



Gamal Eldein Fathy Abd-Ellatef Abd-Elrahman

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Address (work): 33, El Buhouth St., Therapeutic Chemistry Department, Pharmaceutical and Drug Industries Research Institute National Research Centre (NRC), 12622, Cairo, Giza, Dokki, Egypt.

• About Myself

I am a Researcher Doctor specializing in Molecular Medicine and Integrated Molecular Physiology at the Therapeutic Chemistry Department, Pharmaceutical and Drug Industries Research Institute, National Research Centre in Egypt. I have 18 years of experience in anti-cancer drug development, cancer multidrug resistance, and cancer biology.

Education

28/09/2016 - 01/04/2020

Ph.D. in Molecular Medicine, The University of Torino, Torino, Italy

Address: Via Verdi, 8, The University of Turin, 10124, Torino, Italy. Website https://www.unito.it/

Thesis: Different Strategies to Increase Doxorubicin Efficacy in Drug Resistant Cancer Cells Based on Physical, Natural and Pharmacological Approaches.

17/10/2015 - 18/08/2020

Ph.D. in Integrated Molecular Physiology, Cairo University, Faculty of Science, Cairo, Egypt.

Address: 1 Gamaa Street, Faculty of Science, 12613, Giza Cairo, Egypt. Website https://cu.edu.eg/

28/09/2016 - 01/04/2020

Joint Ph.D. Supervision Mission, Università Degli Studi di Torino, Torino, Italy. Website http://en.unito.it/

03/2016

Short Fellowship, South Africa Potchefstroom, North-West University, South Africa.

02/2013 - 08/2013

ParOwn Fellowship, Centro de Investigación del Cancer (CIC), Salamanca, Spain.

Address: Campus Miguel de Unamuno, 37007, Salamanca, Spain. Website https://www.cicancer.org/

06/2006 - 09/2012

M.Sc. in Physiology, Zoology department, Faculty of Science, Beni-Suef University, Egypt

- **Subjects Studied:** Sensory Physiology and Animal Behavior, Hematology, Neurophysiology, Endocrinology and Coordination, Muscle Physiology, Reproduction, Water and Minerals' Metabolism, Histology and Histochemistry, Cell Biology and Immunology, Radiobiology, Systematic Zoology, Biochemistry, Toxicology, Fresh Water Ecology and Physiology, Respiration and Excretion, Biostatistics.
- **Thesis:** *In vitro* and *in vivo* Activities of *Ulva lactuca* Polysaccharides as Cancer Chemopreventive Agents. 09/1999 05/2003

B.Sc. in Zoology and Chemistry, Zoology and Chemistry Department, Faculty of Science, Cairo University, Beni-Suef branch, Egypt.

• **Subjects Studied:** Physiology, Immunology, Endocrinology, Hematology, Anatomy, Parasitology, Ecology, Histochemistry, Zoology, Botany, Analytical Chemistry, Organic Chemistry, Physics, Mathematics, Biochemistry, Comparative Anatomy, Animal Behavior, Vertebrates, and Invertebrates.

Work Experience

29/12/2020 - Current

Researcher Doctor, National Research Centre (NRC), Cairo, Egypt

- 1. **Research Focus**: Conducting advanced research in cancer multidrug resistance, molecular medicine, integrated molecular physiology, anti-cancer drug development, and cancer metabolomics.
- 2. Supervision: Supervising Ph.D. and M.Sc. students.
- 3. **Teaching and Training**: Educating and mentoring undergraduate and graduate students in general biology, molecular biology, and cellular biology. Providing instruction through National Research Centre training programs to students from various Egyptian universities.
- 4. Exam Preparation and Evaluation: Preparing exams and conducting oral evaluations for students of the Faculty of Pharmacy, Ain Shams University.
- 5. Conference and Workshop Participation: Organizing and participating in international conferences and workshops related to cancer research and drug development.

