



Dr. Zafar Alam Mahmood

Country Manager, Colorcon Limited – England
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Field of Interest

Pharmaceuticals (Formulation, Product Development & Technology), Film coating solid Oral and Development of Modified Release Products, Pharmaceutical Biotechnology, Natural Products, Alternative / Traditional Medicine / Herbal Medicine, Pharmacology & Toxicology, Cosmeceuticals. Etc.

Honorary Affiliation

1. Member, Board of studies, Department of Pharmaceutics, Faculty of Pharmacy, University of Karachi, Karachi – Pakistan.
2. Member, Board of Studies, Department of Pharmacognosy, Faculty of Pharmacy, University of Karachi, Karachi – Pakistan.
3. Member, Board of Faculty, Jinnah Women University, Karachi – Pakistan.

Personal Information

FATHER'S NAME: MR. MAHMOOD AHMED (Late)

DATE OF BIRTH: 21-11-1955

POSTAL ADDRESS: House # A-178, Block #2, Gulistan-e-Jauhar, Karachi – Pakistan

Personal e-mail: zamahmood@hotmail.com

Academic Achievements

Ph.D: Pharmacy (Pharmaceutics – 1996; Biosynthesis of Amino Acid

Dissertation Title: PRODUCTION OF L-LYSINE THROUGH FERMENTATION:

M.Phil: Pharmacy (Pharmaceutics – 1989; Enzymes & Antibiotics

Dissertation Title: STUDIES ON PENICILLIN AMIDASE AND PRODUCTION OF 6-APA

Master of Pharmacy: Pharmacy– 1983; Fungal Alkaloids & Antibacterial Compound.

Dissertation Title: STUDIES ON ALKALOIDS AND ANTIBACTERIAL COMPOUNDS PRODUCED BY SOME FUNGI.

Batchelor of Pharmacy – 1979

Professional Association

MPPS: Member Pakistan Pharmacological Society (Life Member)
Registered Pharmacist: From Pharmacy Council of Sindh. Registration No. A - 436 since 1981.
Member: Pakistan Pharmacist Association..

Fellowship Awards

1. University Grants Commission of Pakistan for Ph.D research program.
2. University Grants Commission of Pakistan for M.Phil research program.

Professional Experience

Jan 1999 till May 2009: Colorcon Asia Pacific Pte Ltd - Singapore
A subsidiary of Berwind Pharmaceutical Services Inc. Group - USA.

Book

1. **L-Lysine**-Published by VDM Verlag Dr. Muller Aktiengesellschaft & Co. KG. (Germany) – 2010,
2. **Herbal Medicine- Treatment for Cardiovascular Disease** - Published by VDM Verlag Dr. Muller Aktiengesellschaft & Co. KG. (Germany) – 2011,
3. **Hashmi Collyrium Codex**- Published by the Board of Hashmi Collyrium Codex, Karachi – Pakistan (2015 – In press)

Chapters in Books

1. **Bacterial biofilms: Medical impact, development, control and threats. (Chapter #19): Volume 5.** "The Battle Against Microbial Pathogens: Basic Science, Technological Advances and Educational Programs"Published by Formatex, Spain (2015).
2. **Kohl Use in Antiquity: Effect on the Eye. (Chapter # 7):** "History of Toxicology and Environmental Health – Toxicology in Antiquity, Volume II. Published by Academic Press (An imprint of Elsevier) – USA – (2015).
3. **Microbial amino acids production (Chapter # 9):** Microbial Biotechnology, Progress and Trends. CRC Press, Tayler & Francis Group, USA (2015)
4. **Microbial healthcare products (Chapter # 11):** Microbial Biotechnology, Progress and Trends. CRC Press, Tayler & Francis Group, USA (2015).
5. **Antibiotic Natural Products: Microbiology Book Series # 4, Volume 2** of Microbial pathogens and strategies for combating them: science, technology and education. Published by Formatex, Spain (2013).
6. **Bioactive Alkaloids from Fungi: Psilocybin (Chapter # 18):** Hand Book of Natural Products. Published by Springer-Verlag Berlin Heidelberg (2013).

Monographs for Undergraduate Students

1. Pharmaceutical Microbiology Vol –I (1984)
2. Pharmaceutical Microbiology Vol –II (1985)
3. Applied Microbiology (1986)
4. Pharmaceutical Microbiology Practical (1987).

