

# Heba Abd El-Sattar El-Nashar, Ph.D.

Assistant professor

Department of Pharmacognosy & Phytochemistry

Faculty of Pharmacy, Ain Shams University



Currently, I am assistant professor of Pharmacognosy and Phytochemistry, at Ain Shams University teaching for undergraduate as well as postgraduate courses of Pharmacognosy included in Pharmacy Bachelor and master's degree afforded by Faculty of Pharmacy, Ain Shams University. I hold my PhD in field the field of Natural Products Chemistry including isolation, structure elucidation and biological evaluation of secondary metabolites from plants. In addition, I am now working on various research plans in Natural Product Chemistry as well as Drug Discovery, in which, the main current interest is focusing on 'Plant-derived bioactive secondary metabolites'.

## Current Contact Information

### Work Address:

Faculty of Pharmacy, Ain Shams University, Organization of African Unity Street, Abbasia, 11566 - Cairo, Egypt. Office: telephone | +202-2405-1106 - Fax | +202-2405-1107.

### Home Address:

2<sup>nd</sup> district, Middle-Plateau, Mokattam, Cairo, Egypt  
Tel. no.: Mobile | +2 01221051755

### e-mail Address:

[heba\\_pharma@pharma.asu.edu.eg](mailto:heba_pharma@pharma.asu.edu.eg)

### ResearchGate profile:

<https://www.researchgate.net/profile/Heba-El-Nashar>

### Scopus Profile:

<https://www.scopus.com/authid/detail.uri?authorId=57193640561>

### Orcid Number:

<https://orcid.org/0000-0003-4252-7647>

### Google scholar Profile:

<https://scholar.google.com/citations?user=4wKrKPMAAAAJ&hl=en&oi=sra>

## Education

### **Ph.D. in Pharmaceutical Sciences| June 2020**

**Ain Shams University - Egypt**

Department of Pharmacognosy & Phytochemistry, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt. Thesis entitled: "Phytochemical and Biological Studies on certain plants belonging to Family Anacardiaceae".

### **M.Sc. in Pharmaceutical Sciences| December 2015**

**Ain Shams University - Egypt**

Department of Pharmacognosy & Phytochemistry, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt. Thesis entitled: "Phytochemical and Biological Study of *Acrocarpus fraxinifolius* Family Fabaceae".

### **B.S. in Pharmaceutical Sciences| July 2011**

**Ain Shams University - Egypt**

Major score: "Excellent with Honor" in the 6<sup>th</sup> place, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.

## Professional Experience

**July 2020 to present**

### **Assistant Professor of Phytochemistry and Pharmacognosy**

**Department of Pharmacognosy, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.**

- Teaching and preparing various teaching aids (presentations, exams, quizzes and handouts) and grading exams for undergraduate courses, including the following courses for the regular system, credit system program, Pharm D, pharm D clinical and postgrad programs:
  - Botany and Medicinal Plants
  - Pharmacognosy
  - Phytochemistry 1 (Chemistry of Natural Products I)
  - Phytochemistry 2 (Chemistry of Natural Products II)
  - Quality Control of Herbal Products.
  - Phytotherapy
  - Structure elucidation of natural products
  - Chemotaxonomy and Biosynthesis
  - Phytochemicals and bioactivities

- Teaching and preparing various teaching aids (presentations, exams, quizzes and handouts) and grading exams for undergraduate courses.
- The current research interests include:  
the isolation of biologically significant natural products from various natural sources specially plant sources and evaluating its biological activities aiming to find a novel natural product with promising biological activities to prevent or/and cure various diseases.

▪ **Assistant Professor of Phytochemistry, Department of Pharmacognosy, Faculty of Pharmacy, Badr university in Cairo (BUC), Cairo, Egypt (Part time; from September 2020 to April 2021).**

▪ **A member in the iHub Center (Creativity, Development and Entrepreneurship) of Ain Shams University.**

**January 2016 to June 2020**

**Assistant Lecturer of Phytochemistry and Pharmacognosy**

**Department of Pharmacognosy, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.**

- Teaching, preparing presentation and preparing various laboratory classes, helping in formation of the practical students' notes, proctoring and grading exams for the Department of Pharmacognosy, Faculty of Pharmacy, Ain Shams University including:
  - Botany and Medicinal Plants
  - Pharmacognosy
  - Phytochemistry 1 (Chemistry of Natural Products I)
  - Phytochemistry 2 (Chemistry of Natural Products II)
  - Quality Control of Herbal Products
- Conducted studies and research in the field of the chemistry of medicinal plants and Natural Products Chemistry as a Ph.D. student in the Department of Pharmacognosy, Faculty of Pharmacy, Ain Shams University.
- Research interests were included the isolation of biologically significant natural products from various plant species and evaluating its biological activities aiming to find a novel natural product with promising biological activities to prevent or/and cure various diseases.
- Completing the Ph.D. thesis entitled: "Phytochemical and Biological Studies on certain plants belonging to Family Anacardiaceae".
- Getting courses for handling and manipulating the usage of Nuclear Magnetic Resonance instrument – Bruker 400 MHZ. and how to measure different samples for 1D and 2D NMR data.
- Getting different postgraduate courses regarding spectroscopic identifications, biosynthetic pathways, and chromatography.

