,

Norovirus Genotyping detection by real time PCR and pathogenic *E.coli* strain typing by PCR.

* Next Generation Molecular Diagnostic by Luminex PCR

A case control study involves the detection and characterization of enteric pathogen in Children under 5 years of age, includes viral, Protozoal, Other Bacterial and *E.coli* present in stool by Magpix Luminex PCR.

* HIB initiative study.

A Heamophilus influenza B Vaccine intervention study includes, Heamophilus Influenza B,

Nesseiria Meningitidis & streptococcus Pneumonia detection in children’s CSF Via Real Time PCR.

**Training/Courses:**

* Jan-Dec 2009, Completed a one year Medical Technology Training Course at the

Clinical laboratory Dept. of Molecular Diagnostics “The Aga Khan University and Hospital” Karachi Pakistan

* May2010-April 2011, Completed one year course of “Research methodology”Dept. of Paediatrics “The Aga Khan University and Hospital” Karachi Pakistan
* November 18-19 2012, Attended 2 days workshop on”Laboratory Designing and Engineering Control” by (PBSA) Pakistan Biological Safety Association
* March 16 2011, completed one day training of Gel Doc XR+with image lab software 3.0 manufactured by Bio Red laboratories
* Jan 5th 2011, completed one day training on Applied Biosystem Real Time PCR Model 7500 by Analytical Measuring Systems (Pvt.) Ltd

**Publications:**

Abstracts:

1. Operario DH; Liu J; Taniuchi M; Becker S; Sobuz SU; Begum S; Haque R; Dione M; Manneh J; Antonio M; Ndealilia SD; Maro A; Gratz J; Nissa T; **Kalam A**; Qureshi S; Zaidi A; Neesanant P; Silapong S; Lertsethtakarn P; Bohidatta L; Mason C; Houpt

E. Development, validation, and field performance of a five-plex real-time qPCR assay to detect diarrheagenic RNA viruses. Poster. Am J Trop Med Hyg 2012; 87(5 suppl):417.

* Development, Validation and field performance of a five plex Real-Time qPCR assay to detect Diarrheagenic RNA virus by American Society of Tropical Medicine and Hygiene.

1. Darwin J. Operario1, Jie Liu1, Mami Taniuchi1, Stephen Becker1, Lalitha Janacki1, Shihab Uddin Sobuz2, Sharmin Begum2, Mamun Kabir2, Rashidul Haque2, Michel Dione3, Jainaba Manneh3, Martin Antonio3,Senyael Swai Ndealilia4, Athanasia Maro4, Jean Gratz1, Tayyab Un Nissa5, Furqan Kabir5, **Adil Kalam5**, Shahida Qureshi5, Anita Zaidi5, Pimmnapar Neesanant6, Sasikorn Silapong6, Lertsethtakarn Paphavee6, Ladaporn

Bohidatta6, Carl Mason6, Eric Houpt1.

(1University of Virginia Health System, Charlottesville, VA, United States, 2International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), Dhaka, Bangladesh, 3Medical Research Council, Banjul, Gambia,4Kilimanjaro Christian Medical Centre, Moshi, Tanzania,United Republic of, **5Aga Khan University, Karachi,Pakistan**, 6Armed Forces Research Institute of Medical Sciences (AFRIMS), Bangkok, Thailand).

* Development, validation and International field performance of Multiplex Real Time qPCR Assay Panels for the detection of Diarrheagenic Viruses, Bacteria & Protozoa. American Society of Tropical Medicine and Hygiene.

Publications :

1. Liu J, Platts-Mills JA, Juma J, Kabir F, Nkeze J, Okoi C, Operario DJ, Uddin J, Ahmed S, Alonso PL, Antonio M, Becker SM, Blackwelder WC, Breiman RF, Faruque AS, Fields B, Gratz J, Haque R, Hossain A, Hossain MJ, Jarju S, Qamar F, Iqbal NT, Kwambana B, Mandomando I, McMurry TL, Ochieng C, Ochieng JB, Ochieng M, Onyango C, Panchalingam S, **Kalam A**, Aziz F, Qureshi S, Ramamurthy T, Roberts JH, Saha D, Sow SO, Stroup SE, Sur D, Tamboura B, Taniuchi M, Tennant SM, Toema D, Wu Y, Zaidi A, Nataro JP, Kotloff KL, Levine MM, Houpt ER.

* Use of quantitative molecular diagnostic methods to identify causes of diarrhoea in children: a reanalysis of the GEMS case-control study.

1. Rouhani S, Peñataro Yori P, Paredes Olortegui M, Siguas Salas M, Rengifo Trigoso D, Mondal D, Bodhidatta L, Platts-Mills J, Samie A, Kabir F, Lima A, Babji S, Mason CJ, **Kalam A**, Bessong P, Ahmed T, Mduma E, Bhutta ZA, Lima I, Ramdass R, Lang D, GeorgeA, Zaidi AK, Kang G, Houpt E, Kosek MN; Etiology, Risk Factors, and Interactions of Enteric Infections and Malnutrition and the Consequences for Child Health and Development Project (MAL-ED) Network Investigators.

Clin Infect Dis. 2016 Mar 24. pii: ciw072.

* Norovirus Infection and Acquired Immunity in 8 Countries: Results From the MAL-ED Study.

1. Tennant SM, Toema D, Qamar F, Iqbal N, Boyd MA, Marshall JM, Blackwelder WC, Wu Y, Quadri F, Khan A, Aziz F, Ahmad K, **Kalam A,** Asif E, Qureshi S, Khan E, Zaidi AK, Levine MM.Clin Infect Dis. 2015 Nov 1;61 Suppl 4:S241-50. doi:10.1093/cid/civ726.

* Detection of Typhoidal and Paratyphoidal Salmonella in Blood by Real-time Polymerase Chain Reaction.

1. Liu J, Kabir F, Manneh J, Lertsethtakarn P, Begum S, Gratz J, Becker SM, Operario DJ, Taniuchi M, Janaki L, Platts-Mills JA, Haverstick DM, Kabir M, Sobuz SU, Nakjarung K, Sakpaisal P, Silapong S, Bodhidatta L, Qureshi S, **Kalam A**, Saidi Q, Swai N, Mujaga B,

Maro A, Kwambana B, Dione M, Antonio M, Kibiki G, Mason CJ, Haque R, Iqbal N, Zaidi AK, Houpt ER.

* Development and assessment of molecular diagnostic tests for 15 enteropathogens causing childhood diarrhoea: a multicentre study.

**Computer Skills:**

* Article search using PubMed, Science Direct, Google scholar and other Databases
* Command on Microsoft Office including use of MS Excel to create spreadsheets, graphs and statistically analysis of data (i.e. averages, standard deviation, and linear regression analysis).

**General Skills:**

* Good research and writing skills.
* Excellent Communication skills
* Well versed in speaking and writing English & Urdu.
* Good decision making skills.
* Hard working and dedicated.
* Good team worker.
* Multitasking

**Personal Detail :**

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| Nationality | : | Pakistani |
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| Religion | : | Muslim |
| Marital status | : | Single |
| No of dependents: | | Nil |

Total number of Experience: 6 years -Present

Notice period required : 4 weeks