Research Publications

1. Electron Transport Mechanism: **Zafar Alam Mahmood**: Farmacia 125-127 (1980).
2. Engineering Aspects of Fermentation Technology: Khalid Hafiz Khan and **Zafar Alam Mahmood**: Farmacia, 111-115 (1981).
3. Isolation and Identification of Microflora from Cooling Water of Ammonia-Urea Plant: Dilnawaz Shaikh, **Zafar Alam Mahmood**, and M. Rafi Shaikh: J. Pharm. 2(1): 63-68 (1983).
4. Screening of Antibacterial Compounds Produced by Some Fungi: **Zafar Alam Mahmood**, Khalid Hafiz Khan and Dilnawaz Shaikh: J. Pharm, 1(2): 103-107 (1983).
5. Pharmaceutical and Industrial Importance of Fungal Metabolites: **Zafar Alam Mahmood**, Pharmalite 43-46 (1983).
6. Antibacterial and Antifungal Activities of Marine Algae from Karachi Seashore: K, Usmanghani, M. Shameel, M. Sualeh, K.H. Khan and Z.A. Mahmood: Fitoterapia, LV (2): 73-77 (1984).
7. Screening of Alkaloid Producing Fungi II: **Zafar Alam Mahmood**, Khalid Hafiz Khan, Dilnawaz Shaikh and K, Usmanghani: J. Pharm, 3(1): 1-4 (1984).
8. Inborn Error of Metabolism: **Zafar Alam Mahmood** and Samina Hasan: The Pharmacist. 102-111 (1984).
9. Role of Sulphate Reducing Bacteria in the Corrosion of Metallic Structures: **Zafar Alam Mahmood** and Shujauddin Ahmad: Pharmakarian 10-15 (1985).
10. Antibacterial and Chemical Studies on Alkaloids Produced by *Botryodiplodia sp.*: **Zafar Alam Mahmood**, Khalid Hafiz Khan and Dilnawaz Shaikh: J. Pharm, 4(2): 105-111 (1986).
11. Studies on Penicillin Amidohydrolase Producing Bacteria: Dilnawaz Shaikh, **Zafar Alam Mahmood** and S.M.S. Zoha: Acta Manilana, 39: 43-46 (1991).
12. Penicillin Amidohydrolase Productivity of Locally Isolated Bacterial Species: Z.A. Mahmood, D. Shaikh and S.M.S. Zoha: Folia Microbiol 36(5): 444-446 (1991).
13. *Raphanus sativus* Linn (RADISH). A natural hepatoprotective drug: **Zafar Alam Mahmood**, Aftab Saeed, Tanveer Z. Mahmood and Syed Waseem Uddin Ahmed: Hamdard Medicus XXXIV (2), 70-80 (1991).
14. Therapeutic Evaluation of Surma (Kohl) Formulations: Zaheer Babar Hashmi, **Zafar Alam Mahmood** and S.M.S Zoha: Pak. J. Sci. Ind. Res., 34(9): 335-338 (1991).
15. Vital amino acid-glutamio acid and aspartica acid their role in brain functions: **Zafar Alam Mahmood**, Dilnawaz Shaikh, Syed Waseem Uddin Ahmed and Aftah Saeed. Asian Medical News, 81 (1), 4 (1992).
16. Bioavailability and pharmacokinetics of Oxfloracin after oral and administration in health human volunteers. Z.A. Mahmood, Dilnawaz Shaikh and Syed Waseem Uddin Ahmed. National Health Pakistan, Vol. 111 (3): 16-18 (1994).
17. Optimization of Penicillin Amidohydrase Production from a Locally Isolated Strain of *Sarcina lutea* (KU-95): **Zafar Alam Mahmood**, Dilnawaz Shaikh, M. Rafi Shaikh, Baqir S. Naqvi and S.M.S. Zoha: Acta Manilana, 42, 21-30 (1994).

