



Editor-in-Chief Feyyaz ONUR, Prof. Dr.

Lokman Hekim University, Ankara, Turkey, E-mail: onur@pharmacv.ankara.edu.tr ORCID ID: orcid.org/0000-0001-9172-1126

Vice Editor

Gülgün KILCIGİL, Prof. Dr.

Ankara University, Ankara, Turkey E-mail: Gulgun.A.Kılcıgıl@pharmacy.ankara.edu.tr

ORCID ID: orcid.org/0000-0001-5626-6922

Associate Editors

Rob VERPOORTE, Prof. Dr.

Leiden University, Leiden, Netherlands E-mail: verpoort@chem.LeidenUniv.NL

Bezhan CHANKVETADZE, Prof. Dr.

Ivane Javakhishvili Tbilisi State University, Tbilisi, Georgia

E-mail: jpba_bezhan@yahoo.com

Ülkü ÜNDEĞER-BUCURGAT, Prof. Dr.

Hacettepe University, Ankara, Turkey E-mail: uundeger@hacettepe.edu.tr ORCID ID: orcid.org/0000-0002-6692-0366

Luciano SASO, Prof. Dr. Sapienze University, Rome, Italy E-mail: luciano.saso@uniroma1.it Müge KILIÇARSLAN, Assoc. Prof. Dr.

Ankara University, Ankara, Turkey E-mail: muge.kilicarslan@pharmacy.ankara.edu.tr ORCID ID: orcid.org/0000-0003-3710-7445

Fernanda BORGES, Prof. Dr.

Porto University, Porto, Portugal E-mail: fborges@fc.up.pt

Tayfun UZBAY, Prof. Dr.

Üsküdar University, İstanbul, Turkey E-mail: uzbayt@yahoo.com

lpek SUNTAR, Assoc, Prof. Dr.

Gazi University, Ankara, Türkiye E-mail: ipesin@gazi.edu.tr

ORCID ID: orcid.org/0000-0003-4201-1325

Advisory Board

Ali H. MERİÇLİ, Prof. Dr.

Near East University, Nicosia, Cypruss

Ahmet BAŞARAN, Prof. Dr.

Hacettepe University, Ankara, Turkey

Berrin ÖZÇELİK, Prof. Dr.

Gazi University, Ankara, Turkey

Betül DORTUNÇ, Prof. Dr.

Marmara University, İstanbul, Turkey

Christine LAFFORGUE, Prof. Dr.

Paris-Sud University, Paris, France

Cihat ŞAFAK, Prof. Dr.

Hacettepe University, Ankara, Turkey

Fethi SAHİN, Prof. Dr.

Eastern Mediterranean University, Famagusta, Cyprus

Filiz ÖNER, Prof. Dr.

Hacettepe University, Ankara, Turkey

Gülten ÖTÜK, Prof. Dr.

İstanbul University, İstanbul, Turkey

Hermann BOLT, Prof. Dr.

Dortmund University, Dortmund, Germany

Hildebert WAGNER, Prof. Dr.

Ludwig-Maximilians University, Munich, Germany

Jean-Alain FEHRENTZ, Prof. Dr.

Montpellier University, Montpellier, France

Joerg KREUTER, Prof. Dr.

Johann Wolfgang Goethe University, Frankfurt, Germany

Makbule AŞIKOĞLU, Prof. Dr.

Ege University, İzmir, Turkey

Meral KEYER UYSAL, Prof. Dr.

Marmara University, İstanbul, Turkey

Meral TORUN, Prof. Dr.

Gazi University, Ankara, Turkey

Mümtaz İŞCAN, Prof. Dr.

Ankara University, Ankara, Turkey

Robert RAPOPORT, Prof. Dr.

Cincinati University, Cincinati, USA

Sema BURGAZ, Prof. Dr.

Gazi University, Ankara, Turkey

Uğur ATİK, Prof. Dr.

Mersin University, Mersin, Türkiye

Wolfgang SADEE, Prof. Dr.

Ohio State University, Ohio, USA

Yasemin YAZAN, Prof. Dr.

Anadolu University, Eskişehir, Turkey

Yılmaz ÇAPAN, Prof. Dr.

Hacettepe University, Ankara, Turkey

Yusuf ÖZTÜRK, Prof. Dr.

Anadolu University, Eskişehir, Turkey

Yücel KADIOĞLU, Prof. Dr.

Atatürk University, Erzurum, Turkey

Zühre ŞENTÜRK, Prof. Dr.

Yüzüncü Yıl University, Van, Turkey

ECZACILIK BİLİMLERİ DERGİSİ



Bas Editör Feyyaz ONUR, Prof. Dr. Lokman Hekim Üniversitesi. Ankara. Türkive E-posta: onur@pharmacy.ankara.edu.tr

İkinci Editör

Gülgün KILCIGİL, Prof. Dr.

