

# **Inas Alhudiri**

Professor

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## **Education and Qualifications:**

**The University of Nottingham, Nottingham, UK**

Ph.D, School of Clinical Sciences, Breast Surgery 2012

**Royal College of physicians and surgeons of Glasgow, UK**

Membership of the Royal College of Surgeons (MRCS) 2009

**Sabha University (Faculty of medicine), Libya**

Bachelor of medicine and surgery (MB ChB) 2001

## **Awards and recognitions**

Listed as one of 20 **Libyan Women You Must Know** by Together We Build It Organization in 2020. I was recognized for my achievements during the COVID-19 Pandemic in Libya and my role in advancing research in Libya.

## **Current Appointments:**

**17.07.2013-present Head of genetic engineering department at Libyan Biotechnology Research Centre, Tripoli-Libya.**

2016- Present Member of bioethics committee at Libyan Biotechnology Research Center

## **Previous appointments**

25.03.2020-2022 Chairman of technical committee for combating COVID-19 at Libyan Biotechnology Research Center, Tripoli-Libya

1.08.2021-2022 Director of vaccination unit at Libyan Biotechnology Research Center

13.10.2021-2022 Member of Joint Committee for Combating COVID-19 between Libyan Biotechnology Research Center and National Center for Disease Control and subcommittee for preparing laboratory needs for COVID-19 diagnosis in Libya

13.12.2020-30.04 2021 **Member of Technical committee for private laboratories by the Presidency Council**

June.2020-April 2021 **Member of committee for planning country's needs for laboratory diagnostics for COVID-19 by the ministry of health**

March 2020-May 2021 **Member of the COVID-19 scientific consulting committee for the National Center for Disease Control in Libya.**

October 2018-December 2019 **Head of organizing committee of Breast cancer research conference** in Libya (8-9 October 2019) and member of the scientific committee

2001-2006 **Senior house officer in surgical departments, Sabha medical centre, Sabha-Libya.**

### **Teaching experience:**

#### **School of life sciences- The Libyan Academy**

Professor of Molecular Biology (postgraduate) - November 2021-present

#### **Libyan Biotechnology Research Centre, Tripoli, Libya, April-present 2020**

Since the start of the COVID-19 pandemic, I was involved in training laboratory personnel from many Libyan cities on the technology of RT-PCR. The training includes workshops and lab on-hands training for 5 days. Trainees from Sabha, Zliten, Gharyan, Zawia, and many others. These Labs currently have full capacity to diagnose COVID-19 using RT-PCR.

#### **Faculty of Medicine-Sabha University (Sabha-Libya) 2019**

Visiting Professor of General surgery to 4<sup>th</sup> year medical students

#### **Libyan Biotechnology Research Centre 2013-2019**

Co-supervising master students in the lab to finish their research projects (currently 5 master students).

Running training courses and workshops on research methodology and lab techniques including PCR, DNA sequencing and western blotting.

#### **The University of Nottingham 2011**

Student tutor: helping new students with IT facilities at the University

#### **Sabha University, Department of surgery 2003-2005**

Postgraduate demonstrator at the University: involved in monitoring and tutoring intern doctors in the department of general surgery.

## Peer Review Experience:

Conducted thorough and critical assessments of submitted manuscripts for the following journals, evaluating the quality, originality, and significance of the research.

1. Reviewer, Microbiology Spectrum journal (ASM) 2021-present (15)
2. Reviewer, Breast cancer research and treatment (Springer Nature), 2021-present (2)
3. Reviewer, Human Vaccines & Immunotherapeutics, Taylor and Francis 2023 (1)
4. Reviewer, PLOS Global Public Health, PLOS, 2023 (1)
5. Reviewer, Libyan Journal of Medicine, Taylor and Francis, 2022 (1)
6. Reviewer, Cureus (Springer nature), 2023 (3)
7. Reviewer, Journal of Liaquat University of Medical and Health Sciences (JLUMHS) Jamshoro, Pakistan, 2021 (1)
8. Reviewer, Sabha University Journal of pure and applied sciences, 2019 (1)

## Key Achievements:

Successfully reviewed about 22 of manuscripts during my tenure, highlighting my dedication to contributing to the advancement of research and knowledge dissemination.