May 2012 to December 2015

**Teaching instructor and demonstrator of Phytochemistry and Pharmacognosy Department of Pharmacognosy, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.**

- Teaching various laboratory classes and preparing, proctoring and grading exams for the Department of Pharmacognosy, Faculty of Pharmacy, Ain Shams University including:
  - Botany and Medicinal Plants
  - Pharmacognosy
  - Phytochemistry 1 (Chemistry of Natural Products I)
  - Phytochemistry 2 (Chemistry of Natural Products II)
  - Quality Control of Herbal Products
- Conducted studies and research in the field of chemistry of natural products as Masters' student and Research Assistant at the Department of Pharmacognosy, Faculty of Pharmacy, Ain Shams University.
- Areas of interest included the isolation and identification of biologically active natural products.



## **Research Interests - Field of Research**

- **Drug discovery:** Following bioactivity through Bio-assay guided fractionation of promising natural sources.
- **Isolation and Purification** of bioactive secondary metabolites.
- **Identification and Structural Elucidation** of secondary metabolites.
- **Volatile oil isolation and identification.**

## **Training and Attended Workshops**

### **Faculty Training and Management Workshop for Faculty members - Faculty and Leadership Development Program (FLDP), Ain Shams University:**

- Leadership
- Using Technology as teaching aids
- How to write a scientific paper
- Leading and management of research team
- Quality control and assurance
- Research projects and Funding
- Examination systems and evaluation
- Problem solving and planning
- Internal Auditing, Quality and Accreditation
- International Publication
- Ethics of scientific research
- Effective teaching
- Search and research
- Scientific writing

**Molecular Docking Workshop entitled "3<sup>rd</sup> Workshop in Computer Aided Drug Design" at Department of Pharmaceutical Chemistry, Faculty of pharmacy, Ain Shams University (2016).**

**Egyptian Knowledge Bank Workshop at Department of Pharmaceutical Chemistry, Faculty of pharmacy, Ain Shams University (2018).**

**Elsevier Workshop entitled "Promote Your Research Capabilities" at Department of Pharmacognosy, Faculty of pharmacy, Ain Shams University (2019).**

**Workshops on various equipment such as Light microscope, Chromatotron, Shimadzu QP-2010 GC/MS operation, Prep HPLC at Department of Pharmacognosy, Faculty of pharmacy, Ain Shams University (2019).**

**Webinar entitled "Copyrights and Authorship Rights in Academia" in October 2020.**

**Webinar entitled "EKB for Suez Canal univ.: Quality and Performance in Scientific Research PLUS Research Funding" in October 2020.**

**Webinar entitled "Successful Grant Application with Funding Institutional-Real Examples and Supporting Tools"" in October 2020.**

## **Professional Skills**

**In the field of Pharmacognosy and Phytochemistry (Teaching and Research):**

- Teaching different undergraduate as well as postgraduate courses of Phytochemistry and Pharmacognosy at department of Pharmacognosy, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.
- Skills in different chromatographic techniques for extraction, fractionation as well as purification of natural products.
- Purification of isolated natural products from different plant materials using different chromatographic methods, e.g.: Column chromatography (CC), Thin Layer Chromatography (TLC) HPLC and GC.
- Purifying secondary metabolites using semi-preparative HPLC.
- Identification and structure elucidation of secondary metabolites using UV, IR, NMR and MS spectroscopy.
- Isolation, purification as well as cultivation of associated endosymbionts from different sources as plants, marine organisms, soil, mangroves as well as sea sediments.
- Scientific article and proposal writing.
- Supervision on graduation projects of students
- Supervision on MSc students

## **Equipment Handling**

- HPLC (Analytical and Semipreparative)
- Spectrophotometer
- Incubator
- Centrifuges
- Light microscopes
- Rotary evaporator
- Clavenger

## List of Publications

### **Unveiling the anxiolytic and analgesic effects of citronellal in Swiss mice: in vivo and in silico insights into COX and GABAA receptor pathways**

Muhammad Torequl Islam, Md. Sakib Al Hasan, Raihan Chowdhury, Emon Mia, Imam Hossen Rakib, Noshin Tasnim Yana, Heba A. S. El-Nashar, Siddique Akber Ansari, Irfan Aamer Ansari, Md. Amirul Islam, Zainab M. Almarhoon, William N. Setzer, Javad Sharifi-Rad  
*Naunyn-Schmiedeberg's Archives of Pharmacology*, 2024

### **UPLC-ESI/MSn metabolic profiling of *Cedrela odorata* L. and *Toona ciliata* M. Roem and in vitro investigation of their anti-diabetic activity supported with molecular docking studies**

Heba A. S. El-Nashar, Ahmad M. Abbas, Ayman M. Al-Qaaneh, Mostafa A. Abdel-Maksoud, Mohamed A. El-Tayeb, Saeedah Almutairi, Bushra Hafeez Kiani & Esraa A. Elhawary  
*Journal of Essential Oil-Bearing Plants*, 2024

### **Chemical composition and antimicrobial investigation of the essential oil isolated from *Montanoa bipinnatifida* (Kunth) K. Koch leaves**

Heba A. S. El-Nashar\*, Ayman M. Al-Qaaneh, Md. Shimul Bhuia, Raihan Chowdhury, Mostafa A. Abdel-Maksoud, Hossam Ebaid, Abdul Malik, Muhammad Torequl Islam, Mohammed Aufy and Esraa A. Elhawary  
*Frontiers in Chemistry*, 2024

### **Rhoifolin, baicalein 5,6-dimethyl ether and agathisflavone prevent amnesia induced in scopolamine zebrafish (*Danio rerio*) model by increasing the mRNA expression of *bdnf*, *npv*, *egr-1*, *nfr2α*, and *creb1* genes**

