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Professional Experience

- July 2018 – Present **Associate Professor of Pharmaceutics**, Faculty of Pharmacy, **Cairo University**, Cairo, Egypt.
- June 2021 – Present **Director of the Computer Center**, Faculty of Pharmacy, **Cairo University**, Cairo, Egypt.
- October 2020 – Present **Director of the Drug Manufacturing Unit**, Faculty of Pharmacy, **Cairo University**, Cairo, Egypt.
- November 2016 – October 2018 **Postdoctoral Research Associate in Elizabeth Topp group**, Industrial and Physical Pharmacy Department, College of Pharmacy, **Purdue University**, West Lafayette, IN, United States.
- July 2013 – July 2018 **Assistant Professor of Pharmaceutics**, Faculty of Pharmacy, **Cairo University**, Cairo, Egypt.
- August – October 2016 **Postdoctoral Research Associate**, School of Chemical Engineering, **Purdue University**, West Lafayette, IN, United States.
- May 2015 – July 2016 **Postdoctoral Research Associate in Keith Chadwick group**, Industrial and Physical Pharmacy Department, College of Pharmacy, **Purdue University**, West Lafayette, IN, United States.
- October 2004 - July 2013 **Teaching and Research Assistant of Pharmaceutics**, Faculty of Pharmacy, **Cairo University**, Cairo, Egypt.

Education

- January 2010 – July 2013 **Doctor of Philosophy in Pharmaceutical Sciences**, Faculty of Pharmacy, Cairo University, July 2013.
- October 2004 – December 2009 **Master of Pharmaceutical Sciences**, Faculty of Pharmacy, Cairo University, December 2009.
- September 1999 – May 2004 **Bachelor of Pharmaceutical Sciences**, Faculty of Pharmacy, Cairo University, May 2004. Grade: Excellent with Honours – Ranked 3rd in a class of ~1480 students.

Teaching Activities

- 1- Clinical Pharmacokinetics Course for Hospital Pharmacy Diploma, Faculty of Pharmacy, Cairo University (course coordinator).
- 2- Drug Information Course for Hospital Pharmacy Diploma, Faculty of Pharmacy, Cairo University (course coordinator).
- 3- Pharmaceutical Technology Course for third-year pharmacy students – Credit Hour (Clinical) Program, Faculty of Pharmacy, Cairo University.

- 4- Pharmaceutics Course for third-year pharmacy students – Two Term (General) Program, Faculty of Pharmacy, Cairo University.
- 5- Biopharmaceutics and Pharmacokinetics Course for third-year pharmacy students – Credit Hour (Clinical) Program, Faculty of Pharmacy, Cairo University.
- 6- Controlled Drug Delivery Systems for fourth-year pharmacy students – Credit Hour (Clinical) Program, Faculty of Pharmacy, Cairo University (course coordinator).
- 7- Drug Design for fourth year pharmacy students, Faculty of Pharmacy, Ahran Canadian University.
- 8- Hospital Pharmacy for fourth-year pharmacy students, Faculty of Pharmacy, Ahran Canadian University.
- 9- Supervising Practical labs of Pharmaceutics for second and third-year pharmacy students – Two Term (General) Program, Faculty of Pharmacy, Cairo University.
- 10- Supervising Practical labs of Pharmacokinetics and Biopharmaceutics for fourth-year pharmacy students – Two Term (General) Program, Faculty of Pharmacy, Cairo University.
- 11- Supervising Practical labs of Industrial Pharmacy for fifth-year pharmacy students – Two Term (General) Program, Faculty of Pharmacy, Cairo University.
- 12- Supervising Practical labs of Biophysics and Physical Pharmacy for first-year pharmacy students – Credit Hour (Clinical) Program, Faculty of Pharmacy, Cairo University.
- 13- Supervising Practical labs of Pharmaceutical Dosage Forms for second and third-year pharmacy students – Credit Hour (Clinical) Program, Faculty of Pharmacy, Cairo University.
- 14- Supervising Practical labs of Pharmaceutical Technology and Pharmacokinetics and Biopharmaceutics for third-year pharmacy students – Credit Hour (Clinical) Program, Faculty of Pharmacy, Cairo University.

