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Education

June 2009 to
April 2014

Doctor of Philosophy Degree in Pharmaceutical Sciences (Biochemistry), Faculty of Pharmacy, Ain Shams University
Thesis title: *Study of the Incidence of BRCA1/2 Mutation in Egyptian Female Breast Cancer Patients and Its Impact on Clinical Outcome.*

May 2005 to
August 2008

Master Degree in Pharmaceutical Sciences (Biochemistry), Faculty of Pharmacy, Ain Shams University
Thesis title: *Role of Oxidative Stress and Endothelial Dysfunction in the development of Cardiovascular Complications in End-Stage Renal Failure Patients.*

September 1998
to May 2003

Bachelor Degree of Pharmaceutical Sciences.
Faculty of Pharmacy, Ain Shams University
Grade: Excellent with honor.
Position: Second of my class.

Research Experience

June 2009 to
April 2014

Doctoral Thesis Research, Faculty of Pharmacy and Faculty of Medicine, Ain Shams University, and National Cancer Institute, Cairo University

- Studied the frequency and profile of *BRCA1/2* genes mutations among 103 Egyptian female breast cancer patients and assessed the impact of the mutational status on clinical outcome.
 - Collected blood samples. Performed DNA extraction, PCR and High Resolution Melting (HRM) analysis, DNA sequence analysis of exons 2 and 20 of *BRCA1* gene and exons 9 and 11 of *BRCA2* gene (FASTA, BLAST)
 - Researched BRCA mutation databases (BIC, HGMD, UMD, LOVD, BRCA Exchange and ClinVar).
 - Researched Bioinformatics *In silico* prediction tools (Align GVGD, PolyPhen2, SIFT, PMUT).

- Submitted **SEVEN NOVEL BRCA1 and BRCA2 Variants** unique to the Egyptian population to the National Center of Biotechnology Information (NCBI) Clinvar Database and acquired the following accession numbers:

NM_007294.3(BRCA1):c.5205delA	SCV000172260
NM_000059.3(BRCA2):c.3280A>T	SCV000191885
NM_000059.3(BRCA2):c.3291dupT	SCV000191886
NM_000059.3(BRCA2):c.3292delA	SCV000191887
NM_000059.3(BRCA2):c.3641delT	SCV000191888
NM_000059.3(BRCA2):c.787dupA	SCV000191884
NM_000059.4(BRCA2):c.3292A>T	VCV001174597.1

May 2005 to
August 2008

Master Thesis Research, Faculty of Pharmacy, Ain Shams University and Maadi Military Hospital

Assessed oxidative stress and endothelial dysfunction in dialysis patients suffering from cardiovascular complications before and after the administration of L-arginine for one month. Collected samples, measured plasma levels of homocysteine and ADMA (ELISA) and MPO (spectrophotometrically), and analyzed data (SPSS). Resulted in a publication and conference presentation.

Publications

1. Gouda K, **AbdelHamid S**, Mansour A, Omar N, El-Mesallamy H. Amelioration of Diabetic Nephropathy by Targeting Autophagy via Rapamycin or Fasting: Relation to Cell Apoptosis/Survival. *Curr Issues Mol Biol.* 2021 Oct 22;43(3):1698-1714. doi: 10.3390/cimb43030120. PMID: 34698133.
2. **Sherihan AbdelHamid**, Hany AbdelAziz, Amany Kamal. Circulating miRNA 20a, miRNA 140-5p, and VEGF as Predictive Biomarkers of Metastasis in Liquid Biopsy of Breast Cancer Patients. *Archives of Pharmaceutical Sciences Ain Shams University* 2021; Vol. 5(2): 249-264. DOI: 10.21608/aps.2021.96822.1070
3. **Sherihan G. AbdelHamid**, Aya A. Refaat, Anthony M. Benjamin, Laila A. Elmawardy, Lougine A. Elgendy, Mark M. Manolly, Nada Abd Elmaksoud, Nourhan sherif, Nadia M. Handy. Deciphering epigenetic(s) role in modulating susceptibility to and severity of COVID-19 infection and/or outcome: a systematic rapid review. *Environ Sci Pollut Res Int.* 2021 Aug 12:1–13. doi: 10.1007/s11356-021-15588-6. Epub

ahead of print. PMID: 34383213; PMCID: PMC8359636.