Address: 33 El Buhouth St. National Research Centre, 12622, Cairo, Egypt. Website http://www.nrc.sci.eg/

2024 – Current Theses Supervision, NRC

- 1. **Ph.D. Supervisor:** Supervising a Ph.D. student at the Medical Physiology Department, Faculty of Medicine, Beni-Suef University (11/6/2024 Present).
- 2. **M.Sc. Supervisor:** Supervising a master's student at the Faculty of Pharmacy, Cairo University (2/1/2024 Present).

2020 - Current

Biology Lecturer, NRC

Over the past four years, I have actively taught and trained undergraduate and graduate students in general biology, molecular biology, and cellular biology. Through training programs at the National Research Centre, I have instructed students from several Egyptian universities, including Cairo, Ain-Shams, Beni-Suef, Fayoum, Mansoura, Benha, Menoufia, Zagazig, Al-Azhar, Nahda, MSA, and Sainai Universities. My teaching has focused on molecular and cellular biology as well as the fundamentals of scientific research.

04/03/2024 - Current

Member of the Supervisory Committee

The Central Laboratory of the Scanning and Transmission Electron Microscopes, NRC

Responsibilities:

- Oversight and governance: Ensure compliance with standards, enforce policies, and review protocols.
- Strategic planning: Participate in long-term planning, budget allocations, and new technologies.
- Quality assurance: Implement quality control, conduct audits, and resolve equipment issues.
- Collaboration: Foster partnerships, organize workshops, and stay updated on microscopy advancements.
- User support: Oversee training programs, support researchers, and develop educational materials.
- Resource management: Assist in budgeting, monitor supply usage, and ensure timely procurement.
- **Research support:** Encourage innovative research, support projects, and contribute to publications.
- Reporting: Prepare reports on laboratory activities and maintain accurate operational records.

2022 - Current

Active member of Quality Control Coordinators Committee

Pharmaceutical and Drug Industries Research Institute, NRC

Responsibilities:

- Ensure compliance with quality standards and regulatory requirements.
- Develop and review Standard Operating Procedures (SOPs) for laboratory procedures.

- Conduct audits and monitor laboratory equipment for accuracy.
- Train staff and students in quality control best practices.
- Prepare reports for internal and external audits.

2022 - Current

Member of the Metabolomics Special Unit, NRC

- 1. **Culturing and maintaining** various cell lines under sterile conditions to ensure optimal cell health for experimentation.
- 2. **Performing** cell-based assays, including viability, proliferation, and differentiation studies, to support research in cellular metabolism.
- 3. **Designing and executing** experiments focused on metabolic and cell biology research, while optimizing protocols for sample preparation, data acquisition, and analysis.
- 4. **Conducting** metabolic profiling using advanced analytical techniques such as GC-MS and analyzing the resulting data to identify biomarkers and relevant metabolic pathways.
- 5. **Compiling and presenting** research findings in reports and presentations and collaborating with multidisciplinary teams to contribute to research projects and publications.

01/04/2022 – Current Invigilator, British Council, Egypt

Invigilate examinations to the standard required by the British Council Examinations Service and the relevant Exams Boards. For example, UK exams on behalf of UK based Exam Boards and awarding bodies include English proficiency exams such as IELTS, Cambridge English and APTIS, school exams such as IGCSE, O and A levels for Cambridge International Examinations (CIE) and Edexcel International, a range of professional and university qualifications such as ACCA (accounting).

25/02/2020 - Current

Associate Director of Medical Writing, MD Pharma Consulting Group, Cairo, Egypt

Medical Writing:

Academic Writing.
 Clinical Research Writing and Communications
 Biomedical Research Writing.

Website https://www.mdpharma-egypt.com/our-people

06/2006 - Current

Chief Chemist, Tiba Lab, Cairo, Egypt

- Managing various medical analysis departments, including semen processing for IVF, blood sampling, blood chemistry, hematology, immunology, parasitology, and culture/sensitivity testing for samples from different body parts.
- Utilized both automatic instruments and manual techniques to ensure accurate and efficient analysis.

03/2013 – 28/12/2020 Assistant Researcher, NRC

Therapeutic Chemistry Department, Pharmaceutical and Drug Industries Research Institute.