ORCID ID: orcid.org/0000-0001-9172-1126

Ankara Üniversitesi, Ankara, Türkiye E-posta: kilcigil@pharmacy.ankara.edu.tr ORCID ID: orcid.org/0000-0001-5626-6922

Yardımcı Editörler

Rob VERPOORTE, Prof. Dr.

Leiden Üniversitesi, Leiden, Amsterdam E-posta: verpoort@chem.LeidenUniv.NL

Bezhan CHANKVETADZE, Prof. Dr.

Ivane Javakhishvili Tbilisi Devlet Üniversitesi, Tbilisi, Gürcistan

E-posta: jpba_bezhan@yahoo.com

Ülkü ÜNDEĞER-BUCURGAT, Prof. Dr.

Hacettepe Üniversitesi, Ankara, Türkiye E-posta: uundeger@hacettepe.edu.tr ORCID ID: orcid.org/0000-0002-6692-0366

Luciano SASO, Prof. Dr. Sapienze Üniversitesi, Roma, İtalya E-posta: luciano.saso@uniroma1.it

Müge KILIÇARSLAN, Assoc. Prof. Dr.

Ankara Üniversitesi, Ankara, Türkiye E-posta: muge.kilicarslan@pharmacy.ankara.edu.tr ORCID ID: orcid.org/0000-0003-3710-7445

Fernanda BORGES, Prof. Dr.

Porto Üniversitesi, Porto, Portekiz

E-posta: fborges@fc.up.pt

Tayfun UZBAY, Prof. Dr.

Üsküdar Üniversitesi, İstanbul, Türkiye E-posta: uzbayt@yahoo.com

İpek SUNTAR, Assoc. Prof. Dr.

Gazi Üniversitesi. Ankara. Türkive E-posta: ipesin@gazi.edu.tr ORCID ID: orcid.org/0000-0003-4201-1325

Danışma Kurulu

Ali H. MERİÇLİ, Prof. Dr.

Near East Üniversitesi, Lefkosa, Kıbrıss

Ahmet BAŞARAN, Prof. Dr.

Hacettepe Üniversitesi, Ankara, Türkiye

Berrin ÖZÇELİK, Prof. Dr.

Gazi Üniversitesi, Ankara, Türkiye

Betül DORTUNÇ, Prof. Dr.

Marmara Üniversitesi, İstanbul, Türkiye

Christine LAFFORGUE, Prof. Dr.

Paris-Sud Üniversitesi, Paris

Cihat SAFAK, Prof. Dr.

Hacettepe Üniversitesi, Ankara, Türkiye

Fethi SAHİN, Prof. Dr.

Doğu Akdeniz Üniversitesi, Gazimağusa, Kıbrıs

Filiz ÖNER, Prof. Dr.

Hacettepe Üniversitesi, Ankara, Türkiye

Gülten ÖTÜK, Prof. Dr.

İstanbul Üniversitesi, İstanbul, Türkiye

Hermann BOLT, Prof. Dr.

Dortmund Üniversitesi, Dortmund, Almanya

Hildebert WAGNER, Prof. Dr.

Ludwig-Maximilians Üniversitesi, Münih, Almanya

Jean-Alain FEHRENTZ, Prof. Dr.

Montpellier Üniversitesi, Montpellier, Fransa

Joerg KREUTER, Prof. Dr.

Johann Wolfgang Goethe Üniversitesi, Frankfurt, Almanya

Makbule AŞIKOĞLU, Prof. Dr.

Ege Üniversitesi , İzmir, Türkiye

Meral KEYER UYSAL, Prof. Dr.

Marmara Üniversitesi, İstanbul, Türkiye

Meral TORUN, Prof. Dr.

Gazi Üniversitesi, Ankara, Türkiye

Mümtaz İŞCAN, Prof. Dr.

Ankara Üniversitesi, Ankara, Türkiye

Robert RAPOPORT, Prof. Dr.

Cincinati Üniversitesi, Cincinati, Amarika

Sema BURGAZ, Prof. Dr.

Gazi Üniversitesi, Ankara, Türkiye

Uğur ATİK, Prof. Dr.

Mersin Üniversitesi, Mersin, Türkiye

Wolfgang SADEE, Prof. Dr.

Ohio State Üniversitesi. Ohio. Amerika

Yasemin YAZAN, Prof. Dr.

Anadolu Üniversitesi, Eskişehir, Türkiye

Yılmaz ÇAPAN, Prof. Dr.

Hacettepe Üniversitesi, Ankara, Türkiye

Yusuf ÖZTÜRK, Prof. Dr.

Anadolu Üniversitesi, Eskişehir, Türkiye

Yücel KADIOĞLU, Prof. Dr.

Atatürk Üniversitesi, Erzurum, Türkive

Zühre ŞENTÜRK, Prof. Dr.

Yüzüncü Yıl Üniversitesi, Van, Türkiye

AIMS AND SCOPE

The Turkish Journal of Pharmaceutical Sciences is the only scientific periodical publication of the Turkish Pharmacists' Association and has been published since April 2004.

