

Nilufer ORHAN

Address: 78726 Austin, Texas, E-mail: nilufer@herbalgram.org

Personal Information

Current Positions : Botanical Adulterants Prevention Program (BAPP) Senior Content Producer, American Botanical Council (ABC)
Consulting Editor, HerbClip, ABC
Social Media Coordinator (LinkedIn), BAPP
AI Data Annotator, Welo Data

Previous Position : Prof. Dr. in Gazi University Faculty of Pharmacy, Department of Pharmacognosy

Languages : Turkish (Native), English (Fluent), German (Beginner)

Linkedin ID : <https://www.linkedin.com/in/nilufer-orhan/>

Researchgate ID : <https://www.researchgate.net/profile/Nilufer-Orhan/research>

Summary

Dr Nilufer Orhan is a pharmacist and earned her PhD degree from Gazi University, Faculty of Pharmacy, Department of Pharmacognosy (Ankara, Türkiye). She worked at the same department between 2002-2020 and she is currently working for the ABC-AHP-NCNPR Botanical Adulterants Prevention Program (BAPP) since 2021. Her research interests include the biological activities of natural products and medicinal plants, qualitative and quantitative analysis, and the application of pharmacopeial methods to botanical ingredients. She has authored or co-authored more than 45 research articles in scientific journals and six book chapters.

Experiences

Education:

- Ph.D. thesis: Pharmacognostic studies on *Juniperus* species that are used as folk medicine against diabetes in Turkey, April 2011.
- M.Sc. thesis: Researches on the antidiabetic activity of *Vitis vinifera* L. leaves, January 2005.
- Graduation: Gazi University Faculty of Pharmacy, August 2002.

Academic Career:

- Professor, Gazi University Faculty of Pharmacy Department of Pharmacognosy 2018-2020.
- Associate Professor, Gazi University Faculty of Pharmacy Department of Pharmacognosy 2013-2018.
- Gained Associate Professor degree, Pharmacognosy and Pharmaceutical Botany field, May 2013.
- Postdoc Researcher and Teaching Assistant, Gazi University Faculty of Pharmacy, 2011-2013.

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- Research and Teaching Assistant, Gazi University Faculty of Pharmacy, 2002-2011.

Skills:

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- Advanced literature review and evidence synthesis
 - Pharmacognosy and medicinal plant research
 - In vitro and in vivo bioactivity studies
 - Botanical microscopy
 - Botanical authentication, standardization, and adulteration detection
 - Pharmacopeial methods and quality control
 - Scientific writing, editing, and peer review

Certifications:

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1. Course for Laboratory Animal Practice and Ethics, The Laboratory Animal Breeding and Experimental Research Center of Gazi University (GUDAM), 20-22 June 2007, Ankara, Turkey.
 2. School of Dendrology and Forest Ecology, The Rural Environment and Forestry Research Association, March-May 1997 and March-May 2000, Ankara, Turkey.
 3. Course for Scientific Botanical Illustration, The Continuing Education Center of Ankara University (ANKUSEM), 21 December 2013- 22 February 2014, Ankara, Turkey.

Awards & Grants:

The Turkish Pharmacists' Association Academy of Pharmacy Encouragement Award 2015, Best Lecture and Best Poster Awards, Travel Grants

Research Projects:

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1. Researches on the Biological Activities of *Vitis vinifera* Leaves, 02/2004-14, Gazi University Research Fund (GURF), 2004.
 2. Pharmacognostic Studies on *Juniperus* Species That are Used as Folk Medicine against Diabetes in Turkey, 02/2007-07, GURF, 2007.
 3. Research on *In-vivo* Effect of *Helichrysum* Species Which are Used Against Kidney Stone as a Folk Medicine on Nephrolithiasis Induced by Ethylene Glycol, 02/2010-06, GURF, 2010.
 4. Evaluation of Alpha-Amylase and Alpha-Glucosidase Inhibitory Effects of Some Antidiabetic Plants, 02/2011-22, GURF, 2011.
 5. Pharmacognostic Studies on Some *Bidens* L. Taxons Growing in Turkey, 112S015, The Scientific and Technological Research Council of Turkey, 2011.
 6. Evaluation of Antioxidant and *In-vitro* Antidiabetic Effects of *Cistus creticus* L. and Characterization of Its Phenolic Composition, 15H0237004, Ankara University Research Fund, 2015.