Ion Brinza, Razvan Stefan Boiangiu, Marius Mihasan, Dragos Lucian Gorgan, Alexandru Bogdan Stache, Ahmed Abd-Alkhalek, Heba El-Nashar, Iriny Ayoub, Nada Mostafa, Omayma Eldahshan, Abdel Nasser Singab, Lucian Hritcu  
*European Journal of Pharmacology*, 2024

### **Biomedical Perspectives of Citronellal: Biological Activities, Toxicological Profile and Molecular Mechanisms**

Md. Rokonuzzmana, Md. Shimul Bhuiaa, Ayman M. Al-Qaaneh, Heba A. S. El-Nashar \*, Tawhida Islam, Raihan Chowdhury, Hasibul Hasan Shanto, Md. Sakib Al Hasan, Mohamed El-Shazly\*, Muhammad Torequl Islama\*  
*Chemistry and biodiversity*, 2024

### **Effect of altitude and harvest year on nutraceutical characteristics of *Rubus ellipticus* fruits**

Jyoti Dhatwalia, Amita Kumari\*, Ishita Guleria, Rakesh Kumar Shukla, Na'il Saleh, Heba A. S. El-Nashar \* and Mohamed El-Shazly \*  
*Frontiers in nutrition*, 2024

### ***Allium cepa* as a Toxicogenetic Investigational Tool for Plant Extracts: A**

## **Systematic Review**

Erisson Cruz de Melo, Randyson da Silva Pinheiro, Bruno Sousa Costa, Rosália Maria Tôres de Lima, Ana Carolina Soares Dias, Teresinha de Jesus Aguiar Dos Santos, Maria Luisa Lima Barreto do Nascimento, João Marcelo de Castro E Sousa, Muhammad Torequl Islam, Ana Amélia de Carvalho Melo Cavalcante, [Heba A. S. El-Nashar](#), Mohamed El-Shazly, José Williams Gomes de Oliveira Filho  
*Chemistry and biodiversity, 2024*

## **Possible Effects of nutmeg oil versus propolis in treatment of chemical induced ulcer on papillae of tongue in albino rats**

Aya Hamed Mekky, Iman Ahmed Mounir, [Heba A. S. El-Nashar](#), and Medhat Ahmed. El-Zainy

*Egyptian dental journal, 2024*

## **Prevalence of plant pathogenic nematodes in banana fields of Sylhet district, Bangladesh**

Mohammad Jakir Hosen, Rahatul Islam, Manik Chandra Shill, Muhammad Torequl Islam, Mohamed El-Shazly & [Heba A. S. El-Nashar](#)

*Archives of Phytopathology and Plant Protection, 2024*

## **Development of metal–phenolic acid network for biomedical usages**

Nada M. Mostafa, [Heba A. S. El-Nashar](#), Noha Swilam, Khaled A. Nematallah, Aman Ullah, Saad Hanif Abbasi, Mona M.A. Abdel-Mottaleb and Mohamed El-Shazly

*Book chapter in Advancement of Phenolic Acids in Drug Discovery  
Fundamentals and Applications, Academic press 2024*

## **Chemical profiling and enzyme inhibitory properties of essential oil isolated from *Artemisia judaica* grown in Egypt: GC-MS analysis and in-Vitro studies**

[Heba A. S. El-Nashar](#), Omayma A. Eldahshan, Nilofar Nilofar & Gokhan Zengin

*Natural product research, 2024*

## **Sciareol antagonizes the sedative effect of diazepam in thiopental sodium-induced sleeping animals: In vivo and in silico studies**

SM Hafiz Hassan, [Heba A.S. El-Nashar](#), Md Anisur Rahman, Jannatul Islam Polash, Mehedi Hasan Bappi, Milon Mondal, Mostafa A. Abdel-Maksoud, Abdul Malik, Mohammed Aufy, Mohamed El-Shazly, Muhammad Torequl Islam

*Biomedicine & Pharmacotherapy, 2024*

## **Caffeine and Purine Derivatives: A Comprehensive Review on The Chemistry, Biosynthetic Pathways, Synthesis-Related Reactions, Biomedical Prospectives and Clinical Applications**

Ameen A. Abu-Hashem, Othman Hakami, Mohamed El-Shazly, [Heba A. S. El-Nashar](#), Mahmoud N. M. Yousif

*Chemistry and biodiversity, 2024*



**Chemical composition of Schinopsis Lorentzii Essential Oil and Its Inhibitory Effects against Key Enzymes Relevant to Type-2 Diabetes: An Emphasis on GC-MS Chemical Profiling and Molecular Docking Studies**

Heba A. S. El-Nashar\*, El-Shaimaa Shabana, Hossam Kamli, Ahmad Shaikh, Mai Adel  
*Essential oil-bearing plants, 2024*

**Carbon Nanotubes: A Novel Innovation as Food Supplements and Biosensing for Food Safety**

Maazallah Masood, Tala Albayouk, Na'il Saleh, Mohamed El-Shazly, Heba A. S. El-Nashar  
*Frontiers in Nutrition, 2024*

**Unveiling the pharmacological potential of plant triterpenoids in breast cancer management: an updated review**

Shaza H. Aly, Abdullah M. M. Elbadry, Ahmed S. Doghish, Heba A. S. El-Nashar  
*Naunyn-Schmiedeberg's Archives of Pharmacology, 2024*

**Chemical Profiling and Enzyme Inhibitory Activities of Essential Oil Isolated from *Pistacia khinjuk* Leaves: Insights On GC-MS Analysis and Skin Aging- Relevant Enzymes**

