Shadeed Gad

Current position: Professor of Pharmaceutics,
Faculty of Pharmacy,
Suez Canal University,
Ismailia, Egypt.

SCIENTIFIC PROFILE

Scopus ID: 54996867100
ORCiD: 0000-0001-7714-2267
Web of Science ResearcherID: L-1226-2019
Publications (Scopus): 47 published papers
Board member Discover Pharmaceutical Science(Springer Nature)
Associate Editor 3Biotech (Springer Nature)
Reviewr committees member to examine scientific production to fill the positions of professors and assistant professors in the Supreme Council of Universities.

ACADEMIC EXPERIENCES

- Vice dean of student affairs
- Vice dean of postgraduate studies and research
- Head of the Department of Pharmaceutics and Industrial Pharmacy

PROFESSIONAL EXPERIENCES

1. Advisory board member, pharmaceutical stability studies, Ministry of Health.
2. Trainer, Ministry of Health
3. Scientific advisor, CID, Splendid Pharma, Phoenix Pharma, UPI, Well Medicine, , Pharmaceredo, Biocare.
4. Production Pharmacist, El-Nile, for Pharmaceuticals

Awards

- The award for Best Specialty Product Exhibit at the Annual Student Research and Creativity Conference 2024.
- Best Poster award at First Young Reserchers Confernce.
- Best Poster award at Irish Society of Crystallography Conference- Dublin, Ireland

COURSE TAUGHT

Undergraduate courses	Postgraduate courses
• Pharmacy Orientation • Physical Pharmacy • Pharmaceutics 1 • Pharmaceutics 2 • Pharmaceutics 3 • Pharmaceutics 4 • Industrial Pharmacy • Biopharmaceutics and Pharmacokinetics	• Regulatory affairs and law • Dosage Forms Design. • Stability of Pharmaceutical Preparations. • Nanotechnology • Drug Targeting. • Principles of Cosmetics Formulation • Technology of Preparation of Cosmetics

- Pharmaceutical Quality Assurance & Control
- Cosmetics
- Advanced Drug Delivery Systems

Quality Assurance of Education and Accreditation Activities

• Standard 8 Teaching and Learning Coordinator

EDUCATION

1- Ph.D. Pharmaceutics "Preparation and Characterisation of Nanoporous Microparticles for Pulmonary Drug Delivery"

April. 2006 – 2009: Trinity College Dublin, Dublin, Ireland.
Ph.D. scope of work:

- During my Ph.D., I successfully prepared and characterized the solid states of recovered particles from a novel Spray Drying process, specifically focusing on collecting XRD, analyzing XRD, and comparing it with literature.
- Particular emphasis was placed on characterizing the novel Solid State resulting from the co-spray drying of p-aminosalicylic acid/process additives. The characterization involved using XRD to study the changes in the Solid State upon spray drying.
- During my Ph.D., I utilized the analysis techniques of X-ray diffraction, High-Performance Liquid Chromatography (HPLC), Differential Scanning Calorimetry (D.S.C.), Thermogravimetric Analysis (TGA), Surface area determination (B.E.T.), U.V. analysis, Nuclear Magnetic Resonance Spectra (N.M.R.), Dynamic vapor sorption (D.V.S.), Next Generation Pharmaceutical Impactor (N.G.I.), Fourier Transform Infrared Spectroscopy (FT-IR), Spray Drying, Elemental analysis determination, and Laser sizing diffraction techniques.
- During my Ph.D., I was fully trained and utilized Scanning Electron Microscopy (S.E.M.).

2- M.Sc. Pharmaceutical Technology "Application of Certain Pharmaceutical Techniques to Enhance Solubility of Certain Drugs"

1999 – 2004: Suez Canal University, Ismailia, Egypt.
MSc scope of work:
My thesis work involved the solubilization and characterization of different biologically active ingredients using advanced solubilization techniques;

- Production and characterization of Mixed Micelle System containing either Ketoconazole or Meloxicam.
- Production and characterization of Co. Solvent System containing either Ketoconazole or Meloxicam.
- Using pH control to enhance the solubility of Ketoconazole or Meloxicam.
- Accelerated stability study of the solubilized systems.