- Conducted research on cancer multidrug resistance in cancer cells.
- Studied molecular medicine and integrated molecular physiology.
- Focused on anticancer drug development and cancer metabolomics.

06/2006 - 03/2013

Researcher Assistant, NRC

Therapeutic Chemistry Department, Pharmaceutical and Drug Industries Research Division.

• Studied human physiology and experiments on the novel anticancer drugs, especially for breast cancer patients through studying cell signaling pathways.

• Research Impact

- Scopus ID: 56974241100
- Total Citations: (253)
- H-index: (6)
- ORCID: 0000-0003-0858-4840
- Google Scholar: Gamal Eldein Fathy A. Abd-Elrahman
- Researcher ID: D-4348-2011
- Loop Profile: 192587
- Sciprofiles: 41412

Note: All IDs are provided as hyperlinks and can be visited for further information.

Publications

- 1. Ammar, N. M., Hassan, H. A., Elkady, M., Maamoun, M. A. I., **Fathy Abd-Ellatef, G. E.**, Serag, A., ... & Zaki, A. H. (2023). Promising anticancer activity of pomegranate peels extract (PPE) against bacterial pathogens-induced colon cancer in mice model. *Egyptian Journal of Chemistry*, *66*(13), 1259-1277.
- Abd-Ellatef, G. E. F., Gazzano, E., El-Desoky, A. H., Hamed, A. R., Kopecka, J., Belisario, D. C., Costamagna, C., S Marie, M. A., Fahmy, S. R., Abdel-Hamid, A. Z., & Riganti, C. (2022). Glabratephrin reverses doxorubicin resistance in triple negative breast cancer by inhibiting P-glycoprotein. *Pharmacological research*, 175, 105975.
- Fathy Abd-Ellatef, G. E., Gazzano, E., Chirio, D., Hamed, A. R., Belisario, D. C., Zuddas, C., Peira, E., Rolando, B., Kopecka, J., Assem Said Marie, M., Sapino, S., Ramadan Fahmy, S., Gallarate, M., Abdel-Hamid, A. Z., & Riganti, C. (2020). Curcumin-Loaded Solid Lipid Nanoparticles Bypass P-Glycoprotein Mediated Doxorubicin Resistance in Triple Negative Breast Cancer Cells. *Pharmaceutics*, 12(2), 96.
- Salaroglio, I. C., Gazzano, E., Abdullrahman, A., Mungo, E., Castella, B., Abd-Elrahman, G. E. F. A., Massaia, M., Donadelli, M., Rubinstein, M., Riganti, C., & Kopecka, J. (2018). Increasing intratumor C/EBP-βLIP and nitric oxide levels overcome resistance to doxorubicin in triple negative breast cancer. *Journal of experimental & clinical cancer research: CR*, 37(1), 2 8 6.
- Abd-Ellatef, G. F., Ahmed, O. M., Abdel-Reheim, E. S., & Abdel-Hamid, A. Z. (2017). Ulva lactuca polysaccharidesprevent Wistar rat breast carcinogenesis through the augmentation of apoptosis, enhancement of antioxidantdefense system, and suppression of inflammation. *Breast cancer (Dove Medical Press)*, 9, 67–83.
- Chegaev, K., Fraix, A., Gazzano, E., Abd-Ellatef, G. E., Blangetti, M., Rolando, B., Conoci, S., Riganti, C., Fruttero, R., Gasco, A., & Sortino, S. (2017). Light-Regulated NO Release as a Novel Strategy to Overcome Doxorubicin Multidrug Resistance. *ACS medicinal* chemistry *letters*, 8(3), 361–365.
- Yahya, S. M., Hamed, A. R., Emara, M., Soltan, M. M., Abd-Ellatef, G. E., & Abdelnasser, S. M. (2016). Differential effects of c-myc and ABCB1 silencing on reversing drug resistance in HepG2/Dox cells. *Tumour biology: the journal of the International Society for Oncodevelopmental Biology and Medicine*, 37(5), 5925–5932.
- 8. El-Kashak, Walaa A., Hamed, Ahmed R., El-Raey M. and **Abd-ellatef, GE. F.** (2016). Antiproliferative, antioxidant and antimicrobial activities of phenolic compounds from Acrocarpus fraxinifolius. AIEGEF AE. Journal of Chemical and Pharmaceutical Research. 8 (3), 520-528.