Hossam Kamli, Abd-Allah M. Ali, Yasmeen H. Salem, Ahmad Shaikh, Heba A. S. El-Nashar  
*Chemistry & biodiversity, 2024*

**Longevity spinach (*Gynura procumbens*) ameliorated oxidative stress and inflammatory mediators in cisplatin-induced organ dysfunction in rats: comprehensive in vivo and in silico studies**

Manik Chandra Shill, Heba A. S. El-Nashar, Patricia Prova Mollick, Rabindra Nath Acharyya, Silvia Afrin, Hemayet Hossain, Shimul Halder, Muhammad Torequl Islam, Md. Shimul Bhuia, Hasan Mahmud Reza, Mohamed El-Shazly, Mohammad S. Mubarak  
*Chemistry & biodiversity, 2024*

**Quercetin increases the antidepressant-like effects of sclareol and antagonizes diazepam in thiopental sodium-induced sleeping mice: A possible GABAergic transmission intervention**

Mehedi Hasan Bappi, Md. Nayem Mia, Siddique Akber Ansari, Irfan Aamer Ansari, Abdullah Al Shamsh Prottay, Md. Showkoth Akbor, Heba A. S. El-Nashar, Mohamed El-Shazly, Mohammad S. Mubarak, Muhammad Torequl Islam  
*Phytotherapy research, 2024*

***In vitro* and *in vivo* studies of *Syzygium cumini* loaded electrospun PLGA/PMMA/collagen nanofibers for accelerating topical wound healing**

Esraa B. Abdelazim, Tasneem Abed, Shaimaa S. Goher, Shaza H. Aly, Heba A. S. El-Nashar, Shahira H. EL-Moslamy, Esmail M. El-Fakharany, Enas A. Abdul-Baki, Marwa Mosaad Shakweer, Noura G. Eissa, Mahmoud Elsabahy and Elbadawy A. Kamoun  
*RSC Advances, 2024*

### **Neuroprotection induced by agathisflavone**

Heba A.S. El-Nashar, Eman A. Abdelghffar, Omayma A. Eldahshan and Lucian Hritcu

*A book chapter in Natural Molecules in Neuroprotection and Neurotoxicity, 2023, Pages 1151-1158*

### **Efficacy of Rotundic Acid and Its Derivatives as Promising Natural Anticancer Triterpenoids: A Literature-Based Study**

Md. Shimul Bhuia, Raihan Chowdhury, Fatema Akter Sonia, Shrabonti Biswas, Jannatul Ferdous,

Heba A. S. El-Nashar, Mohamed El-Shazly, Muhammad Torequl Islam

*Chemistry and biodiversity, 2023*

### **Comparative Study of Essential Oils from Different Organs of *Syzygium cumini* (Pamposia) Based on GC/MS Chemical Profiling and *In Vitro* Antiaging Activity**

Naglaa S. Ashmawy, Haidy A. Gad, and Heba A. S. El-Nashar

*Molecules, 2023*

### ***In Vitro* Antioxidant and *In Vivo* Hepatoprotective Properties of *Wissadula periplocifolia* Extract**

Kazi Nadim Hossain, Md. Shafiqul Islam, Sheikh Hasibur Rahman, Subroto Sarker, Milon Mondal,

Mohammad Asikur Rahman, Sadeq K. Alhag, Laila A. Al-Shuraym, Othman A. Alghamdi,

Muhammad Torequl Islam, Ammar AL-Farga, Mohamed El-Shazly, Md. Jahir Alam, and Heba A. S.

El-Nashar

*ACS Omega, 2023*

### **Egyptian plants stand a shield against diabetic mellitus: Scientific evidence and mechanistic approaches**

Dina M. Bahgat, Shaza H. Aly, Heba A.S. El-Nashar, Ahmed E. Elissawy, Omayma A. Eldahshan,

Abdel Nasser B. Singab

*A chapter in Antidiabetic Medicinal Plants -Applications and Opportunities, 2024, Pages 441-471*

### **Polysaccharides (pectin, mucilage, and fructan inulin) and their fermented products: A critical analysis of their biochemical, gut interactions, and biological functions as antidiabetic agents**

Heba A. S. El-Nashar, Mohamed Taleb, Mohamed EL-Shazly, Chao Zhao, Mohamed A. Farag

*Phytotherapy research, 2023*

### **Natural Products for Treatment of Skin and Soft Tissue Disorders**

Editors: Heba Abd El-Sattar El-Nashar, Mohamed El-Shazly & Nouran Mohammed Fahmy

*A book Published by Bentham Science Publishers Pte. Ltd. Singapore, 2023*

### **Genus *Pimenta*: An Updated Comprehensive Review on Botany, Distribution, Ethnopharmacology, Phytochemistry and Biological Approaches**

Heba A. S. El-Nashar, Abd-Allah M. Ali, Yasmeen H. Salem

*Chemistry & Biodiversity, 2023*

### **Drugs from marine sampling to factory**

Heba A.S. El-Nashar, Shaden Kocaeli, Mayar Abdallah, Mohamed El-Shazly  
*Book chapter in Marine Ecosystems: A Unique Source of Valuable Bioactive Compounds, Bentham eBooks publisher, 2023*

**HPLC-ESI/MS-MS characterization of compounds in *Dolomiaea costus* extract and evaluation of cytotoxic and antiviral properties: molecular mechanisms underlying apoptosis-inducing effect on breast cancer**

Heba A. S. El-Nashar, Omayma A. Eldahshan, Nasra F Abdel Fattah, Samah A Loutfy, Ibrahim M Abdel-Salam  
*BMC Complementary Medicine and Therapies, 2023*