3- B.Sc. In Pharmaceutical Science

Sept. 1990 – June 1995: Zagazig University, Zagazig, Egypt.
Grade: First Class Honours

WORK EXPERIENCE

June 2021– to date

Position: Professor — **Suez Canal University**

Duties and Responsibilities

- Design and deliver lectures, seminars, and lab sessions in pharmaceutics and related courses.
- Stay up-to-date on innovative teaching methodologies and incorporate them into the classroom.
- Develop course materials, including syllabi, reading lists, assignments, and exams, that reflect current advances in pharmaceutics.
- Publish research findings in reputable, peer-reviewed journals and present at conferences, both nationally and internationally.
- Supervise doctoral and master's students, assisting them with thesis and dissertation work.
- Provide academic and career advice to students, fostering their growth and helping them identify potential career paths.

May 2016– to May 2021

Position: Associate Professor — Faculty of Pharmacy, Suez Canal University

Duties and Responsibilities

- Lecturing undergraduates and postgraduates.
- I participated in planning the practical experimental sessions, which included organizing student timetables, ordering necessary chemicals and glassware, and making budget adjustments.

September 2016– to date

Position: Head of Pharmaceutics dept. Faculty of Pharmacy, Suez Canal University

Duties and Responsibilities

- Manage departmental budgets, allocate resources effectively, and oversee procurement of lab equipment, materials, and other necessary resources.
- Foster a research-oriented environment, encouraging faculty and students to pursue innovative research projects.
- Organizing and leading regular departmental meetings and ensuring minutes are written and circulated to departmental members and the faculty board; representing the department's interests at faculty board meetings and other forums, as required.
- Guide students on academic, career, and research opportunities in pharmaceutics and related fields.
- Management: day-to-day management of departmental members, ensuring appropriate departmental records are maintained.

September 2023– to August 2024

Position: Vice Dean for Student Affairs. Suez Canal University

Duties and Responsibilities

- Provides supervision and counsel regarding student activities, the Student Association, and related functions.
- Lead the operational planning, budget, assessment, and continuous improvement processes for Student Services.
- Develops and administers the Student Services annual budget in collaboration with the Vice President for students.

September 2020– September 2023

Position: Vice Dean for Research Affairs. Suez Canal University

Duties and Responsibilities

- Creation of research affairs and postgraduate department.
- Ensuring the faculty is well represented by the university in publications.
- Organizing and leading regular meetings and ensuring minutes are written and circulated to the faculty board, representing the faculty interests at university meetings and other forums, as required.
- Management: managing postgraduate and research affairs daily, ensuring appropriate records are maintained..

February 2010 – to May 2016

Position: Lecturer. Faculty of Pharmacy, Suez Canal University

Duties and Responsibilities

- teach undergraduate pharmaceutics course
- Supervise postgraduate students (MSc and Ph.D. students)

Faculty of Pharmacy, Suez Canal University

- Lecturing undergraduates and postgraduates.
- I participated in planning the practical experimental sessions, which included organizing student timetables, ordering necessary chemicals and glassware, and making budget adjustments.

April 2006 – December 2009

Position: Ph.D. student. School of Pharmacy, Trinity College Dublin

Duties and Responsibilities

- Study for Ph.D.
- Teaching undergraduate practical pharmaceutics courses.

February 2004 – March 2006

Position: Ass. Lecturer. Faculty of Pharmacy, Suez Canal University.

Duties and Responsibilities

- involved in research projects in the Department of Pharmaceutics.
- Arrangement of practical courses for undergraduate students.

May 1999 – February 2004

Position: Demonstrator. Faculty of Pharmacy, Suez Canal University.

Duties and Responsibilities

- involved in research projects in the Department of Pharmaceutics.
- Study for MSc in Pharmaceutics.

- Practical demonstration for undergraduate students.

March 1997 – May 1999

Position: Researcher. Faculty of Pharmacy, Suez Canal University.

