Curriculum Vitae

Personal Information	Name	**Dr. Asmaa Mostafa Ahmed Bayoumi**
	Date of Birth	**20-November-1982**
	Gender	**Female**
	Marital Status	**Married**
	Nationality	**Egyptian**
	Current Position	**Associate Professor, Department of Biochemistry, Faculty of Pharmacy, Minia University, Egypt**
	E-mail	**asmaa_bayoumi@mu.edu.eg**
	Phone	**+2-010-2206-2259**
Academic Qualifications	• Mar 2011: **Ph.D. in Molecular Biology and Pharmaceutical Sciences (Biochemistry & Molecular Biology), Graduate School of Pharmaceutical Sciences, Kyushu University, Japan.** **Ph.D. Thesis Title:** "CysB, a LysR-type transcriptional regulator, interacts specifically with DARSs, genomic sequences of *E. coli* that promote replication initiation". • Dec 2007: **M.Sc. in Pharmaceutical Sciences (Biochemistry), Faculty of Pharmacy, Minia University, Egypt.** **M.Sc. Thesis Title:** "Role of β-Hydroxy-γ-Trimethyl ammonium Butyrate and Ubiquinone in Combating the Deteriorative Effect Induced by CCl_4 in Rat's Liver". • May 2004: **B.Sc. in Pharmaceutical Sciences, Faculty of Pharmacy, Minia University, Egypt.** B.Sc. Grade: **Excellent with honors degree (92.04%).**	
Academic Positions	• Nov 2019 - Present: **Associate Professor, Department of Biochemistry, Faculty of Pharmacy, Minia University, Egypt.** • Aug 2011 – Oct 2019: **Assistant Professor, Department of Biochemistry, Faculty of Pharmacy, Minia University, Egypt.** • Jan 2008 - Jul 2011: **Assistant Lecturer, Department of Biochemistry, Faculty of Pharmacy, Minia University, Egypt.** • Oct 2004 - Dec 2007: **Demonstrator, Department of Biochemistry, Faculty of Pharmacy, Minia University, Egypt.**	

Publication List	1. **Dose-Dependent Cardioprotective Effect of Hemin in Doxorubicin-Induced Cardiotoxicity Via Nrf-2/HO-1 and TLR-5/NF-κB/TNF-α Signaling Pathways.** Refaie MMM, Shehata S, Ibrahim RA, Bayoumi AMA, Abdel-Gaber SA. *Cardiovasc Toxicol.* **2021** Dec. **21**(12): 1033-1044. **doi:** 10.1007/s12012-021-09694-7. 2. **Molecular mechanisms underlying the effect of diacerein on trichloroacetic acid–induced hepatic pre-neoplastic lesions in rats.** Ibrahim YF, Refaie MM, Kamel MY, Ahmed SM, Moussa RA, Bayoumi AMA, Ibrahim MA. *Hum Exp Toxicol.* **2021** Dec. **40**(12_suppl): S788-S803. **doi:** 10.1177/09603271211056331. 3. **Canagliflozin, an SGLT-2 inhibitor, ameliorates acetic acid-induced colitis in rats through targeting glucose metabolism and inhibiting NOX2.** Morsy MA, Khalaf HM, Rifaai RA, Bayoumi AMA, Khalifa EMMA, Ibrahim YF. *Biomed Pharmacother.* **2021** Sep. **141:** 111902. **doi:** 10.1016/j.biopha.2021.111902. 4. **The IL-6/STAT Signaling Pathway and PPARα Are Involved in Mediating the Dose-Dependent Cardioprotective Effects of Fenofibrate in 5-Fluorouracil-Induced Cardiotoxicity.** Refaie MMM, Shehata S, Bayoumi AMA, El-Tahawy NFG, Abdelzaher WY. *Cardiovasc Drugs Ther.* **2021** Jun**. doi :**10.1007/s10557-021-07214-x. 5. **Dabigatran mitigates cisplatin-mediated nephrotoxicity through down regulation of thrombin pathway.** Ewees MGE, Abdel-Bakky MS, Bayoumi AMA, Abo-Saif AA, Altowayan WM, Alharbi KS, Messiha BAS. *J Adv Res.* **2021** Jan. **31:** 127-136. **doi:** 10.1016/j.jare.2020.12.014. 