**Phytochemical profiling and neuroprotective activity of *Callistemon subulatus* leaves against cyclophosphamide-induced chemobrain**

Omya Rabie, Heba A. S. El-Nashar, Mina Y. George, Taghreed A. Majrashi, Tarfah Al-Warhi, Fatma E. Hassan, Wagdy M. Eldehna, Nada M. Mostafa

*Pharmacotherapy & biomedicine, 2023*

**The efficacy of natural bioactive compounds against prostate cancer: Molecular targets and synergistic activities**

Md. Abdur Rashid Mia, Dipta Dey, Musfiqur Rahman Sakib, Md. Yeaman Biswas, Abdullah Al Shamsh Prottay, Niloy Paul, Fahmida Hoque Rimti, Yusuf Abdullah, Partha Biswas, Md. Iftehimul, Priyanka Paul, Chandan Sarkar, Heba A. S. El-Nashar, Mohamed El-Shazly, Muhammad Torequl Islam

*Phytotherapy research, 2023*

**Pharmacological properties of mangiferin: bioavailability, mechanisms of action and clinical perspectives**

Jelena Zivković, Kammala Ananth Kumar, Rapuru Rushendran, Kaliappan Ilango, Nouran M. Fahmy, Heba A. S. El-Nashar, Mohamed El-Shazly, Shahira M. Ezzat, Guiomar Melgar-Lalanne, Alejandra Romero-Montero, Sheila I. Peña-Corona, Gerardo Leyva-Gomez, Javad Sharif-Rad, Daniela Calina

*Naunyn-Schmiedeberg's Archives of Pharmacology, 2023*

**Mango (*Mangifera indica* L.): Phytochemical Profile, Nutritional Aspects and Potential Anti-Diabetic Therapeutic Studies**

Heba A. S. El-Nashar, Shaza Hussiny, Lucian Hritcu, Omayma A. Eldahshan

*Book chapter in Ancient and Traditional Foods, Plants, Herbs and Spices used in Diabetes,*

*Taylor and Francis, 2023*

**Anticancer Potential of the Plant-Derived Saponin Gracillin: A Comprehensive Review of Mechanistic Approaches**

Md. Shimul Bhuia, Raihan Chowdhury, Fatema Akter Sonia, Hosam Kamli, Ahmad Shaikh, Heba A. S. El-Nashar, Mohamed El-Shazly, Muhammad Torequl Islam  
*Chemistry and biodiversity, 2023*

**Chemical composition, seasonal variation and antiaging activities of essential oil from *Callistemon subulatus* leaves growing in Egypt**

Omyma Rabie, Heba A. S. El-Nashar, Taghreed A. Majrashi, Tarfah Al-Warhi, Mahmoud A. El Hassab, Wagdy M. Eldehna and Nada M. Mostafa  
*Journal of Enzyme Inhibition and Medicinal Chemistry, 2023*

**Brazilin: An updated literature-based review on its promising therapeutic approaches and toxicological studies**

Sarmin Jamaddar, Chandan Sarkar, Shamima Akter, Mohammad S. Mubarak, Heba A.S. El-Nashar, Mohamed El-Shazly, Muhammad Torequl Islam  
*South African Journal of Botany, 2023*

**Metabolomic profile, anti-trypanosomal potential and molecular docking studies of *Thunbergia grandifolia***

Heba A. S. El-Nashar, Ahmed M. Sayed, Hany A. M. El-Sherief, Mostafa E. Rateb, Lina Akil, Ibrahim Khadra, Taghreed A. Majrashi, Sara T. Al-Rashood, Faizah A. Binjubair, Mahmoud A. El Hassab, Wagdy M. Eldehna, Usama Ramadan Abdelmohsen and Nada M. Mostafa  
*Journal of Enzyme Inhibition and Medicinal Chemistry, 2023*

**Family Myrtaceae: The treasure hidden in the complex/diverse composition**

Fatema R. Saber, Paulo E. S. Munekata, Komal Rizwan, Heba A. S. El-Nashar, Nouran M. Fahmy, Shaza H. Aly, Mohamed El-Shazly, Abdelhakim Bouyahyaf and Jose M. Lorenzo  
*Critical reviews in food science and nutrition, 2023*

**Antioxidant and pulmonary protective potential of *Fraxinus xanthoxyloides* bark extract against CCl<sub>4</sub>-induced toxicity in rats**

Tahira Younis, Faiza Jabeen, Ali Hussain<sup>3</sup>, Bilal Rasool, Ali Raza Ishaq, Atif Nawaz, Heba A.S. El-Nashar\*, Mohamed El-Shazly\*  
*Chemistry and biodiversity, 2023*

**Ameliorative effect of oregano (*Origanum vulgare*) versus silymarin in experimentally induced hepatic encephalopathy**

Eman A. R. Abdelghffar, Heba A. S. El-Nashar, Shaimaa Fayez, Wael A. Obaid and Omayma A. Eldahshan  
*Scientific reports, 2022*

***Hyphaene thebaica* (Areceaceae) as a Promising Functional Food: Extraction,**

### **Analytical Techniques, Bioactivity, Food, and Industrial Applications**

Fatema R. Saber, Shaza H. Aly, Moustafa Ali Khallaf, Heba A. S. El-Nashar,  
Nouran M. Fahmy, Mohamed El-Shazly, Radha Radha, Suraj Prakash, Manoj Kumar,  
Doaue Taha, Abdelhakim Bouyahya, Javad Sharifi-Rad  
*Food Analytical Methods*, 2022