Publications

- 1- **M.H.H. AbouGhaly***, K.B. Chandarababu*, A. Karaki, P. Pande, M.J. Pikal, E.M. Topp “Impact of shelf position of vials during lyophilization on the storage stability of proteins”. Manuscript under preparation.
- 2- **M.H.H. AbouGhaly***, K.B. Chandarababu*, E.M. Topp “Effect of fill volume and prehydration of lyophilized cakes on the solid-state hydrogen deuterium exchange (ssHDX) kinetics”. Manuscript under preparation for submission to Int. J. Pharm.
- 3- S.M. El-Hady*, **M.H.H. AbouGhaly***, M.M. El Ashmoony, O.N. El-Gazayerly “Colon targeting of celecoxib nanomixed micelles using Pulsincap systems for the prevention of inflammatory bowel disease”. Int. J. Pharm., 576:118982, <https://doi.org/10.1016/j.ijpharm.2019.118982> (2020).
- 4- **M.H.H. AbouGhaly**, J. Du, S.M. Patel, E.M. Topp “Effects of ionic interactions on protein stability prediction using solid-state hydrogen deuterium exchange with mass spectrometry (ssHDX-MS)”. Int. J. Pharm., 568:118512, <https://doi.org/10.1016/j.ijpharm.2019.118512> (2019).
- 5- S.A. El-Zahaby, **M.H.H. AbouGhaly**, G.A. Abdelbary, O.N. El-Gazayerly “Zero order release and bioavailability enhancement of poorly water soluble Vinpocetine from self-nanoemulsifying osmotic pump tablet”. Pharm. Dev. Technol., 23:9, 900-910, <https://doi.org/10.1080/10837450.2017.1335321> (2018).
- 6- M.A. Patel, **M.H.H. AbouGhaly**, K. Chadwick “The discovery and investigation of a crystalline solid solution of an active pharmaceutical ingredient”. Int. J. Pharm., 532: 166-176 <http://dx.doi.org/10.1016/j.ijpharm.2017.08.101> (2017).

- 7- M.A. Patel*, **M.H.H. AbouGhaly***, J.V. Schryer-Praga, K. Chadwick “The effect of ionotropic gelation residence time on alginate cross-linking and properties”. Carbohydr. Polym., 155:362-371 <http://dx.doi.org/10.1016/j.carbpol.2016.08.095> (2017).
- 8- S.A. Tayel, M.A. ElNabarawi, M.M. Amin, **M.H.H. AbouGhaly** “Comparative Study Between Different Ready-Made Orally Disintegrating Platforms in the Formulation of Sumatriptan Succinate Mucoadhesive Sublingual Tablets”. AAPS PharmSciTech, 18(2): 410-423 <https://www.doi.org/10.1208/s12249-016-0517-z> (2017).
- 9- Shereen W Arafat, Rania F Abdulmaguid, **Mohamed H.H. AbouGhaly** “Clinical and radiographic evaluation of the influence of antihyperglycemic drug (metformin) on healing of bone and periodontal defects after impacted mandibular third molar surgery”. Tanta Dental Journal, 13(4):187-192 <https://dio.org/10.4103/1687-8574.195709> (2016).
- 10- B.A. Habib* and **M.H.H. AbouGhaly*** “Combined Mixture-Process Variable Approach: A suitable statistical tool for nanovesicular systems optimization” Expert Opin. Drug Deliv., 13(6): 777-788 <http://dx.doi.org/10.1517/17425247.2016.1166202> (2016).
- 11- I. ElSayed and **M.H.H. AbouGhaly** “Inhalable Nanocomposite Microparticles: Preparation, Characterization and Factors Affecting Formulation” Review Article in Expert Opin. Drug Deliv., 13(2): 207-222 <http://dx.doi.org/10.1517/17425247.2016.1102224> (2016).
- 12- S.A. Tayel, M.A. ElNabarawi, M.M. Amin, **M.H.H. AbouGhaly** “Sumatriptan Succinate Sublingual Fast Dissolving Thin Films: Formulation and *in-vitro/in-vivo* Evaluation” Pharm. Dev. Technol., 21(3): 328-337 <http://dx.doi.org/10.3109/10837450.2014.1003655> (2016).
- 13- S.A. El-Zahaby, **M.H.H. AbouGhaly**, G.A. Abdelbary, O.N. El-Gazayerly “Development of a Novel Solid Self-nano-emulsifying Osmotically Controlled System of a Centrally Acting Drug: Preparation and In-vitro Evaluation” Inventi Impact: NDDS, 2016(1):35-49 (2016).
- 14- A.A. Abdelbary and **M.H.H. AbouGhaly** “Design and optimization of topical methotrexate loaded niosomes for enhanced management of psoriasis: Application of Box–Behnken design, in-vitro evaluation and in-vivo skin deposition study” Int. J. Pharm., 485: 235-243 <http://dx.doi.org/10.1016/j.ijpharm.2015.03.020> (2015).
- 15- **M.H. Hany** and O.N. El-Gazayerly “Rice bran solid lipid nanoparticles; Preparation and characterization” Int. J. Res. Drug Del., 1(2): 6-9 (2011).