## Publications:

1. Ramsay M, Etheredge H, Tluway F, D'Amato ME, Chikwambi Z, Hamdi Y, Alhudiri I et al. Enriching African genome representation through the AGenDA project. *Nature*. 2026 Jan;649(8097):565–73.
2. Alhudiri I, Ebrahim F, Elzagheid A. Unregulated use of Artemisia in cancer patients in Libya: an emerging ethical and public health concern. Mansur A, Bakoush O, editors. *Libyan Journal of Medicine*. 2026 Jan 14;21(1):2611580.
3. Abusrewil S, Gawass M, Alhudiri I, Sherif M, Ebrahim F, Amgadmi A, et al. Seroprevalence of Bordetella pertussis antibodies in Libyan pregnant women at the time of delivery. *Vaccine: X*. 2025;100695.
4. Alhudiri IM, Gaballa MF, Ebrahim FO, Ahire KD, Eltaib FI, Attitalla IH, et al. Post-Acute COVID-19 Pathophysiology: Cellular Stress Responses, Immune Dysregulation, and Biochemical Signatures in Recovery Phase. *Cellular Physiology & Biochemistry (Cell Physiol Biochem Press GmbH & Co KG)* [Internet]. 2025 [cited 2026 Jan 17];59(4).
5. Abusrewil S, Sherif M, Alhudiri I, Ebrahim F, Almgadmi A, Gawass M, et al. COVID-19 vaccine uptake and infection among pregnant women in Libya: a cross-sectional study. *BMC Pregnancy and Childbirth*.
6. Elmaihub ES, Alhudiri I, Ramadan AM, Eljilani M, Elzagheid A, Elfagi F, et al. Analysis of BRCA1 germline variants (exons 5, 11 and 20) in breast cancer families from Libya. *Libyan J Med* [Internet]. 2024 Dec 31 [cited 2024 Oct 27];19(1):2356906. Available from: <https://www.tandfonline.com/doi/full/10.1080/19932820.2024.2356906>
7. Elshwekh H, Alhudiri IM, Elzagheid A, Enattah N, Abbassi Y, Abou Assali L, et al. Assessing the Impact of Novel BRCA1 Exon 11 Variants on Pre-mRNA Splicing. *Cells*. 2024;13(10):824.