### **Neuroprotective Effect of Artichoke-Based Nanoformulation in Sporadic Alzheimer's Disease Mouse Model: Focus on Antioxidant, Anti-Inflammatory, and Amyloidogenic Pathways**

Heba A. S. El-Nashar, Haidy Abbas, Mariam Zewail, Mohamed H. Noureldin, Mai M. Ali,  
Mariam M. Shamaa, Mohamed A. Khattab and Nehal Ibrahim  
*Pharmaceuticals*, 2022

### **Genus *Lupinus* (Fabaceae): a review of ethnobotanical, phytochemical and biological studies**

Ali Raza Ishaq, Heba A.S. El-Nashar, Tahira Younis, Muhammad Asad Mangat, Mashal  
Shahzadi, Amina Shamsheer Ul Haq and Mohamed El-Shazly  
*Journal of Pharmacy and Pharmacology*, 2022

### **Chemical Composition, Antiaging Activities and Molecular Docking Studies of Essential Oils from *Acca sellowiana* (Feijoa)**

Heba A.S. El-Nashar, Mai Adel, Mohamed El-Shazly, Ibrahim S. Yahia, Hamdy S. El-  
Sheshtawy, Adel A. Almalki, and Nehal Ibrahim  
*Chemistry and biodiversity*, 2022

### **Protective effect of *Acrocarpus fraxinifolius* extract against hepatic fibrosis induced by Gamma irradiation and carbon tetrachloride in albino rats**

Omama E. El-Shawi, Heba A. S. El-Nashar, Sahar S. Abd El-Rahman, Omayma A. Eldahshan  
and Abdel Nasser B. Singab  
*International Journal of Radiation Biology*, 2022

### **Chilean pepper (*Schinus polygamus*) ameliorates the adverse effects of hyperglycaemia/dyslipidaemia in high fat diet/streptozotocin-induced type 2 diabetic rat model**

Eman A.R. Abdelghffar, Nada M. Mostafa, Heba A. S. El-Nashar, Omayma A. Eldahshan and  
Abdel Nasser B. Singab  
*Industrial Crops & Products*, 2022

### **A New Xanthone Glycoside from *Mangifera indica* L.: Physicochemical Properties and In Vitro Anti-Skin Aging Activities**

Heba A. S. El-Nashar, Eman M. El-labbad, Mahmood A. Al-Azzawi and Naglaa S. Ashmawy  
*Molecules*, 2022

### **Laboratory findings in COVID-19 - alterations of hematological, immunological, biochemical, hormonal and other lab panels: a**

### **narrative review**

Yousef Rasmi, Lucas Paulo Jacinto Saavedra, Matei-Alexandru Cozma, Heba El-Nashar, Shaza Aly, Nouran Fahmy, Omayma Eldahshan, Mohamed El-Shazly, Elena Codruța Dobrică, Hamed Kord-Varkaneh, Camelia Cristina Diaconu, and Mihnea Alexandru Găman  
*Journal of Mind and Medical Sciences*, 2022

### **Synergistic effect of quercetin magnetite nanoparticles and targeted radiotherapy in treatment of breast cancer**

Mostafa A Askar, Heba AS El-Nashar, Mahmood A Al-Azzawi, Sahar S Abdel Rahman & Omama E Elshawi  
*Breast Cancer: Basic and Clinical Research*, 2022

### **The genus *Schinus* (Anacardiaceae): a review on phytochemicals and biological aspects**

Heba A. S. El-Nashar, Nada M. Mostafa, Eman A. Abd El-Ghffar, Omayma A. Eldahshan & Abdel Nasser B. Singab  
*Natural product research*, 2021

### **The Impact of Polyphenolics in The Management of Breast Cancer: Mechanistic Aspects and Recent Patents**

Heba A. S. El-Nashar, Shaza H. Aly, Amirhossein Ahmadi & Mohamed El-Shazly  
*Recent Patent Anticancer Drug Discovery*, 2021

### **GC/MS Analysis of Essential Oil and Enzyme Inhibitory Activities of *Syzygium cumini* (Pamposia) Grown in Egypt: Chemical Characterization and Molecular Docking Studies**

Heba A. S. El-Nashar, Wagdy M. Eldehna, Sara T. Al-Rashood, Amal Alharbi, Razan O. Eskandrani and Shaza H. Aly  
*Molecules*, 2021

### **Chemical Composition, Cytotoxic and Anti-arthritic Activities of Hexane Extracts of Certain *Schinus* Species**

Heba A. S. El-Nashar, Nada M. Mostafa, Omayma A. Eldahshan and Abdel Nasser B. Singab  
*Journal of Pharmacy and Pharmacology* 9, 2021

### **A book Chapter entitled" Plant-derived Extracts and Bioactive Compounds against Coronavirus Progression: Preventive Effects, Mechanistic Aspects, and Structures "**

Heba A. S. El-Nashar, Heba A.S. El-Nashar, Ahmed E. Elissawy, Omayma A. Eldahshan and Abdel Nasser B. Singab  
*Coronaviruses*, Springer 2021

### **Orange fruit (*Citrus sinensis*) Peel Extract Attenuates Chemotherapy-Induced Toxicity in Male Rats**

Eman Abd El-Ghffar, Heba El-Nashar, Ameera Almohammadi and Omayma Eldahshan

**A book Chapter entitled" Phytotherapeutics in Inflammatory Lung Diseases"**

Heba A. S. El-Nashar, Nouran M. Fahmy, Mohamed El-Shazly and Omayma A. Eldahshan  
*Medicinal plants for lung diseases*, Springer 2021

