

Curriculum Vitae of ADEL ALHOWYAN

PERSONAL INFORMATION:

NAME: Adel Ali Alhowyan

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DATE OF BIRTH: Feb /29/1984

EDUCATION:

Aug/ 2001-April/ 2007 Bachelor degree in pharmaceutical science with second-class honor, GPA (4.66/5) College of Pharmacy, KSU, Saudi Arabia. Sub major: Industrial pharmacy.

Jan/ 2010-Aug/ 2012 Master of Science in pharmaceutical chemistry from Kansas University, KS, United States of America with a GPA (3.43/4)

Sept/ 2019-June/ 2023 Doctor of philosophy in pharmaceutics King Saud university, college of pharmacy, (4.98/5)

EMPLOYMENT:

2023-now **Assistant professor**, Pharmaceutics Department, College of Pharmacy, King Saud University , Saudi Arabia.

- 2018-2023** **Lecturer and PhD student** , Pharmaceutics Department, College of Pharmacy, King Saud University , Saudi Arabia.
- 2009-2012** **Graduate Research Student**, Department of pharmaceutical chemistry, College of Pharmacy, The University of Kansas, Lawrence, Kansas, USA
- 2007-2009** **Graduate Teaching Assistant**, College of Pharmacy, King Saud University, P.O. Box 2457, Riyadh 11451, Saudi Arabia. Teaching responsibilities was in area of industrial pharmacy and sterile formulations.

PUBLICATIONS:

1-Cai, S., Alhowyan, A. A. B., Yang, Q., Forrest, W. M., Shnayder, Y., & Forrest, M. L. (2014). Cellular uptake and internalization of hyaluronan-based doxorubicin and cisplatin conjugates. *Journal of drug targeting*, 22(7), 648-657.

2-Altamimi, M. A., Elzayat, E. M., Alhowyan, A. A., Alshehri, S., & Shakeel, F. (2018). Effect of β -cyclodextrin and different surfactants on solubility, stability, and permeability of hydrochlorothiazide. *Journal of Molecular Liquids*, 250, 323-328.

4- Alhowyan, A. A., Altamimi, M. A., Kalam, M. A., Khan, A. A., Badran, M., Binkhathlan, Z., ... & Alshamsan, A. (2019). Antifungal efficacy of Itraconazole loaded PLGA-nanoparticles stabilized by vitamin-E TPGS: In vitro and ex vivo studies. *Journal of microbiological methods*, 161, 87-95.

5- Almomen, A., El-Toni, A. M., Badran, M., Alhowyan, A., Abul Kalam, M., Alshamsan, A., & Alkholief, M. (2020). The design of anionic surfactant-based amino-functionalized mesoporous silica nanoparticles and their application in transdermal drug delivery. *Pharmaceutics*, 12(11), 1035.

6- Alhowyan, A. A., Kalam, M. A., Iqbal, M., Raish, M., El-Toni, A. M., Alkholief, M., ... & Alshamsan, A. (2023). Mesoporous silica nanoparticles coated with carboxymethyl chitosan for 5-fluorouracil ocular delivery: Characterization, in vitro and in vivo studies. *Molecules*, 28(3), 1260.

7- Almomen, A., Alsaleh, N. B., El-Toni, A. M., EL-Mahrouky, M. A., Alhowyan, A. A., Alkholief, M., ... & Ghandehari, H. (2023). In Vitro Safety Assessment of In-House Synthesized Titanium Dioxide Nanoparticles: Impact of Washing and Temperature Conditions. *International Journal of Molecular Sciences*, 24(12), 9966.

8- Almomen, A., Badran, M., Alhowyan, A. A., Alkholief, M., & Alshamsan, A. (2023). Imiquimod-Loaded Chitosan-Decorated Di-Block and Tri-Block Polymeric Nanoparticles Loaded In Situ Gel for the Management of Cervical Cancer. *Gels*, 9(9), 713.

9- Kalam, M. A., Alhudaithi, S. S., Alhowyan, A. A., Iqbal, M., Raish, M., Alshememry, A. K., ... & Alshamsan, A. (2023). Development and Validation of UPLC–MS/MS Method for Quantitative Analysis of 5-Fluorouracil in Aqueous Humor of Rabbits. *Separations*, 10(6), 343.

Submitted manuscript:

1- Solid Dispersions of Gefitinib with D- α -Tocopherol Polyethylene Glycol-1000 Succinate and 2-Hydroxypropyl β -Cyclodextrin Complex Improved its Solubility, Dissolution and Apoptotic Properties Against the A549 Cells. Mohd Abul Kalam, Adel Ali Alhowyan, Sulaiman S. Alhudaithi, Shahnawaz Khan, Abdullah K. Alshememry, Musaed Alkholief.

2- A Comprehensive overview on the use of nanocarriers for transdermal drug delivery. Adel Alhowyan , Baraa Hajjar, Aliyah Almomen, Abdullah Alshememry , Mohd Abul Kalam, Aws Alshamsan and Musaed Alkholief.

TRAINING:

King Saud University Pharmacy College general training program, King Fahad Hospital of National Guard Health Affairs, Riyadh, Saudi Arabia.
(From 16/SEPT/2006 to 17/JAN/2007)

RESEARCH INTEREST AND EXPERIENCES:

My interests are in the area of Drug Delivery, Pharmaceutical Technology, Biopharmaceutics and Nanotechnology.

REASEARCH TECHNIQUE:

- Pharmaceutical analysis includes: HPLC, UPLC, FTIR, NMR, fluorescence spectroscopy, UV-Vis spectroscopy, DSC and turbidity tests for macromolecules.
- Preparation of liposomes , polymeric and inorganic nanoparticles, and characterization of nanoparticles.
- Experience in cell culture techniques and bioassay.
- Using light and fluorescence microscopy.

TEACHING EXPERTISE:

Now, I am teaching different sections in pharmaceutics field such as pharmaceutical calculation, preparation of prescription and sterile dosage form courses .