Technical contribution (mentioned in the publication):

1. Hamed, A. R., Emara, M., Soltan, M. M., Yahya, S. M., Nabih, H. K., & Elsayed, G. H. (2018). Investigating the role of miRNA-98 and miRNA-214 in chemoresistance of HepG2/Dox cells: studying their effects on predicted ABC transporters targets. *Medicinal Chemistry Research*, 27, 531-537.

Projects

2019-Current

- Metabolomics Approach for the Characterization of Cancer Drug-Resistance: Construction of a Novel Metabolic Profile.
 - My role: Member
 - Funding Organization: NRC, Cairo, Egypt.

2019 - 2022

- Exosomal Melatonin: A Promising Therapy for Hepatocellular Carcinoma and its Drug Resistance.
 My role: Member
 - Funding Organization: NRC, Cairo, Egypt.

2016 - 2019

- Metabolomics and Nanotechnology to Evaluate the Therapeutic Efficacy of New Herbal Medication and New Chemical Entities in Hepatocellular Carcinoma and Diabetes in Rats
 - My role: Member
 - Funding Organization: Science and Technology Development Fund (STDF), Egyptian Ministry for Scientific Research (EMSR), Cairo, Egypt.

2014-2016

- Metabolomics Approaches to Evaluate the Effectiveness and Safety of New Herbal Medications and Chemical Entities.
 - My role: Member
 - Funding Organization: STDF, EMSR, Cairo, Egypt.

2013-2016

- Therapeutic model for RNA Interference and miRNA mimicking to Target the Multidrug Resistance in Cancer Cell.
 - My role: Member
 - Funding Organization: STDF, EMSR, Cairo, Egypt.

2013-2016

- Metabolomics: the road for therapeutic drug discovery from natural sources and synthetic compounds as well as early diagnosis of liver cancer
 - My role: Member
 - Funding Organization: NRC, Cairo, Egypt.

Honors and Awards

2020

1- The Best Doctoral (Ph.D.) Thesis in the field of Pharmaceutical Sciences and it's Applications, NRC

• Awarded the best doctoral (Ph.D.) thesis in the field of Pharmaceutical Sciences and its Applications of National Research Centre for the year 2020.

03/2023

2- Best Poster (Gold) Award, NRC

• Awarded the Best Poster (Gold) Award in the 7th International Conference of Pharmaceutical and Drug Industries Research Institute, under the theme: "Pharmaceutical Sciences Research: Innovations and Applications in Different Fields" which held in 13th and 14th March, 2023.

03/2015

3- Best Poster Award, NRC

• Awarded the best poster in the 5th International Conference of Pharmaceutical and Drug Industries Research Division, which held in 29th -30th March 2015 under the title (Advances in Pharmaceutical Research).

International Grants

28/09/2016 - 01/04/2020

Joint Ph.D. Supervision Mission, Università Degli Studi di Torino, Torino, Italy

- •Ph.D. Student at the Oncology Department, Università Degli Studi di Torino, Torino, Italy.
 - Awarded a Joint Ph.D. Supervision Mission to pursue a Ph.D. in Molecular Medicine.
 - Successfully earned a Ph.D. in Molecular Medicine through this mission.
 - Conducted research on Multi-Drug Resistance (MDR) in Cancer at the Oncology Department, Università Degli Studi di Torino, as part of this mission.

•Skills acquired:

- Cell culture techniques and cytotoxicity assays on cell lines (in vitro study).
- Xenograft mouse MDR breast cancer model as *in vivo* study.
- Studying the effect of isolated natural compounds on MDR.
- Protein extraction, immunoprecipitation, and Western blotting.
- Cell cycle analysis and biochemical/genomic studies on drug mechanisms.