**A book Chapter entitled" The Impact of Plant-Derived Essential Oils on the Human Immunodeficiency Virus (HIV)"**

Heba A.S. El-Nashar, Ahmed M. Abd-Alkhalek, Omayma A. Eldahshan  
*Recent advances in pharmaceutical science*, Akinik 2021

**A new antidiabetic and anti-inflammatory biflavonoid from *Schinus polygama* (Cav.) Cabrera leaves (Accepted to be published).**

Heba A.S. El-Nashar, Nada M. Mostafa, Omayma A. Eldahshan, and Abdel Nasser B. Singab  
*Natural Product Research*, 2020

**The Role of Plant-Derived Compounds in Managing Diabetes Mellitus: A Review of Literature from 2014 To 2019 (Accepted to be published).**

Heba A S El-Nashar , Nada M Mostafa , Mohamed El-Shazly, Omayma A Eldahshan  
*Current Medicinal Chemistry*, 2020

**Chemical Composition, Antimicrobial and Cytotoxic Activities of Essential Oils from *Schinus polygamus* (Cav.) Cabrera Leaves and Bark Grown in Egypt.**

Heba A.S. El-Nashar, Nada M. Mostafa, Mohamed A. El-Badry, Omayma A. Eldahshan, and Abdel Nasser B. Singab  
*Natural Product Research*, 2020

[It was classified as featured article in Egyptian Knowledge Bank (EKB)]

***Schinus terebinthifolius* essential oil attenuates scopolamine-induced amnesia via cholinergic modulation and antioxidant effects in a zebrafish model**

Gabriela Dumitru, Heba A.S. El-Nashar, Nada M Mostafa, Omayma A Eldahshan, Razvan Stefan Boiangiu, Elena Todirascu-Ciornea, Lucian Hritcu, Abdel Nasser B Singab  
*Evidence-Based Complementary and Alternative Medicine*, 2019

**Agathisflavone isolated from *Schinus polygamus* (Cav.) Cabrera leaves prevents scopolamine-induced memory impairment and brain oxidative stress in zebrafish (*Danio rerio*)**

Gabriela Dumitru; Heba A.S. El-Nashar; Nada M Mostafa; Omayma A Eldahshan; Razvan Stefan Boiangiu; Elena Todirascu-Ciornea; Lucian Hritcu; Abdel Nasser B Singab  
*Phytomedicine*, 2019.

**Chemical Composition, Antimicrobial and Cytotoxic Activities of Essential Oils from *Schinus terebinthifolius* Raddi Growing in Egypt**

Heba A.S. El-Nashar, Nada M. Mostafa, Mohamed A. El-Badry, Omayma A. Eldahshan, and

Abdel Nasser B. Singab

*International J of pharmacognosy and phytochemical Research*, 2019.

**HPLC Standardization of The Methanolic Extract of *Acrocarpus fraxinifolius* leaves based on Gallic acid Content**

Heba A.S. El-Nashar, Omayma A Eldahshan and Abdel Nasser B Singab

*Archives of Pharmaceutical Sciences*, 2017

**GC-MS Analysis and Hepatoprotective Activity of the *n*-Hexane Extract of *Acrocarpus fraxinifolius* Leaves against paracetamol-induced hepatotoxicity in male albino rats**

Eman A. Abd El-Ghffar, Heba A.S. El-Nashar, Omayma A. Eldahshan and Abdel Nasser B Singab

*Pharmaceutical Biology*, 2016

**Phytochemical Investigation, Antitumor activity and Hepatoprotective Effect of *Acrocarpus fraxinifolius* Extract**

Heba A.S. El-Nashar, Omayma A. Eldahshan, Omama E. Elshawi and Abdel Nasser B. Singab

*Drug Development Research*, 2017

**The Tribe Caesalpinieae (Fabaceae): An Updated Review on Pharmacological aspects**

Heba A.S. El-Nashar, Omayma A Eldahshan and Abdel Nasser B. Singab.

*Medicinal & Aromatic Plants*, 2015



## Awards

Ranking as **one of the World's Top 2% Scientists list of Stanford University** influencing the world.

## Conference Participation

### **Isolation, Characterization, In silico ADMET Prediction of Novel Xanthone Glycoside Derivative from Egyptian *Mangifera Indica* having Promising Antiaging Activity**

Heba A. S. El-Nashar, Eman M El- Labbad, Naglaa S. Ashmawy

Poster presented at *13<sup>th</sup> International Conference on Clinical Gastroenterology & Hepatology*-City University Ajman, United Arab Emirates (2022)

### **Isolation and characterization of Endophytic Fungi from *Syzygium cumini* leaves and Their Antimicrobial and Antioxidant Activities**

Shaza H. Aly, Heba A.S. El-Nashar

Poster presented at *9<sup>th</sup> Annual International Ain Shams University Conference*, Cairo, Egypt (2021).

### **Chemical Composition, Antibacterial and Cytotoxic Activities of *Schinus terebinthifolius* Fruits Growing in Egypt**

Heba A.S Elnashar, Nada M. Mostafa, Omayma Eldahshan and Abdelnasser Singab

Poster presented at *7<sup>th</sup> Annual International Ain Shams University Conference*, Cairo, Egypt (2018).

### **Chemical Composition and Antibacterial Activity of *Schinus polygamus* (Cav.) Cabrera Leaves Grown in Egypt**

Heba A.S Elnashar, Nada M. Mostafa, Omayma Eldahshan and Abdelnasser Singab.