8. Elmaihub ES, Alhudiri I, Elzagheid A, Elfagi F, Hassen E. A study on patients' selection for BRCA1 and BRCA2 mutations testing by different models in Libyan women with breast cancer. *Alex J Med.* 2024;60(1):120–30.
9. Alhudiri IM, Nolan CC, Ellis IO, *et al.* Expression of cathepsin D in early-stage breast cancer and its prognostic and predictive value. *Cancer Research* 2022 82: 5405–5405
10. Ebrahim F, Alboueishi A, Alhudiri IM, *et al.* Single ChAdOx1 nCoV-19 dose elicits stronger immune response in previously infected individuals than in SARS-CoV2 naive persons. *Immunity, Inflammation and Disease* 2024; **12**: e1159.
11. Alhudiri I, Zaghdani AA, El Meshri SE, Elmaghrabi A, Elzagheid A. Libya floods: preventing a public health crisis. *The Lancet* 2023; **402**: 1828–9.
12. Elghazal M, Alhudiri IM, Said M, Elhouderi E, Elzagheid A, Elghazal MM. Myopericarditis After BNT162b2 mRNA Vaccination With Incidental Intramyocardial Bridging. *Cureus* 2023; **15**.
13. Alsharif E, Alhudiri I, ElJilani M, *et al.* Screening of interleukin 17F gene polymorphisms and eight subgingival pathogens in chronic periodontitis in Libyan patients. *Libyan Journal of Medicine* 2023; **18**: 2225252.
14. Alhudiri I, Abusrewil Z, Dakhil O, *et al.* Impact of vaccination and risk factors on COVID-19 mortality amid delta wave in Libya: A single center cohort study. *Plos one* 2023; **18**: e0289490.
15. Jallul M, Ibrahim K, Zaghdani A, *et al.* Variant-specific RT-qPCR for rapid screening of B. 1.617 mutations in SARS-CoV-2. *Libyan Journal of Medicine* 2022; **17**.
16. Jallul M, Elgriw N, Eltaib FI, *et al.* Parents' concerns and attitudes towards school reopening during COVID-19 pandemic: a cross-sectional survey-Tripoli, Libya, 2021. *Libyan Journal of Medicine* 2022; **17**.
17. Jallul M, Alhudiri I, Al-Eitan L, Elzagheid A. Warfarin pharmacogenomics in African populations: the importance of ethnicity-based algorithms. *Pharmacogenomics* 2022; **23**: 753–7.
18. brahim F, Tabal S, Lamami Y, *et al.* Anti-SARS-CoV-2 IgG antibodies post-COVID-19 or post-vaccination in Libyan population: comparison of four vaccines. *Vaccines* 2022; **10**: 2002.
19. Aljedaemi FF, Alhudiri IM, Salem GM, Ben Zeglam H, Enattah NS. The association between lactotransferrin genetic variants and dental caries in Libyan students. SPRINGERNATURE CAMPUS, 4 CRINAN ST, LONDON, N1 9XW, ENGLAND, 2022: 532–532.
20. Alhudiri IM, Saad SR, Abusrewil Z, *et al.* A Preliminary Study on the Frequency of Influenza Infections during the Early 2022 Amid COVID-19 Epidemic in Libya. *Ibnosina Journal of Medicine and Biomedical Sciences* 2022; **14**: 130–4.
21. Alhudiri IM, Nolan CC, Ellis IO, *et al.* Expression of cathepsin D in early-stage breast cancer and its prognostic and predictive value. *Cancer Research* 2022; **82**: 5405–5405.
22. Teka IA, BenHasan MH, Alkershini AA, *et al.* Reinfection with SARS-CoV-2: A case report from Libya. *Travel Medicine and Infectious Disease* 2021; **41**: 102040.
23. Ramadan AM, Ibrahim KM, Belaid SM, *et al.* Travel during COVID-19 pandemic in Libya: reasons of travel, disease importation and travel regulations. *Libyan Journal of Medicine* 2021; **16**: 1994740.
24. Gusbi E, Eltaib FI, Abraham AF, *et al.* Cancer incidence in Southern Libya: Updated report from 2016 to 2018. *Libyan Journal of Medical Sciences* 2021; **5**: 11–6.
25. Gusbi E, Abraham A, Elfituri A, *et al.* Causes of end-stage renal disease among hemodialysis patients in Libya: A multicenter cross-sectional study. *Libyan Journal of Medical Sciences* 2021; **5**: 139–139.