Turkish Journal of Pharmaceutical Sciences is an independent international open access periodical journal based on double-blind peer-review principles. The journal is regularly published 3 times a year and the publication language is English. The issuing body of the journal is Galenos Yayinevi/Publishing House.

The aim of Turkish Journal of Pharmaceutical Sciences is to publish original research papers of the highest scientific and clinical value at an international level.

The target audience includes specialists and physicians in all fields of pharmaceutical sciences.

The editorial policies are based on the "Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals (ICMJE Recommendations)" by the International Committee of Medical Journal Editors (2016, archived at http://www.icmje.org/) rules.

Editorial Independence

Turkish Journal of Pharmaceutical Sciences is an independent journal with independent editors and principles and has no commerical relationship with the commercial product, drug or pharmaceutical company regarding decisions and review processes upon articles.

ABSTRACTED/INDEXED IN

Web of Science-Emerging Sources Citation Index (ESCI) SCOPUS SJR

Directory of Open Access Journals (DOAJ)

ProQuest

Chemical Abstracts Service (CAS)

EBSCO

EMBASE

Analytical Abstracts
International Pharmaceutical Abstracts (IPA)
Medicinal & Aromatic Plants Abstracts (MAPA)

TÜBİTAK/ULAKBİM TR Dizin

Türkiye Atıf Dizini

UDL-EDGE

OPEN ACCESS POLICY

This journal provides immediate open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge.

Open Access Policy is based on the rules of the Budapest Open Access Initiative (BOAI) http://www.budapestopenaccessinitiative. org/. By "open access" to peer-reviewed research literature, we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.

CORRESPONDENCE ADDRESS

Editor-in-Chief, Feyyaz ONUR, Prof.Dr.

Address: Lokman Hekim University, Faculty of Pharmacy, Department of Analytical Chemistry, 06100 Tandoğan-Ankara, TURKEY

E-mail: onur@pharmacy.ankara.edu.tr

PERMISSION

Requests for permission to reproduce published material should be sent to the editorial office. Editor-in-Chief, Prof. Dr. Feyyaz ONUR

ISSUING BODY CORRESPONDING ADDRESS

Issuing Body: Galenos Yayınevi

Address: Molla Gürani Mah. Kaçamak Sk. No: 21/1, 34093 İstanbul,

TURKEY

Phone: +90 212 621 99 25 Fax: +90 212 621 99 27

E-mail: info@galenos.com.tr

INSTRUCTIONS FOR AUTHORS

Instructions for authors are published in the journal and on the website http://turkips.org

MATERIAL DISCLAIMER

The author(s) is (are) responsible for the articles published in the JOURNAL.

The editor, editorial board and publisher do not accept any responsibility for the articles.

This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.



Galenos Publishing House Owner and Publisher Erkan Mor

Publication Coordinator Burak Sever

Web Coordinators

Graphics Department Ayda Alaca Çiğdem Birinci Gülşah Özgül Project Coordinators Eda Kolukısa Esra Semerci Hatice Balta Zeynep Altındağ

Project Assistants Duygu Yıldırım Gamze Aksoy Pelin Bulut Saliha Tuğçe Gü<u>dücü</u>

Finance Coordinator Sevinç Çakmak Research&Development

Mert Can Köse

Publisher Contact

Address: Molla Gürani Mah. Kaçamak Sk. No: 21/1

34093 İstanbul, Turkey

Phone: +90 (212) 621 99 25 Fax: +90 (212) 621 99 27 E-mail: info@galenos.com.tr/yayin@galenos.com.tr

Web: www.galenos.com.tr | Publisher Certificate Number: 14521

Printing at: Üniform Basım San. ve Turizm Ltd. Şti.

Matbaacılar Sanayi Sitesi 1. Cad. No: 114 34204 Bağcılar, İstanbul, Turkey Phone: +90 (212) 429 10 00 | Certificate Number: 42419

Printing Date: June 2019 ISSN: 1304-530X

International scientific journal published quarterly.

TURKISH TURKIS

INSTRUCTIONS TO AUTHORS

Turkish Journal of Pharmaceutical Sciences is the official double peerreviewed publication of The Turkish Pharmacists' Association. This journal is published every 4 months (3 issues per year; April, August, December) and publishes the following articles:

- Research articles
- Reviews (only upon the request or consent of the Editorial Board)
- Preliminary results/Short communications/Technical notes/Letters to the Editor in every field or pharmaceutical sciences.

The publication language of the journal is English.

The Turkish Journal of Pharmaceutical Sciences does not charge any article submission or processing charges.

A manuscript will be considered only with the understanding that it is an original contribution that has not been published elsewhere.

The Journal should be abbreviated as "Turk J Pharm Sci" when referenced.

The scientific and ethical liability of the manuscripts belongs to the authors and the copyright of the manuscripts belongs to the Journal. Authors are responsible for the contents of the manuscript and accuracy of the references. All manuscripts submitted for publication must be accompanied by the Copyright Transfer Form [copyright transfer]. Once this form, signed by all the authors, has been submitted, it is understood that neither the manuscript nor the data it contains have been submitted elsewhere or previously published and authors declare the statement of scientific contributions and responsibilities of all authors.