*Authors contributed equally to the work.

Oral Presentations

- 1- The feasibility and limitations of solid state hydrogen deuterium exchange (ssHDX-MS) for characterizing proteins in lyophilized solids. Lyophilization USA conference, Iselin, NJ, USA. (November, 2018)

Poster Presentations

- 1- **M.H.H. AbouGhaly**, J. Du, S. Patel*, E.M. Topp. Solid state hydrogen deuterium exchange with mass spectrometric analysis (ssHDX-MS): Effects of ionizable excipients. 2019 Annual Meeting: East coast Chapter of International Society of Lyophilization - Freeze Drying (ISLFD), Gaithersburg, MD, USA. (September, 2019)
- 2- **M.H.H. AbouGhaly***, K.B. Chandrababu, A. Karaki, P. Pande, E.M. Topp. Impact of the shelf position of vials during lyophilization on the storage stability of proteins. LyoHUB/ASTM Meeting, West Lafayette, IN, USA. (October, 2018)

- 3- K.B. Chandrababu, **M.H.H. AbouGhaly***, E.M. Topp. Effect of fill volume and prehydration of lyophilized cakes on the solid-state hydrogen deuterium exchange (ssHDX) kinetics. LyoHUB/ASTM Meeting, West Lafayette, IN, USA. (October, 2018)
- 4- **M.H.H. AbouGhaly***, J. Du, S. Patel, E.M. Topp. Solid state hydrogen deuterium exchange with mass spectrometric analysis (ssHDX-MS): Effects of ionizable excipients. 2018 Annual Meeting: Midwest Chapter of International Society of Lyophilization - Freeze Drying (ISLFD), Chicago, IL, USA. (April, 2018)
- 5- **M.H.H. AbouGhaly***, J. Du, S. Patel, E.M. Topp. Solid state hydrogen deuterium exchange with mass spectrometric analysis (ssHDX-MS): Effects of ionizable excipients. Third Annual Life Sciences Postdoc Mini Symposium, West Lafayette, IN, USA. (April, 2018)
- 6- **M.H.H. AbouGhaly***, J. Du, S. Patel, E.M. Topp. Solid state hydrogen deuterium exchange with mass spectrometric analysis (ssHDX-MS): Effects of ionizable excipients. Fifteenth Annual Garnet E. Peck Symposium, West Lafayette, IN, USA. (March, 2018)
- 7- P. Pande*, **M.H.H. AbouGhaly**, K.B. Chandrababu, E.M. Topp, M.J. Pikal. Effect of formulation and lyophilization process variations on protein aggregation and chemical degradation: Impact of scale-up. the AAPS Protein Stability Conference, Breckenridge, CO, USA. (July, 2017)
- 8- K.B. Chandrababu, **M.H.H. AbouGhaly***, J. Du, S. Patel, E.M. Topp. Solid state amide hydrogen/deuterium exchange with mass spectrometry (ssHDX-MS) for lyophilized monoclonal antibodies. Fourteenth Annual Garnet E. Peck Symposium, West Lafayette, IN, USA. (March, 2017)
- 9- S.M. El-Hady*, **M.H.H. AbouGhaly**, M.M. El Ashmoony, O.N. El-Gazayerly. Celecoxib Mixed Micelles for Solubility Enhancement. First Ahran Canadian University International Conference, Giza, Egypt. (May, 2016)
- 10- M. Patel, **M.H.H. AbouGhaly***, J. Schryer-Praga1, K. Chadwick. Effect of Ionotropic Gelation Residence Time on Alginate Crosslinking and Properties. Thirteenth Annual Garnet E. Peck Symposium, West Lafayette, IN, USA. (March, 2016)
