

## CURRICULUM VITAE



**Name:** Eman Mohamed Kamal Al-Sayed  
**Work Address:** Faculty of Pharmacy, Department of Pharmacognosy and Phytochemistry, Ain Shams University, African Union Organization El-khalifa El Mamoon Street, Abassia, 11566, Cairo, Egypt. Tel. 02 24051120, Fax. 02 24051107  
**E-mail :** [em\\_alsayed@pharma.asu.edu.eg](mailto:em_alsayed@pharma.asu.edu.eg), [emanalsayedasu@gmail.com](mailto:emanalsayedasu@gmail.com)  
**Google scholar:** <https://scholar.google.com.eg/citations?user=BM Yi06IAAAAJ&hl=ar&oi=ao>  
**ORCID:** <http://orcid.org/0000-0001-7869-2009>  
**Web of Science**  
**ResearcherID:** O-7208-2018  
**Scopus ID:** Author ID: 36090755700,  
<https://www.scopus.com/authid/detail.uri?authorId=36090755700>

### PRESENT TITLE AND AFFILIATION

Professor and Postdoctoral Researcher, Department of Pharmacognosy, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.

### EDUCATION

- Ph.D. Pharmacognosy, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt (August, 2011). Channel System and Joint Supervision Scheme (Ain Shams University and Department of Chemistry, Turku University, Finland (from March 2008-March 2010).
- This international cooperation was established from 2008-till current.
- M. Sc. Pharmacognosy, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt (August 2006).
- B. Sc. Pharmaceutical Sciences, Faculty of Pharmacy, Ain Shams University, Egypt (May 2002).

## **WORK EXPERIENCE**

- March 2022- till current: Professor, Department of Pharmacognosy, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.
- March 2017- till current: Associate Professor, Department of Pharmacognosy, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.
- February 2019-2020: Part time Associate Professor, Department of Pharmacognosy, Faculty of Pharmacy, Russian University, Badr, Egypt.
- 2012-2017 Lecturer, Department of Pharmacognosy, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.
- 2012: Lecturer, Department of Pharmacognosy, Faculty of Pharmacy, Badr University, Cairo, Egypt.
- 2008-2010: Ph.D Research Program and Visiting Scientist to the Laboratory of Organic Chemistry and Chemical Biology, Department of Chemistry, University of Turku, Turku, Finland (March 2008- March 2010)
- 2009 (6 months): Visiting Scientist to the Department of Cancer Biology and Biochemistry, Abo Academy University, Turku, Finland.
- 2006-2011: Assistant Lecturer, Department of Pharmacognosy, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.
- 2003-2006: Teaching Assistant, Department of Pharmacognosy, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.
- 2012-2013: Member of the purchasing committee of the Faculty of Pharmacy, Ain Shams University.

## **RESEARCH EXPERIENCE:**

- Isolation and identification of different classes of natural compounds (saponins, sterols, terpenoids, essential oils, alkaloids, phloroglucinol derivatives, chromones, ellagitannins, gallotannins, phenolics, and flavonoids) of promising biological activity from herbal medicines and microbial organisms employing the different methods of chromatographic analysis (TLC, CC, HPLC, chromatotron, GC.. etc)
- Determination of the biological activity of the extracts and isolated compounds obtained from herbal medicines and microbial organisms employing *in-vitro* and *in-vivo* models: Gastroprotective, anti-inflammatory, hepatoprotective anti-tumor, cytotoxic, anti-lipidemic, anti-diabetic, acetylcholinesterase inhibition, anti-bacterial biofilm, antimicrobial, molluscicidal and antioxidant activities following bioactivity directed fractionation of extracts.

- Structural elucidation of different classes of natural products using different techniques (LC-PDA-ESI/MS/MS, GC/MS, UV, 1D and 2D-NMR, High resolution MS, IR, ...etc).
- Analytical and preparative scale purification techniques using HPLC.
- Standardization and quality control of herbal medicines using chemometric analysis.

## LIST OF RESEARCH PUBLICATIONS

1. Amany A Thabet, Saad Moghannem, Iriny M Ayoub, Fadia S Youssef, **Eman Al Sayed**, Abdel Nasser B Singab. GC/MS profiling of essential oils from *Bontia daphnoides* L., chemometric discrimination, isolation of dehydroepingaione and evaluation of antiviral activity. *Scientific Reports (Nature)* (2022): 12 (1): 1-14.
2. Abdel Nasser B Singab, Nada M Mostafa, Yasmin A Elkhawas, **Eman Al-Sayed**, Mokhtar M Bishr, Ahmed M Elissawy, Mohamed S Elnaggar, Iten M Fawzy, Osama M Salama, Yi-Hong Tsai, Fang-Rong Chang. Cyclodepsipeptides: Isolation from Endophytic Fungi of *Sarcophyton ehrenbergi* and Verification of Their Larvicidal Activity via In-Vitro and In-Silico Studies. *Marine Drugs* (2022): 20(5):331.
3. Amr Adel, Mohamed S Elnaggar, Amgad Albohy, Ahmed A Elrashedy, Ahmed Mostafa, Omnia Kutkat, Usama Ramadan Abdelmohsen, **Eman Al-Sayed**, Mohamed A Rabeh. Evaluation of antiviral activity of *Carica papaya* leaves against SARS-CoV-2 assisted by metabolomic profiling. *RSC advances* (2022): 12(51): 32844-32852.
4. Alaa M Salem, Haidy A Gad, **Eman Al-Sayed**, Sherweit H El-Ahmady. Recent trends on the quality assessment of Pomegranate: A detailed review. *Archives of Pharmaceutical Sciences Ain Shams University*. (2022): 6(1): 114-140.
5. Amr Adel, Mohamed S Elnaggar, Amgad Albohy, Ahmed A Elrashedy, Ahmed Mostafa, Omnia Kutkat, Usama Ramadan Abdelmohsen, **Eman Al-Sayed**, Mohamed A Rabeh. Evaluation of antiviral activity of *Carica papaya* leaves against SARS-CoV-2 assisted by metabolomic profiling. *RSC Advances (Royal Society of Chemistry)*, 2022): 12(51): 32844-32852
6. Amany A.Thabet, Iriny M.Ayoub, Fadia S.Youssef, **Eman Al-Sayed**, Thomas Efferth, Abdel Nasser B. Singab. Phytochemistry, structural diversity, biological activities and pharmacokinetics of iridoids isolated from various genera of the family Scrophulariaceae Juss. *Phytomedicine Plus* (2022):2 (3), 100287
7. Amr Adel, Mohamed S Elnaggar, Eman Al-Sayed, Mohamed A Rabeh. Secondary Metabolites from *Carica papaya*, and its Biological Activities: A Comprehensive Review. *Archives of Pharmaceutical Sciences Ain Shams University*. (2022): 5(2): 331-353.
8. Amany A Thabet, Iriny M Ayoub, Fadia S Youssef, **Eman Al Sayed**, Abdel Nasser B Singab. Essential oils from the leaves and flowers of *Leucophyllum frutescens* (Scrophulariaceae): phytochemical analysis and inhibitory effects against elastase