Experimental, clinical and drug studies requiring approval by an ethics committee must be submitted to the JOURNAL with an ethics committee approval report including approval number confirming that the study was conducted in accordance with international agreements and the Declaration of Helsinki (revised 2013) (http://www.wma.net/en/30publications/10policies/b3/). The approval of the ethics committee and the fact that informed consent was given by the patients should be indicated in the Materials and Methods section. In experimental animal studies, the authors should indicate that the procedures followed were in accordance with animal rights as per the Guide for the Care and Use of Laboratory Animals (http://oacu.od.nih.gov/regs/guide/guide.pdf) and they should obtain animal ethics committee approval.

Authors must provide disclosure/acknowledgment of financial or material support, if any was received, for the current study.

If the article includes any direct or indirect commercial links or if any institution provided material support to the study, authors must state in the cover letter that they have no relationship with the commercial product, drug, pharmaceutical company, etc. concerned; or specify the type of relationship (consultant, other agreements), if any.

Authors must provide a statement on the absence of conflicts of interest among the authors and provide authorship contributions.

All manuscripts submitted to the journal are screened for plagiarism using the 'iThenticate' software. Results indicating plagiarism may result in manuscripts being returned or rejected.

The Review Process

This is an independent international journal based on double-blind peer-review principles. The manuscript is assigned to the Editor-in-Chief, who reviews the manuscript and makes an initial decision based on manuscript quality and editorial priorities. Manuscripts that pass initial evaluation are sent for external peer review, and the Editorin-Chief assigns an Associate Editor. The Associate Editor sends the manuscript to at least two reviewers (internal and/or external reviewers). The reviewers must review the manuscript within 21 days. The Associate Editor recommends a decision based on the reviewers' recommendations and returns the manuscript to the Editor-in-Chief. The Editor-in-Chief makes a final decision based on editorial priorities, manuscript quality, and reviewer recommendations. If there are any conflicting recommendations from reviewers, the Editor-in-Chief can assign a new reviewer.

The scientific board guiding the selection of the papers to be published in the Journal consists of elected experts of the Journal and if necessary, selected from national and international authorities. The Editor-in-Chief, Associate Editors may make minor corrections to accepted manuscripts that do not change the main text of the paper.

In case of any suspicion or claim regarding scientific shortcomings or ethical infringement, the Journal reserves the right to submit the manuscript to the supporting institutions or other authorities for investigation. The Journal accepts the responsibility of initiating action but does not undertake any responsibility for an actual investigation or any power of decision.

The Editorial Policies and General Guidelines for manuscript preparation specified below are based on "Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals (ICMJE Recommendations)" by the International Committee of Medical Journal Editors (2016, archived at http://www.icmje.org/).

Preparation of research articles, systematic reviews and meta-analyses must comply with study design guidelines:

CONSORT statement for randomized controlled trials (Moher D, Schultz KF, Altman D, for the CONSORT Group. The CONSORT statement revised recommendations for improving the quality of reports of parallel group randomized trials. JAMA 2001; 285: 1987-91) (http://www.consortstatement.org/);

PRISMA statement of preferred reporting items for systematic reviews and meta-analyses (Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 2009; 6(7): e1000097.) (http://www.prisma-statement.org/);

STARD checklist for the reporting of studies of diagnostic accuracy (Bossuyt PM, Reitsma JB, Bruns DE, Gatsonis CA, Glasziou PP, Irwig LM, et al., for the STARD Group. Towards complete and accurate reporting of studies of diagnostic accuracy: the STARD initiative. Ann Intern Med 2003;138:40-4.) (http://www.stard-statement.org/);

STROBE statement, a checklist of items that should be included in reports of observational studies (http://www.strobe-statement.org/);

MOOSE guidelines for meta-analysis and systemic reviews of observational studies (Stroup DF, Berlin JA, Morton SC, et al. Meta-analysis of observational studies in epidemiology: a proposal for reporting Meta-analysis of observational Studies in Epidemiology (MOOSE) group. JAMA 2000; 283: 2008-12).

Authorship

Each author should have participated sufficiently in the work to assume public responsibility for the content. Any portion of a manuscript that

INSTRUCTIONS TO AUTHORS

is critical to its main conclusions must be the responsibility of at least 1 author.

GENERAL GUIDELINES

Manuscripts can only be submitted electronically through the Journal Agent website (http://journalagent.com/tjps/) after creating an account. This system allows online submission and review.

The manuscripts are archived according to ICMJE, Web of Science-Emerging Sources Citation Index (ESCI), SCOPUS, Chemical Abstracts, EBSCO, EMBASE, Analytical Abstracts, International Pharmaceutical Abstracts, MAPA(Medicinal & Aromatic Plants Abstracts), Tübitak/Ulakbim Turkish Medical Database, Türkiye Citation Index Rules.