Link http://en.unito.it/

03/2016

Short Fellowship, Potchefstroom, North-West University, South Africa

- Awarded a short fellowship to enhance research skills and knowledge in metabolomics and bioinformatics.
- Participated in the project "Metabolomics in Drug Discovery and Bioinformatics".

Link https://www.nwu.ac.za/

02/2013 – 08/2013 ParOwn Fellowship, CIC, Salamanca, Spain

- 6-month fellowship at Centro de Investigación del Cancer (CIC), Salamanca, Spain.
- Conducted research on "The Effect of Novel Anticancer Compounds on Triple Negative Breast Cancer".
- I focused on studying proteins involved in intercellular communication, particularly growth factors and their receptors. I explored cellular mechanisms behind the proliferative response triggered by growth factor receptors and evaluated the role of HER family receptors and ligands in tumor genesis and proliferation. Additionally, I tested novel anticancer compounds for Triple-Negative Breast Cancer.

• Skills acquired:

- Cell culture techniques and cytotoxicity assays on breast carcinoma cell lines (MCF-7, MDA-MB-231,HCC1806).
- Antiproliferative drug testing using MTT assay.
- Protein extraction, immunoprecipitation, and Western blotting.
- Cell cycle analysis and biochemical/genomic studies on drug mechanisms.
- Xenograft mouse breast cancer model preparation.

Link https://www.cicancer.org/

Scientific Judging

2019 - 2024

International Projects and Scientific Fairs Judging

- 1. Judge, Regeneron International Science and Engineering Fair (ISEF), Egypt, 2019 Present.
- 2. Judge, International Telecommunications Conference (ITC), Egypt's Air Defense College (ADC), 2023-2024.
- 3. Judge, ISEF, worldwide, 2019 2023.

- 4. Judge, Graduation projects at October University for Modern Sciences & Arts (MSA), Faculty of Biotechnology in 2021.
- 5. Judge, Graduation projects at Cairo University, Faculty of Science in 2020.
- 6. Judge, Cairo Science and Engineering Fair (CSEF), Egypt, 2019 Present.
- 7. Judge, Egypt Science and Engineering Fair (ESEF), Egypt, 2022.
- 8. Judge, Giza Science and Engineering Fair (GSEF), Egypt, 2020.

Conferences and Workshops

A- Conferences:

- 1. 1st International Conference on Cancer Treatment and Diagnosis, 15th and 16th October 2023.
- 2. **Poster** in 7th International Conference of Pharmaceutical and Drug Industries Research Institute, under the theme: "Pharmaceutical Sciences Research: Innovations and Applications in Different Fields" which was held on 13th and 14th March, 2023.
- 3. 3rd International and 17th National Conference of Human Performance in Health and Disability, Grand Nile Tower, Egypt, 2nd and 3rd June 2022.
- 4. 6th International Euro Mediterranean Conference and Expo. Life Sciences Pharma and Biomedicine, CairoUniversity, Egypt, 1st and 2nd April 2019.
- International Conference on Recent Applications in medical Sciences (ICRAMS), Syndicate of Scientific Professions, Egypt, 1st February 2019.
- 6. **Speaker** in 3rd International Conference of Pharmaceutical and Drug Industries Research Division, Research and Development in Drugs: Future Trends, NRC, Egypt, 6th 8th March 2007.

B- Workshops:

- 1. Bioinformatics of Next-generation Amplicon Sequencing 16S rRNA & 18S rRNA Genes, NRC, Egypt, 29th May 2023.
- 2. Current Technologies in Stem Cell Research and Regenerative Medicine, NRC, 24th October 2022.
- 3. Metabolomics to Decipher the Role of Gut Microbiota in Cancer Disease, NRC, 18th and 19th January 2022.
- 4. **Presenting** in workshop for escalating students to the Egypt Science and Engineering Fair from the local Exhibition for Cairo Governorate, Cairo Technology Development Department, 20th February 2020.
- Development of Cancer Stem Cells and Drug Delivery System Targeting Cancer, Medical research division, NRC, 17th November 2019.
- 6. New Trends in Biotechnology, Therapeutic Chemistry Department, NRC, Egypt, 14th April 2019.
- 1st Bio-Nat workshop on Scientific Writing (Mastering the Art of Clarity and Style), Bio-Nat International Conference, Convention Center, Cairo University, Egypt, 31st March 2019.
- 8. Bio-Nat workshop on Biosafety and Bio-security Management, Bio-Nat International Conference, Animal HealthResearch Institute, Egypt, 2nd February 2019.
- 9. Introduction to Scholarly Publishing, ELSEVIER Research Academy, NRC, Egypt, 9th January 2019.
- Biomedical Applications of Marine and Terrestrial Microorganisms Derived Compounds, National Research Centre, Egypt, 10th January 2019.
- 11. Introduction to Scholarly Publishing, Elsevier Research Academy on Campus, National Research Centre, Egypt, 9th January 2019.
- 12. Poisoning: Diagnosis and Treatment, National Committee of Toxicology, Academy of Scientific Research and Technology, Egypt, 26th December 2018.
- 13. Graphene and it's Amazing Applications, The Egyptian Materials Research Society, Faculty of Science, Beni-Suef University, Egypt, 22nd December 2018.
- 14. Metabolomics in Drug Discovery and Bioinformatics held in Potchefstroom, North-West University **South Africa**, 1st 3rd March 2016.
- 15. Metabolomics Application in Pharmaceutical Research, NRC, Egypt, 29th and 30th March 2015.
- 16. Research Tools: A Guide for Postgraduates, Medical Division, NRC, Egypt, $1^{st} 5^{th}$ June 2008.

• Seminars, Symposiums, and Webinars

- 1. Symposium: Valorization of Agricultural and Industrial Citrus Residues Extraction, Green Procedures, Bio- functional Molecules, NRC, 14th March 2023.
- 2. Third Generation PCR: Principles and Applications, Bio-Rad Laboratories Inc., NRC, Egypt, 8th February 2022.
- 3. Successful Pre-submission Strategies Webinar, Nature Research Academies and Egyptian Knowledge Bank, 3rd December 2020.
- 4. Effective Academic Writing Webinar, Nature Research Academies and Egyptian Knowledge Bank, 2nd December 2020.
- 5. Effective Post-submission Strategies Webinar, Nature Research Academies and Egyptian Knowledge Bank, 1st December 2020.
- 6. Logical Manuscript Structure Webinar, Nature Research Academies and Egyptian Knowledge Bank, 30th November 2020.
- 7. Identify, Develop and Use your Transferable Skills Webinar, The University of Torino, **Torino, Italy**, 30th September 2020.
- 8. The Potentials of The Ph.D. in Non-Academic Contexts for PhDs in Medical Sciences Webinar, The University of Torino, **Torino, Italy,** 15th July 2020.
- 9. Symposium on New Trends in Biotechnology, NRC, 14th April 2019.
- Symposium on Biological Sciences and Human Efforts Towards Development and Progress, National Committeefor Biochemistry and Molecular Biology, Academy of Scientific Research and Technology, Egypt, 16th March 2019.
- 11. 1st Bio-Nat Nano Mini-Symposium (The Knowledge of Nanoscience and Nanotechnology), Bio-Nat International Conference, Convention Center, Cairo University, Egypt, 3rd April 2019.
- Guido Tarone study day (D-Day), Molecular Biotechnology Center, The University of Torino, Torino, Italy, 16th May 2018.

Media and News Contributions

2022

1. Research using Nanotechnology to Overcome Breast Cancer, Akhbar El Yom, 18th-19th January 2022. Link

2. Research on Nanotechnology and Breast Cancer, Canadian News, 2022. Link

Reviewer

2017 – Current Tumor Biology Journal

Reviewed 2 manuscripts.

Links Publons Profile 1 | Publons Profile 2 |

2019 – Current Beni-Suef University Journal of Basic and Applied Sciences

Reviewed 8 manuscripts.