and collagenase in vitro. *Natural Product Research* (2021): DOI: [10.1080/14786419.2021.2000981](https://doi.org/10.1080/14786419.2021.2000981) (IF: 2.86).

9. **Eman Al-Sayed**, Haidy A. Gad, Dina M. El-Kersh. Characterization of four piper essential oils (GC/MS and ATR-IR) coupled to chemometrics and their anti-*Helicobacter pylori* activity. *ACS Omega* (2021): 6, 39, 25652–25663. (IF: 3.51).
10. **Eman Al-Sayed**, Michal Korinek, Ahmed Esmat, et al.. Anti-inflammatory, hepatoprotective and antioxidant activity of ellagitannin isolated from *Melaleuca styphelioides*. *Phytochemistry*, (2020), 177: 112429 (IF: 4.07).
11. Haidy Gad, **Eman Al-Sayed**, Iriny Ayoub. Phytochemical discrimination of *Pinus* species based on GC–MS and ATR-IR analyses and their impact on *Helicobacter pylori*. *Phytochemical Analysis*, 2021;1–16 (IF: 3.37).
12. **Eman Al-Sayed**, Tzu-Yi Ke, Tsong-Long Hwang, Shu-Rong Chen, Michal Korinek, Shu-Li Chen, Yuan-Bin Cheng. Cytotoxic and anti-inflammatory effects of lignans and diterpenes from *Cupressus macrocarpa*. *Bioorganic & Medicinal Chemistry Letters*, (2020) 30: 127127 (IF: 2.82).
13. **Eman Al-Sayed**, Haidy E. Michel, Mohamed Abdelrazik Khattab, Mohamed El-Shazly, Abdel Nasser Singab. Protective Role of Casuarinin from *Melaleuca leucadendra* against Ethanol-Induced Gastric Ulcer in Rats. *Planta Medica*, 2020. 86 (1) 32-44. (IF: 3.36).
14. Bahare Salehi, Ibrahim M Abu-Reidah, Farukh Sharopov, Natallia Karazhan, Javad Sharifi-Rad, Muhammad Akram, Muhammad Daniyal, Fahad Said Khan, Wafa Abbaass, Rida Zainab, Katya Carbone, Nouran M Fahmy, **Eman Al-Sayed**, Mohamed El-Shazly, Massimo Lucarini, Alessandra Durazzo, Antonello Santini, Miquel Martorell, Raffaele Pezzani. *Vicia plants—A comprehensive review on chemical composition and phytopharmacology*, *Phytotherapy Research*, 2021 35 (2), 790-809 (IF: 5.88).
15. Bahare Salehi, Zeliha Selamoglu, Mustafa Sevindik, Nouran M Fahmy, **Eman Al-Sayed**, Mohamed El-Shazly, Boglárka Csupor-Löffler, Dezső Csupor, Simin Emamzadeh Yazdi, Javad Sharifi-Rad, Dilhun Keriman Arserim-Uçar, Ender Hikmet Arserim, Natallia Karazhan, Ali Jahani, Abhijit Dey, Hamed Azadi, Somayeh Afsah Vakili, Farukh Sharopov, Natália Martins, Dietrich Büsselberg. *Achillea spp.: A comprehensive review on its ethnobotany, phytochemistry, phytopharmacology and industrial applications*. *Cellular and Molecular Biology* (Noisy-le-Grand, France) 2020, 66 (4), 78-103 (IF: 1.77).
16. Bahare Salehi, Javad Sharifi-Rad, Francesca Cappellini, Željko Reiner, Debora Zorzan, Muhammad Imran, Bilge Sener, Mehtap Kilic, Mohamed El-Shazly, Nouran M Fahmy, **Eman Al-Sayed**, Miquel Martorell, Chiara Tonelli, Katia Petroni, Anca Oana Docea, Daniela Calina, Alfred Maroyi. The therapeutic potential of anthocyanins: current approaches based on their molecular mechanism of action. *Frontiers in Pharmacology*. 2020; 11: 1300. (IF: 5.81).
17. Yasmin A Elkhawas, Ahmed M Elissawy, Mohamed S Elnaggar, Nada M Mostafa, **Eman Al-Sayed**, Mokhtar M Bishr, Abdel Nasser B Singab, Osama M Salama. Chemical Diversity in Species Belonging to Soft Coral Genus *Sacrophyton* and Its Impact on Biological Activity: A Review. *Marine Drugs*, 2020, 18 (1), 41 (IF: 5.12).
18. NM Fahmy, **Eman Al-Sayed**, HE Michel, M El-Shazly, ANB Singab. Gastroprotective effects of *Erythrina speciosa* (Fabaceae) leaves cultivated in Egypt against ethanol-induced gastric ulcer in rats. *Journal of Ethnopharmacology*, 2020 248 (10) 112297 (IF: 4.36).