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7. A New Pharmaceutical Product Development from *Helichrysum stoechas* ssp. *barellieri* Plant against the Urinary Tract Stone Disease (Urolithiasis), TAGEM-15/ARGE-55, General Directorate of Agricultural Research and Policies, 2015.

Research Articles:

Has 48 research articles in peer reviewed scientific journals with 1120 citations, h index=18 (Web of Science Core Collection Metrics, 12/25/2025) and with 2552 citations, h index=26 (Google Scholar, 12/25/2025).

1. A scoping review of turmeric adulteration based on data from six continents. *Pharm Biol*, 64(1), 87-107, 2026. <https://doi.org/10.1080/13880209.2025.2606229>
2. Ginseng adulteration across global markets and evaluation of commercial product authenticity. *Nat Prod Commun*, 20(12), 1-14, 2025. <https://doi.org/10.1177/1934578X251405982>
3. Estimating the extent of adulteration of the popular herbs black cohosh, echinacea, elder berry, ginkgo, and turmeric – its challenges and limitations. *Nat Prod Rep*, 41, 1604-1621, 2024. <https://doi.org/10.1039/D4NP00014E>
4. Standardization of *Juniperus macrocarpa* Sibth. & Sm. and *Juniperus excelsa* M. Bieb. extracts with carbohydrate digestive enzyme inhibitory and antioxidant activities. *Iranian J Pharm Res*, 20(3), 441-455, 2021. <https://doi.org/10.22037/ijpr.2021.114838.15055>
5. In-vitro enzyme inhibitory properties, antioxidant activities and phytochemical profiles of *Moltkia aurea* and *Moltkia coerulea*. *Turk J Pharm Sci*, 18(2), 204-212, 2021. <https://doi.org/10.4274/tjps.galenos.2020.12258>
6. Phenolic content, antioxidant and in-vitro antidiabetic effects of thirteen marine organisms from the Mediterranean Sea. *Farmacia*, 69 (1), 68-74, 2021. <http://doi.org/10.31925/farmacia.2021.1.9>
7. A Comparative evaluation of *Juniperus* species with antimicrobial magistral. *Pakistan J Pharm Sci*, 33 (4), 1443-1449, 2020. <http://doi.org/10.36721/pjps.2020.33.4.reg.1443-1449>
8. Evaluation of enzyme inhibitory and antioxidant activity of some Lamiaceae plants. *J Res Pharm*, 23(4), 749-758, 2019. <https://doi.org/10.12991/jrp.2019.184>
9. In vitro antidiabetic effect, quantitative studies and UPLC-TOF-MS analysis of black tea samples from Turkish market. *J Res Pharm*, 23(3), 484-497, 2019. <https://doi.org/10.12991/jrp.2019.155>
10. In vitro enzyme inhibitory properties, antioxidant activities, and phytochemical studies on *Juniperus drupacea*. *J Res Pharm*, 23(1), 83-92, 2019. <http://doi.org/10.12991/jrp.2018.112>
11. In vitro and in vivo antioxidant and antidiabetic activity studies on standardized extracts of two *Bidens* species. *J Food Biochem*, 41(6), (e12429), 2017. <https://doi.org/10.1111/jfbc.12429>
12. Antioxidant potential and carbohydrate digestive enzyme inhibitory effects of five *Inula* species and their major compounds. *S Afr J Bot*, 111, 86-92, 2017. <https://doi.org/10.1016/j.sajb.2017.03.040>
13. Comparative analysis of chemical profile, antioxidant, in-vitro and in-vivo antidiabetic activities of *Juniperus foetidissima* Willd. and *Juniperus sabina* L. *IJPR*, 16, 64-74, 2017. <https://doi.org/10.22037/ijpr.2017.1962>
14. Phenolic compounds characterization, carbohydrate digestive enzyme inhibitory and antioxidant activities of *Hieracium pannosum* Boiss., *S Afr J Bot*, 108, 387-392, 2017. <https://doi.org/10.1016/j.sajb.2016.08.021>
15. Anti-hyperglycaemic & antioxidant effects of *Bidens tripartita* and quantitative analysis on its active principles, *IJBMS*, 19, 1114-1124, 2016. <https://doi.org/10.22038/ijbms.2016.7737>