Duties and Responsibilities

Involved in research projects in the Department of Pharmaceutics in relation to the following;

- Semisolid dosage forms; Formulation of different ointment bases to enhance the release of active ingredients.
- Liquid dosage forms; Formulation of various solubilized systems to enhance the aqueous solubility of oil-soluble vitamins.

1995 – August 1997

Position: Formulation Supervisor Nile Co. for Pharmaceuticals.

Duties and Responsibilities:

I was responsible for formulating tablets and capsules, paying attention to the quality in many aspects under the G.M.P. regulation. These aspects include the following points;

- Formulation of accurate and consistent power by wet and dry granulation for the tabling processes.
- Preparation and characterization of tablet cores before the coating process to avoid tablet coating deficiencies.
- Formulation of tables containing potent drugs, i.e., Codeine and Caffeine.
- Formulation of capsules using different excipients for a consistent weight of the capsules.
- Troubleshooting.
- Employee supervision, training, and development
- Managing multiple priorities.

I was also a member of the Continuous Improvement Projects team responsible for successfully acquiring the ISO 9001 for Nile Co. Additionally, I was a key trainer and mentor to several junior researchers.

PUBLICATIONS

- Shewaiter, M.A., Selim, A.A., Rashed, H.M., Moustafa, Y.M., **Gad, S**. Niosomal formulation of mefenamic acid for enhanced cancer targeting; preparation, characterization and biodistribution study using radiolabeling technique. *Journal of Cancer Research and Clinical Oncology*, 2023, 149(20), pp. 18065–18080

- AL-Thamarani, S. **Gad, S.** Abdel Fattah, I.O. Hammadi, S.H, Hammady, T.M. Comparative analysis of oral and local intraovarian administration of metformin and nanoparticles (NPs11) in alleviating testosterone-induced polycystic ovary syndrome in rats. *Tissue and Cell*, 2024, 88, 102394

- Heikal, E.J., Kaoud, R.M., **Gad, S.,** Mokhtar, H.I., Alattar, A., Alshaman, R., Zaitone, S.A., Moustafa, Y.M., Hammady, T.M. Development of Novel pH-Sensitive Eudragit Coated Beads Containing Curcumin-Mesalamine Combination for Colon-Specific Drug Delivery. (2023) Gels, 9 (4), art. no. 264. DOI: 10.3390/gels9040264

- Zaky, M.F., Megahed, M.A., Hammady, T.M., **Gad, S.,** Ghorab, M.M., El-Say, K.M. Tailoring

Apixaban in Nanostructured Lipid Carrier Enhancing Its Oral Bioavailability and Anticoagulant Activity. (2023) Pharmaceutics, 15 (1), art. no. 80. DOI: 10.3390/pharmaceutics15010080

- Shewaiter, M.A., Selim, A.A., Moustafa, Y.M., **Gad, S.**, Rashed, H.M. Radioiodinated acemetacin loaded niosomes as a dual anticancer therapy. (2022) International Journal of Pharmaceutics, 628, art. no. 122345. DOI: 10.1016/j.ijpharm.2022.122345

- Nasr, A.M., Moftah, F., Abourehab, M.A.S., **Gad, S**. Design, Formulation, and Characterization of Valsartan Nanoethosomes for Improving Their Bioavailability. (2022) Pharmaceutics, 14 (11), art. no. 2268. DOI: 10.3390/pharmaceutics14112268

- Amran, M., Khafagy, E.-S., Mokhtar, H.I., Zaitone, S.A., Moustafa, Y.M., **Gad, S.** Formulation and Evaluation of Novel Additive-Free Spray-Dried Triamcinolone Acetonide Microspheres for Pulmonary Delivery: A Pharmacokinetic Study. (2022) Pharmaceutics, 14 (11), art. no. 2354. DOI: 10.3390/pharmaceutics14112354

- Gardouh, A.R., Nasef, A.M., Mostafa, Y., **Gad, S.** Impact on HDL and LDL of Hyperlipidemic Rat Models: Designed Solid Self-Nanoemulsifying Drug Delivery Systems with Atorvastatin and Ezetimibe combination. (2022) Research Journal of Pharmacy and Technology, 15 (6), pp. 2459-2469. DOI: 10.52711/0974-360X.2022.00411