19. NM Fahmy, **Eman Al-Sayed**, M El-Shazly, S Moghannem, F. Azam, ANB Singab. Breaking down the barriers to a natural antiviral agent: Antiviral activity and molecular docking of *Erythrina speciosa* extract, fractions, and the major compound. *Chemistry & Biodiversity*, **2020** 17,e1900511 (IF: **2.41**).
20. G Divya, A Albert, ANB Singab, IM Ayoub, **Eman Al-Sayed**, E Paul, Renoprotective effect of tectorigenin glycosides isolated from *Iris spuria* L. (Zeal) against hyperoxaluria and hyperglycemia in NRK-49Fcells. *Natural product research*, **2019**, 35(6):1029-1034. (IF: **2.86**).
21. NM Fahmy, **Eman Al-Sayed**, M El-Shazly, A Nasser Singab. Alkaloids of genus *Erythrina*: An updated review. *Natural product research*, **2019**, 34(13):1891-1912. (IF: **2.86**).
22. **Eman Al-Sayed**, Abdel-Daim M.M., & Khattab M.A. Hepatoprotective activity of praecoxin A isolated from *Melaleuca ericifolia* against carbon tetrachloride-induced hepatotoxicity in mice. Impact on oxidative stress, inflammation, and apoptosis. *Phytotherapy Research*, **2019**, 33(2): 461-470. (IF: **5.88**).
23. Salma Sameh, **Eman Al-Sayed**, Rola M. Labib, and Abdel Nasser Singab, Comparative metabolic profiling of essential oils from *Spondias pinnata* (Linn. F.) Kurz and characterization of their antibacterial activities Industrial Crops and Products. **2019**, 137:468-474 (IF: **5.65**).
24. **Eman Al-Sayed**. Unearthing the chemical composition of *Taxodium distichum* (L.) Rich. leaf essential oil and its antimicrobial activity. *Industrial Crops and Products*, **2018**, 126: 76-82 (IF: **5.65**).
25. Fahmy N.M., **Eman Al-Sayed**, El-Shazly M., & Singab A.N. Comprehensive review on flavonoids biological activities of *Erythrina* plant species. *Industrial Crops and Products*, **2018**, 123: 500-538 (IF: **5.65**).
26. **Eman Al-Sayed**, Mohamed Abdel-Daim. Analgesic and anti-inflammatory activities of epicatechin gallate from *Bauhinia hookeri*. *Drug Development Research*, 2018, 79(4):157-164 (IF: **4.36**).
27. Dina M. Bahgat, Hanan S. Mossalem , **Eman Al-Sayed** , Omayma A. Eldahshan, Abdel Nasser B. Singab and Hanaa M. Abu El Einin. Influence of saponin fraction from *Albizia anthelmintica* on *Biomphalaria alexandrina* snail; the intermediate host of *Schistosoma mansoni* in Egypt. *Egyptian Journal of Aquatic Biology & Fisheries*. **2018**. Vol. 22(5): 231-240.
28. Eman Abd El-Ghffar, **Eman Al-Sayed**, Safia Shehata , Omayma Eldahshan and Thomas Efferth. Protective role of *Ocimum basilicum* L. (Basil) against aspirin-induced gastric ulcer in mice: Impact on oxidative stress, inflammation, motor deficits and anxiety-like behavior. *Food & Function* (Royal Society of Chemistry), **2018**, 9: 4457-4468 (IF: **5.39**).
29. Divya Ganesan, **Eman Al-Sayed**, Abhishek Albert, Eldho Paul, Abdel Nasser B. Singab, Selvam Govindan Sadasivam, and Luciano Saso. Antioxidant activity of phenolic compounds from extracts of *Eucalyptus globulus* and *Melaleuca styphelioides* and their protective role on D-glucose-induced hyperglycemic stress and oxalate stress in NRK-49Fcells. *Natural Product Research*, **2018**. 32(11): 1274-1280. (IF: **1.99**).
30. Salma Sameh, **Eman Al-Sayed**, Rola M. Labib, and Abdel Nasser Singab, "Genus *Spondias*: A Phytochemical and Pharmacological Review," Evidence-Based