Format: Manuscripts should be prepared using Microsoft Word, size A4 with 2.5 cm margins on all sides, 12 pt Arial font and 1.5 line spacing.

Abbreviations: Abbreviations should be defined at first mention and used consistently thereafter. Internationally accepted abbreviations should be used; refer to scientific writing guides as necessary.

Cover letter: The cover letter should include statements about manuscript type, single-Journal submission affirmation, conflict of interest statement, sources of outside funding, equipment (if applicable), for original research articles

The ORCID (Open Researcher and Contributor ID) number of the all authors should be provided while sending the manuscript. A free registration can be done at http://orcid.org.

REFERENCES

Authors are solely responsible for the accuracy of all references.

In-text citations: References should be indicated as a superscript immediately after the period/full stop of the relevant sentence. If the author(s) of a reference is/are indicated at the beginning of the sentence, this reference should be written as a superscript immediately after the author's name. If relevant research has been conducted in Turkey or by Turkish investigators, these studies should be given priority while citing the literature.

Presentations presented in congresses, unpublished manuscripts, theses, Internet addresses, and personal interviews or experiences should not be indicated as references. If such references are used, they should be indicated in parentheses at the end of the relevant sentence in the text, without reference number and written in full, in order to clarify their nature

References section: References should be numbered consecutively in the order in which they are first mentioned in the text. All authors should be listed regardless of number. The titles of Journals should be abbreviated according to the style used in the Index Medicus.

Reference Format

Journal: Last name(s) of the author(s) and initials, article title, publication title and its original abbreviation, publication date, volume, the inclusive page numbers. Example: Collin JR, Rathbun JE. Involutional entropion: a review with evaluation of a procedure. Arch Ophthalmol. 1978;96:1058-1064

Book: Last name(s) of the author(s) and initials, book title, edition, place of publication, date of publication and inclusive page numbers of the extract cited.

Example: Herbert L. The Infectious Diseases (1st ed). Philadelphia; Mosby Harcourt; 1999:11:1-8.

Book Chapter: Last name(s) of the author(s) and initials, chapter title, book editors, book title, edition, place of publication, date of publication and inclusive page numbers of the cited piece.

Example: O'Brien TP, Green WR. Periocular Infections. In: Feigin RD, Cherry JD, eds. Textbook of Pediatric Infectious Diseases (4th ed). Philadelphia; W.B. Saunders Company;1998:1273-1278.

Books in which the editor and author are the same person: Last name(s) of the author(s) and initials, chapter title, book editors, book title, edition, place of publication, date of publication and inclusive page numbers of the cited piece. Example: Solcia E, Capella C, Kloppel G. Tumors of the exocrine pancreas. In: Solcia E, Capella C, Kloppel G, eds. Tumors of the Pancreas. 2nd ed. Washington: Armed Forces Institute of Pathology; 1997:145-210.

TABLES, GRAPHICS, FIGURES, AND IMAGES

All visual materials together with their legends should be located on separate pages that follow the main text.

Images: Images (pictures) should be numbered and include a brief title. Permission to reproduce pictures that were published elsewhere must be included. All pictures should be of the highest quality possible, in

JPEG format, and at a minimum resolution of 300 dpi.

Tables, Graphics, Figures: All tables, graphics or figures should be enumerated according to their sequence within the text and a brief descriptive caption should be written. Any abbreviations used should be defined in the accompanying legend. Tables in particular should be explanatory and facilitate readers' understanding of the manuscript, and should not repeat data presented in the main text.

MANUSCRIPT TYPES

Original Articles

Clinical research should comprise clinical observation, new techniques or laboratories studies. Original research articles should include title, structured abstract, key words relevant to the content of the article, introduction, materials and methods, results, discussion, study limitations, conclusion references, tables/figures/images and acknowledgement sections. Title, abstract and key words should be written in both Turkish and English. The manuscript should be formatted in accordance with the above-mentioned guidelines and should not exceed 16 A4 pages.

Title Page: This page should include the title of the manuscript, short title, name(s) of the authors and author information. The following descriptions should be stated in the given order:

- 1. Title of the manuscript (Turkish and English), as concise and explanatory as possible, including no abbreviations, up to 135 characters
- 2. Short title (Turkish and English), up to 60 characters
- 3. Name(s) and surname(s) of the author(s) (without abbreviations and academic titles) and affiliations
- 4. Name, address, e-mail, phone and fax number of the corresponding author
- 5. The place and date of scientific meeting in which the manuscript was presented and its abstract published in the abstract book, if applicable

INSTRUCTIONS TO AUTHORS

Abstract: A summary of the manuscript should be written in both Turkish and English. References should not be cited in the abstract. Use of abbreviations should be avoided as much as possible; if any abbreviations are used, they must be taken into consideration independently of the abbreviations used in the text. For original articles, the structured abstract should include the following sub-headings:

Objectives: The aim of the study should be clearly stated.