- Mousa, I.A., Hammady, T.M., **Gad, S.,** Zaitone, S.A., El-Sherbiny, M., Sayed, O.M. Formulation and Characterization of Metformin-Loaded Ethosomes for Topical Application to Experimentally Induced Skin Cancer in Mice. (2022) Pharmaceuticals, 15 (6), art. no. 657. DOI: 10.3390/ph15060657

- Khafagy, E.-S., Lila, A.S.A., Sallam, N.M., Sanad, R.A.-B., Ahmed, M.M., Ghorab, M.M., Alotaibi, H.F., Alalaiwe, A., Aldawsari, M.F., Alshahrani, S.M., Alshetaili, A., Almutairy, B.K., Saqr, A.A., **Gad, S.** Preparation and Characterization of a Novel Mucoadhesive Carvedilol Nanosponge: A Promising Platform for Buccal Anti-Hypertensive Delivery. (2022) Gels, 8 (4), art. no. 235, . DOI: 10.3390/gels8040235

- Gardouh, A.R., Elhusseiny, S., **Gad, S.** Mixed Avanafil and Dapoxetine Hydrochloride cyclodextrin nano-sponges: Preparation, in-vitro characterization, and bioavailability determination. (2022) Journal of Drug Delivery Science and Technology, 68, art. no. 103100. DOI: 10.1016/j.jddst.2022.103100

- Kaoud, R.M., Heikal, E.J., **Gad, S.** Ezetimibe nanostructured lipid carriers (NLCs): a new technique to overcome the limitations of oral administration. (2022) International Journal of Applied Pharmaceutics, 14 (3), pp. 135-140. DOI: 10.22159/ijap.2022v14i3.44072

- Hassan, T.H., Salman, S.S., Elkhoudary, M.M., **Gad, S.** Refinement of Simvastatin and Nifedipine combined delivery through multivariate conceptualization and optimization of the nanostructured lipid carriers. (2021) Journal of Drug Delivery Science and Technology, 64, art. 102570. DOI: 10.1016/j.jddst.2021.102570

- Gardouh, A.R., El-Din, A.S.G.S., Mostafa, Y., **Gad, S.** Starch nanoparticles preparation and characterization by in situ combination of sono-precipitation and alkali hydrolysis under ambient temperature. (2021) Research Journal of Pharmacy and Technology, 14 (7), pp. 3543-3552. DOI: 10.52711/0974-360X.2021.00614

- Sallam, N.M., Sanad, R.A.B., Ahmed, M.M., Khafagy, E.S., Ghorab, M., **Gad, S.** Impact of the mucoadhesive lyophilized wafer loaded with novel carvedilol nano-spanlastics on biochemical markers in the heart of spontaneously hypertensive rat models. (2021) Drug Delivery and Translational Research, 11 (3), pp. 1009-1036. DOI: 10.1007/s13346-020-00814-4

- Shewaiter, M.A., Hammady, T.M., El-Gindy, A., Hammadi, S.H., **Gad, S.** Formulation and characterization of leflunomide/diclofenac sodium microemulsion base-gel for the transdermal treatment of inflammatory joint diseases. (2021) Journal of Drug Delivery Science and Technology, 61, art. 102110. DOI: 10.1016/j.jddst.2020.102110

- Lila, A.S.A., Abdallah, M.H., Khafagy, E.-S., Shehata, T.M., Soliman, M.S., Younes, K.M., Omran, M., **Gad, S.** Design, synthesis and cytotoxic evaluation of 2-amino-4- aryl-6-substituted pyridine-3,5-dicarbonitrile derivatives. (2021) Tropical Journal of Pharmaceutical Research, 20 (10), pp. 2127-2133. DOI: 10.4314/tjpr.v20i10.16

- Gardouh, A.R., Srag El-Din, A.S.G., Salem, M.S.H., Moustafa, Y., **Gad, S.** Starch nanoparticles for enhancement of oral bioavailability of a newly synthesized thienopyrimidine derivative with anti-proliferative activity against pancreatic cancer. (2021) Drug Design, Development and Therapy, 15, pp. 3071-3093. DOI: 10.2147/DDDT.S321962