31. **Eman Al-Sayed**, Haidy Gad, Mohamed El-Shazly, Mohamed Abdel-Daim, Abdel Nasser Singab. Anti-inflammatory and analgesic activities of cupressuflavone from *Cupressus macrocarpa*: Impact on pro-inflammatory mediators. *Drug Development Research*. Online published. 11 November 2017. DOI: 10.1002/ddr.21417.
32. Nouran Mohamed Fahmy, **Eman Al-Sayed**, Mohamed M Abdel-Daim, Abdel Nasser Singab. Anti-inflammatory and analgesic activities of *Terminalia muelleri* Benth. (Combretaceae). *Drug Development Research*, 2017. Published Online 19 May 2017. DOI: 10.1002/ddr.21385. (IF: 1.91).
33. **Eman Al-Sayed**, Omayma A. Eldahshan, Dina M. Bahgat, Abdel Nasser B. Singab. Cytotoxic Oleanane-Type Saponins from the Leaves of *Albizia anthelmintica* Brongn. *Chemistry & Biodiversity*, 2016, 13(12): 1666-1673. (IF: 1.5).
34. **Eman Al-Sayed** and Ahmed Esmat. Hepatoprotective and antioxidant effect of ellagitannins and galloyl esters isolated from *Melaleuca styphelioides* on carbon tetrachloride-induced hepatotoxicity in HepG2 cells. *Pharmaceutical Biology*, 2016. 54 (9): 1772-1735. (IF: 1.92).
35. Nouran Mohamed Fahmy, **Eman Al-Sayed**, Mohamed M Abdel-Daim, Maarit Karonen, Abdel Nasser Singab. Protective effect of *Terminalia muelleri* against carbon tetrachloride-induced hepato and nephro-toxicity in mice and characterization of its bioactive constituents. *Pharmaceutical Biology*, 2016, 54: 303-313. (IF: 1.92).
36. **Eman Al-Sayed**, Mai F Tolba, Maarit Karonen. Antioxidant and Hepatoprotective Activities of Flavonoids from *Bauhinia hookeri*, *Records of Natural Products*, 2016, 10(6): 812-817 (IF: 0.79).
37. Nouran Mohamed Fahmy, **Eman Al-Sayed**, Abdel Nasser Singab. Genus *Terminalia*: A Phytochemical and Biological Review. *Medicinal & Aromatic Plants*, 2015. 4. 218. DOI: 10.4172/2167-0412.1000218.
38. Abdel Nasser Singab, Dina Bahgat, **Eman Al-Sayed**, Omaira Eldahshan. Saponins from Genus *Albizia*: Phytochemical and Biological Review. *Medicinal & Aromatic Plants*, 2015. DOI: 10.4172/2167-0412.S3-001.
39. **Eman Al-Sayed**, Mohamed M Abdel-Daim, Omnia E Kilany, Maarit Karonen, Jari Sinkkonen. Protective role of polyphenols from *Bauhinia hookeri* against carbon tetrachloride-induced hepato-and nephrotoxicity in mice. *Renal Failure*, 2015, 37: 1198-1207 (IF: 0.94).
40. **Eman Al-Sayed**, Reem N El-Naga. Protective role of ellagitannins from *Eucalyptus citriodora* against ethanol-induced gastric ulcer in rats: Impact on oxidative stress, inflammation and calcitonin-gene related peptide. *Phytomedicine*, 2015, 22: 5–15 (IF: 3.53).

41. **Eman Al-Sayed**, Olli Martiskainen, Sayed H. Seif el-Din, Abdel-Nasser A. Sabra, Olfat A. Hammam, Naglaa M. El-Lakkany. Protective effect of *Pelargonium graveolens* against carbon tetrachloride-induced hepatotoxicity in mice and characterization of its bioactive constituents by HPLC–PDA–ESI–MS/MS analysis. *Medicinal Chemistry Research*, **2015**, 4:1438-48. (IF: 1.3).
42. **Eman Al-Sayed**, Mohamed Abdel-Daim. Protective role of Cupressuflavone from *Cupressus macrocarpa* against carbon tetrachloride-induced hepato- and nephrotoxicity in mice. *Planta Medica*, **2014**, 80:1665-71 (IF: 2.34).
43. **Eman Al-Sayed**, Naglaa M. El-Lakkany, Sayed H. Seif el-Din, Abdel-Nasser A. Sabra, Olfat A. Hammam. Hepatoprotective and antioxidant activity of ellagitannins from *Melaleuca styphelioides* on carbon tetrachloride-induced hepatotoxicity in mice. *Pharmaceutical Biology*, **2014**, 52(12): 1581–90 (IF: 1.92).
44. **Eman Al-Sayed**, Hoda Abdel Hamid, Hanaa M. Abu El Einin. Molluscicidal and antischistosomal activities of methanol extracts and isolated compounds from *Eucalyptus globulus* and *Melaleuca styphelioides*. *Pharmaceutical Biology*, **2014**, 52 (6), 689-705. (IF: 1.92).
45. **Eman Al-Sayed**, Olli Martiskainen, Sayed H. Seif el-Din, Abdel-Nasser A. Sabra, Olfat A. Hammam, Naglaa M. El-Lakkany, Mohamed Abdel-Daim. Hepatoprotective and antioxidant effect of *Bauhinia hookeri* extract against carbon tetrachloride-induced hepatotoxicity in mice and characterization of its bioactive compounds by HPLC–PDA–ESI–MS/MS. **2014**. *Biomed Research International*, Hepatology, Vol: May **2014**, 1-9. (IF: 2.9).
46. **Eman Al-Sayed**, Hoda Abdel Hamid, Hanaa M. Abu El Eininb, Eman Ali, Zeinab Fahmy. Antiprotozoal and molluscicidal activities of *Pelargonium graveolens*. *International journal of Pharmacy*, **2014**, 4(4): 209-214. (IF: 0.8).
47. **Eman Al-Sayed**, Abdel-Nasser Singab, Nahla Ayoub, Olli Martiskainen, Jari Sinkkonen, Kalevi Pihlaja. HPLC–PDA–ESI–MS/MS profiling and chemopreventive potential of *Eucalyptus gomphocephala* DC. *Food Chemistry*, **2012**, 133 (1), 1017–1024 (IF: 4.1)
48. **Eman Al-Sayed**, Olli Martiskainen, Jari Sinkkonen, Kalevi Pihlaja, Nahla Ayoub, Singab A and Abdel-Nasser Singab. Chemical Composition and Bioactivity of *Pleiogynium timorensis* (Anacardiaceae). *Natural product communications*, **2010**, 5 (4) 507-666. (IF: 0.96).
49. **Eman Al-Sayed**, Olli Martiskainen, Margo Bobrowska-Hägerstrand, Jari Sinkkonen, Kid Törnquist, Kalevi Pihlaja, Nahla Ayoub, Abdel-Nasser Singab. Phenolic Compounds from *Eucalyptus gomphocephala* with Potential Cytotoxic and Antioxidant Activities. *Natural product communications*, **2010**, 5 (10) 1639-1642 (IF: 0.96).
50. Abdel-Nasser Singab, Nahla Ayoub, **Eman Al-Sayed**, Olli Martiskainen, Jari Sinkkonen and Kalevi Pihlaja. Phenolic Constituents of *Eucalyptus camaldulensis* Dehnh, with Potential Antioxidant and Cytotoxic Activities. *Records of Natural Products*, **2011**, 5(4): 271-280 (IF: 1.6).

