

## Biomedical Scientist / Medical Technologist

Highly resourceful professional specialised in clinical Immunology and Haematology with extensive experience spanning over 15 years in the United Kingdom's National Health Service (NHS) and 6 years in GCC, overseeing complex operations with department and laboratory settings. Instrumental in planning and leading chemical, microscopic, immunological, and bacteriological testing, acquiring accurate data for clinical diagnosis and treatment purposes. Well-versed in managing inventory and stock, budgetary planning evaluating new methodologies/equipment, and maintaining existing equipment and instrument to maintain seamless operational activities. Strive to achieve performance excellence through strict quality assurance and control as well as development of policy and procedure manuals as per specified guidelines. Demonstrated ability to train, lead, and support diverse teams to ensure high-quality service delivery. Articulate communicator, fluent in English and Bangla and Basic in Arabic and Spanish.

## Areas of Expertise

- ♦ Clinical Immunology
- ♦ Allergy & Autoimmune Serology.
- ♦ Immunodeficiency & Immunophenotyping
- ♦ Flow cytometry
- ♦ Haematology
- ♦ Operations Management
- ♦ Data Gathering & Analysis
- ♦ Quality Assurance & Control
- ♦ Sample collection & Testing
- ♦ Equipment & Instrument Maintenance
- ♦ Leadership & Staff Development
- ♦ Inventory & Stock Management
- ♦ Performance Enhancement
- ♦ Policy & Procedure Writing
- ♦ Reporting & Documentation
- ♦ Equipment Procurement
- ♦ Regulatory Compliance

## Clinical & Technical Proficiencies

**Clinical:** Independently interpret results from both routine and specialist areas of the laboratory as part of the clinical team. This includes instigating any necessary actions e.g. alerting clinicians of clinically significant results, and providing clinical advice about results or further investigations that are required. Recognize and investigate any erroneous or unusual patient test results. Provide necessary advice and support to ensure the provision of a rapid, reliable efficient and high-quality service, including timely reporting of patient results in order that patient care is not compromised. Ensure the validity of results produced within areas of activity by the monitoring performance of methodologies and available quality control data, and ensuring full investigation and correction of problems. Assist in determining the best combination of tests included in request profiles, the method of requesting, sample handling and result reporting. To initiate and participate in the oversight of working procedures and protocols within my area of responsibility. Be responsible for investigating and correcting problems revealed by quality management procedures and for dealing with complaints as required. I oversee complex analytical procedures, which requires skill and dexterity. This includes being responsible for the safe and effective use of highly complex equipment. Investigate and evaluate new methodologies, analytical techniques, and new equipment as required, to meet the objectives of the department. This will include validation of new methods in conjunction with clinical and laboratory colleagues. To review, and where necessary, introduce new or modified procedures and/or analytical methods in accordance with new evidence based and national guidelines/policies, new research findings and current scientific knowledge. I contribute to the planning and implementation of any changes. I am responsible for initiating and participating in clinical audit to ensure that the department is practising according to regional and national standards. I provide teaching and training sessions to key workforce groups including medical students, trainee clinical scientists, trainee BMS', registrars, and registered staff.

**Immunological Diagnostic Techniques:** Indirect Immunofluorescence (Manual/Automated using AP16 & Beeline 2000 Instrument) | ELISA (Manual/Automated using BEST 2000 & DS2) | Flow Cytometry (Sample Assist Prep Instrument & Beckman Coulter and Beckman Dickinson) | Allergy Testing by Unicap | Familiar with Haemostasis Sysmex Analyser

**Immunochemistry Techniques:** Gel Electrophoresis, Radial Immunodiffusion, & Immunodeficiency Cellular Work.

**Evaluation:** BlueDiver Dot Instrument, Euroblot Instrument, & Euroimmun Dermatology Mosaic Slides

**Laboratory Data Management Systems:** PAS, LIMS, & Clinysis WinPath

**Tools & Software:** Laboratory IT Systems and Relevant Software Packages, including Database and Document Management System | Microsoft office (Excel, Word, Access)