Poster presented at *4<sup>th</sup> FUE International Conference of Pharmaceutical sciences*, Cairo, Egypt (2017)

## Project Participation

**Name of the project:** Development of Some Natural Products as a New Potential Prophylactic Strategy to Spare Normal tissues from Radiotherapy Damage: Insights into Molecular Protective Mechanisms

**Grant type:** Ain shams university grants, January 2021

**Investigators:** Heba A.S. El-Nashar, Eman M. Mantawy, Omayma Eldahshan



## **International reviewing**

- ☒ **Applied Sciences**
- ☒ **Archives of Ain Shams University**
- ☒ **Bioengineered**
- ☒ **BMC Complementary Medicine and therapies**
- ☒ **Cancer reports**
- ☒ **Chemistry and biodiversity**
- ☒ **Chemistry select**
- ☒ **Cogent Food & Agriculture**
- ☒ **Current Pharmacology reports**
- ☒ **Discover plants**
- ☒ **Discover Applied Sciences**
- ☒ **Drug and development therapy**
- ☒ **E\_Book\_Studies in Natural Products Chemistry (Bioactive Natural Products)**
- ☒ **European journal of inflammation**
- ☒ **F1000Research**
- ☒ **Food science and nutrition**
- ☒ **Foods**
- ☒ **Frontiers in Pharmacology**
- ☒ **Gels**
- ☒ **Heliyon**
- ☒ **Immunity-Inflammation-Disease**
- ☒ **International journal of molecular sciences**
- ☒ **Journal of Chemistry**
- ☒ **Journal of essential oil-bearing plants**
- ☒ **Journal of Ethnopharmacology**
- ☒ **Journal of experimental pharmacology**
- ☒ **Journal of food biochemistry**
- ☒ **Journal of food-CyTA**
- ☒ **Journal of Pharmacological and Toxicological Methods**
- ☒ **Journal of Pharmacy and pharmacology**
- ☒ **Jove**
- ☒ **Mitochondria DNA**
- ☒ **Molecular science**
- ☒ **Molecules**
- ☒ **Natural product research**
- ☒ **Naunyn-Schmiedeberg's Archives of Pharmacology**
- ☒ **Pharmaceutical biology**
- ☒ **Pharmaceuticals**
- ☒ **Phytomedicine plus**
- ☒ **Plants**

- ☒ **Qeios**
- ☒ **RPS Pharmacy and Pharmacology Reports**
- ☒ **Scientific reports**
- ☒ **Toxins**
- ☒ **Veterinary medicine and science**

## Thesis supervision

**Omaima Rabie, MsC:** "Phytochemical and Biological Studies on Certain Callistemon species Family Myrtaceae". Co-supervision with: Nada M Mostafa.

**Magda Rafea El-Zawahry, MsC:** "Phytochemical and Biological studies on *Rhaphiolepis* Species Family Rosaceae". Co-supervision with: Rola Labib.

**Noha Ahmed Abd El Fatah, MsC:** " Phytochemical and Biological Evaluation of Certain Herbal Preparations". Co-supervision with: Dr. Rola Labib.

**Marina Maged, MsC:** " Chemical and biological investigation of secondary metabolites isolated from the fungi associated with *Citrus aurantium* ". Co-supervision with: Dr. Rola Labib.

**Sherien Hamdy Abdallah, Ph.D.:** " Phytochemical and Radioprotective Activity Study on *Cleome droserifolia* and its Associated Fungal Endophytes". Co-supervision with: Prof. Dr. Abdel Nasser Singab, Dr. Nada M. Mostafa and Dr. Ashaimaa Yehia.

**Nariman Hossam El-din Kandil, Ph.D.:** " Phytochemical and Biological Studies of Certain Plants Belonging to Family Malvaceae ". Co-supervision with: Dr. Sherweit El-Ahmady, Dr. Iryny Mohsen Ayoub and Dr. Fadia Salah Youssef

**Yosra Abdel Kader El Khodary, Ph.D.:** " Metabolomics Based Comparative Study between Different Persimmon Cultivars in Egypt: A Chemometric Approach ". Co-supervision with: Dr. Sherweit El-Ahmady, Dr. Iryny Mohsen Ayoub and Dr. Nehal Sabry.



## Personal Skills and Knowledge

- Excellent working knowledge of ChemDraw software, EndNote software, Xcalibar software, Mass lynx software, Mzmine software, Prism GraphPad software and MestreNova software.
- Participating in the Quality Assurance team and Internal Auditing team in Faculty of Pharmacy, Ain Shams University.
- Involved in the Quality Assurance Unit for Accreditation in the Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.
- Member of swimming training academy for 6 years.

### Key Strengths:

- **Exceptional communication and interpersonal skills** - highly developed communication and interpersonal skills, working effectively with individuals on all levels. Listens attentively, assesses situations, and builds excellent rapport with teammate.
- **Demonstrated problem solving, initiative and good judgment** - possesses the ability to clearly express thoughts.
- **Team leading and Leadership skills** - Identify and effectively implement strategies and actions that meet the job needs and requirements.



## Association Membership

- **Member of Egyptian Pharmacy syndicate. | 2011 till present**
- **A reviewer in 2021 International Symposium on Biomedical Engineering and Computational Biology (BECB 2021), Nanchang Hangkong University, China**



## Personal Data

- **Date of Birth:** 29/12/1988
- **Place of Birth:** Cairo, Egypt
- **Nationality:** Egyptian