Links Publons Profile 1 | Publons Profile 2 | Publons Profile 3 | Publons Profile 4 | Publons Profile 5 | Publons Profile 6 | Publons Profile 7 | Publons Profile 8 |

2021 – Current **Bioengineered**

Reviewed 9 manuscripts.

Links Publons Profile 1 | Publons Profile 2 | Publons Profile 3 | Publons Profile 4 | Publons Profile 5 | Publons Profile 6 | Publons Profile 7 | Publons Profile 8 | Publons Profile 9 |

Reviewed one manuscript.

Link Publons Profile

Review Editor

04/11/2014 – Current **Frontiers in oncology**

Review Editor for

- Pharmacology of Anti-Cancer Drugs, Frontiers in Oncology
- Links Loop Profile | Publons Profile |

04/11/2014 – Current Frontiers in Pharmacology

Review Editor for

- Pharmacology of Anti-Cancer Drugs, Frontiers in Pharmacology
- Links Loop Profile | Publons Profile 1 | Publons Profile 2 | Publons Profile 3 |

Note: All links are provided as hyperlinks and can be visited for further information.

Professional Memberships

Societies and Committees Membership

- 1. Active member as a Biomedical Scientist, **Scientific Review Committee (SRC)** for the Regeneron International Science and Engineering Fair (ISEF), 2022 Present.
- 2. Active member, European Society for Medical Oncology (ESMO), February 2024 Present.
- 3. Active member, Arab Society for Medical Research (ASMR), May 2021 Present.

Job-Related Skills

2006 – Current

Technical Skills and Competence

1. Oncology Department, Torino University, Italy:

- Expertise in inducing multi-drug resistance in cancer cells.
- Cytotoxicity assays, protein extraction and immunoprecipitation from cancer cells.
- 2. Centro de Investigación del Cancer (CIC), Salamanca University, Salamanca, Spain:
- Proficient in cell culture, drug antiproliferative effects on breast cancer lines (MCF-7, MDA-MB-231, HCC1806, HCC2157, HCC1599, and HCC70).
- Cytotoxicity assays, protein extraction, Western blot, cell cycle analysis, and xenograft model preparation.
- 3. National Research Center, Cairo, Egypt:
 - Skilled in preparing rat breast cancer models, polysaccharide extraction from marine algae, RNA extraction, and handling animal sampling and mastectomy.
- 4. Medical Education Foundation International Cultural Center, Cairo, Egypt:
- Certified in advanced emergency first aid.
- 5. Blood analysis labs:
 - 18 years of experience in medical labs, including blood sampling from human in different ages, microbiology, blood chemistry, immunology, parasitology, and semen processing for IVF. Proficient in both manual and automated techniques.

Organization of International Conferences, Workshops, and Seminars

A- Participated in the organization of international conferences:

- 1. The 7th International Conference of Pharmaceutical and Drug Industries Research Institute under the theme: "Pharmaceutical Sciences Research: Innovations and Applications in Different Fields" which was held on 13th and 14th March, 2023.
- The 2nd NRC International Conference on Science and Sustainable Development: "Scientific Research, Technology and Innovation for Knowledge Creation" which was held at National Research Centre on 25th – 27th October 2021.
- 3. The 1st NRC-Grenoble INP International Conference on Science and Sustainable Development under the theme of "There can Never be Sustainable Development without Science" which was held at National Research Centre on16th-18th September 2019.
- 4. The 6th International Euro-Mediterranean Conference and Expo Life Sciences, Pharma and Biomedicine, which was held on 1st and 2nd April 2019.
- 5. The 5th International Conference of Pharmaceutical and Drug Industries Research Division, which was held on 29th and 30th March 2015 under the title "Advances in Pharmaceutical Research".
- 6. The 4th International Conference of the Division of Pharmaceutical and Drug Industries Research Division, which was held on 3rd – 5th March 2009 under the title: Research and Development in Drugs "Current Challenges".
- 7. The 3rd International Conference of Pharmaceutical and Drug Industries Research Division, which took place on March 6th 8th, 2007 under the title: Research and Development in Drugs (Future Trends) and I have designed the cover of conference brochure and the abstracts book.