26. ElJilani MM, Abdusalam M, Abdalla A, *et al.* Performance evaluation of seven commercial real-time polymerase chain reaction assays for SARS-COV-2 detection. *Libyan Journal of Medical Sciences* 2021; **5**: 56–60.
27. Alsharif F, Abdulrazik S, Alhudiri I, Elzagheid A, Ismail F. Frequency of breast disease among patients attending breast clinic in Tripoli central hospital, Tripoli, Libya. *Libyan Journal of Medical Sciences* 2021; **5**: 144–144.
28. Alhudiri IM, Ramadan AM, Ibrahim KM, *et al.* Whole-genome sequencing of SARS-COV-2 showed wide spread of B. 1.525 in February 2021 in Libya. *Libyan Journal of Medicine* 2021; **16**: 2001210.
29. Alhudiri IM, Ramadan AM, Ibrahim KI, *et al.* Whole-genome sequencing of SARS-COV-2 reveals a substantially lower frequency of the UK variant than previously announced in Libya. *medRxiv* 2021.
30. Abusrewil Z, Alhudiri IM, Kaal HH, *et al.* Time scale performance of rapid antigen testing for SARS-COV-2: evaluation of ten rapid antigen assays. *Journal of Medical Virology* 2021.
31. ElJilani MM, Shebani AA, Bishr AM, *et al.* Assessment of breast cancer risk in Libyan women using the Gail model. *Libyan Journal of Medical Sciences* 2020; **4**: 115–9.
32. Alhudiri IM, Ebrahim FO, Sassi A, *et al.* Overview of epidemiology, pathogenesis and clinical aspects of COVID-19: a Libyan perspective. *IOSR J Dent Med Sci e-ISSN* 2020; **19**: 28–41.
33. Gusbi E, Elzouki I, Alemam HA, *et al.* Prevalence of hepatitis C infection in hemodialysis patients: Report from 37 hemodialysis centers in Libya. *Libyan Journal of Medical Sciences* 2019; **3**: 42–6.
34. Alhudiri I, Nolan C, Ellis I, *et al.* Expression of Lamin A/C in early-stage breast cancer and its prognostic value. *Breast cancer research and treatment* 2019.
35. Jilani M, Mohamed AA, Zeglam HB, *et al.* Association between vitamin D receptor gene polymorphisms and chronic periodontitis among Libyans. *Libyan Journal of Medicine* 2015; **10**.
36. Irhuma AE-T, Ahmed MG, Salih K, El Houderi E. Diabetic Foot in the South of Libya. *Sebha Medical Journal* 2006; **5**.
37. S. Theophilus Bushan AI Inas Alhudiri. Tuberculous Sinuses Re-Visited. *Sebha University Journal of Medical Sciences* 2005; **4**: 14–20.
38. Alayat KM, Zain AM, Tawaty A, Elhudairy EM. Acute Appendicitis A Prospective Study Of 128 Cases In 2nd March Hospital-Sebha. *Sebha University Journal of Medical Sciences* 2005; **4**.
39. Elshwekh H, Alhudiri I, Abdul Jalil HM, *et al.* Investigation of BRCA1 exon 11 genetic variations in breast cancer among Libyan women. *medRxiv* 2023; : 2023–10.
40. Elmaihub E, Alhudiri I, Elzagheid A, Elfagi F, Hassen E. A pivotal study on patients' selection for BRCA1 and BRCA2 mutations by different models in Libyan breast cancer women. *medRxiv* 2023; : 2023–01.

## Conference Abstracts

1. El Bairi K (2023) Systematic mapping of gender disparities in oncology publications of North African countries: The GEORGiNA study. *JCO Global Oncology* 9: 112–112, doi:10.1200/GO.2023.9.Supplement\_1.112.
2. Ariej Mohammed, Inas M Alhudiri, Hamza Ben Zeglam, Abdenaser A. Mohamed, Hafsa Al-Emam, Halla Elshwekh and Nabil S Enattah. Community-based countrywide analysis of variants of the lactase-phlorizin hydrolase gene and their

pathological correlates in Libya. 54<sup>th</sup> European Society of Human Genetics (ESHG) Conference: e-Posters 2021.

