

CURRICULUM VITAE

Prof. Essam Abdel-Sattar



Name : Essam Abdel-Hamid Abdel-Sattar
Date and place of birth : Jan., 01, 1957, Aswan, Egypt.
Nationality : Egyptian.
Marital status : Married with three children.
Present profession : Professor.
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Academic Qualifications

May 1979 : B. Pharm. Science, v. good (honor) grade.
Feb., 1985 : M. Pharm. Science (Pharmacognosy).
"A Pharmacognostical Study of *Chrozophora plicata* (Vahl.) A.Juss"
March 1991 : Ph.D. Pharm. Science (Pharmacognosy).
"A Pharmacognostical Study of Certain Plants belonging to Genera
Ipomoea and *Lochroma*"

Previous Occupations:

1979-1985: Instructor of Pharmacognosy, Pharmacognosy Department, College of Pharmacy, Cairo University, Cairo.
1985-1991: Assistant lecturer of Pharmacognosy, Pharmacognosy Department, College of Pharmacy, Cairo University, Cairo.
1988-1990: Admitted to a Channel Program for Ph. D., Institute fur Pharm. Biol. u Phytochem., 48149 Munster, Germany.

1991-1997: Researcher of Pharmacognosy, Pharmacognosy Department, College of Pharmacy, King Saud University, Saudi Arabia.

2000 JSPS (Japan), post doctor fellowship, from April-2000 to October-2000, Institute of Natural Medicine, Toyama Medical and Pharmaceutical University, 2630 Sugitani, Toyama 930-0194, Japan

1997-2002 Associate professor, Pharmacognosy Department, College of Pharmacy, Cairo University, Cairo.

2000-2003: Consultant at R & D department in Sekem Herbal Company (A leader company for pharmaceutical drugs from herbal origin).

2002-2003: Professor, Pharmacognosy Department, College of Pharmacy, Cairo University, Cairo.

Present Occupation

2003- till now: Professor, Department of Natural products and alternative medicine, College of Pharmacy, King Abdulaziz University, Jeddah , Kingdom of Saudi Arabia.

Statement of teaching and research interests

A- Teaching Experience:

Teaching the following courses:

Cairo university:

- Medicinal chemistry (Viz. Alkaloids, glycosides, carbohydrates)
- Chromatography.
- Pharmacognosy (micro and macromorphology).
- Spectral analysis for postgraduate students

Private Universities:

- Chromatography course in Faculty of Pharmacy, Misr for Science and Technology University (for the academic year1998-1999).
- Phytochemistry I, II and III in Faculty of Pharmacy, 6th October University (for the academic year1999-2003).

B- Technical Experience:

- Isolation and purification of natural products.
- Chromatography (LCC, HPLC,..)
- Structural elucidation of natural products using 1D and 2D-NMR, MS, IR,...

C- Reseach of interests

- Search for Biologically active natural products through biologically guided fractionation (viz. anticancer, antiviral, antimalarial, etc...)
- Isolation and purification of different natural compounds from their plant sources, viz. sesquiterpene lactones, pregnane glycosides, saponin glycosides diterpenes, iridoids,
- Structure elucidation of natural compounds using MS, 1D and 2D NMR spectroscopy.
- Standardization of herbal drugs.

Cooperation with other institutes or companies or agencies

Tuberculosis Antimicrbial Acquistion & Coordinating Facility (TAACF)

To test selected natural compounds against Mycobacterium (TB).

DowAgrosience Company (Agrochemical Co.)

To test selected isolated natural compounds for their antifungal activity.

Laboratory of Biochemical Pharmacology for Phytomedicines, Kitasato Institute for Life Sciences and WHO Collaborating Center for Traditional Medicine, Kitasato University, Tokyo, Japan

Prof. Haruki Yamada

To test plant extracts for their antihelicobacter, anti-influenza virus, antimalarial and antitypanomiasis.

Special Programme for Research and Training in Tropical Diseases (TDR).

WHO, Switzerland

Dr Foluke Fakorede,

Cooperation established for testing compounds isolated from natural sources for their Anti-leishmanial, antimalarial and antitypanomal activity.