4. **Sherihan AbdelHamid**, Hany AbdelAziz, Amany Kamal. Serum MicroRNA-96 As a Potential Diagnostic Marker in Breast Cancer. *Archives of Pharmaceutical Sciences Ain Shams University* 2021; Vol. 5(2): 204-211. DOI: 10.21608/aps.2021.83850.1064
5. **AbdelHamid S**, El-Mesallamy H, Aziz HA, Zekri AR. Prognostic Impact of *BRCA1* and *BRCA2* Mutations on Long-Term Survival Outcomes in Egyptian Female Breast Cancer Patients. *Biology* (Basel). 2021 Jun 22;10(7):566. doi: 10.3390/biology10070566.
6. **AbdelHamid S**, El-Mesallamy H, Aziz HA, Zekri AR. Long-term survival outcomes in Egyptian female breast cancer patients with and without *BRCA* mutations. *Proceedings: AACR Annual Meeting 2021; April 10-15, 2021 and May 17-21, 2021; Philadelphia, PA.* doi: 10.1158/1538-7445.AM2021-428
7. El-Derany MO, **AbdelHamid SG**. Upregulation of miR-96-5p by bone marrow mesenchymal stem cells and their exosomes alleviate non-alcoholic steatohepatitis: Emphasis on caspase-2 signaling inhibition. *Biochem Pharmacol.* 2021 May 27;190:114624. doi: 10.1016/j.bcp.2021.114624. Epub ahead of print. PMID: 34052187.
8. **Sherehan G. AbdelHamid**, Hala O. El-Mesallamy, Hany AbdelAziz. *BRCA1/2* Mutations and Long-Term Clinical Outcomes in Egyptian Breast Cancer Patients. *Tumori Journal* 2021, 107 (1_suppl), 4-4
9. **Sherehan G. AbdelHamid**, Abdel-Rahman N. Zekri, Hany AbdelAziz, Hala O. El-Mesallamy. *BRCA1* and *BRCA2* truncating mutations and variants of unknown significance in Egyptian female breast cancer patients. *Clin Chim Acta.* 2021 Jan;512:66-73. doi: 10.1016/j.cca.2020.11.023. Epub 2020 Dec 3. PMID: 33278427.
10. Rania M. Hathout, **Sherihan G. AbdelHamid**, Ghadir S. El-Housseiny, AbdelKader A. Metwally. Comparing cefotaxime and ceftriaxone in combating meningitis through nose-to-brain delivery using bio/chemoinformatics tools. *Scientific Reports* **10**, 21250 (2020). <https://doi.org/10.1038/s41598-020-78327-w>
11. Rania M. Hathout, **Sherihan G. AbdelHamid**, AbdelKader A. Metwally. Chloroquine and hydroxychloroquine for combating COVID-19: Investigating efficacy and hypothesizing new formulations using Bio/chemoinformatics tools. *Informatics in Medicine Unlocked.* 2020 (21)

DOI: 10.1016/j.imu.2020.100446.