## CONFERENCES

Planta Medica Main Congress Poster 2019; 85(18): 1490 DOI: 10.1055/s-0039-3399901YA Elkhawas, NM Mostafa, AM Elissawy, MS Alnaggar, **Eman Al-Sayed**,

MM Bishr, ANB Singab, OM Salama. LC/MS of the soft coral *Sarcophyton ehrenbergi* and its isolated associated endophytic fungi: *Aspergillus oryzae* and *Aspergillus flavus*.

21st Scientific Congress of the Association of Colleges of Pharmacy in the Arab World. 2018. **Eman Al-Sayed**. Hepatoprotective and antioxidant activity of a new ellagitannin isolated from *Melaleuca styphelioides* on carbon tetrachloride-induced hepatotoxicity in HepG2 cells.

21st Scientific Congress of the Association of Colleges of Pharmacy in the Arab World. 2018. **Eman Al-Sayed**. Chemopreventive potential of cornusinin B from *Eucalyptus globulus*: Impact on its antioxidant, anti-inflammatory and cytotoxic effects

21st Scientific Congress of the Association of Colleges of Pharmacy in the Arab World. 2018. Nouran M. Fahmy, **Eman Al-Sayed**, Mohamed El-Shazly, Abdel Nasser Singab. Isolation and Structure Elucidation of Alkaloids from *Erythrina Speciosa* Flowers.

21st Scientific Congress of the Association of Colleges of Pharmacy in the Arab World. 2018. Salma S. Mansy, **Eman Al-Sayed**, Rola M. Labib, Abdel Nasser B. Singab. Chemical Profiling of *Spondias pinnata* Essential oils and their Antimicrobial Activity.

International Ain Shams University Conference 2019. Salma Sameh, **Eman Al-Sayed**, Rola M. Labib, Abdel Nasser B. Singab. Investigation of the antidiabetic activity of the methanol extract of *Spondias pinnata* leaves and its solvent partitioned fractions.

International Ain Shams University Conference 2019. U.V based discrimination between different *Punica granatum* cultivars in combination with multivariate data analysis Alaa M. Abdo, Haidy A. Gad, **Eman Al-Sayed**, Sherweit H. El-Ahmady.

International Ain Shams University Conference 2019. Gastroprotective activity of the dichloromethane fraction of *Adenanthera pavonina* against ethanol-induced gastric ulcer in rats. Mahmoud Mansour, **Eman Al-Sayed**, Mohamed El-Shazly, Abdel Nasser B. Singab.

Seventh International Ain Shams University Conference 2018. **Eman Al-Sayed**. Hepatoprotective and antioxidant activity of Ellagic acid from Pomegranate on carbon tetrachloride-induced hepatotoxicity in mice.

17th Scientific Congress of the Association of Pharmacy Colleges in the Arab World; October 14th-16th, 2014. Faculty of Pharmacy, Ain Shams University Cairo, Egypt. Nouran Fahmy, **Eman Al-Sayed**, Maarit Karonen, Abdel Nasser Singab. Phenolic profile and antioxidant activity of *Terminalia muelleri* benth. methanolic leaf extract. **2014**.

3rd FUE International Conference of Pharmaceutical Sciences (3rd FUE-ICPS). February 9-11, 2015. Future University in Cairo, Egypt. **Eman Al-Sayed**. Hepatoprotective and gastroprotective effects of certain plants growing in Egypt and characterization of their bioactive constituents by HPLC–PDA–ESI–MS/MS analysis (**oral presentation**).

## PATENTS

- Casuarinin from *Melaleuca leucadendra* protects against ethanol-induced gastric ulcer in rats. 2018. Egyptian Academy of Scientific Research.
  - Ellagitannins from *Melaleuca ericifolia* protect against ethanol-induced gastric ulcer in rats. 2018. Egyptian Academy of Scientific Research.
  - *Erythrina speciosa* ethyl acetate fraction antiulcer activity. 2018. Egyptian Academy of Scientific Research.
  - Gastroprotective activity of the dichloromethane fraction of *Adenanthera pavonina* against ethanol-induced gastric ulcer in rats. 2018. Egyptian Academy of Scientific Research.
- Two new cytotoxic oleanane-type saponins from the aqueous methanolic extract of *Albizia anthelmintica* leaves against cancer cells.  
3-*O*- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl oleanolic acid 28-*O*- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 4)- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranosyl ester (**1**) and 3-*O*- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 6)-2-acetamido-2-deoxy- $\beta$ -D-glucopyranosyl oleanolic acid 28-*O*- $\beta$ -D-glucopyranosyl ester (**2**).

Patents: Chromatographic methods of separation, Chemical structures of the compounds and Structure elucidation of the compounds by NMR and HRESIMS .