3. Fakhri F Aljidaemi, Ghada M Salem, Inas Alhudiri, Hamza Ben Zeglam, Nabil Enattah. The association between Lactotransferrin LTF gene polymorphism and dental caries. 54<sup>th</sup> European Society of Human Genetics (ESHG) Conference: e-Posters 2021.
4. Elhadi, I. Alhudiri, A. Elmarghani, M. Elhadi, A. Msherghi, A. Buhmeida, N. Enattah, A. Elzagheid. Assessment of knowledge and attitude towards biobanks among healthcare students and their willingness to donate biospecimens in Libya. 53rd European Society of Human Genetics (ESHG) Conference: e-Posters 2020.
5. H. Elshwekh, I. Alhudiri, H. Abdul Jalil, A. Mohamed, A. Elkikli, N. Jornaz, N. Enattah. Genetic variants of BRCA1 exon 11 in Libyan breast cancer patients. 53rd European Society of Human Genetics (ESHG) Conference: e-Posters 2020.
6. E. Alsherif, I. Alhudiri, M. ElJilani, P. Rutland, N. Enattah. Association between Interleukin 17A and Interleukin 17F Gene Polymorphisms and Periodontal Pathogens in Chronic Periodontitis among Libyans. 53rd European Society of Human Genetics (ESHG) Conference: e-Posters 2020.
7. Asma Algeriani, Moudah Alfaydh, Agila Ali, Aeshah Miftah, Fatma Elsharif, Ammar Asloughi , Inas M Alhudiri , Miluda Rajab Elhamadi · Knowledge, attitude, and practice of Libyan women regarding breast cancer in Sabha, Libya (2019). Breast cancer research conference Libya 2019 (Tripoli, Libya).
8. Sameera Al\_dabea, Inas Alhudiri, Khadija Ahmad, Fatma Alsharif, Khaled Ibrahim, Ammar Asloughi, Adam Elzagheid. (2019) Breast cancer incidence in Southern Libya: The first report 2016. Breast cancer research conference Libya 2019 (Tripoli, Libya).
9. Kalthoum Alaribi, Fatma Alsharif, Ammar Asloughi, Abdusalam Elkilani, Mohamed Elbasir, A. Elzagheid, Inas Alhudiri. (2019) Breast Cancer Risk Assessment in Libyan women: Calculating 10-year and lifetime Risk Using the Tyrer-Cuzick Model. Breast cancer research conference Libya 2019 (Tripoli, Libya).
10. Fatma Elsharif, Sarah Abdelrazeq, Inas Alhudiri. (2019) Frequency of breast disease among patients attending Tripoli Central Hospital. Breast cancer research conference Libya 2019 (Tripoli, Libya).
11. Hamza Musbah Abdul Jalil, Abdenaser A. Mohamed, Inas Alhudiri, Halla Shweikh, Ahmed Elkikli, Nabil Enattah. (2019) Study of genetic variants in different exons of BRCA1 in Libyan breast cancer patients. Breast cancer research conference Libya 2019 (Tripoli, Libya).
12. Hala Elshweikh, Inas Alhudiri, Hamza Abdul Jalil, Abdenaser A. Mohamed, Naji Jornaz, Nabil Enattah. (2019) Study of genetic variants in BRCA1 exon 11 in Libyan breast cancer patients. Breast cancer research conference Libya 2019 (Tripoli, Libya).
13. Alhudiri IM, Green AR, Ellis IO, et al. (2012) Abstract 688: Lamin A/C a novel potential prognostic marker in early operable primary breast cancer. *Cancer Res* 72:688 LP-688. doi: 10.1158/1538-7445.AM2012-688 (AACR annual meeting, Chicago 2012)
14. Alhudiri IM, A Murray, K Williamson, D Nunns, TJ O'Brien, JF Robertson, CJ Chapman (2011) Autoantibodies in Ovarian Cancer. *Tumor Biology* 32 (suppl 1):s67-s122. DOI:10.1007/s13277-011-0240-z. (ISOBM conference 2011, Italy).

## Research Experience:

Current projects:

- Cancer biomarker prognostication study
- Investigation of breast cancer gene variants and mutations in Libyan population.  
Currently the work is on BRCA1/BRCA2 genes, one of the aims is to define criteria for BRCA testing in Libyans.
- Libyan Human genome project
- Breast and colon cancer risk assessment
- Investigation of antibodies among vaccinated populations in Libya
- Studying immune response to SARS-COV-2 in people receiving mixed vaccines
- Sequencing of SARS-COV-2 viral genome in samples from Libyan population
- Relationship between Insulin resistance and vitamin D and adiponectin/ADIPOR in type II diabetic patients in Libya as well as study of genetic variants in VDR gene and Adiponectin gene.
- Assessment of prediabetes risk in Libyan population

## Laboratory skills:

- Sanger sequencing and data analysis using Sequencher software.
- Ion torrent genome sequencing
- Bioinformatics and genome analysis in Galaxy
- Gene cloning techniques (Primer design, conventional PCR, Splicing overlap extension PCR, vector construction, restriction analysis, genomic DNA isolation, transformation, RT-PCR).
- Protein expression in *E.Coli* and *Pichia.pastoris*.
- Protein purification using affinity chromatography (IMAC) and AKTAPrime plus
- ELISA techniques and Cell culture
- Immunohistochemistry of tissue microarrays and scoring techniques
- Survival analysis and Cox-regression model.

