

# CURRICULUM VITAE

**NAME: SAMIA TAYEB HAWISA**

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## **QUALIFICATIONS:**

- 1995 to 1999: **PhD in Immunohaematology**  
Imperial College School of Medicine, University of London, UK
- 1994 to 1995: **MSc in clinical Immunology**  
Royal Post-Graduate Medical School, University of London, UK
- 1979 to 1984: **MB. Bch**  
College of Medicine, University of Tripoli, Libya

## **TRAINING AND CERTIFICATES:**

- 2003 to 2005: **Postgraduate certificate in Academic Practice**  
(A teaching in Higher Education qualification)  
King's College London, University of London, UK
- 2004: **Biological safety officer certificate**  
MRC medical research council, University of Sussex, UK

## **CURRENT APPOINTMENT:**

**Mar 2018 to date:** **Professor of Immunology and Microbiology**, University of Tripoli, Tripoli, Libya

## **PREVIOUS APPOINTMENTS:**

- 2018 to 2020:** **Head of postgraduate studies and training department**, Dental College, University of Tripoli, Tripoli, Libya
- 2014 to 2018:** **Associate Professor of Microbiology and Immunology**, University of Tripoli, Tripoli, Libya
- 2009 to 2014:** **Assistant Professor:** Microbiology and Immunopathology, University of Zawia, Libya
- 2005 to 2009:** **Lecturer:** Department of Microbiology and Immunology, Medical research centre, School of Medical Sciences, University of Zawia, Libya
- 2001 to 2005:** **Senior Research Fellow:** Neurodegenerative Disease Research Centre, GKT School of Biochemical Sciences, King's College London, University of London, UK
- 2000 to 2001:** **Post-doctoral Research Associate:** Imperial College School of Medicine, Royal Brompton Campus, NHLI, University of London, UK
- 1994 to 1999:** **Research assistant and postgraduate research student:** Imperial College School of Medicine, Hammersmith Campus, Department of Haematology, University of London, UK
- 1989 to 1994:** **Registrar:** Zawia and Sabratha Teaching Hospitals, Libya
- 1986 to 1989:** **Senior House Officer:** Zawia Teaching Hospital, Libya
- 1985 to 1986:** **Pre-registration House Officer:** University Teaching Hospitals, Tripoli, Libya

## **OTHER RESPONSIBILITIES:**

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- Sep 2016 to date:** **Member of development and research department committee**, Dental College, University of Tripoli, Tripoli, Libya
- Mar 2018 to 2022:** **Microbiology and immunology course coordinator**, Dental College, University of Tripoli, Tripoli, Libya
- 2009 to 2014:** **Member of the editorial board:** Journal of the National Centre for Medical Research
- 2009 to 2014:** **Clinical Trainer:** Zawia Teaching Hospital, Board of Medical Specialities, Libya
- 2001 to 2005:** **Biological Safety Supervisor**, King's College London, University of London, UK
- 2001 to 2005:** **Member of the University genetic modification safety committee**, King's College London, University of London, UK

## **SKILLS AND EXPERIENCE:**

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### **CLINICAL EXPERIENCE:**

During my clinical career I gained considerable experience in providing patient care and management:

1. Experience in management of patients with general endocrinology and diabetic cases.
2. Experience in management of patients with different pulmonary diseases, heart diseases, and rheumatology and connective tissue diseases.
3. Experience in treatment and follow up of patients with wide range of immunological and allergic conditions including allergic rhinitis, eczema, bronchial asthma, immune deficiency and autoimmune diseases in both adult and children. With special interest in:
  - Applying guidelines for treatment of allergic rhinitis and asthma in Libyan hospitals and primary care.
  - Normal spirometric standards in Libya
  - Relationship of smoking with asthma in children
  - Immunology of diabetes and allergy to human insulin therapy
4. Experience in provision of care and management of patients with different infectious diseases in adult and geriatric patients. With special interest common infectious diseases in Libya including:
  - studying the causes behind re-emerging of tuberculosis with increasing number of extra-pulmonary TB cases and control of drug resistant tuberculosis
  - Studying host defence mechanisms against infection
  - Relationship between antimicrobial prescribing and microbial resistance.
5. Management of haematology and Oncology patients, including patients with haemophilia and haematological malignancies. Experience in the administration of cytotoxic chemotherapy and the management of its complications including neutropenic sepsis. With special interest in immunohaematological condition such as:
  - Thrombocytopenia (Idiopathic thrombocytopenic purpura)
  - Aplastic anaemia
6. Experience in management of patients with different renal diseases, supervising haemodialysis sessions, provision of post transplantation care for renal patients including adults and elderly patients.