Granted projects:

- Study of Hypocholesterolemic and Antiatherosclerotic Properties of *Medicago sativa* L. Cultivated in Egypt (PI, 2002-2003).
- Biological Screening of Some Plants Collected from Saudi Arabia (antimalarial, antitypanosomal, antiviral and antihelicobacter) (PI, 2006-2007)

- Biological Screening of Some Plants Growing in the Western Region of the Kingdom of Saudi Arabia for their Antidiabetic and Antihepatotoxic activity (**CO-I**, 2007-2008).
- Nanoparticles in Camel Urine Can Attack Cancer Cells (**CO-I, ongoing**, 2007-2008, KACST).
- El-Zamel's scientific chair in: **Cancer Research**, (**CO-I, 2008**).
- Mohamed H. Fetahi' scientific chair in: **Prostate Research**, (**CO-I, 2008**).

CONFERENCE PARTICIPATION AND ATTENDANCE:

1. **Essam Abdel-Sattar (1999)**. Saponin Glycosides from *Osteospermum vaillantii*. The 3rd Annual Meeting of the Association of Colleges of Pharmacy in the Arab World. 14-16 October 1999, Tanta, Egypt.
2. **Essam Abdel-Sattar***, M. A. Kohiel, I. A. Shehata, O.A. Rashwan and Hesham I. E.-A. (**2000**). Phenolic Constituents of *Gymnarrhena micrantha* Desf. (2000). 5th Scientific Conference of National Organization for Drug Control & Research. 1-3 March 2000, Cairo, Egypt.
3. Al-Yahya, M. A., **Essam Abdel-Sattar*** and Guittet, E. (**2000**). Pregnane Glycosides from *Caralluma russeliana*. 5th Scientific Conference of National Organization for Drug Control & Research. 1-3 March 2000, Cairo, Egypt.
4. Assaf and **Essam Abdel-Sattar**, "International Congress and 49th Annual Meeting of the Society for Medicinal Plant Research", September 2-6, **2001** Erlangen, Germany. No. 4.6 : "Phenolic constituents from *Pulicaria crispa* and their Anti-HIV activity".
5. Soheir M. El Zalabani, **Essam Abdel-Sattar**, Fify I. Fathy and Naglaa G. Shehab (**2002**). Investigation of *Cryptostegia grandiflora* Br. Cultivated in Egypt. Part II: Botanical Study of Different organs. The 28th International Annual Meeting of the Egyptian Pharmaceutical Society. M. H.
6. **Essam Abdel-Sattar**, Hesham El-Askary and Sahar El-Mekkawy. **Iridoid, Phenylethanoid and Diterpene Glycosides from *Eremostachys Laciniata*** The 28th International Annual Meeting of the Egyptian Pharmaceutical Society. XXX Conference of Egyptian Pharmaceutical Sciences, Cairo, Egypt, 19-21 December, **2006**.
7. **Essam Abdel-Sattar***, Fathala Harrz, Sahar El-Mekkawy, Chikara Ichino, Hiroaki Kiyohara, Haruki Yamada, Kazuhiko Otoguro, Satoshi Omura. **New**