18. Production of L-Lysine by Auxotrophic Mutants: **Zafar Alam Mahmood**, Dilnawaz Shaikh, M. Rafi Shaikh, Baqir S. Naqvi and S.M.S. Zoha: Acta Manilana, 44, 31-36 (1996).
19. Production of Lipids by fermentation: Baqir S. Naqvi, Khurshid Hashmi, Farooq Ali Khan, Dilnawaz Shaikh and **Zafar Alam Mahmood**: J. Islamic Academy of Sciences, 10 (1): 13-18 (1997).
20. Production of 6-Aminopenicillanic Acid (6-APA) using whole cell enzyme of a locally isolated strain of *Sarcina lutea* (KU-95): **Zafar Alam Mahmood**, Dilnawaz Shaikh, M. Rafi Shaikh, and S.M.S. Zoha: Acta Manilana, 46, 23-29 (1998).
21. Effect of Procaine (PVP) on the Regeneration of Gangrenous Tissues, Bashir A. Mallick, Z.A. Mahmood and S. Waseemuddin Ahmed, Medical Channel, 8 (3) 51- 56 (2002).
22. Development of Enteric Coated Flurbiprofen Tablets using Opadry/Acryl-eze System: Durriya Hashmat, M. Harris Shoaib, Zafar Alam Mehmood, Rabia Bushra, Rabia Ismail Yousuf and Fahim Lakhani: AAPS Pharm SciTech 9(1) 116-121 (2008).
23. Hyperlipidemia – Development and Consequences: **Zafar Alam Mahmood**, Syed Waseemuddin Ahemd, Muhammad Sualeh and Saad Bin Zafar Mahmood, Medical Channel, 15 (3): 14-17 (2009).
24. Kohl (Surma): Retrospect And Prospect: **Zafar Alam Mahmood**, Sms Zoha, Khan Usmanghani, Muhammad Mohtasheemul Hasan, Obaid Ali Sarwat Jahan, Aftab Saeed, Rabail Zaihd And Misbah Zubair, Pak. J. Pharm. Sci., 22(1): 107-122 (2009).
25. Lipids Of Bloodstream: **Zafar Alam Mahmood**, Syed Waseemuddin Ahemd, Muhammad Sualeh and Saad Bin Zafar Mahmood, Medical Channel, 15 (2): 13-17 (2009).
26. Bioactive Alkaloids Produced By Fungi I. Updates On Alkaloids From The Species Of The Genera *Boletus*, *Fusarium* And *Psilocybe*. **Zafar Alam Mahmood**, Syed Waseemuddin Ahmed, Iqbal Azhar, Mohammad Sualeh, Mirza Tasawer Baig And Sms Zoha., Pak. J. Pharm. Sci., 23 (3): 349-357 (2010).
27. Enteric coating of ibuprofen tablets (200 mg) using an aqueous dispersion system: Rabia Bushra1, Muhammad Harris Shoaib, Nousheen Aslam, Zafar Alam Mehmood, Durriya Hashmat. Brazilian Journal of Pharmaceutical Sciences, 46(1) 99-107 (2010).
28. Herbal Treatment For Cardiovascular Disease The Evidence Based Therapy. **Zafar Alam Mahmood**, Mohammad Sualeh, Saad Bin Zafar Mahmood and Mahwish Ahmed Karim. Pak. J. Pharm. Sci., 23(1): 119-124 (2010).
29. *In vitro* activity of some plant extract against Plasmodium falciparum: **Zafar Alam Mahmood**, Syed Waseemuddin Ahmed, Husan Bano, Mohammad Sualeh, Ghulam Surwar, Proceedings of Parasitology.49: 65-69 (2010).
30. *In vitro* Leishmanicidal activity of some plant extracts against Leishmania major: **Zafar Alam Mahmood**, Syed Waseemuddin Ahmed, Husan Bano, Mohammad Sualeh, Iqbal Azhar, Saad Bin Zafar Mahmood, Proceedings of Parasitology.50: 43- 51 (2010).
31. Studies On The Chemical Composition of Kohl Stone By X-Ray Diffractometer. Pervaiz Habib Ullah, **Zafar Alam Mahmood**. Mohammad Sualeh, And Sms Zoha. Pak. J. Pharm. Sci., 23(1): 48-52 (2010).
32. Evaluation of Centella asiatica for its neuropharmacology. Rafi Akhtar Sultan, Rahila Najam, Iqbal Azhar, Bushra Raza, Abber Adil, **Zafar Alam Mahmood**. Medical Forum, 22(11): 18-21 (2011).
33. Insecticidal Activity of *Castanospermum australe* against stored Grain Pest *Callosobruchus analis*. **Zafar Alam Mahmood**, Salman Ahmed , Syed Waseemuddin Ahmed, Muhammad Mohtasheem ul Hasan. IOSR Journal of Pharmacy. 2(2): 189-191(2012).