6. **Ameliorative effect of 2-methoxyestradiol on radiation-induced lung injury.** Elzayat MA, Bayoumi AMA, Abdel-Bakky MS, et al. *Life Sci.* **2020** Aug**; 255:** 117743. **doi: 10.1016/j.lfs.2020.117743.** 7. **Resveratrol reduces gentamicin-induced EMT in the kidney via inhibition of reactive oxygen species and involving TGF-β/Smad pathway.** Beshay ON, Ewees MG, Abdel-Bakky MS, Hafez SMNA, Abdelrehim AB, Bayoumi AMA. *Life Sci.* **2020** Jul; 118178. **doi:** 10.1016/j.lfs.2020.118178. 8. **Protective effect of febuxostat in sepsis-induced liver and kidney injuries after cecal ligation and puncture with the impact of xanthine oxidase, interleukin 1β, and c-Jun N-terminal kinases.** Ibrahim YF, Fadl RR, Ibrahim S, Gayyed MF, Bayoumi AMA, Refaie M. *Hum Exp Toxicol.* **2020** Jul; **39**(7): 906-919. **doi:** 10.1177/0960327120905957. 9. **Role of nitric oxide donor in methotrexate-induced testicular injury via modulation of pro-inflammatory mediators, eNOS and P-glycoprotein.** Abdelzaher WY, Khalaf HM, El-Hussieny M, Bayoumi AMA, Shehata S, Refaie M. *Hum Exp Toxicol.* **2020** Jul; **doi:** 10.1177/0960327120940361. 10. **Cardioprotective effect of hemin in isoprenaline-induced myocardial infarction: role of ATP-sensitive potassium channel and endothelial nitric oxide synthase.** Refaie MMM, Rifaai RA, Bayoumi AMA, Shehata S. *Fundam Clin Pharmacol.* **2020** Jun; **34**(3): 302-312. **doi:** 10.1111/fcp.12529. 11. **Tocilizumab attenuates acute lung and kidney injuries and improves survival in a rat model of sepsis via down-regulation of NF-κB/JNK: a possible role of P-glycoprotein.** Ibrahim YF, Moussa RA, Bayoumi AMA, Ahmed AF. *Inflammopharmacology.* **2020** Feb; **28** (1): 215-30. **doi:** 10.1007/s10787-019-00628-y.

	12. Amelioration of Sepsis-Induced Liver and Lung Injury by a Superoxide Dismutase Mimetic; Role of TNF-α and Caspase-3. Ahmed AF, Bayoumi AMA, Eltahir HM, Abdel Hafez SMN, Abouzied MM. *JABPS.* **2020** Jan; **3** (1): 31-39. **doi**: 10.21608/jabps.2019.19876.1061. **13. Natural polyphenols target the TGF-β/caspase-3 signaling pathway in CCl_4-induced liver fibrosis in rats.** Abu-Baih RH, Bayoumi AMA, Ibrahim ARN, Ewees MG, Abdelraheim SR. *JABPS.* **2019** Oct; **2** (4): 129-134. **doi:** 10.21608/jabps.2019.13319.1049. **14. Tempol, a superoxide dismutase mimetic agent, reduces cisplatin-induced nephrotoxicity in rats.** Ewees MG, Messiha BAS, Abdel-Bakky MS, Bayoumi AMA, Abo-Saif AA. *Drug Chem Toxicol.* **2019** Sep; **42** (6): 657-664. **doi:** 10.1080/01480545.2018.1485688. **15. Impact of renal ischemia/reperfusion injury on the rat Kupffer cell as a remote cell: A biochemical, histological, immunohistochemical, and electron microscopic study.** Abdel Hafez SMN, Rifaai RA, Bayoumi AMA. *Acta Histochem.* **2019** Jul; **121** (5): 575-583. **doi:** 10.1016/j.acthis.2019.04.008. **16. Role of ATP-sensitive potassium channel (K_{ATP}) and eNOS in mediating the protective effect of nicorandil in cyclophosphamide induced cardiotoxicity.** Refaie MMM, Shehata S, El-Hussieny M, Abdelraheem WM, Bayoumi AMA. *Cardiovascular Toxicology.* **2019** Jun 22. **doi**: 10.1007/s12012-019-09535-8. **17. Mechanisms mediating the cardioprotective effect of carvedilol in cadmium induced cardiotoxicity. Role of eNOS and HO1/Nrf2 pathway.