- acylated pregnane glycosides from *Caralluma tuberculata*. The 7th International Saudi Pharmaceutical Conference, Riyadh, 19-21 March 2007.
8. **Essam Abdel-Sattar*** and Sahar El-Mekkawy. **New Sulfide and Phthalic acid derivatives from *Ferula rutabensis***. The 7th International Saudi Pharmaceutical Conference, Riyadh, 19-21 March 2007.
 9. Fathalla M. Harraz, **Essam Abdel-Sattar**, Zohair M. H. Al-Marzouki and Mohamed Abdul-Rahim Shaheen. **Determination of the hormonal composition (estrone) of the date pits of selected date palm cultivars growing in Saudi Arabia**. The 7th International Saudi Pharmaceutical Conference, Riyadh, Saudi Arabia, 19-21 March 2007.
 10. Fathalla M. Harraz, **Essam Abdel-Sattar***, Sabah H. El Gayed. **Screening for antimicrobial activity of some selected plants in Saudi Arabia**, The 7th International Saudi Pharmaceutical Conference, Riyadh, Saudi Arabia, 19-21 March 2007.
 11. Hiroaki Kiyohara, Aki Ishiyama, Chikara Ichino, Sachi Namatame, Aki Nishihara, Noppamas Soonthornchareonnon, Wongsatit Chuakul, **Essam Abdel-Sattar**, Fathala Harraz, Sahar El-Mekkawy, Kazuhiko Otoguro, Satoshi Omura, Haruki Yamada. **Seeking of anti-African trypanosomiasis substances from plant origins**. The 54th Annual Meeting of the Japanese Society of Pharmacognosy, Nagoya, Japan, September 14-15, 2007.
 12. Faten Khorshid, **Essam Abdel-Sattar**, Soad Sahker, Gehan Abdel-Raouf, Ahmed Shaker, Sawsan Rahim-Aldeen, Wadiyah Baker, Nagwa El-Sawi, Huda Abu-Aurki. **Nano-Particles in Camel Urine Can Attack Cancer Cells. "Nano Research at Universities: The Road Toward Fulfilling the Vision of the Custodian of the Two Holy Mosques"** – 1st workshop on Nanotechnology, 28-30 Oct 2007, King Saud University, Riyadh, King Saudi Arabia.
 13. **Essam Abdel-Sattar**, Fathala Harraz, Soliman Mohammed Abdullah Al-ansari, Chikara Ichino, Hiroaki Kiyohara, Kazuhiko Otoguro, Satoshi Omura, Haruki Yamada. **Antiplasmodial and Antitrypanosomal Activity of Medicinal Plants from Saudi Arabia**. 1st Scientific Conference of Faculty of Pharmacy-Cairo University, March 29, 2008.

14. Fathalla M. harraz, **Essam Abdel-sattar**, Mansour I. Sulaiman and salah A. Gharieb Atteih. Antidiabetic activity of selected medicinal plants from the western region of Saudi Arabia. 1st Euro-Mediterranean Conference on Marine Natural Products (EMCMNP-I), Sharm El Sheikh, Egypt, October 31st-November 4th, 2008.

List of Publications

1. Al-Said, M. S., **Essam Abdel-Sattar**, Khalifa, S. I and El-Feraly, F. S. (1988). Isolation and Identification of an Antiinflammatory Principle from *Capparis pinosa*, *Die Pharmazie* **43**, 640-641.
2. Nahrstedt, A., **Essam Abdel-Sattar** and El-Zalbani, S. M. H. (1990) Amygdalin Acyl Derivatives, Cyanogenic glycosides from the Seeds of *Merremia dissecta*. *Phytochemistry* **29**, 1179-1181.
3. **Essam Abdel-Sattar***, Glazl, H., Nahrstedt, A., Hilal, S. H., Zaki, A. Y. and El-Zalbani, S. M. H. (1990). Hydroxycinnamic Acid Amides from *Lochroma cyaneum*. *Phytochemistry* **29**, 3931-3933.
4. Hilal, S. H., Zaki, A. Y., El-Zalbani, S. M. H., **Essam Abdel-Sattar** and Glazl, H. (1991). Flavonoids and Phenol Carboxylic Acids from *Lochroma cyaneum* (Lindl.) M. L. Green Cultivated in Egypt. *Al-Azhar Journal of Natural Product* **5**, 49.
5. Hilal, S. H., Zaki, A. Y., El-Zalbani, S. M. H., **Essam Abdel-Sattar*** and Glazl, H. (1991). Hydroxycinnamic Acid Esters from the Seeds of *Merremia dissecta* (JACQ.) HALLIER (*Ipomoea dissecta* PURCH., NOT WILD.). *Al-Azhar Journal of Natural Products* **5**, 61.
6. **Essam Abdel-Sattar***, Galal, A. M. and Rashwan, O. (1995). Caffeoyl Derivatives from the Seeds of *Ipomoea fistulosa* growing in Egypt; *International Journal of Pharmacognosy* **33**, 155-158.
7. El-Olemy, M. M., Elhag, H., El-Domiaty, M. M., **Essam Abdel-Sattar**, El-Azizi, M. M. and Al-Said, M. S. (1994). Biotransformation of Digitoxigenin by Cell Suspension Cultures of *Pergularia tomentosa* and *Ammi visnaga*; *Saudi Pharmaceutical Journal* **2**, 76-83.
8. **Essam Abdel-Sattar***, Mossa, J. S., Muhammad, I. and El-Feraly, F.S. (1995). Neo-Clerodane Diterpenoids from *Teucrium yemense*; *Phytochemistry* **40**, 1737.