## Professional Experience

**Sidra Medicine, Doha, Qatar**

**6/2017 – Present**

**Senior Technologist II – Special Haematology (Immunologist) Pathology Department**

Offer subject matter expertise in all aspects of Clinical Immunology, Allergy and Autoimmune Serology, Immunodeficiency & Flow Cytometry including Immunophenotyping. Haematology, including full blood count analysis, routine coagulation, Blood Morphology (Microscope), Sickle Cell and Haemoglobinopathy testing, and Flow Cytometry. Carry out Cerebral Spinal/Body Fluid testing with associated Haematological manual tests as well as Infectious Mononucleosis, G6PD, ESR, H-body slide prep and screening, and manual Pearl Staining and Hematek Staining. Facilitate commissioning and validation of multiple sections involving equipment, IT systems (Cerner Pathnet), Lawson procurement, and Oracle ERP system. Ensure robust management of budget along with procurement of resources, maintenance of stock inventory, and quotes from vendors. Streamline operational activities by leading a team and offering support to Chief Technologist, while managing lab operations and rostering team to testing benches.

### Key Contributions:

- Provided required data to support research in collaboration with research team and immunology section, which resulted in publication of the following:
  - **Poster:** Karim, Y., Ledoux, I. & Aziz, F. | [Very low total IgE as a potential marker for hypogammaglobinaemia in paediatric population with high incidence of immunodeficiency disorders.](#) | Conference European Academy of Allergy and Clinical Immunology Hybrid Congress. Prague | 2022
  - **Article:** Karim, Y., Aziz, F., Ledoux, I., et al. | [The utility of Recombinant Component Testing for Nut Allergy in Doha, Qatar.](#) | The Journal of allergy and clinical immunology. 145(2): AB151. | 2020
- Ensured availability of competent staff and students through recruitment, on-boarding, and training.
- Developed policies and procedures as per CAP, ISO15189, and Joint Commission international (JCI) standards.
- Ensured non-conformance and DATIX reports, where they pertain to clinical, technical, or quality matters, are fully investigated and actions are implemented in a timely fashion.
- Maintained a high personal level of up-to-date, expert knowledge of Clinical and laboratory immunology. Developed solid expertise in special immunology and flow cytometry while offering support in special haematology section as a Specialist Immunologist and Flow Cytometry.
- maintained specialist scientific and technical knowledge to make valid judgements on results and, evaluate implications for patient diagnosis and therapy.
- Participated in independently and second reading and clinical sign-off of laboratory investigations, with an emphasis on haematological malignancy flow cytometry, immunology and allergy in multidisciplinary teams.
- Acquired specialist knowledge through a process of appropriate higher levels of academic study and continuing vocational training.
- I provide teaching and training sessions to key workforce groups including medical students, trainee clinical scientists, trainee BMS', registrars, and registered staff.
- I present case studies, research findings and teaching materials to an audience of colleagues, clinical staff and others at local seminars and regional and national meetings
- I participate in continuing professional development as part of a recognised scheme.
- Gained valuable exposure to using several instruments such as ACL TOP 700, DXH800 and SMS slide maker, PFA-200 (platelet function analyser), Bio-Rad Variant II analyser, Navios flow cytometer, FACs Canto II, Nikon microscopes, Phadia 250 analyser and Sebia Gel Immunofixation, Hematek 3000 stainer, and ESR STAT-Plus.
- Established specialist section (immunologist) in Greenfield hospital to expand on operational capabilities.
- Provide input to clinical lead regarding pathology strategy objectives.

- Work with the Pathology Management team and Lead BMS to help plan the delivery of services by maximising available resources effectively, and encouraging a team ethos to achieve objectives.
- Collaborate in planning and implementation of service developments, which may impact services outside of hospital.
- Helped to ensure the department employs appropriate internal quality control techniques and participates in external quality assessment schemes in order that test results are of the highest standard.
- Actively seek innovation for future developments.
- Supervise method development to enable service improvement.
- Seek areas of research and development, clearly identifying clinical utility and possible sources of funding.
- Regularly initiate and undertake projects in research, development and lab management for assessment by their supervisor and prepare these for publication as directed by the Clinical Lead.

### **Immunopathology Dept, The Royal London Hospital, London (Specialist) Biomedical Scientist (MIBMS)**

**8/2002 – 5/2017**

Specialist in Immunology (CPSM Log book). Streamlined laboratory operations by rotating through all sections such as Autoimmune, Allergy, Immunodeficiency (cell work), and Immunochemistry. Implemented several immunological diagnostic and Immunochemistry techniques along with evaluation and reporting. Determined the viability of tests for reporting or further action through complex diagnostic tests, prioritising urgent samples. Gather and register patient details/results on laboratory data management systems as per Data Protection Act. Maintained stock of consumables, reagents, and sourced out alternative supplies, ordering supplies through electronic procurement service. Developed external QA scheme (NEQAS) with department participants and coordinated quality framework established via clinical pathology and UK accreditation services. Investigated and reported laboratory incidents, implementing correction actions to avoid reoccurrence in future.