During my work in a senior research fellow I gained substantial experience in supervising staff and students in regard to disinfection and sterilisation, control and prevention of contamination, infection control measures and safety in biological laboratories.

In addition, as a member of University Genetic Modification Safety Committee (2002-2005) at King's College London and Biological Safety Supervisor, I gained considerable experience in training staff and students in sterilization and disinfection guidelines and supervising their application.

### **RESEARCH SKILLS:**

During my research career I gained substantial experience in a wide range of cellular and molecular biology techniques including their clinical application, including:

During my research career I gained substantial experience in a wide range of cellular and molecular biology techniques including their clinical application, for example:

**Biochemistry:**

- \* Protein extraction from cells
- \* Stable expression of recombinant proteins
- \* Immunoprecipitation
- \* ELISA
- \* Electrophoresis
- \* Western blotting
- \* Apoptosis assays
- \* Proteasomal activity assays
- \* Enzyme labelling, radioiodination and biotinylation

**Immunotechnology and Histology techniques:**

- \* Immunohistochemistry
- \* Radioimmunoassay
- \* Immunoblotting and Immunodiffusion

**Cell culture:**

- \* Maintenance of primary cells and a wide range of cell lines
- \* Purification and maintenance of CD34+ cells
- \* Monoclonal antibody production
- \* Cloning and
- \* Transfection and selection of single cell clones
- \* Gene transfer into primary cells and cell lines
- \* Haemopoietic progenitor assays: BFU-e and CFU-GM
- \* Fibroblast focus forming assay in agar
- \* Cell viability assays
- \* Flow cytometry
- \* Cell growth assay including: Trypan blue exclusion and MTT assay

**Molecular biology:**

- \* cDNA synthesis and DNA amplification by PCR
- \* DNA cloning and sequencing
- \* Genomic DNA extraction
- \* RNA extraction, RNA probe preparation and labelling
- \* RT-PCR
- \* Southern blot and Northern blot analysis
- \* Site-directed mutagenesis and mutagenesis using PCR
- \* RNA-Protein binding assay (RNA-band shift assay)
- \* In-situ hybridization

**TEACHING EXPERIENCE:**

- Microbiology and Immunology course for dental students (**2013 to date**): 3<sup>rd</sup> year dental students, Dental School, Tripoli University, Libya
- Transplantation immunology (**Jan 2019 to date**): Diploma of nephrology programme, Tripoli, Libya.
- Immunological diseases and the kidney transplantation (**Oct 2018 to date**): Diploma of Nephrology, Tripoli, Libya.
- Immunopathology and general pathology courses (**2008- 2013**): 2<sup>nd</sup> year dental students, Dental School, Tripoli University, Libya
- Immunology course (**2005- 2013**): 3<sup>rd</sup> year medical students, 2<sup>nd</sup> year dentistry students and 3<sup>rd</sup> and 4<sup>th</sup> year Technology students, Department of Microbiology and Immunology, School of Medical Sciences, Zawia University, Libya
- Virology courses (**2005- 2013**): 3<sup>rd</sup> year medical students, 2<sup>nd</sup> year dentistry students and 3<sup>rd</sup> and 4<sup>th</sup> year Technology students, Department of Microbiology and Immunology, School of Medical Sciences, Zawia University, Libya
- Diagnostic Microbiology courses (**2009- to 2013**): 4<sup>th</sup> year Technology students, Department of Microbiology and Immunology, School of Medical Sciences, Zawia University, Libya