**This patent was registered in the Egyptian Academy of Scientific Research in 2016.**

## ACADEMIC AWARDS/HONORS

- 2008-2010: Ph.D Research Program and Visiting Scientist to the Laboratory of Organic Chemistry and Chemical Biology, Department of Chemistry, University of Turku, Turku, Finland.
- This international cooperation was established from 2008-till current and resulted in many collaborative research work and articles published in reputable journals cited in JCR.*
- International publication awards from Ain Shams University 2012,2013,2014,2015,2016,2017,2018 till current.

## PROFESSIONAL ACTIVITIES & SERVICES

- **Lead Editor in a special issue (published January 2018) in Evidence-Based Complementary and Alternative Medicine (eCAM, Hindawi) impact factor =1.74. Special issue title “Natural Products for Ameliorating Degenerative Diseases”.** This special issue was dedicated to integrate the pharmacological mechanisms of natural products in ameliorating oxidative stress-associated diseases and the chemistry of secondary metabolites.

- **Participation as a reviewer in the following international journals from 2012-till now:**

- Reviewer in the Journal of Agricultural and Food Chemistry
- Reviewer in the Journal of Planta Medica
- Reviewer in the Journal of Phytomedicine
- Reviewer in the Journal of Phytotherapy Research
- BMC Complementary and Alternative Medicine
- Reviewer in the Journal of Natural Products Research
- Reviewer in the Journal of Pharmaceutical Biology
- Reviewer in the Journal of Medicinal Chemistry Research
- Reviewer in the Journal of European Journal of Medicinal Plants
- Reviewer in the Journal of Applied Pharmaceutical Science
- Reviewer in the Journal of International Journal of Medicinal Plant Research
- Reviewer in the Journal of British Journal of Medicine and Medical Research
- Evidence-Based Complementary and Alternative Medicine
- Revista Brasileira de Farmacognosia – Brazilian Journal of Pharmacognosy
- Chinese Journal of Natural Medicines

- **Active participation in “Establishment and implementing an Internal Quality Assurance System” as one of the “Quality Assurance and Accreditation Projects (QAAP) and “Continuous Improvement for Qualification & Accreditation Project (CIQAP) of higher education in Egypt 2012-2020. Performing the following roles:**

1. Preparing all course specifications and reports belonging to Pharmacognosy department, Faculty of Pharmacy, Ain Shams University
2. Preparing the specification and report of the educational program “Bachelor of Pharmaceutical Sciences”
3. Bachelor of Pharmaceutical sciences and drug design program
4. Master program of Pharmacognosy department
5. Ph.D. program of Pharmacognosy department
6. Administrative section quality assurance

- **Head of 1<sup>st</sup> year control 2019, participation in administrative work of control 2012-current.**

- **Participation in purchasing committee for regular and drug design program 2012-current.**

**MEMBERSHIPS OF SCIENTIFIC SOCIETIES AND PHARMACY GROUPS:**

- Member of the Egyptian Syndicate of Pharmacists (2002 –till current).

- Member in the American Chemical Society

### **PROJECTS:**

Participating in multi-disciplinary projects linking different research fields including pharmaceutical sciences like medicinal chemistry of natural products with pharmacology, biochemistry, microbiology, along with different medical disciplines like immunology, histology, etc and clinical medicine.

- Member in the STDF project for establishing center of excellence in drug discovery at the faculty of pharmacy, Ain Shams University\_2013
- Principle Investigator and main researcher in a project titled "Gastroprotective, anti-inflammatory and hepatoprotective activity of certain medicinal plants growing in Egypt" from Ain-Shams University in 2016-2020.
- Member and main researcher in a project titled "Bioactive secondary metabolites from plants and their symbiotic fungi". Ain-Shams University in 2019-till now.

### **PRACTICAL SKILLS**

- Optimization and conduction of different kinds of biological assays of natural products.
- Isolation and identification of different classes of natural compounds from complex mixtures.
- Operation of different NMR, LC/PDA/ESI/MS and GC/MS instruments.
- Analytical and preparative scale purification techniques using different HPLC systems.

### Computer skills

- ICDL certified.
- Packages and softwares: Microsoft office (Word, Excel, power point), Windows & internet, Prism Graph Pad software, INSAT SPSS statistics programs, ChemDraw, Mastrenova NMR, Bruker Daltonics Mass program, Reference manager, Endnote.

### **WORKSHOPS ATTENDED**

- 3<sup>rd</sup> Workshop in Computer Aided Drug Design May 15-16 2016. Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Ain Shams University.
- Sciex workshop on LC-MS innovation. May 13 2015.
- Scientific Program " People" of the EU7<sup>TH</sup> RD Framework Program. Cairo University Conference Center. 3<sup>rd</sup> June 2013.

## THESIS SUPERVISION

Supervision of M. Sc. And Ph.D. thesis in Chemistry of Natural products in Ain Shams University:

- Phytochemical and Biological Studies on *Terminalia muelleri* Family. Combretaceae 2013-2015.
- Phytochemical and biological studies on *Albizia anthelmintica* family Fabaceae 2013-2016
- Phytochemical and Biological Studies on Certain Plants Belonging to Family Fabaceae 2016- till current.
- Phytochemical and Biological Studies on Certain *Erythrina* Species Family (Fabaceae). 2019- till current.
- A Chemometric Study on certain *Punica granatum L.* cultivars (Family: Lythraceae) using Spectroscopic and Chromatographic Techniques 2018-2022.
- Phytochemical and Biological Studies on *Spondias mangifera* (L.) Family Anacardiaceae 2016- 2020.
- Phytochemical and Biological study on *Carica papaya* (Family: Caricaceae) cultivated in Egypt 2018- 2022.
- Phytochemical and Biological Study on *Bontia daphnoides* and *Leucophyllum frutescens* (Family Scrophulariaceae) 2019- till current.