9. Essam Abdel-Sattar (1995). T-Cadinol and Polumoside from *Teucrium yemense*; *Saudi Pharmaceutical Journal* **3**, 188.
10. Al-Azizi, M. M., Al-Said, M. S., El-Olemy, M. M., Essam Abdel-Sattar and Khalifa, A. S. (1994). Rhombifoline and 5,6-Dehydrolupanine from *Anagyris foetida* L.; *Arch. Pharm. Res.* **17**, 393.
11. Essam Abdel-Sattar, El-Olemy, M. M. and Mossa, J. S. (1994). Alkaloids of the Legumes of *Rhazya stricta* Decaisne, ¹³C NMR Spectral Analysis of Eburenine; *Saudi Pharmaceutical Journal* **2**, 135.
12. Agha, A. M., Essam Abdel-Sattar* and Galal, A. M. (1996). Pharmacological Study of *Cuscuta campestris* Yuncker. *Phytotherapy Research* **10**, 117-120.
13. Essam Abdel-Sattar*, Galal, A. M. and Mossa, J. S. (1996). Antitumour Germacranolides from *Anvillea garcinii*. *Journal of Natural Product* **59**, 403-405.
14. Mossa, J. S., Essam Abdel-Sattar, Abou-Shoer, M. and Galal, A. M. (1996) Free Flavonoids from *Rhus retinorrhoea*, ex Olive. *International Journal of Pharmacognosy* **34**, 198-201.
15. Mansour S. Al-Said, Essam Abdel-Sattar*, El-Feraly, F. S., Nahrstedt, A. and Coen, M. (1996). New Sulfides from *Ferula rutabensis*. *International Journal of Pharmacognosy* **34**, 189.
16. Elhag, H., Essam Abdel-Sattar, El-Domiatty, M. M., El-Olemy, M. M. and Mossa, J. S. (1997) Selection and Micropropagation of High Artemisinin Producing Clones of *Artemisia annua* L. Part II Follow up Of the Performance of the Micropropagated Clones (1997). *Arab Gulf Journal of Scientific Research* **15**, 683.
17. Essam Abdel-Sattar*, El-Olemy, M. M., Elhag, H., Gohar, A., Mossa, J. S. and Nahrstedt, A. (1998) Quinone-Methide Triterpenes from Tissue Cultures of *Catha edulis*. *Saudi Pharmaceutical Journal*, **6**, 242-245.
18. Galal, A. M., Essam Abdel-Sattar*, El-Feraly, F. S., Mossa, J. S., Meselhy R. M., Kadota, S. and Namba, T. (1998) Diterpene Acids from *Conyza incana* *Phytochemistry* **48**, 159-163.
19. Essam Abdel-Sattar* (1998). Iridoids from *Teucrium yemense*, *Archives of Pharmacal Research*, **21**, 785-786.
20. Essam Abdel-Sattar, El-Olemy, M. M., Elhag, H., Mossa, J. S., Petereit, F. and Nahrstedt, A. (1999) Proanthocyanidins from *Catha edulis*. *Scientia Pharmaceutica* **67**, 159-165.