- General medicine and Bedside clinical teaching (2005- to 2010): 4<sup>th</sup> year and 5<sup>th</sup> year medical students, Zawia teaching Hospital, School of Medical Sciences, Zawia University, Libya
- Co-supervised PhD students (2001-2005): NDRC, King's collage London, Guy's Campus, University of London
- Supervised visiting faculty on sabbatical leave collaborated projects (2003-2004): NDRC, King's collage London, Guy's Campus, University of London
- Supervised BSc students' final year projects (2001-2005): NDRC, King's collage London, Guy's Campus, University of London
- Supervised Welcome trust students research projects (2003-2005): NDRC, King's collage London, Guy's Campus, University of London
- Teaching Inter-professional communication skills (2003-2005): First year medical, dentist and pharmacology students, King's collage London, Guy's Campus, University of London.
- Teaching second year Biomedical Science students (2002): King's collage London, Guy's Campus.
- Co-Supervised BSc and MSc research students (2000-2001): NHLI, Royal Brompton Campus, Imperial College London, University of London.
- Co-Supervised BSc and MSc research students (1997-2000): Haematology Department at Hammersmith Campus, Imperial College, University of London.
- Supervising and bedside teaching new SHO doctors (1989 to 1994): Zawia Central Hospital, Zawia, Libya.
- Teaching Internal Medicine, Pathology subjects and Academic English Language course (1989 to 1993): Nursing students, Nursing School, Zawia, Libya.

Currently I am teaching immunology course for dental students, and during my previous career both in United Kingdom and Libya I gained extensive experience in teaching (organization, conducting, assessment and management) different basic medical sciences courses (including virology, general pathology, diagnostic microbiology), molecular biology techniques, cell culture techniques and clinical general medicine for medical, dental and biomedical technology students.

In addition, my experience involved general medicine and Bedside clinical teaching for medical students and supervising research undergraduate and postgraduate students.

As a member of University Genetic modification Safety Committee (2002-2005) at King's College London and Biological Safety Supervisor, I gained considerable experience in training staff and students in safety, sterilization and disinfection guidelines and supervising their application.

#### **Organised Courses:**

I have organised and conducted the following training courses and programmes:

- Diagnostic Microbiology course
- Cell culture training course
- Molecular biology training course
- Laboratory sterilization and disinfection guidelines
- Genetic modification safety training course

#### **Supervised postgraduate research:**

Ghada Mohamed Hammad (2016) Evaluation of cervical smear in Libyan women over five-year period (2008-2012), Libyan board for general practice

#### **MANAGEMENT AND ADMINISTRATIVE EXPERIENCE**

- **Head of postgraduate studies and training department** (2018 to 2020): Dental College, University of Tripoli, Tripoli, Libya
- **Head of cell biology and molecular biology laboratories** (2008-2010): National Centre for Medical Research, Libya

During this appointment, I was responsible for training new staff and students in different molecular and cellular biology techniques and procedures and supervising BSc and MSc research students.

- **Member of The University Genetic Modification Safety Committee** (2002-2005): GKT School of biomedical Sciences Neurodegenerative Disease Research Centre, Guy's Campus, King's College London.

- **Biological Safety Supervisor** (2001-2005): GKT School of biomedical Sciences Neurodegenerative Disease Research Centre, Guy's Campus, King's College London  
During this appointment, I gained considerable experience in training staff and students in sterilization and disinfection guidelines and supervising their research application.
- **Head of tissue culture and molecular biology laboratories** (2001-2005): GKT School of biomedical Sciences Neurodegenerative Disease Research Centre, Guy's Campus, King's College London  
During this appointment, I gained considerable experience in training new staff and students in different molecular and cellular biology techniques and procedures and supervising BSc and MSc research students.
- **Management of tissue culture laboratory** (1999-2000): Imperial College School of Medicine, Hammersmith Campus, Department of Haematology, University of London
- **Key member in the foundation of the Asthma, Allergy and Immunology centre** (1989-1994): Sabratha Teaching Hospital, Sabratha, Libya