34. Ethnomedical and Phytoeconomic Elaboration of lilownai Valley, District Shangla, Pakistan. Shah Muhammad Ajmal, Sualeh Muhammad, Khan Zahid, Zada Bakht, Ahmed Habib, Mahmood Zafar Alam. *International Research Journal of Pharmacy*, 3(4): 164-169 (2012).
35. Hawthorn (*Crataegus Oxycantha*) Berries Lowers Elevated Serum Lipids in Lab Animals. Mohammad Sualeh1, Mirza Tasawer Baig, **Zafar Alam Mahmood**, Saad Bin Zafar Mahmood and Khalid Khan. *Fuuast J. Biol.*, 2(2): 79-83 (2012).
36. Pharmacognostic and Phytochemical Investigation of Aerial Parts of *Centella asiatica* Linn. Rafi Akhtar Sultan, **Zafar Alam Mahmood**, Iqbal Azhar, Muhammad Mohtasheem Ul Hasan, Salman Ahmed. *International Journal of Phytomedicine*. 4 (1): 125-133 (2012).
37. Study of prescription errors related to wrong dose above and wrong dose under. Mirza Tasawer Baig1, Mohammed Sualeh, Ali Akbar Sial, **Zafar Alam Mahmood**, Sikandar Khan Sherwani and Mirza Ghazanfer Baig. *Pak. J. Biochem. Mol. Biol.*, 45(3): 142-148 (2012).
38. Antibiotic natural products: Opportunities and challenges. **Zafar Alam Mahmood** and Saad Bin Zafar Mahmood. *Microbial pathogens and strategies for combating them: science, technology and education* (A. Méndez-Vilas, Ed.) Formatex, 823-833 (2013).
39. Anti-emetic effects of bioactive natural products. Salman Ahmed, Muhammad Mohtasheemul Hasan, Syed Waseemuddin Ahmed, **Zafar Alam Mahmood**, Iqbal Azhar, Solomon Habtemariam. *Phytopharmacology*. 4(2), 390-433 (2013).
40. Bioactive Alkaloids from Fungi: Psilocybin. **Zafar Alam Mahmood**. K.G. Ramawat, J.M. Me´rillon (eds.), *Natural Products*. DOI 10.1007/978-3-642-22144-6_19, # Springer-Verlag Berlin Heidelberg (2013).
41. Development and Optimization of Diclofenac Potassium Tablets Using Central Composite Design and Dissolution Profile Comparison. Huma ALI, Muhammad H. Shoaib, Farya Zafar, Rabia I. Yousuf, Zafar M. Alam, Raheela Khursheed & Shehla Siddiqui. *Latin American Journal of Pharmacy*. 32(7): 1058-1068 (2013).
42. Formulation Development and Optimization of Controlled Release Nimesulide Tablets. Muhammad Hanif, Muhammad H. Shoaib, Rabia I. Yousuf, Zafar A. Mahmood, Shahnaila Sattar, Liaqat Hussain, Sabiha Karim and Ahmad U. Hamza. 32(2): 225-231 (2013).
43. Formulation development and evaluation of Diltiazem HCl sustained release matrix tablets using HPMC K4M and K100M. Faaiza Qazi, Muhammad Harris Shoaib, Rabia Ismail Yousuf, Tanveer Mustafa Qazi, Zafar Alam Mehmood and Syed Muhammad Farid Hasan. *Pak. J. Pharm. Sci.*, 26(4): 653-663 (2013).
44. Acute Toxicology and Neurobehavioral Studies On A New 7-Azaindole Derivative. Nausheen H Siddiqui, Arshad Arain, Zafar .S.Saify, Iqbal Azher, Shazia Haider and Zafar A Mahmood. 3(5) 77-87 (2014).
45. Analgesic and anti-inflammatory activities of *Piper nigrum* L. Farhana Tasleem, Iqbal Azhar, Syed Nawazish Ali, Shaista Perveen, **Zafar Alam Mahmood**. *Asian Pac J Trop Med*. 7(Suppl 1): S461-S468 (2014).
46. Biological Activities Assessment of *Centella asiatica* (Linn.). Rafi Akhtar Sultan, Saad Bin Zafar Mahmood, Iqbal Azhar, Syed Waseemuddin Ahmed & **Zafar Alam Mahmood**. *Journal of Herbs, Spices & Medicinal Plants*, 20:319–327 (2014).
47. Formulation design and evaluation of *Cefuroxime axetil* 125 mg immediate release tablets using different concentration of sodium lauryl sulphate as solubility enhancer. Fozia Israr, **Zafar Alam Mahmood**, Fouzia Hassan, Syed Muhammad Farid Hasan, Sabahat Jabeen, Shazia Naz, Lubna Bashir. *Brazilian Journal of Pharmaceutical Sciences*. 50(4): 944-953 (2014).