Materials and Methods: The study and standard criteria used should be defined; it should also be indicated whether the study is randomized or not, whether it is retrospective or prospective, and the statistical methods applied should be indicated, if applicable.

Results: The detailed results of the study should be given and the statistical significance level should be indicated.

Conclusion: Should summarize the results of the study, the clinical applicability of the results should be defined, and the favorable and unfavorable aspects should be declared.

Keywords: A list of minimum 3, but no more than 5 key words must follow the abstract. Key words in English should be consistent with "Medical Subject Headings (MESH)" (www.nlm.nih.gov/mesh/MBrowser.html). Turkish key words should be direct translations of the terms in MESH.

Original research articles should have the following sections:

Introduction: Should consist of a brief explanation of the topic and indicate the objective of the study, supported by information from the literature.

Materials and Methods: The study plan should be clearly described, indicating whether the study is randomized or not, whether it is retrospective or prospective, the number of trials, the characteristics, and the statistical methods used.

Results: The results of the study should be stated, with tables/figures given in numerical order; the results should be evaluated according to the statistical analysis methods applied. See General Guidelines for details about the preparation of visual material.

Discussion: The study results should be discussed in terms of their favorable and unfavorable aspects and they should be compared with the literature. The conclusion of the study should be highlighted.

Study Limitations: Limitations of the study should be discussed. In addition, an evaluation of the implications of the obtained findings/results for future research should be outlined.

Conclusion: The conclusion of the study should be highlighted.

Acknowledgements: Any technical or financial support or editorial contributions (statistical analysis, English/Turkish evaluation) towards the study should appear at the end of the article.

References: Authors are responsible for the accuracy of the references. See General Guidelines for details about the usage and formatting required.

Review Articles

Review articles can address any aspect of clinical or laboratory pharmaceuticals. Review articles must provide critical analyses of contemporary evidence and provide directions of or future research. Most review articles are commissioned, but other review submissions are also welcome. Before sending a review, discussion with the editor is recommended.

Reviews articles analyze topics in depth, independently and objectively. The first chapter should include the title in Turkish and English, an unstructured summary and key words. Source of all citations should be indicated. The entire text should not exceed 25 pages (A4, formatted as specified above).

CORRESPONDENCE

All correspondence should be directed to the Turkish Journal of Pharmaceutical Sciences editorial board;

Post: Turkish Pharmacists' Association

Address: Willy Brandt Sok. No: 9 06690 Ankara, TURKEY

Phone: +90 312 409 8136 Fax: +90 312 409 8132

Web Page: http://turkjps.org/home/ E-mail: onur@pharmacy.ankara.edu.tr

CONTENTS

252	Synthesis and Swelling Behavior of Sodium Alginate/Poly(vinyl alcohol) Hydrogels Sodyum Aljinat/Poli(vinil alkol) Hidrojellerinin Sentezi ve Şişme Davranışları Lachakkal Rudrappa SHIVAKUMARA, Thippaiah DEMAPPA
261	Evaluation of the Antidiabetic Activity of <i>Alchemilla persica</i> Rothm. in Mice with Diabetes Induced by Alloxan <i>Alloksanla İndüklenen Farelerde Alchemilla persica Rothm.'nın Antidiyabetik Etkisinin Değerlendirilmesi</i> Serkan ÖZBİLGİN, Hanefi ÖZBEK, Neriman İpek KIRMIZI, Burçin ERGENE ÖZ, Ekin KURTUL, Bade Cevriye ÖZRENK, Gülçin SALTAN İŞCAN, Özlem BAHADIR ACIKARA
265	Palmitic Acid-Pluronic F127-Palmitic Acid Pentablock Copolymer as a Novel Nanocarrier for Oral Delivery of Glipizide Glipizidin Oral Uygulanması için Yeni Bir Nanotaşıyıcısı Olarak Palmitik Asit - Pluronic F127 - Palmitik Asit Pentablok Kopolimeri Vipan Kumar KAMBOJ, Prabhakar Kumar VERMA
273	The Anticancer and Anti-inflammatory Effects of <i>Centaurea solstitialis</i> Extract on Human Cancer Cell Lines <i>İnsan Kanser Hücre Hatları Üzerinde Centaurea solstitialis Özütünün Anti-Kanser ve Anti-İnflamatuar Etkileri</i> Mehlika ALPER, Hatice GÜNEŞ
282	An <i>In Vitro</i> Study on the Cytotoxicity and Genotoxicity of Silver Sulfide Quantum Dots Coated with Meso-2,3-dimercaptosuccinic Acid <i>Mezo-2,3-dimerkaptosüksinik Asitle Kaplanmış Gümüş Sülfit Kuantum Noktalarının Sitotoksisitesi ve Genotoksisitesi Üzerine Bir In Vitro Çalışma</i> Deniz ÖZKAN VARDAR, Sevtap AYDIN, İbrahim HOCAOĞLU, Havva YAĞCI ACAR, Nursen BAŞARAN
292	Phytochemical Screening and Metallic Ion Content and Its Impact on the Antipsoriasis Activity of Aqueous Leaf Extracts of <i>Calendula officinalis</i> and <i>Phlebodium decumanum</i> in an Animal Experiment Model <i>Calendula officinalis ve Phlebodium decumanum Sulu Yaprak Ekstreleri Üzerinde Fitokimyasal Tarama, Metalik İyon İçeriği ve Hayvan Deneyi Modelinde Antipsoriasis Etkisi</i> Kuntal DAS, Someswar DEB, Tejaswini KARANTH
303	Anti-Angiogenic Activity of Flunarizine by <i>In Ovo, In Vitro</i> , and <i>In Vivo</i> Assays <i>In Ovo, In Vitro ve In Vivo Günlüklerinden Flunarizinin Anti-Anjiyojenik Aktivitesi</i> Chandana KAMILI, Ravi Shankar KAKARAPARTHY, Uma Maheshwararao VATTIKUTI
310	Superior Solubility and Dissolution of Zaltoprofen via Pharmaceutical Cocrystals Farmasötik Cocrystal ile Zaltoprofen Üstün Çözünürlük ve Çözünme Prabhakar PANZADE, Giridhar SHENDARKAR
317	Effect of Extracts of the Aerial Parts and Roots from Four Ferulago Species on Erectile Dysfunction in Rats with Streptozotocin-Induced Diabetes Streptozotosin ile Oluşturulan Diyabetik Sıçanlarda Dört Ferulago Türünün Toprak Üstü ve Kök Ekstrelerinin Erektil Disfonksiyon Üzerine Etkisi Songül KARAKAYA, Didem YILMAZ ORAL, Serap GÜR, Hayri DUMAN, Ceyda Sibel KILIÇ
326	Development and Optimization of a Floating Multiparticulate Drug Delivery System for Norfloxacin Norfloksasin için Yüzen Çok Partiküllü Bir İlaç Salım Sisteminin Geliştirilmesi ve Optimizasyonu Vaibhav SALVE, Rakesh MISHRA, Tanaji NANDGUDE
335	Impact of Particle-Size Reduction on the Solubility and Antidiabetic Activity of Extracts of Leaves of <i>Vinca rosea</i>