16. Assessment of in-vitro antidiabetic and antioxidant effects of *Helianthus tuberosus*, *Cydonia oblonga* and *Allium porrum*. Turk J Pharm Sci, 13, 181-188, 2016. <https://doi.org/10.5505/tjps.2016.47966>
17. Successful treatment of sodium oxalate induced urolithiasis with *Helichrysum* flowers, J Ethnopharmacol, 186, 322-328, 2016. <https://doi.org/10.1016/j.jep.2016.04.003>
18. Subacute effects of standardized *Fumaria vaillantii* Lois. ethanol extract on trace element levels, biochemical and histopathological parameters in experimental liver toxicity. J Food Biochem, 40, 180-189, 2016. <https://doi.org/10.1111/jfbc.12208>
19. Hypoglycaemic effect of seed and fruit extracts of laurel cherry in different experimental models and chemical characterization of the seed extract. Rec Nat Prod, 9, 379-385, 2015. <https://www.acgpubs.org/doc/2018080720433548-RNP-1208-123.pdf>
20. Preventive treatment of calcium oxalate crystal deposition with immortal flowers. J Ethnopharmacol, 163, 60-67, 2015. <https://doi.org/10.1016/j.jep.2015.01.009>
21. Ankara aktarlarında nane adıyla satılan örnekler üzerinde çalışmalar (Studies on the samples sold as mint in aktars of Ankara). Spatula DD, 4, 223-231, 2014. <https://doi.org/10.5455/spatula.20141113043222>
22. Effect of exotic fruit "pepino" (*Solanum muricatum* Aiton.) on blood glucose level. Turk J Pharm Sci, 11,195-202, 2014. <https://www.turkjps.org/pdf/68f48462-babf-415b-b878-1e392d1c83af/articles/12353/195-202.pdf>
23. Enzyme inhibitory and radical scavenging effects of some antidiabetic plants of Turkey. IJBMS, 17(6), 426-432, 2014. <https://doi.org/10.22038/ijbms.2014.2927>
24. In-vivo and in-vitro antidiabetic effect of *Cistus laurifolius* L. and detection of major phenolic compounds by UPLC-TOF-MS analysis, J Ethnopharmacol, 146, 859-865, 2013. <https://doi.org/10.1016/j.jep.2013.02.016>
25. Morphologic, anatomical, and chromatographic studies on *Eucalyptus* (L'Hér.) samples from the market. FABAD J Pharm Sci, 37, 79-87, 2012. <http://dergi.fabad.org.tr/pdf/volum37/issue2/79-87.pdf>
26. Evaluation of anti-inflammatory and antinociceptive effects of some *Juniperus* species growing in Turkey, Turk J Biol, 36, 719-726, 2012. <https://doi.org/10.3906/biy-1203-32>
27. UPLC-TOF-MS analysis of *Galium spurium* towards its neuroprotective and anticonvulsant activities, J Ethnopharmacol, 141, 220-227, 2012. <https://doi.org/10.1016/j.jep.2012.01.056>
28. A bioactivity guided study on the antidiabetic activity of *Juniperus oxycedrus* subsp. *oxycedrus* leaves, J Ethnopharmacol, 140, 409-415, 2012. <https://doi.org/10.1016/j.jep.2012.01.042>
29. Identification of hypoglycaemic compounds from berries of *Juniperus oxycedrus* ssp. *oxycedrus* through bioactivity guided isolation technique, J Ethnopharmacol, 139, 110-118, 2012. <https://doi.org/10.1016/j.jep.2011.10.027>
30. *Hibiscus sabdariffa*'nın Kullanım Amaçları (Uses of *Hibiscus sabdariffa*), Fitomed, 29, 11-14, 2012.
31. *Hibiscus sabdariffa* Biyolojik Aktiviteleri (Biological Activities of *Hibiscus sabdariffa*), Fitomed, 29, 15-34, 2012.
32. Studies on the conformity of *Hibiscus sabdariffa* L. samples from Turkish market to European Pharmacopeia, FABAD J Pharm Sci, 36, 25-32, 2011. <http://dergi.fabad.org.tr/pdf/volum36/issue1/25-32.pdf>
33. Effect of *Gentiana olivieri* on experimental epilepsy models, Pharmacogn Mag, 28, 344-349, 2011. <https://doi.org/10.4103/0973-1296.90419>
34. Insights into cholinesterase inhibitory and antioxidant activities of five *Juniperus* species, Food Chem Toxicol, 49, 2305-2312, 2011. <https://doi.org/10.1016/j.fct.2011.06.031>