** Refaie MMM, El-Hussieny M, Bayoumi AMA, Shehata S. *Environ Toxicol Pharmacol.* **2019** May; **70:** 103198. **doi:** 10.1016/j.etap.2019.103198. **18. Interference with Coagulation Cascade as a Novel Approach to Counteract Cisplatin-Induced Acute Tubular Necrosis; an Experimental Study in Rats.** Ewees MG, Messiha BAS, Abo-Saif AA, Bayoumi AMA, Abdel-Bakky MS. *Front Pharmacol.* **2018** Oct; **9:** 1155. **doi:** 10.3389/fphar.2018.01155. **19. Evaluating The Role of Curcumin and CoQ10 in CCl_4 – induced Liver Fibrosis.** Abu-Baih DHMA, Bayoumi AMA, Okasha AMM. *MJMR.* **2018** Jan**; 29** (1): 111-114. **20. Curcumin ameliorates CCl_4-induced liver injury in a rat model; a deeper insight into the mechanism of action.** Bayoumi AMA. *MJMR.* **2017** Mar**; 28** (3): 154-158. **21. Protective effect of L-carnitine and coenzyme Q_{10} on CCl_4-induced liver injury in rats.** Ali SA, Faddah L, Abdel-Baky A, Bayoumi AMA. *Sci Pharm*. **2010** Aug; **78** (4): 881-896.
Published Books	• **L-carnitine and CoQ_{10} role in combating deteriorative effect of CCl_4: β-Hydroxy-γ-Trimethylammonium Butyrate and Ubiquinone in combating the deteriorative effect induced by CCl_4 in rat.** Sanaa Ahmed Ali, Lilla M. Faddah, Asmaa Bayoumi. **2012** Jul 11. – **Paperback:** 260 pages – **Publisher:** LAP LAMBERT Academic Publishing (July 11, 2012) – **Language:** English – **ISBN-10:** 3659165514

	– **ISBN-13:** 978-3659165511 – **Product Dimensions:** 5.9 x 0.6 x 8.7 inches https://www.amazon.com/L-carnitine-combating-deteriorative-effect-%CE%B2-Hydroxy-%CE%B3-Trimethylammonium/dp/3659165514
Activities	• Sep 2018 - Present: **Director of Molecular Biology Unit, Faculty of Pharmacy, Minia University.** • Dec 2009 - Present: **Member at the Molecular Biology Society of Japan (MBSJ).**
Presentations at International Scientific Conferences	• **Natural polyphenols reduce carbon tetrachloride induced liver fibrosis.** Asmaa M.A. Bayoumi, Rania H. Abu-Baih. *The 1st African Health Summit, Cairo, Egypt,* Jan 29 - Feb 1, **2019.** • **Tempol: An Effective Prophylactic and Therapeutic Agent in a Murine Model of Septic Shock.** Asmaa M.A. Bayoumi, Al-Shaimaa F. Ahmed, Mekky M. Abouzied. *The 6th International Conference of The Arab Society for Medical Research, Luxor, Egypt,* Feb 20-24, **2018.** • **Identification of DARS regulators in *E. coli*.** Asmaa Bayoumi, Kazuyuki Fujimitsu, Shogo Ozaki, Kazutoshi Kasho and Tsutomu Katayama. *The 7th 3R Symposium, Toyama, Japan*, Oct 27-31, **2010**. • **CysB protein binds specifically to DARS2, a genomic sequence of *E.coli* that promotes replicational initiation by directly reactivating ADP-DnaA.** Asmaa Bayoumi, Kazuyuki Fujimitsu and Tsutomu Katayama. *The 32nd Annual Meeting of the Molecular Biology Society, MBSJ2009, Yokohama, Japan*, Dec 9-12, **2009**. • **Role of β-hydroxy-γ-trimethylammonium butyrate and ubiquinone in combating the deteriorative effect induced by CCl_4 in rat's liver.** Asmaa M. Bayoumi , Atef E. Abd El-Baky, Sanaa A. Ali and Laila M. Faddah. *Egypt-Japan International Symposium on Science and Technology, EJISST2008, Tokyo, Japan*, Jun 8-10, **2008**, page 74.