48. Studies on *In vitro* Antioxidant Activity and Total Flavonoid Contents of A Cream Formulation to Correlate Its Anti-Aging Effect. Shahlla Imam, Iqbal Azhar, Shaista Perveen, Syed Ghazanfar Hussain, and **Zafar Alam Mahmood**. World Journal of Pharmaceutical Research. 4 (1):1646-1655 (2015).
49. Comparative phytochemical investigations for standardization of some spices available in Pakistan. Najma Shaheen, Iqbal Azhar, Zeb-un-Nisa and **Zafar Alam Mahmood**. World Journal of Pharmaceutical Sciences. 3(8): 1496-1506 (2015).
50. *In Vitro* Antibacterial Action of Native and Domestic Spices Including Black Cumin, Green Cardamom, and Cinnamon, (Natural Antimicrobials). Tanveer Abbas, Adil Anwar Bhatti, Asma Saeed, Najma Shaheen, Iqbal Azhar and Zafar Alam Mahmood. *International Journal of Current Research*. 7 (04): 14506-14511 (2015).
51. *In vitro* Antibacterial Activity of Copper Pod/Yellow Flame Tree or Peela Gulmohar (*Peltophorum roxburghii*). Tanveer Abbas, Adil Anwar Bhatti, Asma Saeed, Farhana Tasleem, Iqbal Azhar and Zafar Alam Mahmood. International Journal of Current Research. 7(04): 14634-14639 (2015).
52. Influence of pectin concentrations on physico-chemical and sensory qualities of jams. Nausheen H Siddiqui, Iqbal Azhar, Omar M Tarar, Sana Masood and **Zafar Alam Mahmood**. World Journal of Pharmacy and Pharmaceutical Sciences. 4(06): 68-77(2015).
53. *In-Vitro* Evaluation of Sun Protection Factor of a Cream Formulation Prepared from Extracts of *Musa accuminata* (L.), *Psidium guajava* (L.) and *Pyrus communis* (L.). Shahlla Imam, Iqbal Azhar, **Zafar Alam Mahmood**. Asian J Pharm Clin Res, 8(3): 234-237 (2015).
54. Kohl Use in Antiquity: Effects on the Eye. **Zafar Alam Mahmood**, Iqbal Azhar and S. Waseemuddin Ahmed. History of Toxicology and Environmental Health Toxicology in Antiquity, Volume II. Editor: Philip Wexler, Academic Press is an imprint of Elsevier. 68-78 (2015).
55. Microbial amino acids production. **Zafar Alam Mahmood**. Microbial Biotechnology. Progress and Trends Edited by Farshad Darvishi Harzevili Hongzhang Chen. CRC Press, Taylor & Francis Group . 187-212 (2015).
56. Microbial Healthcare Products. **Zafar Alam Mahmood** and Saad Bin Zafar Mahmood. Microbial Biotechnology. Progress and Trends Edited by Farshad Darvishi Harzevili Hongzhang Chen. CRC Press, Taylor & Francis Group . 240-278 (2015).
57. Management of migraine headaches in different system of medicine – A comparative study. Quratulain Munawar, Syed Waseemuddin Ahmed, **Zafar Alam Mahmood**, Iqbal Azhar and Shazia Qasim Jamshed. Journal of Pharmacy and Pharmaceutical Sciences, 3(1): 23-38 (2015).