#### **Key Contributions:**

- Delivered laboratory advice on tests, methods, sample appropriateness, and escalation of abnormal clinical results in liaison with external clinical pathology staff.
- Provide a highly specialised advisory service in all aspects of Clinical Immunology to the Trust, primary care and other external bodies as appropriate.
- To independently provide highly specialised advice to clinical staff on the most appropriate use of immunology test procedures in the investigation and diagnosis of disease and interpretation of the results, particularly in complex cases. Also to advise on the optimal use of laboratory facilities
- Contributed to achieving performance excellence aligned with NHS objective and Health and Care Professions Councils (HCPC) Code of Practice.
- Ensured optimum functioning of laboratory equipment, instruments, and essays through troubleshooting and preventative maintenance.
- Administered internal QC and external QC within each section/sub-section and laboratory, and complied with ISO15189.
- Participated in multiple seminars, lectures, and training sessions as per Personal Development Plan (PDP); ensured compliance with statutory and mandatory training policies of Department and Care Group; partook in Continuing Professional Development (CPD) and maintained registration with professional bodies – HCPC and the Institute of Biomedical Science (IBMS).
- Contributed to preventing and controlling infection through standard infection control practices according to Trust's policies and H&S at Work Act.
- Delivered supervision and training to cross-section staff of laboratory, including training staff from MLA, trainee BMS, and specialist registrars without disrupting routine activities.
- Deputised sections for higher staff in absence to maintain seamless operational activities.
- Drafted, revised, and implemented standard operating procedures (SOPs) for enhanced performance output.
- Discussed issues, non-compliance matters, and conflicts in meetings to develop effective solutions; attended staff annual joint review with other departments, part of blood science group.

### **Training Officer / Lecturer**

## **Qatar University – Department of Biomedical Science College of Health**

- Liaised with education team to deliver quality training in clinical practice for students at Sidra Medicine.
- Discussed and suggested changes to curriculum, which facilitated students training in clinical lab setting.
- Completed student performance evaluation of training, which enabled students to choose to work at Sidra as graduate associates.

### **Teaching in Lab**

- Drafted documents case studies for students and lab staff, presenting cases at hematopathology case study/educational round on monthly basis.
- Taught students and trainee technical aspects along with theory of specialist subject area immunology, including autoimmune serology, immunodeficiency, and flow cytometry in line with university curriculum and Laboratory training guidelines.

## **Education**

### **MSc in Biomedical Science**

University of Greenwich, London

*Project: Diagnostic Laboratory Assessment of Patient with Bullous Skin Disease.*

### **Postgraduate Diploma in Biomedical Sciences**

University of Greenwich, London

*Coursework: Renal Disease, Advanced Human Genetics, Analysis of Nucleic Acid, and Quality System Management.*

### **BSc. (Hons) Biomedical Science (Sandwich)**

University of East London

*4<sup>th</sup> Year: Immunology, Microbiology, Medical Biochemistry, and Genetics | Project: Gene Therapy in the treatment of Cystic Fibrosis*

*3<sup>rd</sup> Year: Placement Student in the Immunopathology Department at St. Bartholomew's Hospital, London. | Project: The Role of a Medical Laboratory Assistant in the Immunopathology department including the mini Project of Evaluating Three diagnostic kits to detect anti-Scl-70 antibodies.*

*2<sup>nd</sup> Year: Biochemistry, Microbiology, and Genetics.*

*1<sup>st</sup> Year: Human Physiology, Biochemistry, and Microbiology.*

## **Licenses**

Health & Care Professions Council (HCPC)

Institute of Biomedical Sciences (IBMS)

Qatar Healthcare Practitioners (QCHP)

## **Professional Qualifications**

Haematology & Transfusion CPD

TEFL/TESOL Master Course, 2/2015

Psychology, 2012

NEQAS Quality Scheme Participants Meeting, 6/2016

IBMS Congress (1 Day), 9/2013