- Desoqi, M.H., El-Sawy, H.S., Kafagy, E., Ghorab, M., **Gad, S**. Fluticasone propionate–loaded solid lipid nanoparticles with augmented anti-inflammatory activity: optimization, characterisation and pharmacodynamic evaluation on rats. (2021) Journal of Microencapsulation, 38 (3), pp. 177-191. DOI: 10.1080/02652048.2021.1887383

- Ghanem, H.A., Nasr, A.M., Hassan, T.H., Elkhoudary, M.M., Alshaman, R., Alattar, A., **Gad, S.** Comprehensive study of atorvastatin nanostructured lipid carriers through multivariate conceptualization and optimization. (2021) Pharmaceutics, 13 (2), art. no. 178, pp. 1-24. DOI: 10.3390/pharmaceutics13020178

- Gardouh, A.R., Nasef, A.M., Mostafa, Y., **Gad, S**. Design and evaluation of combined atorvastatin and ezetimibe optimized self-nano emulsifying drug delivery system. (2020) Journal of Drug Delivery Science and Technology, 60, art. 102093. DOI: 10.1016/j.jddst.2020.102093

- Abd-Elal, R.M.A., Elosaily, G.H., **Gad, S.,** Khafagy, E.-S., Mostafa, Y. Full Factorial Design, Optimization, In vitro and Ex vivo Studies of Ocular Timolol-Loaded Microsponges. (2020) Journal of Pharmaceutical Innovation, 15 (4), pp. 651-663. DOI: 10.1007/s12247-019-09418-z

- Al-Maghrabi, P.M., Khafagy, E.-S., Ghorab, M.M., **Gad, S.**Influence of formulation variables on miconazole nitrate–loaded lipid-based nanocarrier for topical delivery.(2020) Colloids and Surfaces B: Biointerfaces, 193, art. no. 111046. DOI: 10.1016/j.colsurfb.2020.111046

- Mostafa, M., Gardouh, A.R., Abogresha, N.M., **Gad, S.** Factorial design, formulation, in vitro and in vivo evaluation of rapid orally disintegrating tablets prepared by sublimation technique using captopril as a model drug. (2020) Journal of Drug Delivery Science and Technology, 57, art. no. 101635. DOI: 10.1016/j.jddst.2020.101635

- Khafagy, E.-S., Fayed, M.H., Alrabahi, S.H., **Gad, S**., Alshahrani, S.M., Aldawsari, M. Defining design space for optimization of escitalopram ultra-fast melting tablet using suspension spray-coating technique: In-vitro and in-vivo evaluation. (2020) Journal of Drug Delivery Science and Technology, 57, art. no. 101631. DOI: 10.1016/j.jddst.2020.101631

- Gardouh, A., Gamal, A., **Gad, S**. Formulation and pharmacokinetic evaluation of rifampicin solid lipid nanoparticles. (2020) Journal of Research in Pharmacy, 24 (4), pp. 539-551. DOI: 10.35333/jrp.2020.202

- Abdelkarim Aboueisha, Y., **Gad, S.,** Fathy Khalil, W., Ali Ahmed, E., Mostafa Ghorab, M. Effect of ethyl cellulose content on release profile and pharmacodynamics of fenoprofen microparticles. (2019) Indian Journal of Pharmaceutical Education and Research, 53 (3), pp. 446-456. DOI: 10.5530/ijper.53.3.77

- Hanna, P.A., Ghorab, M.M., **Gad, S.**Development of betamethasone dipropionate-loaded nanostructured lipid carriers for topical and transdermal delivery. (2019) Anti-Inflammatory and Anti-Allergy Agents in Medicinal Chemistry, 18 (1), pp. 26-44. DOI: 10.2174/1871523017666181115104159

- Ammar, H.O., Ghorab, M.M., Felton, L.A., **Gad, S.,** Fouly, A.A. Effect of Antiadherents on the Physical and Drug Release Properties of Acrylic Polymeric Films. (2016) AAPS PharmSciTech, 17