340 Design and In Vitro Evaluation of Eudragit-Based Extended Release Diltiazem Microspheres for Once- and Twice-Daily Administration: The Effect of Coating on Drug Release Behavior

Günde Bir ve İki Kez Uygulama için Eudragit Esaslı Uzatılmış Salımlı Diltiazem Mikrokürelerin Tasarımı ve İn Vitro Değerlendirilmesi: Kaplamanın Etken Madde Salım Şekline Etkisi

Noushin BOLOURCHIAN, Maryam BAHJAT

Partikül Büyüklüğünün Azaltılmasının Vinca rosea Yaprak Ekstresinin Çözünürlüğü ve Antidiyabetik Aktivitesi Üzerine Etkisi Khalid HUSSAIN, bida QAMAR, Nadeem Irfan BUKHARI, Amjad HUSSAIN, Naureen SHEHZADI, Shaista QAMAR, Sajida PARVEEN

TURKISH JOURNAL OF PHARMACEUTICAL SCIENCES

CONTENTS

348	Formulation Design of Hydrocortisone Films for the Treatment of Aphthous Ulcer	
	Aftöz Ülser Tedavisi için Hidrokortizon Filmlerin Formülasyon Tasarımı	
	Mohammed Gulzar AHMED. Saniana ADINARAYANA	

- 356 Investigation of Gelatinase Gene Expression and Growth of *Enterococcus faecalis* Clinical Isolates in Biofilm Models
 - Enterococcus faecalis Klinik İzolatlarının Üreme ve Gelatinaz Gene Ekspresyonlarının Biyofilm Modellerinde Araştırılması Didem KART, Ayşe Semra KUŞTİMUR
- 362 In Vitro Macrophage Nitric Oxide and Interleukin-1 Beta Suppression by Moringa peregrina Seed Moringa peregrina Tohumlarıyla İn Vitro Makrofaj Nitrik Oksit ve İnterlökin-1 Beta Baskılanması Shaymaa Fadhel Abbas ALBAAYIT, Ahmed Salim Kadhim AL-KHAFAJI, Hiba Sarmed ALNAIMY
- The Influence of Piperine on the Radioprotective Effect of Curcumin in Irradiated Human Lymphocytes Piperinin Işınlanmış İnsan Lenfositlerinde Kurkuminin Radyoprotektif Etkilerine Etkisi Nora GHELESHLI, Arash GHASEMI, Seyed Jalal HOSSEINIMEHR
- An Overview of iQOS® as a New Heat-Not-Burn Tobacco Product and Its Potential Effects on Human Health and the Environment

Isıtmalı Tütün Ürünü iQOS® Hakkında Değerlendirme, İnsan ve Çevre Sağlığı Üzerindeki Etkileri Rahman BAŞARAN, Naile Merve GÜVEN, Benay Can EKE