21. Gohar A. A., El-Olemy, M.M., **Essam Abdel-Sattar**, El-Said, M. and Niwa, M. (2000). Cardenolides and β -sitosterol glucoside from *Pergularia tomentosa* L. *J Natural Product Sciences* **63**, 142-146.
22. **Essam Abdel-Sattar**^{*}, Jaber, S. M. and Hesham I. E.-A. (2000) Hirsutinolides from *Vernonia cinerascens*. *Pharmazie* **55**, 144-145.
23. Al-Yahya, M. A., **Essam Abdel-Sattar**^{*} and Guittet, E. (2000). Pregnane Glycosides from *Caralluma russeliana*, *J. Nat. Prod.* **63**, 1451-1453.
24. **Essam Abdel-Sattar**^{*}, M. A. Kohiel , I. A. Shehata, O.A. Rashwan and Hesham I. E.-A. (2000). Phenolic Constituents of *Gymnarrhena micrantha* Desf. (2000). *Bull. Fac. Pharm. Cairo Univ* **38**, 137.
25. **Essam Abdel-Sattar**^{*} and Jaber S. Mossa (2000). Phytochemical Investigation of *Usnea articulata* (L.) HOFFOW. *Bull. Fac. Pharm. Cairo Univ* **38**, 99.
26. **Essam Abdel-Sattar**^{*}, M. A. Kohiel , I. A. Shehata and Hesham I. E.-A. (2000). Phenolic Compounds from *Eucalyptus maculata*. *Die Pharmazie* **55**, 623-624.
27. **Essam Abdel-Sattar** and Andrew T. McPhail (2000). *cis*-Parthenolid-9-one from *Anvillea garcinii*. *Journal of Natural Products* **63**, 1587-1589.
28. M.M. Shabana, **E Abdel-Sattar**, M.H. Gonaid and M.M Salama (2000). Macro- and Micromorphology of *Leptadenia heterophylla* (Del.) Decne. Growing in Egypt. *Az. J. Pharm. Sc.* **26**, 128.
29. **Essam Abdel-Sattar**, Al-Yahya, M.A., Nakamura, N., Hatori, M. (2001). Penicillosides A-C, C-15 Oxypregnane glycosides from *Caralluma penicillata*. *Phytochemistry* **57**, 1213-1217.
30. **Essam Abdel-Sattar** (2001). Saponin Glycosides from *Osteospermum vaillantii*. *Journal of Pharmaceutical Biology* **39**, 440-444.
31. **Essam Abdel-Sattar** (2001). Minor Alicyclic Diterpene Acids from *Conyza incana*. *Chemical Monthly* **132**, 1095-1099.
32. Abdel-Rahim S. Ibrahim, Omar Rashwan and **Essam Abdel-Sattar**^{*} (2001). Flavonoids from *Chrozophora oblongifolia*. *Bull. Fac. Pharm. Cairo Univ* **38**, 99.
33. **Essam Abdel-Sattar**^{*}, Meselhy R. Meselhy and Mohammed Abdul-Aziz Al-Yahya (2002). New Oxypregnane Glycosides from *Caralluma penicillata*. *Planta medica* **68**, 430-434.

Year 2003

34. Soheir M. El Zalabani, **Essam Abdel-Sattar**, Fify I. Fathy and Naglaa G. Shehab (2003). Bioactive Extracts of Different Organs of *Cryptostegia grandiflora* Br. Growing in Egypt. *Egypt. J. Biomed. Sci.*, **11**, 233.

Year 2005

35. Mohamed Abdel-Fattah, G Abeer, M.M. El-Hammamy, **Essam Abdel-Sattar*** (2005). Antioxidant and Hepatoprotective Effects of *Eucalyptus maculate*. *Medical Science Monitor* **11** (11), 426-431.
36. Amal E Khaleel, Mohamed Z. GAD, Shohda A. El-Maraghy, Mohamed S. Hifnawy and **Essam Abdel-Sattar*** (2005). Study of Hypocholesterolemic and Antiatherosclerotic Properties of *Medicago sativa* L. Cultivated in Egypt. *Journal of Food and Drug Analysis* **13**, 212-218.

Year 2006

37. Marwan Shabana, Mariam Gonaid, Maha Mahmoud Salama, **Essam Abdel-Sattar*** (2006). Phenylalkylamine alkaloids from *Stapelia hirsuta* L. *J Natural Product Research* **20**, 710-714.
38. Marwan Shabana, Mariam Gonaid, Maha Mahmoud Salama, **Essam Abdel-Sattar*** (2006). A Novel Alkaloid from *Stapelia hirsute*. *Turkish J of Chemistry* **30**, 89-92.
39. Shabana M. M., **Essam Abdel-Sattar***, Gonaid M. H., Salama M. M. and Sleem A. A. (2006). Phytochemical and biological Studies of *Leptadenia heterophylla* Dcene and its latex. *Bull. Fac. of Pharm. Cairo Univ.* **44**, 59-74.
40. **Essam Abdel-Sattar***, Hesham El-Askary and Sahar El-Mekkawy (2006). Iridoid, Phenylethanoid and Diterpene Glycosides from *Eremostachys Laciniata*. *Bull. Fac. Pharm. Cairo Univ.* **44**, 135-142.

