Curriculum Vitae

Dr. Shehab Elbeltagi Mahros Ahmed

Ph.D. Medical Biophysics

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Personal Information

Date of Birth	07/07/1983
Marital Status	Married
Nationality	Egyptian
Military status	Not require
Passport No.	A24966218 26/07/2019 to 27/07/2026

Educational background

10/2019	✓ *PhD. in Medical Biophysics, Biophysics department, Faculty of Science, Cairo University, Egypt.*
2015/2016	✓ *Post graduate studies (PhD) in Biophysics, Biophysics department, Faculty of Science, Cairo university, Egypt.*
2008-2012	✓ *Master thesis in medical physics, Faculty of Science, Al-Azher University, Egypt.*
2008-2009	✓ *Post graduate studies in Biophysics Al-Azher University, Egypt.*
2001-2005	✓ *BSc. of Science, Special Biophysics, very good with honor, May 2005, Al-Azher University.*

Workshop, Training, and conference

27/01/2022	✓ Organizing and giving a lecture to faculty members under the title of Academic Standards and Educational Programs (Quality Accreditation) at ***New Valley University, Faculty of Science***
2021	✓ Teacher preparation (university level) ✓ Digital Transformation ✓ Developing the capabilities of faculty members ➢ Effective communication skills ➢ Research ethics ➢ Quality standards in education ➢ The use of technology in education ➢ Scientific research methods ➢ Intellectual property rights ✓ **Conference** for 4 days' oral presentation in the 4th international conference

2017	of advanced science (ICAS4) 7th-10th November 2017, Hurghada, Egypt.
2013	✓ ***Workshop*** *for two days entitled: Advanced Preparation of Noble metal Nanoparticles and visualizing by Transmission Electron Microscope. held at the Medical Technology center 03rd to 04th march, 2013 in Alexandria university. Training on: Preparation nanoparticles.*
2011	✓ *Training for 33 days in Atomic Energy Authority (A.E.A) from (26/06/2011 to 28/07/2011).*
2010	✓ *Training for 5 days in children's cancer hospital (57357) from 11 to 15 march.*

Work Experience

28/02/2022	• **Lecturer** ✓ New Valley University, Faculty of Science, Physics De, Biophysics, Egypt. *List of teaching courses* ➢ Biophysics ➢ Basic of Physics ➢ Electromagnetic Field ➢ Thermodynamic
01/02/2021	✓ Teaching courses in ***Higher Institute of Applied Medical Sciences (HIAMS),*** Sohag, Egypt
07/03/2015	• **Assistant Lecturer** *New Valley University, Faculty of Science, Biophysics, Egypt.* ➢ *Material Properties* ➢ *Electrical Circuits* ➢ *Thermodynamic* ➢ *Modern Physics* ➢ *Electromagnetic* ➢ *Materials and Optics* ➢ *Optics physics and laser*
29/05/2013-05/2020	• **Lecturer** - *Teaching courses in **Inaya Medical College**, Riyadh, Saudi Arabia* - *Provide quality teaching in the subject areas required, given the resources available and within the agreed and approved current timetable, with due recognition of the relevant syllabus and course specifications, including the necessary preparation of teaching notes.* - *Delivering lectures to groups of students and using advanced teaching techniques to inspire and motivate them for higher level qualifications and then employment.* - *Extensive participation on committees and extra-curricular activities.* - *Reviewed and approved all textbooks used for each course.* - *Prepared daily class lectures for each class.*

01/08/2005-15/05 /2013	➢ ***Medical Physicist*** ✓ *Work in Sohag Cancer Institute in Medical physics room from August, 1, 2005 until May, 30, and 2013.* ✓ Monitor preventive of radioactive material (Health physics, safety and radiation protection no.263/2-4-20123.

Participation in committees

- *Member of the Quality and Academic Accreditation Committee*
- *Participation in the development of the study plan and the development program for faculty members.*
- *Secretary General of the Department Council*

Honors and awards obtained

2018	✓ *Honoring and material Award from the Inaya Medical Sciences College by efforts in 2018 prize money (9,600.00 SAR)*
2014	✓ *Honoring and material Award from the Inaya Medical Sciences College by efforts in 2014 prize money, four thousand and five hundred riyals (4,500.50 SAR)*
2013	✓ *Honoring and material Award from the Inaya Medical Sciences College by efforts in 2013 prize money, two thousand and five hundred riyals (2,500.0 SAR)*

Scientific Qualifications

- ✓ *Synthesis and characterization of Polymers and Magnetic Metal Nanoparticle formation (nanofabrication) techniques (ferromagnets) and material deposition,*
- ✓ *Used a Polymer material science such as PEG encapsulated Nanoparticle in Nanomedicine*
- ✓ *Use of Docetaxel encapsulation nanoparticles as active drug delivery systems*
- ✓ *Analysis characterization of nanoparticles such as [FTIR, Dynamic light scattering DLS,VSM, ZP, SEM, TEM microscopy, UV, and X-ray diffraction],*
- ✓ *Investigation a new set-up produces magnetic field for Hyperthermia approach's and analysis transport measurements in magnetic field,*
- ✓ *Handling of metallic nanoparticles and bioconjugation*
- ✓ *Rheological studies on the interaction of active nanoparticles with biofluids and biointerfaces*
- ✓ *Preparation of (in vitro) cell culture, cell lines, and biological imaging under all conditions,*
- ✓ *Application of Hyperthermia HT, Docetaxel Doc, and Hyperchemothermia HCT (both SPIONs and drug together) on cancer cells and it was positive results,*
- ✓ *Evaluations of biological activity, assays (optical imaging) of cancer cells such as flow cytometry, Morphological, Cytotoxic activity, Intracellular uptake by optical microscopy, image analysis, spectroscopy, confocal and light microscopy such as Confocal Laser Scanning Microscope (CLSM), cell Apoptosis and Necrosis, and EGFR.*
- ✓ *Cell cycle analysis and characterization of DNA structures and Gene Expression*