12. **Sherihan G. AbdelHamid**, Hala O. El-Mesallamy, Hany AbdelAziz, Abdel-Rahman N. Zekri: Clinical Outcome in Egyptian Female Breast Cancer Patients With and Without BRCA1/2 Mutations. *Tumori* 2020 (106). <https://doi.org/10.1177/0300891620914131>
13. Hala O. El-Mesallamy, **Sherihan G. AbdelHamid**, Hany AbdelAziz, Abdel-Rahman N. Zekri: BRCA1 and BRCA2 Deleterious Mutations and Unclassified Variants in Egyptian Female Breast Cancer Patients. *Proceedings of ICCR 2019*. DOI: 10.28991/ICCR-2019-016.
14. **Sherhan G. AbdelHamid**, Hala O. El-Mesallamy, Hany AbdelAziz, Abdel-Rahman N. Zekri: Clinicopathological characteristics and clinical outcome in Egyptian female breast cancer patients with and without BRCA1/2 mutations. *Cancer Research* 2016 (76). DOI:10.1158/1538-7445.SABCS15-P1-08-10.
15. Hala O. El-Mesallamy, **Sherehan G. Abdel Hamid**, Mohamed Gad: Oxidative Stress and Asymmetric Dimethylarginine Are Associated with Cardiovascular Complications in Hemodialysis Patients: Improvements by L - Arginine Intake. *Kidney Blood Press Res* 2008;31:189–195.

Conferences

1. **The 14th Breast-Gynecological & Immunooncology International Cancer Conference (BGICC) 21-22 January 2022**
Circulating miRNA 20a, miRNA 140-5p, and VEGF as Predictive Biomarkers of Metastasis in Liquid Biopsy of Breast Cancer Patients.[Poster and Oral Presentation]
2. **17th international conference of national committee of biochemistry and molecular biology. 14-15 September 2021**
Bio/Chemoinformatics Tools for Investigating Efficacy and Hypothesizing New Formulations of Repurposed Drugs for Combating COVID-19 Pandemic. [Oral Presentation-**Presentation Award**]
3. **The American Association for Cancer Research (AACR) Annual Meeting. April-June 2021**
Long term survival outcomes in Egyptian female breast cancer patients with and without BRCA mutations.[Poster]
4. **The 13th Breast-Gynecological & Immunooncology International Cancer Conference (BGICC) 21-22 January 2021**

BRCA1/2 Mutations And Long-Term Clinical Outcomes In Egyptian Breast Cancer Patients. [Poster]

5. The United Kingdom Poland Bio-inspired materials Virtual Conference. 23-24 November 2020

Hydroxychloroquine delivery using gelatin-based systems for combating COVID-19: Bio/chemoinformatics case study. [Poster]

6. The United Kingdom and Ireland Controlled Release Society (UKICRS) virtual symposium. 14 October 2020

Bio/chemoinformatics and formulation insights on the hydroxychloroquine debate on combating COVID-19. [Accepted poster]

7. The 12th Breast-Gynecological and Immunooncology International Cancer Conference. January 2020

Clinical outcome in Egyptian female breast cancer patients with without BRCA1/2 mutations. [Oral Presentation and Poster]

8. The 11th Middle East Best of San Antonio Breast Cancer Symposium, Jeddah, Kingdom of Saudi Arabia. Feb 2017

Clinicopathological characteristics and clinical outcome in Egyptian female breast cancer patients with without BRCA1/2 mutations. [Oral Presentation]

9. The Thirty-Eighth Annual CTSC-AACR San Antonio Breast Cancer Symposium, Texas, United States of America. December 2015.

Clinicopathological characteristics and clinical outcome in Egyptian female breast cancer patients with and without BRCA1/2 mutations. [Poster]

10. The 8th Middle East Best of San Antonio Breast Cancer Symposium, Jeddah, Kingdom of Saudi Arabia. January 2014

BRCA1 and BRCA2 Deleterious Mutations and Unclassified Variants in Egyptian Female Breast Cancer Patients (**Awarded First Prize**). [Oral presentation]

11. The Egyptian 58th Scientific Congress of Clinical Chemistry Society "Serving Clinical Laboratory Sciences", Egypt. November 2013

Novel BRCA1/BRCA2 Mutations in Egyptian Female Breast Cancer Patients. [Oral presentation]

12. The XV Congress of Balkan Clinical Laboratory Federation, Antalya, Turkey. September 2007

ADMA and Oxidative Stress in Chronic Renal Failure Patients: Relationship to Cardiovascular Complications.