## Ph.D. COURSES ATTENDED

- Analytical chemistry of natural products (structure elucidation using NMR-MS; an applied course). University of Turku, Finland 2009 (Excellent degree).
- Courses at Ain Shams University (Excellent degree 2010)  
Structural elucidation of natural products, biosynthesis of natural products, advanced chromatography, chemistry and biology of phenolics.

## TEACHING EXPERIENCE

*Participating in teaching the following undergraduate courses at the Department of Pharmacognosy, Ain Shams University, Cairo, Egypt from 2012-till current (both regular, credit-hours system (Drug design program) and Pharm D program):*

- Medical botany and taxonomy
- Pharmacognosy

- Phytochemistry (glycosides, alkaloids, volatile oils, carbohydrates, terpenoids, etc), Chromatography,
- Quality control of herbal products (QC, GC, HPLC, TLC techniques)
- Spectroscopy of natural products (NMR, MS, IR, UV).
- Phytotherapy and optimum nutrition.

*Participating in teaching the following postgraduate courses at the Department of Pharmacognosy, Ain Shams University, Cairo, Egypt from 2012-current:*

- Chromatographic separation of various natural products.
- Quality control of herbal products.
- Advanced structure elucidation of natural products, utilizing different techniques, including NMR (1D and 2D), mass spectrometry, infrared and ultraviolet spectroscopy.
- Phytotherapy

*Participating in teaching the following courses at the Department of Pharmacognosy, Russian University, Cairo, Egypt 2019-Current:*  
Phytochemistry Volatile oils and Alkaloids.

*Participating in teaching the following courses at the Department of Pharmacognosy, Badr University, Cairo, Egypt 2013:*  
Chromatography, quality control of herbal products (GC, HPLC, TLC techniques), and phytotherapy.

*Participating in supervising and refereeing the graduation projects of the students in credit-hours system (Drug design program) 2016 till now.*

*Participating in supervising and refereeing the research proposals of the students in regular system 2012 till now.*

## **TRAINING EXPERIENCE**

- Summer training in some Egyptian pharmaceutical companies 2000-2002.
- Training in Pharmacies 2000- 2003.
- Operating NMR (Bruker 400 and 500 MHZ) and LC/MS (Sciex and Bruker micrOTOF-  $\phi$ ) at the Department of Chemistry, Turku University, Finland (from March 2008-March 2010).

## **LANGUAGES**

Arabic: mother tongue. English: excellent (reading, writing & speaking).

International TOEFEL 618.

## **TRAINING COURSES**

From FLDC (Faculty Leadership and Development Center) at Ain Shams University

- International research competitive projects
- Electronic exams and question banks
- Organization of scientific conferences
- Exam systems and students evaluation
- Use of recent technology in teaching
- The ethics of scientific research
- The use of technology in teaching.
- Competitive research projects skills.
- Ethics of scientific research.
- Effective presentation skills.
- Quality standards in the teaching process
- Managing research projects.
- Financial and regulatory aspects.
- SPSS
- Photoshop
- Credit our systems and academic supervision
- Use of Moodle in electronic teaching
- Question bank in electronic learning
- Effective teaching
- Egyptian knowledge bank
- Applications of Office 365

## أولاً: الأنشطة التدريسية

### أولاً: الخبرات في مجال التدريس:

- 1- وضع الخطط الدراسية النظرية و العملية الخاصة بقسم العقاقير لطلاب مرحلة البكالوريوس و طلاب مرحلة البكالوريوس برنامج الساعات المعتمدة والفارم دي و طلاب الدراسات عليا (ماجستير- دكتوراة) و متابعة تنفيذها.
- 2- المشاركة في تدريس مقررات العقاقير النظرية و العملية لطلاب مرحلة البكالوريوس و المقررات هي:
  - ا- عقاقير 2 للفرقة الاولى (العام الجامعي 2020 / 2021).
  - ب- كيمياء النواتج الطبيعية 1 للفرقة الثانية (العام الجامعي 2017 و 2018 / 2019).
  - ج- مراقبة جوده المنتجات العشبية (العام الجامعي 2017 / 2018 و 2018 / 2019 و 2019 / 2020).
  - د- كيمياء العقاقير 1 لطلاب المستوى الثالث (فارم دي) (العام الجامعي 2021 / 2022)
  - هـ- عقاقير لطلاب المستوى الاول (فارم دي) (العام الجامعي 2019 / 2020).
- 3- المشاركة في تدريس مقررات العقاقير النظرية و العملية لطلاب مرحلة البكالوريوس برنامج الساعات المعتمدة و المقررات هي:
  - ا- النبات الطبي لطلاب المستوى الاول (العام الجامعي 2017).
  - ب- عقاقير 1 لطلاب المستوى الاول (العام الجامعي 2017 / 2018).
  - ج- كيمياء العقاقير 1 لطلاب المستوى الثاني (العام الجامعي 2017 / 2018 و 2018 / 2019 و 2019 / 2020).
  - د- كيمياء العقاقير 2 لطلاب المستوى الثالث (العام الجامعي 2019 / 2020 و 2020 / 2021).
  - هـ- التداوي بالاعشاب و مراقبة جوده المنتجات العشبية (العام الجامعي 2019 / 2020 و 2020 / 2021 و 2021 / 2022).
- 4- المشاركة في تدريس مقررات الدراسات عليا (ماجستير- دكتوراة) و المقررات هي:
  - ا- التحليل الالي للنواتج الطبيعية (العام الجامعي 2016 / 2017 و 2017 / 2018 و 2018 / 2019 و 2019 / 2020)
  - ب- سمية النباتات الطبية (العام الجامعي 2017 / 2018)
  - ج- موضوعات مختارة في التخصص (العام الجامعي 2019 / 2020 و 2020 / 2021)
- 5- اعداد توصيف و تقارير مقررات قسم العقاقير لطلاب مرحلة البكالوريوس وفارم دي و طلاب مرحلة البكالوريوس برنامج الساعات المعتمدة و مرحلة الدراسات العليا (ماجستير و دكتوراه) و متابعة مخرجاتها.
- 6- المشاركة في الساعات المكتبية و الإرشاد الأكاديمي.
- 7- المساهمة في تطوير المقررات و توصيفها وإعداد تقارير المقررات و متابعة مخرجاتها.
- 8- المشاركة في تدريس مقررات العقاقير النظرية و العملية لطلاب مرحلة البكالوريوس في الجامعة الروسية و تلك المقررات هي:

كيمياء النواتج الطبيعية 1 و 2 (العام الجامعي 2018 / 2019 و 2019 / 2020).