(3), pp. 682-692. DOI: 10.1208/s12249-015-0397-7

- Youssef, M., Ghorab, M., Khater, M., **Gad, S.** Effect of additives on intranasal preparation of cyanocobalamin. (2015) International Journal of Pharmacy and Pharmaceutical Sciences, 7 (1), pp. 210-217.
- Fayez, S.M., **Shadeed, S.G**., Khafagy, E.-S.A., Abdel Jaleel, G.A., Ghorab, M.M., El-Nahhas, S.A. Formulation and evaluation of etodolac lecithin organogel transdermal delivery systems. (2015) International Journal of Pharmacy and Pharmaceutical Sciences, 7 (4), pp. 325-334.
- Ghorab, M., Gardouh, A., **Gad, S**. Effect of viscosity, surfactant type and concentration on physicochemical properties of solid lipid nanoparticles. (2015) International Journal of Pharmacy and Pharmaceutical Sciences, 7 (3), pp. 145-153.
- Ghorab, M.M., Elsayed, M.M., Nasr, A.M., **Gad, S.** Effect of additives on In-vitro release of Orodispersible dosage form. (2015) International Journal of Pharmacy and Pharmaceutical Sciences, 7 (2), pp. 283-289.
- Ahmed, A.M.S., Ghourab, M.M., **Gad, S.,** Qushawy, M.K.E. Design, formulation, and evaluation of piroxicam niosomal gel, (2014) International Journal of PharmTech Research, 6 (1), pp. 185-195.
- Samy, A.M., Ghorab, M.M., **Shadeed, S.G**., Mohamed, N.H. Design and optimization of ranitidine hydrochloride floating microspheres. (2013) International Journal of Pharmacy and Pharmaceutical Sciences, 5 (3), pp. 278-284.
- Samy, A.M., Ghorab, M.M., **Shadeed, S.G.,** Mazyed, E.A. Formulation and evaluation of different transdermal drug delivery systems of ketoprofen. (2013) International Journal of Pharmacy and Pharmaceutical Sciences, 5 (SUPPL. 2), pp. 600-607.
- Samy, A.M., Ghorab, M.M., **Shadeed, S.G.,** Mortagi, Y.I. Effect of different additives on celecoxib release. (2013) International Journal of Pharmacy and Pharmaceutical Sciences, 5 (SUPPL. 2), pp. 667-671.
- Ahmed, A.M.S., Ghourab, M.M., **Gad, S.,** Qushawy, M.K.E. The application of Plackett-Burman design and response surface methodology for optimization of formulation variables to produce piroxicam niosomes. (2013) International Journal of Drug Development and Research, 5 (2), pp. 121-130.
- Ahmed, S., Mamdouh, G., **Shadeed, G.,** Eman, M. Effect of drug modification on properties of Ketoprofen transdermal gel. (2013) International Journal of Drug Development and Research, 5 (1), pp. 83-90.
- Ghorab, M., Khafagy, E., Kamel, M., **Gad, S.** Formulation, characterization and comparative in vitro in vivo evaluation of sustained release theophylline tablets. (2012) International Journal of Pharmacy and Pharmaceutical Sciences, 4 (SUPPL.3), pp. 721-728.
- **Gad, S.,** Tajber, L., Corrigan, O.I., Healy, A.M. Preparation and characterization of novel spray-dried nano-structured para-aminosalicylic acid particulates for pulmonary delivery: Impact of ammonium carbonate on morphology, chemical composition, and solid state. (2012) Journal of Pharmacy and Pharmacology, 64 (9), pp. 1264-1274. DOI: 10.1111/j.2042-7158.2012.01465.x

REFERENCES

- Prof. Mamdouh Ghorab is a professor of pharmaceutics at the Faculty of Pharmacy. Former president, Suez Canal University, Ismailia, Egypt.

Phone no.: +20-111- 48880018 Fax: +20-64- 3230741 Email: mghorab@hotmail.com

- Prof. Elsayed Khafagy, Professor of pharmaceutics, Faculty of Pharmacy, Prince Sattam University, KSA.

Phone: +966533564286 Email: e.khafagy@psau.edu.sa