Awards

January 2022

Ain Shams university International Publication Award

September 2021

Presentation Award at 17th international conference of national committee of biochemistry and molecular biology under the title of “Bio/ Chemoinformatics Tools for Investigating Efficacy and Hypothesizing New Formulations of Repurposed Drugs for Combating COVID-19 Pandemic”

July 2021

First Prize for supervising “Best Scientific topic” in graduation project for DDP program 2021

January 2014

First Prize as the **Best Abstract** in the 8th Middle East Best of San Antonio Breast Cancer Symposium, Jeddah, Kingdom of Saudi Arabia.

June 2009

Ain Shams University Award for International publication.

July 2003

Honored by Egyptian Ex-President Mohamed Hosni Mubarak as **representative of Ain Shams University top graduates.**

Teaching Experience

August 2014- To present

Lecturer, Biochemistry Department, Faculty of Pharmacy, Ain Shams University.

August 2008 to April 2014

Assistant Lecturer, Biochemistry Department, Faculty of Pharmacy, Ain Shams university

November 2003 to August 2008

Teaching Assistant, Biochemistry Department, Faculty of Pharmacy, Ain Shams University.

- Teaching experience of practical undergraduate *Basic Biochemistry* and *Clinical Biochemistry* courses for second year and third year students, in large and small group formats.
- Total responsibility for the laboratory sessions, practical exams and midterm exams for classes of 650 students. **Page**

- Participated in designing undergraduate curricula, updating and editing Basic Biochemistry, Clinical Biochemistry, Cell Biology Theoretical and practical books for second and third year students.
- Organized tutorial discussions for Basic Biochemistry and Clinical Biochemistry theoretical courses.
- Designed and conducted assessment tools for second and third year undergraduate students.
- Provided guidance to undergraduate students in scientific writing and researching term papers.
Provided supervision on undergraduate student activities (Poster presentations and group researches).
- Counseled students experiencing difficulties in the courses.
- Total responsibility for the laboratory sessions and practical exams of the Biochemistry postgraduate courses (Master and Ph.D.)

Projects

1. **Erasmus+ International Joint Project “Immune Modulation Certificate For Postgraduate Students Enabled By Blended Learning”**: Ain Shams University Team member. *Funded from the European commission (No. 619017-EPP-1-2020-1-1-EG-EPPKA2-CBHE-JP)*
 - **Capacity building in the field of higher education - EAC/A02/2019- Joint project**
 - **Immune modulation diploma /IMcert and Establishment of Center of Excellence**
 - **IMcert Staff educator:**
-IMcert Curriculum Workpackage
 - **Kick Off Meeting (8-9 March 2021)**
 - **Workpackage**
2. **Supervising Student graduation project (fourth level DDP program 2021), won First Prize as “Best Scientific Topic”**
Susceptibility and Severity of Covid-19 Infection and/or Outcome Through Scope with Epigenetic(s); A Systematic Rapid Review
3. **PI for Scientific Project Proposal (Ain Shams Strategic projects)**
CYP2D6 Genotyping and its Association with Clinical Outcome in Egyptian Female Breast Cancer Treated with Tamoxifen

Societies and Memberships

1. Active member in **American Association for Cancer Research**
2. Organizing committee Member in “**Immune Modulation Certificate For Postgraduate Students Enabled By Blended Learning**”.
Funded from the European commission (No. 619017-EPP-1-2020-1-1-EG-EPPKA2-CBHE-JP)
3. Reviewer in Plos one.
4. Reviewer in Cancer biomarkers
5. Reviewer in informatics in medicine-unlocked

Academic and Administrative Experience

Quality Assurance and Accreditation Unit (2019-2020), Faculty of Pharmacy, Ain Shams University. Representative of Biochemistry Department, responsible for revising and updating undergraduate and postgraduate course descriptions and course reports. Supervised the documentation of all the departmental duties and activities.