### ثانيا: الخبرات في مجال أعمال الامتحانات:

- 1- المشاركة في وضع الامتحانات النظرية و العملية والشفهية الخاصة بقسم العقاقير لمدة خمس سنوات متتالية لطلاب البكالوريوس - برنامج الساعات المعتمدة - وبرنامج فارم دي - الدراسات عليا (ماجستير - دكتوراه).
- 2- المشاركة كمرشح خارجي للجان الشفوية في كليات الصيدلة بجامعة القاهرة والأزهر والجامعة الروسية.

### ثانيا: الأنشطة البحثية:

#### أ. الأشراف علي الرسائل العلمية:

- 1- المشاركة في الأشراف العلمي علي عدد (6) رسائل ماجستير - و الانتهاء من عدد (3) منهم و مناقشتهم.
- 2- المشاركة في الأشراف العلمي علي عدد (6) رسائل دكتوراة - و الانتهاء من عدد (3) منهم و مناقشتهم.

#### ب. الأبحاث العلمية:

نشر 45 بحث علمي بالدوريات العلمية (منها 59 أبحاث في مجلات عالمية و 2 بحث في مجلة محلية) وفصل في كتاب.

ج. : **H index (Scopus) = 19, i10 H index (google scholar) = 36**

#### هـ. محكم دولي لمجلات عالمية:

- 1- Planta Medica
- 2- Phytomedicine
- 3- Phytotherapy Research
- 4- Natural Products Research
- 5- Pharmaceutical Biology
- 6- Medicinal Chemistry Research
- 7- BMC Complementary and Alternative Medicine
- 8- Tissue and Cell
- 9- European Journal of Medicinal Plants
- 10-Chinese Journal of Natural Medicines
- 11-Journal of Agricultural and Food Chemistry
- 12-Evidence-Based Complementary and Alternative Medicine
- 13-Revista Brasileira de Farmacognosia - Brazilian Journal of Pharmacognosy
- 14-Journal of Applied Pharmaceutical Science
- 15-International Journal of Medicinal Plant Research
- 16-British Journal of Medicine and Medical Research

## و. المشروعات البحثية والتطبيقية:

الحصول على مشروع ممول من جامعة عين شمس في مارس 2016 وحتى 2018 بعنوان "دراسة التأثير الواسع للمعدة و المضاد للالتهاب و الواسع للكبد لبعض النباتات الطبية النامية في مصر" ونشر ثلاثة ابحاث في مجلات دولية من هذا المشروع

## ثالثا: الأنشطة الجامعية

### أ. الأعمال الإدارية بالكلية:

#### 1. عضو باللجان التالية بكلية الصيدلة- جامعة عين شمس:

- أ. عضو مجلس قسم العقاقير.
- ج. عضو لجان شؤون المجتمع وتنمية البيئة و العلاقات العلمية والثقافية والدراسات العليا وشؤون الطلاب.
- د. عضو لجنة الاشراف في القسم من 2016 الي الان.
- هـ. عضو لجنة الازمات والكوارث من عام 2016 وحتى الان.

#### 2. أعمال الكنترول بالكلية:

- أ. المساهمة كعضو في كنترول الفرقة الأولى منذ 2013 وحتى 2020 وكنترول الفرقة الثالثة للعام الجامعي 2021 وحتى الان.
- ب. رئيس كنترول الفرقة الأولى للعام الجامعي 2018/2019 .

#### 3. أنشطة وحدة الجودة:

- أ. المشاركة في اجتماعات زيارة المتابعة والدعم الفني وذلك لمتابعة تنفيذ خطة العمل اللازمة لتأهيل الكلية للاعتماد. المشاركة في إعداد الكلية لتجديد الاعتماد من الهيئة القومية لضمان جودة التعليم و الاعتماد في 2017
- ب. عضو فريق معيار المراجعة الداخلية على الأقسام الإدارية بالكلية من 2014 وحتى 2019 والمعني بتطبيق اجراءات المراجعة الداخلية على الأقسام الادارية للتحقق من مطابقة نظام إدارة الجودة.
- ج. رئيس المعيار الإداري عامي 2018/2019. و رئيس فريق المراجعة الداخلية على الأقسام الإدارية 2015 وحتى 2019

### ب. الأنشطة الطلابية:

- المشاركة في تحكيم الأبحاث و المشاريع العلمية لطلاب البكالوريوس- برنامج الساعات المعتمدة -الدراسات العليا بالكلية.
- الإشراف الأكاديمي لطلاب الكلية و علي الأنشطة الطلابية الخاصة بالمقررات العملية

- المشاركة كمحكم للأنشطة الطلابية في معرض الزيوت الطيارة (Volatile Oil Gallery)  
لطلاب الفرقة الثالثة و برنامج الساعات المعتمدة للعام الجامعي 2019/2018.

ج. الأعمال الانشائية:

المشاركة في اختيار الكتب المتخصصة في مجال العقاقير لمكتبة الكلية.

Dec 2022