B- Participated in the organization of workshops and seminars:

- 1. Workshop: "Metabolomics to Decipher the Role of Gut Microbiota in Cancer Disease", which was held at National Research Centre on 18th and 19th January 2022.
- 2. The 50th EG-MRS Seminar: "Materials Science and their Applications in Daily Life" which was held at National Research Centre on 27th February 2020.
- 3. Workshop: "Metabolomics Applications in Pharmaceutical Research" which was held at National Research Centreon 29th and 30th March 2015.

Additional Courses

24/08/2013 - 05/09/2013

Advanced Course in Emergency 1st Aid Department of Medical Education, Foundation InternationalCultural Center, Cairo, Egypt

Topics covered: Surgical Emergencies, Medical Emergencies, Coma & Neurological Emergencies, 1st Aid in Poisoning, Gynecological & Obstetrical Emergencies, Psychiatric Emergencies, Genitourinary Emergencies, Emergency Investigations, E.N.T. Emergencies, Pediatric & Neonatal Emergencies, Ophthalmologic Emergencies, Oncological Emergencies, I.V. Fluids & Electrolyte Imbalance, Post-Operative Complications, Sengstaken Tube Fixation, Catheters, Subcuticular & Mattress Stitching, Ryle and Stomach Wash, Central Venous Catheters.

22/03/2017

Italian language course in correspondence with the level A2, Italy

Italian language course in correspondence with the level A2, C.P.I.A. 2, Torino, Italy.

• Language Skills

Mother tongue(s): Arabic

Other language(s):

| | Understanding | | Speaking | | Writing |
|---------|---------------|---------|--------------------------------------|----|---------|
| | Listening | Reading | Spoken production Spoken interaction | | |
| English | C2 | C2 | C2 | C2 | C2 |
| Italian | A2 | A2 | A2 | | |

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

Digital Skills

- •Information and data literacy.
- •Communication and collaboration.
- •Safety: Independent user.
- •Digital content creation.
- •Problem analysis & problem solving.

Communication And Interpersonal Skills

1- Creativity and innovation techniques, from DAAD office in Cairo, Egypt, 26th October 2011.

2- Communication and Rhetorical techniques, from DAAD office in Cairo, Egypt, 14th November 2011.

• Referees (5)

Five of referees who are directly related to my academic and research work:

Prof. Chiara Riganti

Full Professor of Biochemistry Department of Oncology, University of Torino Via Santena 5/bis, 10126, Torino, Italy Email: <u>chiara.riganti@unito.it</u> Phone: +390116705857 Relation: **Ph.D. Supervisor**

Prof. Abdel-Hamid Zaki A. Amer

Professor of Applied Biochemistry Therapeutic Chemistry Department Pharmaceutical and Drug Industries Research Institute National Research Centre 33, El Buhouth St., 12622, Cairo, Egypt Email: <u>abdelhamidzaki@hotmail.com</u> Phone: +201027760387 Relation: **Ph.D., M.Sc., and Lab Supervisor**

Prof. Sohair Ramadan Fahmy

Professor of Physiology Zoology Department, Faculty of Science Cairo University, Egypt E-mail: <u>sohairfahmy@gmail.com</u> Phone: +201020432548 Relation: **Ph.D. Supervisor**

Prof. Osama Mohamed Ahmed

Full Professor of Physiology Zoology Department, Faculty of Science Beni-Suef University, Egypt

Email: <u>osama.ahmed@science.bsu.edu.eg</u> Phone: +201001084893

Relation: M.Sc. Supervisor

Prof. Atanasio Pandiella Alonso

Dr. of Medicine and Surgery, Scientific Researcher Head of Research Lab 15 Centro de Investigación del Cáncer-IBMCC Campus Miguel de Unamuno 37007, Salamanca, Spain Email: <u>Atanasio@usal.es</u> Phone: +34923293294815 Relation: **ParOwn Fellowship Supervisor**