## PUBLICATIONS:

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1. **Samia Tayeb Hawisa (2022): Biofilm and environmental pollution.** EPIC-2021, Tripoli, Libya, 5-7 Dec 2021
  2. **Samia Tayeb Hawisa**, Omima Hadad, Abdulhakim El-Jabo and Mohamed Sabri (2020): Prevalence and anti-microbial resistance of bacteria isolated from patients with urinary tract infection in north-western provenance, Libya. *Al-Jameai*, 32: 28-42 **S Hawisa** and N Hawisa (2014): Patterns and knowledge of antibiotic prescribing by dental and medical practitioners in Libya. 36<sup>th</sup> Asia Pacific Dental Congress (APDC), Dubai, UAE, 17-19 June, 2014
  3. **Hawisa ST** (2014): Allergic rhinitis and its impact on asthma. European Academy of Allergy and clinical Immunology congress (EAACI), Copenhagen, Denmark, 7-11 June, 2014
  4. **Samia Hawisa** and Rajab Aoun (2014): Evaluation of association of sinusitis and other conditions with allergic rhinitis and asthma in patients in north-western provenance of Libya. PO16, 9th International Congress on Autoimmunity, Nice, France, march 26-30, 2014
  5. Karima Tayeb Hwissa and Samia Tayeb **Hawisa** (2016): FOREIGN BODY CAUSING RECURRENT VAGINAL DISCHARGE. Turkish-German Gynaecology Congress, April 30<sup>th</sup>-May 4<sup>th</sup>, 2014
  6. **S Hawisa** and R Aoun (2014): Association of allergic rhinitis and asthma with infection. 32<sup>nd</sup> annual meeting of the European Society for Paediatric infectious diseases (ESPID), Dublin, Ireland, May 6-10, 2014
  7. **S Hawisa** (2014): Bacterial causes and antibiogram of urinary tract infection in children in Zawia, Libya. 32<sup>nd</sup> annual meeting of the European Society for Paediatric infectious diseases (ESPID), Dublin, Ireland, May 6-10, 2014
  8. **S Hawisa**, A J Abdulla and M Sabri (2014): Bacterial screening and antibiogram profile of samples from neonatal department. 32<sup>nd</sup> annual meeting of the European Society for Paediatric infectious diseases (ESPID), Dublin, Ireland, May 6-10, 2014
  9. **S. Hawisa**, K. Hawisa (2013): Treatment of insulin allergy during pregnancy with insulin analog. 6th Autoimmunity Congress Asia, Hong Kong, November 20-22, P2-006, 234
  10. **S. Hawisa**, J. Maher, P. Mason, N.J. Dibb and I.A.G Roberts (2009): Identification of three residues, S127, R128 and Y141, important for H12-rasspecific fibroblast transformation. *LJMR*, 5(1): 56-68
  11. Karima Hawisa and **Samia Hawisa** (2009): Alternative to insulin therapy in pregnancy in case of diabetes with insulin allergy. *LJMR*, 5(1): 5-10
  12. Abdul Fatah Gbaj, **Samia Hawisa**, Lindsey Walsh, Candy Rogert, Alireza Sardarian, Elena V. Bichenkova, Laura L. Etchells and Kenneth T. Douglas (2009). *JMJ*, 9(4): 250-257
  13. Gbaj A, Bichenkova, EV, Walsh L, Savage HE, Sardarian AR, Etchells LL, Gulati A, **Hawisa S**, and Douglas KT (2009). *LJM*, 4: 152-159