- ✓ ***Prepare a current project research plan***

1. **Verification Synchrotron Radiation Beam-line with Microfluidic Capillary Chips: Based on X-ray Multifunctional**

Keywords: Synchrotron Radiation Beam-line, Microfluidics; NPs; Cell culture, Micro-pump, Detector, simulation; and X-ray Crystallography

2. **Enhancement of Liposome coated Nanoparticals for Stroke treatment based on Blood-brain Barrier Model.**

Keywords: MNPs; cell culture, Micro-pump, Liposomes, Hollow fiber micro-porous, thermal camera, and HT

3. **Biophysics Human Blood-Brain Barrier Microfluidic Model for Ischaemic Stroke**

Keywords: Microfluidics; MNPs; Cell culture, Micro-pump, Thermal camera, and HT

Publication

1. *Comparative investigations on ferrite nanocomposites for magnetic hyperthermia applications. Journal of Magnetism and Magnetic Materials 458 (2018) 147–155, S.I. El-Dek, Maha A. Ali, Sara M. El-Zanaty, Shehab E. Ahmed. https://doi.org/10.1016/j.jmmm.2018.02.052.*
2. *Shehab Elbeltagi a*, Maha A. Ali b, Samaa El-Dek ,c and Ahmed Belal d, Superparamagnetic Nanoparticles Trigger Hepatocellular Carcinoma Apoptosis: Hyperthermia Approach,* **(preprint)** *https://dx.doi.org/10.2139/ssrn.4050305*
3. *Magnetic Fluid Calorimetric System based on: Arduino Microcontroller Program to improve Hyperthermia. Shehab Elbeltagi A, Maha A Ali, and Samaa El-Dek. Under publish.*
4. *Shehab Elbeltagi, Khairy M. Tohami, Aida Redwan Tolba, Nashaat Ahmed Deiab, The Role of Two Dimentional Multislice Computed Tomography Planning in Conventional Radiation Therapy by Using Two Dimentional Treatment Planning System, Assiut University Journal of Physics, Vol 42, (1), 2013.*
5. *Shehab Elbeltagi, Khairy M. Tohami, Aida Redwan Tolba, Nashaat Ahmed Deiab, The Effect of Absence Bone Density Correction on Dose Distribution For Bladder Cancer Cases in The Conventional Radiotherapy, Assiut University Journal of Physics, Vol 42, (1), 2013.*

6. Dissemination Skills

Quality

- ✓ ***Quality and Academic Accreditation***
- ✓ ***Ability to work in an interdisciplinary team, numerical analysis,***
- ✓ ***Ability in acquisition and proposal writing for getting research funding;***
- ✓ ***Independent in experimental research with great critical thinking, and good problem-solving skills, experimental design, and in a collaborative group environment***
- ✓ ***Good communication skills of spoken and written English***
- ✓ ***Diligence, teamwork skills, taking responsibility for assigned tasks, consistency in achieving results, intellectual curiosity***
- ✓ ***Effective communication skills, self-motivated, and a strong work ethic.***
- ✓ ***Ability to work under the pressure of time***
- ✓ ***Interaction and reporting with private foundations and companies***
- ✓ ***Excellent communication and organization skills***
- ✓ ***Graduate Program Coordinator***
- ✓ ***Didactic qualities and enthusiasm for teaching and working with students.***

Research areas of interest

- Medical Biophysics
- Nanotechnology
  - ✓ *Preparation*
  - ✓ *Characterization*
  - ✓ *Applications*
- Cancer therapy
- Stroke therapy
- Artificial Intelligence **AI**

Referees

1. Prof. Dr. Mahmoud Ahmed Hasanian
Prof. of Physics, Faculty of Science, Physics Department, New Valley University, Egypt
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***2. Prof. Dr.* Eslam M. M. Ibrahim**
Department of Physics, Faculty of Science, Sohag University, Sohag-82524, Egypt, Email: e.ibrahim@science.sohag.edu.eg

3. Prof. Dr. Samaa El-dek
Head of Materials science and nanotechnology Dept. Faculty of Postgraduate Studies for Advanced Sciences Director of the international ranking office Beni-Suef University, BSU, Egypt, Email: samaa@psas.bsu.edu.eg, Tel: 00201029200873.

4. ***Prof. Dr: Maha A Ali,*** *Professor of biophysics faculty of science Cairo University Egypt, Email: maha_areeg@yahoo.com . Tel No 00201222943259*

5. Prof. Dr. Mostafa M. Ahmed
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6. Prof. Dr. Ahmed Farouk Al Hossany
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All document will be available at request, I hope to be part of a team working for you and thank you