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35. Effects of *Juniperus oxycedrus* ssp. *oxycedrus* on tissue lipid peroxidation, trace elements (Cu, Zn, Fe) and blood glucose levels in experimental diabetes, J Ethnopharmacol, 133, 759-764, 2011. <https://doi.org/10.1016/j.jep.2010.11.002>
36. Bitkiden İlaça Giden Yolda Asmanın Yeri (The Role of the Grapevine on the Path from Plant to Drug), Fitomed, 24, 27-35, 2011
37. Anadolu Medeniyetlerinde Asma (*Vitis vinifera* L.) (The Grapevine (*Vitis vinifera* L.) in Anatolian Civilizations), Tarih Araştırmaları Dergisi, 30(50), 69-80, 2011.
38. Hypoglycemic activity and antioxidant potential of some medicinal plants traditionally used in Turkey for diabetes, J Ethnopharmacol, 128, 384-389, 2010. <https://doi.org/10.1016/j.jep.2010.01.040>
39. Diyabet Tedavisinde Kullanılan Bitkisel Ürünler ve Gıda Destekleri (Herbal Products and Dietary Supplements Used in the Treatment of Diabetes), MİSED, 23-24, 27-38, 2010.
40. Obezite Tedavisinde Yardımcı Olarak Kullanılan Doğal Ürünler (Natural Products Used as Adjuncts in the Treatment of Obesity), MİSED, 23-24, 91-105, 2010.
41. Biological activities of *Vitis vinifera* L. leaves, Turk J Biol, 33, 341-348, 2009. <http://dx.doi.org/10.3906/biy-0806-17>
42. Antidiabetic effect and antioxidant potential of *Rosa canina* fruits, Pharmacogn Mag, 20, 309-315, 2009. <https://doi.org/10.4103/0973-1296.58151>
43. A Study of antidiabetic and antioxidant effects of *Helichrysum graveolens* capitulum in streptozotocin-induced diabetic rats, J Med Food, 10, 396-400, 2007. <https://doi.org/10.1089/jmf.2006.293>
44. Hepatoprotective effect of *Vitis vinifera* L. leaves on carbon tetrachloride-induced acute liver damage in rats, J Ethnopharmacol, 112, 145-151, 2007. <https://doi.org/10.1016/j.jep.2007.02.013>
45. In-vivo antidiabetic and antioxidant potential of *Helichrysum plicatum* ssp. *plicatum* capitulum in streptozotocin-induced diabetic rats, J Ethnopharmacol, 109, 54-59, 2007. <https://doi.org/10.1016/j.jep.2006.07.001>
46. In-vivo assessment of antidiabetic and antioxidant activities of grapevine leaves (*Vitis vinifera*) in diabetic rats, J Ethnopharmacol, 108, 280-286, 2006. <https://doi.org/10.1016/j.jep.2006.05.010>
47. Antidiabetic and antioxidant effects of *Vitis vinifera* L. leaves in streptozotocin-diabetic rats. Turk J Pharm, 3, 7-17, 2005. <https://doi.org/10.1016/j.jep.2006.05.010>
48. Evaluation of the hypoglycemic effect and antioxidant activity of three *Viscum album* subspecies (European mistletoe) in streptozotocin-diabetic rats, J Ethnopharmacol, 98, 95-102, 2005. <https://doi.org/10.1016/j.jep.2004.12.033>

Botanical Adulterants Prevention Program Documents:

1. Orhan N. Botanical Adulterants Prevention Bulletin on Asian Ginseng (*Panax ginseng*) Root and Extracts. Austin, TX: ABC-AHP-NCNPR Botanical Adulterants Prevention Program, 2026 (In press).
2. Orhan N. Adulteration of Bacopa (*Bacopa monnieri*). Botanical Adulterants Prevention Bulletin. Austin, TX: ABC-AHP-NCNPR Botanical Adulterants Prevention Program, April 2025. [doi:10.59520/bapp.bapb/uFYe7739](https://doi.org/10.59520/bapp.bapb/uFYe7739)
3. Orhan N. Adulteration of nigella (*Nigella sativa*) seed and seed oil. Botanical Adulterants Prevention Bulletin. Austin, TX: ABC-AHP-NCNPR Botanical Adulterants Prevention Program, October 2022. <https://doi.org/10.59520/bapp.bapb/vpnm5432>

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4. Orhan N, Temiz B, Ağalar HG, İşcan G. *Boswellia serrata* oleogum resins and extracts laboratory guidance document. Austin, TX: ABC-AHP-NCNPR Botanical Adulterants Prevention Program. August 2022. <https://doi.org/10.59520/bapp.lgd/mqgn3574>
5. Orhan N. St. John's wort (*Hypericum perforatum*) laboratory guidance document. Austin, TX: ABC-AHP-NCNPR Botanical Adulterants Prevention Program, December 2021. <https://doi.org/10.59520/bapp.lgd/awbq3781>

Book Chapters:

1. Translation: Unit 6, Urinary Tract, Rational Phytotherapy (V. Schulz, R. Hansel, M. Blumenthal, V.E. Tyler), Hekimler ve Eczacılar İçin Fitoterapi, Translation Editor: Deliorman Orhan, D., Celcus Kitabevi, 2020.
2. Orhan, N. Chapter 30: *Juniperus* Species: Features, Profile, and Applications to Diabetes, Editors: R. R. Watson, V. R. Preedy. Bioactive Food as Dietary Interventions for Diabetes, Second Edition, Academic Press, USA, 447-460, 2019.
3. Orhan, N., Deliorman Orhan, D. Chapter 8: Microbial Control of Vector-Borne Diseases, Editors: B.K. Tyagi, D. Dhanasekaran. Natural Weapons used against Dengue Vector Mosquito, *Aedes aegypti*. CRC Press, Florida, USA, 137-166, 2018.
4. Orhan N. *Ribes nigrum* (Karagat) (Part 103), Monographs of Society of Pharmacognosy and Phytotherapy, Plants and Their Effects, Akademisyen Bookstore, Ozyurt Press, Ankara, Turkey, 925-934, 2017.
5. Orhan N. *Eucalyptus globulus* (Mavi ökaliptus) (Part 48), Monographs of Society of Pharmacognosy and Phytotherapy, Plants and Their Effects, Akademisyen Bookstore, Ozyurt Press, Ankara, Turkey, 437-446, 2017.
6. Orhan D.D., Orhan N. Chapter 25: Novel Antidermatophytic Drug Candidates from Nature, Antimicrobials: Synthetic and Natural Compounds, CRC Press. USA, 487-512, 2015.
7. Orhan N. *Ribes nigrum* (Part 67), Monographs of Society of Pharmacognosy and Phytotherapy, Plants Used in Therapy, Ozyurt Press, Ankara, Turkey, 581-590, 2011.

Congress/Meetings:

Joined 50 congresses and meetings; presented three invited lectures, eight oral presentations, and 35 posters in these organizations and took a role in the organization of two international and four national symposiums.

Editorial & Reviewer Positions:

Consulting Editor

HerbClip (2023 March -)

Associate Editor

Phytochemicals in Food and Medicine (2026 January -)

FABAD Journal of Pharmaceutical Sciences (2013 September - 2016 January)

Field Editor

Lokman Hekim Health Sciences (2025 May-)

Editorial Board Member

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Pharmaceutical Biology (2025 April -)

African Journal of Traditional, Complementary and Alternative Medicines (2017 -)

Reviewer

Journal of Ethnopharmacology, Frontiers in Pharmacology, Pharmaceutical Biology, Pharmacognosy Magazine, Journal of Pharmacy and Pharmacology, Journal of Food Biochemistry, Turkish Journal of Pharmaceutical Sciences, FABAD Journal of Pharmaceutical Sciences

Memberships in Professional Societies:

Phytochemical Society of Europe, Society of Medicinal Plant Research, Society of Pharmacognosy and Phytotherapy, Turkish Pharmacists' Association