## Training and development:

Karyotyping workshop: Creative Egyptians biotechnologists, Cairo, Egypt, October 2023

International Agency for research on cancer IARC summer school on Introduction to Cancer Epidemiology 16<sup>th</sup> May-23<sup>rd</sup> June 2023, Lyon, France

African Science Frontiers initiative (ASFI) Systematic Reviews & Meta-Analysis online course 25<sup>th</sup>-29<sup>th</sup> July 2022

MRC Holland MLPA® Raw Data Evaluation and Troubleshooting 13<sup>th</sup> July 2022 (Online)

Responding to SARS-CoV-2 Variants, such as Omicron: Detection and Surveillance (Webinar), 17<sup>th</sup> March 2022

Training course on Ion torrent personal genome machine and genomic data analysis of BRCA genes and SARS-COV-2, 21<sup>st</sup> September- 10<sup>th</sup> October 2021, Istanbul, Turkey

Evidence-informed policy making seminar by African Academy of Sciences and European Commission, December 2018, Pretoria, South Africa

Antimicrobial resistance seminar, NCDC and WHO in Tripoli, Libya April 2018

Fundamentals of Project Planning and Management | University of Virginia, May 2017 (Audit only)

Workshop on the role of research centres in supporting small and medium businesses, Tripoli November 2017

Workshop on: Cartagena Protocol on Biosafety to the Convention on Biological Diversity and the draft of Libyan law on GMOs, Tripoli 2016

DNA sequencing by Capillary electrophoresis training using Genetic Analyzer (ABI), Twaisha, Tripoli 2013

Writing grants workshop, AACR annual meeting, Chicago, IL 2012

IT training: Attended courses on MS excel functionality, Latex workshop, Powerpoint presentations, SPSS, University of Nottingham

Critical analysis of scientific papers and health economics courses 2009

Communication skills workshop: Nottingham City hospital 2008

Oncology course: The University of Nottingham 2007

### **Conferences and scientific events attended:**

1. European society of human genetics Virtual conference, 28-31 August 2021
2. Science against SARS-CoV-2 Virtual Conference, Thermofisher, 23<sup>th</sup> June 2021
3. European Molecular Biology Laboratory (EMBL) Conference: SARS-CoV2: Towards a New Era in Infection Research, 03 July 2020, Heidelberg, Germany
4. AACR Virtual Annual Meeting II, 22 – 24 June 2020.
5. European society of human genetics Virtual conference, 6-9 June 2020, Berlin Germany
6. Breast cancer research conference in Libya, 13-15 December 2019, Tripoli-Libya
7. Breast cancer conference, 5-7 September 2019, Tripoli-Libya
8. American Association of Cancer Research (AACR) annual meeting –Chicago, IL, USA, April 2012
9. Pichia conference 2009-Tuscon, Az, USA

10. First conference of science and technology, Sabha-Libya February 2018
11. Science day (Biotechnology research center between ambition and reality) 2017
12. Nanotechnology research symposium, Tripoli Libya 2016
13. The first scientific conference of projects funded by the Libyan agency for research, science and technology, Tripoli 2013

### **Memberships and organizations:**

- Contributing member of American Society for Microbiology 2023
- Associate member of American Association for Cancer Research (AACR) 2022
- European Society of Human genetics, 2020-2021
- Co-founder of Libyan organization for advancement of science (LOAS)

### **Other activities:**

- Panelist in International Women's Week – Libyan Women at The Forefront event by UN Women on 8<sup>th</sup> March 2021 (Pnael-2 Humanitarian Actors & The COVID-19 Response)
- Appearing frequently in the media since the epidemic raising public's awareness about the importance of COVID-19 testing and how the tests were done in our labs.
- Hebateei campaign: chairman of the campaign which was launched between 16<sup>th</sup> may-22<sup>nd</sup> May 2014 in Tripoli for blood sample collection from healthy volunteers in Tripoli area as part of a project to study genetic variants of BRCA genes in Libyan women.