14. Robert Newton, Jane Eddleston, El-Badou Haddad, **Samia Hawisa**, Judith Mak, Sam Lim, Alison J. Fox, Louise E. Donnelly, & K. Fan Chung (2002): Regulation of Bradykinin B1 and B2 receptors in human airway epithelial cells by cytokines and dexamethasone. *European Journal of Pharmacology*, 441: 193-202
15. **Hawisa S**, Roberts IAG and Dokal I (2000): Serum from Fanconi's anaemia patients stimulates, rather than inhibits, the growth of haemopoietic progenitors. British Society of Haematology, Bournemouth, UK, Bournemouth, UK
16. **Hawisa S**, Maher J, Mason P and Roberts IAG (1998): three amino acids in the middle third of H-ras are entirely responsible for its potent transforming activity in fibroblasts. *Blood* 92 (10): 888
17. Byrne JL, **Hawisa S**, Grundy M, Pllis M, Russell NH, Roberts IAG (1998): Effect of oncogenic N-Ras on proliferation and apoptosis in growth factor dependent TF-1 cells. *Blood* 92 (10): 3783
18. **Hawisa S**, Maher J and Roberts IAG (1997): Mutational analysis of amino acid sequences in the middle third of ras. *Blood* 90 (10): 265
19. **Hawisa S**, Maher J and Roberts IAG (1996): Codon 141 of Ras is important for mutant Ras-induced cellular transformation. *Blood* 88 (10): 817
20. **Hawisa S**, Maher J, Manning M and Roberts IAG (1996): Functional analysis of ras isoforms in haemopoietic cells and fibroblasts. *British Journal of Haematology* 93: 234
21. Aoun RS and **Hawisa ST** (1996): Peak expiratory flow rates in libyan children and adolescents age 5-18 years' prevalence of asthma and smoking at zawia area. Annual congress European respiratory society, Stockholm, Sweden, September 7-11, *European respiratory journal supplement*; 9 (23). 387S
22. Maher J, **Hawisa S**, Manning M and Roberts IAG (1995): Functional differences between the ras isoforms: Mutational analysis. *Blood* 86 (10): 2925
23. **Hawisa S**, Etwebi AB and Aoun RS (1995): Spirometric standards, prevalence of asthma and allergic rhinitis (age 5 - 16) in Northern Libya. *Chest* 108 (Suppl 1): 208 S

#### **LECTURES AND ORAL PRESENTATIONS AT CONFERENCES:**

- \* Dental complications of allergic rhinitis. 36<sup>th</sup> Asia Pacific Dental Congress (APDC), Dubai, UAE, 17-19 June, 2014
- \* Immunological diseases of the kidney. Libyan Nephrology Society, Tripoli, Libya. 04. 05. 2006.
- \* Serum from Fanconi's anaemia patients stimulates, rather than inhibits, the growth of haemopoietic progenitors. British Society of Haematology, Bournemouth, UK. 28. 3. 2000.
- \* Regulation of Bradykinin Receptors expression. Department of Thoracic Medicine, National Heart and Lung Institute, Royal Brompton Campus, London. UK. 13. 7. 2001
- \* Identification of three residues, Ser 127, Arg 128 and Tyr 141, important for H-ras specific fibroblast transformation. Research in progress. Department of Haematology, Hammersmith Hospital, London. UK. 20. 02. 1999.

#### **COURSES AND CONFERENCES ATTENDED:**

- Biological Safety Officers training course, Medical Research Council, London. March 2004
- Problem solving-based teaching in higher education. King's College London, London. June 2003
- Lifesaver First Aid Course. Imperial College Safety Unit, Safety Unit Training Dept, Watts Way, South Kensington, London. November 2001
- Advances in treatment of Asthma. Department of Thoracic Medicine, National Heart and Lung Institute, Royal Brompton Campus, London. November 2000
- British Society of Haematology annual meeting. Bournemouth, UK. 5 days course, March 2000
- American Society of Haematology annual meeting. San Diego, USA. December 1997
- Advanced Haematology Course. Department of Haematology, Imperial College School of Medicine, Hammersmith Hospital, London. June 1996
- British Society of Immunology annual meeting. Harrogate, UK. December 1994
- Advanced course in Immunology for scientists and clinicians. Department of Immunology, Royal-Postgraduate Medical School, Hammersmith Hospital, London. November 1994