- 11- S.A. El-Zahaby*, **M.H.H. AbouGhaly**, G.A. Abdelbary, O.N. El-Gazayerly. Asymmetrically coated osmotic tablets: a means for achieving a zero order release of a centrally acting drug. First PUA International Conference on Advances in Pharmaceutical Sciences, Pharos University, Alexandria, Egypt. (October, 2015)
- 12- S.A. El-Zahaby*, **M.H.H. AbouGhaly**, G.A. Abdelbary. Formulation and Optimization of Solid Self-nanoemulsified Single and Twin Drilled Osmotic Pump Tablets of Anti-Alzheimer's Drug. 3rd Future University International Conference of Pharmaceutical Technologies, Cairo, Egypt. (February, 2015)
- 13- S.A. Tayel, M.A. El Nabarawi*, M.M. Amin, **M.H.H. Abou Ghaly**. In-vitro and in-vivo evaluation of Sumatriptan Succinate Sublingual Dosage Forms. AAPS Conference, San Antonio, TX, USA. (November, 2013)
- 14- S.A. Tayel, M.A. El Nabarawi, M.M. Amin, **M.H.H. Abou Ghaly***. Application of Novel Orally Disintegrating Platforms in the Formulation of Sumatriptan Succinate Mucoadhesive Sublingual Tablets: in-vitro Characterization Studies. Fourth Scientific Conference of Faculty of Pharmacy Cairo University, Cairo, Egypt. (April, 2013)
- 15- S.A. Tayel, M.A. El Nabarawi, M.M. Amin, **M.H.H. Abou Ghaly***. Design and Evaluation of Fast Dissolving Oral Films of Sumatriptan Succinate. Future University International Conference on Pharmaceutical Technologies, Cairo, Egypt. (February, 2012)

- 16- S.A. Tayel, M.A. El Nabarawi*, H.H. El-Laithy, **M.H.H. Abou Ghaly**. Formulation and Evaluation of Famotidine Floating Matrix Tablets. AAPS Conference, Los Angeles, CA, USA. (November, 2009)
- 17- S.A. Tayel, M.A. El Nabarawi, H.H. El-Laithy, **M.H.H. Abou Ghaly***. Development of Famotidine Gastroretentive Matrix Tablets. XXXI Conference of the Egyptian Society of Pharmaceutical Sciences, Cairo, Egypt. (December, 2008)
*Poster presenter

Applied Research Projects

- 1- Co-investigator in the project “Rice Bran Nutraceuticals” RDI Project Number C2/S1/118 (2011).

Service

Ad hoc reviewer for Journal of Liposome Research; Colloids and Surfaces B: Biointerfaces; Pharmaceutical Research; Drug Development Research; Powder Technology; Journal of Pharmacy and Pharmacology; European Journal of Pharmaceutics and Biopharmaceutics; International Journal of Nanomedicine; AAPS PharmSciTech; Pharmaceutical Development and Technology; Journal of Drug Delivery Science and Technology; Current Pharmaceutical Design; Drug Design, Development and Therapy; Medical Devices: Evidence and Research; Journal of Advanced Research; and the Bulletin of Faculty of Pharmacy, Cairo University.

Member of the scientific committee of the 10th International Scientific Conference of the Faculty of Pharmacy, Cairo University (2021).

Mentoring

Co-advisor for 1 PhD student and 4 Master students at Faculty of Pharmacy, Cairo University.