PUBLICATION NAME	Turkish Journal of Pharmaceutical Sciences
TYPE OF PUBLICATION	Vernacular Publication
PERIOD AND LANGUAGE	Quarterly- English
OWNER	Erdoğan ÇOLAK on behalf of the Turkish Pharmacists' Association
EDITOR-IN-CHIEF	Feyyaz ONUR
ADDRESS OF PUBLICATION	Cinnah Mah. Willy Brandt Sok. No: 9 Çankaya-Ankara/TURKEY

TURKISH JOURNAL OF PHARMACEUTICAL SCIENCES

Volume: 16, No: 3, Year: 2019

CONTENTS

Original articles
Synthesis and Swelling Behavior of Sodium Alginate/Poly(vinyl alcohol) Hydrogels
Lachakkal Rudrappa SHIVAKUMARA, Thippaiah DEMAPPA252
Evaluation of the Antidiabetic Activity of Alchemilla persica Rothm. in Mice with Diabetes Induced by Alloxan
Serkan ÖZBİLGİN, Hanefi ÖZBEK, Neriman İpek KIRMIZI, Burçin ERGENE ÖZ, Ekin KURTUL, Bade Cevriye ÖZRENK, Gülçin SALTAN İŞCAN, Özlem BAHADIR ACIKARA
Palmitic Acid-Pluronic F127-Palmitic Acid Pentablock Copolymer as a Novel Nanocarrier for Oral Delivery of Glipizide
Vipan Kumar KAMBOJ, Prabhakar Kumar VERMA
The Anticancer and Anti-inflammatory Effects of Centaurea solstitialis Extract on Human Cancer Cell Lines
Mehlika ALPER, Hatice GÜNEŞ
An <i>In Vitro</i> Study on the Cytotoxicity and Genotoxicity of Silver Sulfide Quantum Dots Coated with Meso-2,3-dimercaptosuccinic Acid
Deniz ÖZKAN VARDAR, Sevtap AYDIN, İbrahim HOCAOĞLU, Havva YAĞCI ACAR, Nursen BAŞARAN282
Phytochemical Screening and Metallic Ion Content and Its Impact on the Antipsoriasis Activity of Aqueous Leaf Extracts of <i>Calendula officinalis</i> and <i>Phlebodium decumanum</i> in an Animal Experiment Model
Kuntal DAS, Someswar DEB, Tejaswini KARANTH292
Anti-Angiogenic Activity of Flunarizine by In Ovo, In Vitro, and In Vivo Assays
Chandana KAMILI, Ravi Shankar KAKARAPARTHY, Uma Maheshwararao VATTIKUTI303
Superior Solubility and Dissolution of Zaltoprofen via Pharmaceutical Cocrystals
Prabhakar PANZADE, Giridhar SHENDARKAR310
Effect of Extracts of the Aerial Parts and Roots from Four <i>Ferulago</i> Species on Erectile Dysfunction in Rats with Streptozotocin-Induced Diabetes
Songül KARAKAYA, Didem YILMAZ ORAL, Serap GÜR, Hayri DUMAN, Ceyda Sibel KILIÇ317
Development and Optimization of a Floating Multiparticulate Drug Delivery System for Norfloxacin
Vaibhav SALVE, Rakesh MISHRA, Tanaji NANDGUDE
Impact of Particle-Size Reduction on the Solubility and Antidiabetic Activity of Extracts of Leaves of Vinca rosea
Khalid HUSSAIN, bida QAMAR, Nadeem Irfan BUKHARI, Amjad HUSSAIN, Naureen SHEHZADI, Shaista QAMAR, Sajida PARVEEN
Design and <i>In Vitro</i> Evaluation of Eudragit-Based Extended Release Diltiazem Microspheres for Once- and Twice-Daily Administration: The Effect of Coating on Drug Release Behavior
Noushin BOLOURCHIAN, Maryam BAHJAT
Formulation Design of Hydrocortisone Films for the Treatment of Aphthous Ulcers
Mohammed Gulzar AHMED, Sanjana ADINARAYANA
Investigation of Gelatinase Gene Expression and Growth of <i>Enterococcus faecalis</i> Clinical Isolates in Biofilm Models
Didem KART, Ayşe Semra KUŞTİMUR
In Vitro Macrophage Nitric Oxide and Interleukin-1 Beta Suppression by Moringa peregrina Seed
Shaymaa Fadhel Abbas ALBAAYIT, Ahmed Salim Kadhim AL-KHAFAJI, Hiba Sarmed ALNAIMY362
The Influence of Piperine on the Radioprotective Effect of Curcumin in Irradiated Human Lymphocytes
Nora GHELESHLI, Arash GHASEMI, Seyed Jalal HOSSEINIMEHR
Review
An Overview of iQOS® as a New Heat-Not-Burn Tobacco Product and Its Potential Effects on Human Health and the Environment

Rahman BAŞARAN, Naile Merve GÜVEN, Benay Can EKE