Fellowships & Scholarships	• Feb 2015 - Sep 2015: **Postdoctoral Fellowship (Granted from The Egyptian Government, Ministry of Higher Education)** for Scientific Research at the Department of Chemo-Pharmaceutical Sciences, Division of Molecular Bioinformatics, Graduate School of Pharmaceutical Sciences, **Kyushu University, Japan.** • Apr 2010 - Mar 2011: **Fuchi-Gami student scholarship of Japan.** • Apr 2009 - Mar 2010: **JASSO student scholarship of Japan.** • Apr 2008 - Mar 2009: **JASSO student scholarship of Japan.**

Teaching Responsibilities	• "**Biochemistry-1** course for 4th semester Clinical Pharmacy students", Department of Biochemistry, Faculty of Pharmacy, Minia University, Egypt. • "**Biochemistry-2** course for 5th semester Clinical Pharmacy students", Department of Biochemistry, Faculty of Pharmacy, Minia University, Egypt. • "**Clinical Nutrition** course for 9th semester Clinical Pharmacy students", Department of Biochemistry, Faculty of Pharmacy, Minia University, Egypt. • "**Molecular Biology & Biochemistry** course for 3rd year Pharmacy students", Department of Biochemistry, Faculty of Pharmacy, Minia University, Egypt. • "**Practical Biochemistry** course for 3rd year Pharmacy students", Department of Biochemistry, Faculty of Pharmacy, Minia University, Egypt. • "**Basic Biochemistry** course for Post-Graduate Special Master Course Pharmacy students", Department of Biochemistry, Faculty of Pharmacy, Minia University, Egypt. • Courses for Post-Graduate students of Joint Master in Biotechnology (JMB) Course", Department of Biochemistry, Faculty of Pharmacy, Minia University, Egypt: **1- Cell and Molecular Biology** **2- Recombinant DNA Technology** **3- Pharmacogenomics** **4- Gene Therapy** **5- Bioethics and Biotechnology** **6- Lab Biosafety**
Supervision of M.Sc. Students	*1)* **Evaluating the Role of Curcumin and Co-enzyme Q_{10} in CCl_4 – Induced Liver Fibrosis in Rats.** M.Sc. Thesis *Prepared by:* Dalia H.A.M. Abu-Baih. *Supervised by:* Prof. Dr. Ahmed M.M. Okasha, Dr. Asmaa M.A. Bayoumi. (*Completed: May **2018)**.* *2)* **Investigating The Protective Role of Curcumin and Resveratrol in CCl_4 – Induced Liver Fibrosis in Rats.** M.Sc. Thesis *Prepared by:* Rania H. Abu-Baih. *Supervised by:* Prof. Dr. Salama R. Abdelraheim, Dr. Ahmed R.N. Ibrahim, Asmaa M.A. Bayoumi. (*Completed: Jun **2018)**.* *3)* **Investigating The Variations in The Expression Level of Some Protein Markers in Human Colorectal Carcinoma.** M.Sc. Thesis Protocol *Submitted by:* Walid A. Abd El-Aziz. *Supervised by:* Prof. Dr. Mahmoud El-Rehany, Dr. Asmaa M.A. Bayoumi. (*Currently Registered).* *4)* **Investigating The Impact of Vitamin-D Binding Protein Single-Nucleotide Polymorphism on Breast Cancer in Egyptian Women.** M.Sc. Thesis Protocol *Submitted by:* Amira T. Abd El-Hakim. *Supervised by:* Prof. Dr. Mohamed A. Ibrahim, Dr. Ahmed R.N. Ibrahim, Dr. Asmaa M.A. Bayoumi. (*Currently Registered).* *5)* **Investigating The Immunomodulation And Regenerative Potentiality of Stem Cells on Some Hepatic Injuries Using Mesenchymal Stem Cells-Derived Hepatogenic Cells.** M.Sc. Thesis Protocol *Submitted by:* Omar Yossri Tammam. *Supervised by:* Prof. Dr. Mahmoud El-Rehany, Prof. Dr. Faten A. Mohamed, Dr. Asmaa M.A. Bayoumi. (*Currently Registered).*