Professional Society Affiliations

1. General Syndicate of Pharmacists.
2. Cairo Syndicate of Pharmacists.
3. Egyptian Society of Pharmaceutical Sciences.
4. American Association of Pharmaceutical Scientists.
5. International Society of Lyophilization – Freeze Drying

Awards

1. Certificate of recognition from the 8th International Scientific Conference of the Faculty of Pharmacy, Cairo University for the best manuscript published by the Department of Pharmaceutics and Industrial Pharmacy in 2016 for the manuscript titled “Combined Mixture-Process Variable Approach: A suitable statistical tool for nanovesicular systems optimization”. (April 2017)
2. Certificate of recognition from the 8th International Scientific Conference of the Faculty of Pharmacy, Cairo University for the best manuscript published by the Department of Pharmaceutics and Industrial Pharmacy in 2016 for the review article titled “Inhalable Nanocomposite Microparticles: Preparation, Characterization and Factors Affecting Formulation”. (April 2017)

3. Certificate of Appreciation and gratitude from the Faculty of Pharmacy, Cairo University for the participation in the organization of the Fifth Scientific Conference of the Faculty of Pharmacy, Cairo University, Cairo, Egypt. (April 2014)

Training and Workshops Presented

1. Statistics: Introduction to GraphPad Prism. (December 2020)

Training and Workshops Attended

1. Essentials of integrated learning. (March 2021)
2. Study design and critical appraisal: Finding a needle in a haystack. (February 2021)
3. Egyptian Knowledge Bank (EKB) and searching for resources. (December 2020)
4. Writing a research statement and travel grant. (February 2018)
5. Proposal and Grant Writing: The art of persuading a sponsor to invest in You! (January 2018)
6. Statistical analysis in bio-experiments. (January 2018)
7. Arabic and English editing in scientific research. (January 2018)
8. Change Management. (December 2017)
9. Hands-on Lyophilization Course—Lyo 101: Birck Nanotechnology Center, Purdue University. Topics covered: Formulation and lyophilization cycle development, Differential scanning calorimetry and data interpretations, Freeze dry microscopy, Micro freeze dryer, Primary drying and secondary drying endpoint determination. (July 2017)
10. Cambridge Crystallographic Data Center Workshop (February 2016)
11. Effective Grant Writing Techniques (October 2015)
12. Strategic planning. (September 2014)
13. Time and meetings management. (June 2014)
14. Legal and financial aspects in university work. (February 2014)
15. E-Learning. (September 2013)
16. Competing for research funds. (June 2013)
17. Use of technology in teaching. (June 2013)
18. University code of ethics. (February 2013)
19. The credit hour systems. (September 2012)
20. Research team management. (October 2011)
21. Research ethics. (March 2011)
22. Examination systems. (July 2009)
23. Scientific publishing. (July 2008)
24. Thinking skills. (June 2007)
25. Efficient teaching. (May 2007)
26. Scientific research methods. (May 2007)
27. Presentation skills. (May 2007)

Language and Computer Skills

1. Local TOEFL, Center of language and professional translation, Cairo University – Score 633. (2013)
2. International Computer Driving License (ICDL). (2012)

Administrative Activities

- 1- Director of the Computer Center, Faculty of Pharmacy, Cairo University (June 2021 – Present).
- 2- Director of the Drug Manufacturing Unit, Faculty of Pharmacy, Cairo University (October 2020 – Present)
- 3- Vice Director of the Computer Center, Faculty of Pharmacy, Cairo University (November 2013 – January 2015).
- 4- Member of the Technical Committee, Faculty of Pharmacy, Cairo University (2013 – 2015).
- 5- Member of the Academic Support Committee, Faculty of Pharmacy, Cairo University (2013 – 2015).
- 6- Member of the Bioequivalence Committee, Ministry of Health, Egypt (June 2014 – January 2015).
- 7- Elected Chair of the Teaching Assistants Board, Department of Pharmaceutics and Industrial Pharmacy, Faculty of Pharmacy, Cairo University (2011 – 2013).
- 8- Elected Member of the Management Board of the Egyptian Rowing Club, Cairo, Egypt (2008 – 2012).