Year 2007

41. **Essam Abdel-Sattar***, Ahmed A. Ahmed, Mohamed-Elamir F. Hegazy, Mohamed A. Farag and Mohammad Abdulaziz Al-Yahya (2007). Acylated pregnane glycosides from *Caralluma russeliana*. *Phytochemistry* **68**, 1459–1463.
42. **Essam Abdel-Sattar***, Amal E Khaleel and Fathala Harraz (2007). Triterpene acids from the stem exudates of *Schinus molle* L., *Egypt. J. Biomed. Sci.* **24**, 68-74.

Year 2008

43. Fathalla M. Harraz, **Essam Abdel-Sattar***, Alaa Khedr, Zohair M. H. Al-Marzouki, Mohamed Abdul-Rahim Shaheen (2008). Determination of estrone in the date pits of the major cultivars of date palm (*Phoenix dactylifera*) grown in Saudi Arabia and possible use as a natural hormonal source. *Electronic Journal of Environmental, Agricultural and Food Chemistry* 7, 3115-3125.
44. **Essam Abdel-Sattar***, Fathala Harraz, Soliman Mohammed Abdullah Al-ansari, Sahar El-Mekkawy, Chikara Ichino, Hiroaki Kiyohara, Kazuhiko Otoguro, Satoshi Omura, Haruki Yamada (2008). Acylated Pregnane Glycosides from *Caralluma tuberculata* and their Antiparasitic Activity. *Phytochemistry* 69, 2180-2186.
45. Azza R. Abdel-Monem, **Essam Abdel-Sattar***, Fathalla M. Harraz, and Frank Petereit (2008). Chemical Investigation of *Euphorbia schimperi* C. Presl. *Records of Natural Products* 2, 39-45.
46. **Essam Abdel-Sattar*** and Sahar El-Mekkawy (2008). New Sulfide derivative from *Ferula rutabensis*. *Natural Product Research* (in press).
47. Marrwan M. Shabana, **Essam Abdel-Sattar***, and Sahar El-Mekkawy. (2008) Protodioscin and Pseudoprotodioscin from *Solanum intrusum*. *Research Journal of Phytochemistry* 2, 100-105.
48. **Essam Abdel-Sattar***, Fathalla M. Harraz, Sabah H. El Gayed (2008). Antimicrobial Activity of Extracts of Some Selected Plants in Kingdom of Saudi Arabia. *Journal of King AbdulAziz University Medical Sciences (JKAU: Med. Sci.)*,15 (1), (in press).
49. Fathalla M. H. Harraz, **Essam Abdel-Sattar***, Ali Mahmoud El-Halawany (2008). Iridoid Glycosides from *Barleria trispinosa*. *Natural Product Research* (in press).
50. **Essam Abdel-Sattar***, Ahmed A. zaitoun, Mohamed A. Farag, Sabah H. El Gayed and Fathalla M. H. Harraz (2008). Chemical composition, insecticidal and insect repellent activity of *Schinus molle* L. and fruit essential oils against *Trogoderma granarium* and *Tribolium castaneum*. *Natural Product Research* (in press).
51. **Essam Abdel-Sattar***, Fathala Harraz, Soliman Mohammed Abdullah Al-ansari, Sahar El-Mekkawy, Chikara Ichino, Hiroaki Kiyohara, Kazuhiko Otoguro, Satoshi Omura, Haruki Yamada (2008). Antiplasmodial and Antitrypanosomal Activity of Medicinal Plants from Saudi Arabia. **Journal of Natural Medicine** (online: <http://www.springerlink.com/content/119795/?Content+Status=Accepted>).

52. **Essam Abdel-Sattar***, Naglaa G. Shehab, Chikara Ichino^c, Hiroaki Kiyohara, Aki Ishiyama, Kazuhiko Ootoguro, Satoshi Omura, Haruki Yamada (2008): Antitrypanosomal Activity of Some Pregnane Glycosides Isolated from *Caralluma* Species (**submitted to Phytomedicine Journal**).
53. Azza R. Abdel-Monem¹ and **Essam Abdel-Sattar*** (2008). Chemical and biological study of *Cleome paradoxa* B.Br. (**under publication**)

***Correspondence**