	6) **Possible Modulatory Effect of a Natural Polyphenolic Compound on Gentamicin-Induced Epithelial to Mesenchymal Transition in Kidney of Mice.** M.Sc. Thesis Protocol *Submitted by:* Olivia N. Beshay. *Supervised by:* Prof. Dr. Mohamed S. Abdel-Bakky, Dr. Asmaa M.A. Bayoumi, Dr. Amany A. Bakhit. (*Currently Registered).*
Laboratory Skills & Techniques	• **RI license** from Kyushu University Radio Isotope (RI) Center, Fukuoka, Japan. • Preparation of bacterial cell culture and media, **plasmid cloning & transformation**. • Preparation of mammalian cell culture and media, **plasmid transfection & cell lysis.** • Protein purification **(Ni-NTA agarose column)** and analysis. • DNA preparation **(PCR)** and purification **(spin column)**. • Electrophoretic mobility shift assay **(EMSA)**. • Filter binding assay **(FBA)** and liquid scintillation counting **(LSC)**. • **Western Blotting (WB)**. • **Pull-down** assay. • **Immunoprecipitation (IP)**. • **Flow cytometry** analysis. • **Immunocytochemistry (ICC).**
Training Courses	**I. Scientific Courses:** 1. **LC/MS/MS** training course, *Faculty of Pharmacy, Minia University,* Jul 17-21, **2017**. 2. The 1st scientific training course **"Animal Care and Handling",** *Molecular Biology Unit, Faculty of Pharmacy, Minia University,* Feb 12-13, **2019**. 3. The 3rd scientific training course **"Western Blotting",** *Molecular Biology Unit, Faculty of Pharmacy, Minia University,* Apr 17-18, **2019**. **II. Courses Sponsored by Faculty and Leadership Development Project (FLDP), Minia University, Egypt:** 1. Scientific Research Methods (Dec 2004). 2. Thinking Skills (Apr 2005). 3. Effective Teaching Skills (May 2005). 4. Effective Communication Skills (Jul 2005). 5. Ethics of Profession (Aug 2005). 6. Quality Standards in Teaching (Nov 2007). 7. The Use of Technology in Teaching (Jul 2011). 8. Exam Systems and Students' Evaluation (Jul 2011). 9. Credit Hours System (Aug 2011). 10. Effective Presentation Skills (Aug 2011). 11. Creating Personal Websites (Jun 2019). 12. University Management (Jun 2019). 13. Strategic Planning (Jul 2019).

	III. Courses Sponsored by Information and Communication Technology Project (ICTP), Minia University, Egypt: 1. Concepts of IT (Sep 2011). 2. Using Computers and Managing Files (Sep 2011). 3. Word Processing (Sep 2011). 4. Spreadsheets (Sep 2011). 5. Database (Oct 2011). 6. Information and Communication (Oct 2011). 7. Introduction to PC Maintenance and Protection (Oct 2011).
Courses Studied for Preparation of M.Sc.	• **Basic Biochemistry:** Excellent. • **Advanced Biochemistry:** Excellent. • **Analytical Biochemistry:** Very Good. • **Physical Chemistry:** Excellent. • **Mathematics:** Excellent. • **Statistics:** Excellent. • **Computer Sciences:** Excellent**.** • **Instrumental Analysis:** Very Good.
Language Skills	• **Arabic Language:** Native. • **English Language:** Fluent (**TOEFL iBT Score** 82, **Date:** Dec 2011). • **Japanese Language:** Fair.
Computer Skills	• **ICDL:** Successfully passed all modules (Information Technology, Windows, Microsoft Word, Microsoft PowerPoint, Microsoft Excel, Microsoft Access, and Internet) required for the granting of the International Computer Driving License (ICDL). • Operating Systems: **Win-XP, Win-7, Mac.** • Applications: **Microsoft Office, InStat, Graphpad Prism, Image-J.**