Committee leader, Faculty of Pharmacy, Ain Shams University Participated in designing the 5-years Strategic Plan of the Faculty (2013-2017). Participated in designing the Faculty vision and mission. Performed SWOT analysis.

Designed questionnaires for all the Faculty academic and administrative departments as well as stalk holders in pharmaceutical industry. Designed the execution plan with the estimated budget and time frame.

Analytical and Technical skills

- Molecular biology techniques: DNA extraction, PCR and HRM analysis, DNA sequence analysis
- Bioinformatics databases (FASTA, BLAST, Align GVGD, PolyPhen2, SIFT, PMUT).
- Routine biochemical assays on serum, plasma and urine (ELISA and Spectrophotometry).
- Packages and softwares: Microsoft office (Word, Excel, PowerPoint), Windows & Internet, SPSS, and Bibliographic database (EndNote).

Training and Workshops

September- December 2021

- **The international project “Immune Modulation Certificate For Postgraduate Students Enabled By Blended Learning”.**

Funded from the European commission (No. 619017-EPP-1-2020-1-1-EG-EPPKA2-CBHE-JP)

- **Flow Cytometry workshop** (18-23 December 2021)
- **Next generation sequencing workshop** (10-14 October 2021)
- **Nucleic acid extraction and real time PCR** (3-6 October 2021)
- **ELISA and Tissue culture workshop** (26-29 September 2021)
- **Western blot technique workshop** (20-23 September 2021)

July-August 2020

- **H3ABioNet Pan African Bioinformatics Network For H3Africa: Introduction to Bioinformatics.**

November-December 2020

- **Systematic Review and Metanalysis course**

February 2020

- **Recent Trends in Cancer Biology and Treatments Symposium** (Children’s Cancer Hospital 57357 Egypt and the National Committee of Molecular Biology and Biochemistry- February 2020)

January 2020

- **Artificial Intelligence Symposium-Bioinformatics in cancer Genomics**

- **Nature Research Academics Workshops**

- **Clinical Research Methodology workshop** (May 2021)
- **Communicating Science to the public** (May 2021)
- **Journal Editor** (May 2021)
- **Successful post-submission strategies workshop** (May 2021)
- **Research Data for Publishing Success** (May 2021)
- **Logical Manuscript Structure** (November 2021)
- **Being an effective reviewer workshop** (November 2020)
- **Successful pre-submission strategies workshop** (November 2020)
- **Effective academic writing workshop** (November 2020)

October 2020

- **Moodle education system** (Ain shams university) October 2020)

- **Intensive courses for lecturer training and development of skills at Faculty Leadership and Development Center, Ain Shams University:**

- **Question Banks and electronic assessment (17-18/5/2020)**
 - **Advanced skills of powerpoint presentation (2-3/6/2020)**
 - **Online learning self management and self marketing (3-4/5/2020)**
 - **Online learning Exams and student evaluation (19-20/5/2020)**
 - **Online learning Scholarly publishing in indexed journals (17-18/5/2020)**
 - **Search and Research (11-12/6/2020)**
 - **Strategic planning**
 - **SPSS**
 - **Competitive research projects skills Managing research projects**
 - **Ethics of scientific research.**
 - **The use of technology in teaching Effective presentation skills.**
 - **Quality standards in the teaching process Managing time and meetings.**
 - **Proposal writing for international grants**
- **Molecular biology workshop:** Central Laboratory, Faculty of Science, Ain Shams University:

Languages Competencies

Fluent in English and Arabic (spoken and written) and average French.

Personal Data

Date of Birth: October 1,1981 Nationality:

Egyptian.

Marital Status: Married

ALL REFERENCES AND TRANSCRIPTS ARE
AVAILABLE UPON REQU

