

ArzneimForsch DrugRes

Arzneimittel Forschung Drug Research

Drug Screening
Medical Chemistry
Pharmacology
Toxicology
Physiology
Histology
Pharmacokinetics
Biochemistry
Pharmacodynamics
Bioavailability
Bioequivalence
Biostatistics
Clinical Studies
Phase I-IV
Drug Safety
Biotechnology
Diagnostics
Galenics

PHARMACY LIBRARY
UNIVERSITY OF WISCONSIN

FEB 19 2002

Madison, WI 53705



online
www.ecv.de

2
2002

ArzneimForsch DrugRes

Arzneimittel Forschung Drug Research

Special Section

Biotechnology in Drug Research

PHARMACY LIBRARY
UNIVERSITY OF WISCONSIN

FEB 19 2002

Madison, WI 53705

2/2002

Vol. 52 · No. 2 · pages 73–144 (2002)

Redaktion / Editors

Prof. Dr. Hans-Georg Classen (Stuttgart-Hohenheim)
Viktor Schramm (Verlag / Publisher's address)

Sekretariat / Secretary's Office

Christine Schäffer · Tel. (00 49) 0 75 25 94 01 22

Lektorat / Copy Editors

Leitung/Head: Irmgard Fränkel-Schmitter ·
Tel. (00 49) 0 75 25 94 01 24
Günter Renner · Tel. (00 49) 0 75 25 94 01 25

Telefax (00 49) 0 75 25 94 01 27

e-mail redaktion@ecv.de

Anschrift / Address

Bändelstockweg 20 · 88326 Aulendorf (Germany)



ECV · Editio Cantor Verlag

für Medizin und Naturwissenschaften GmbH

Postfach/P.O. Box 12 55 · 88322 Aulendorf (Germany)

Bändelstockweg 20 · 88326 Aulendorf (Germany)

Telefon (00 49) 0 75 25 94 00

Telefax (00 49) 0 75 25 94 01 80

e-mail: info@ecv.de

<http://www.ecv.de>

Alle Rechte beim Verlag · All rights reserved
Jede Form des Nachdrucks verboten · Unauthorized
reprinting prohibited
Printed in Germany

ISSN 0004-4172

Redaktionsbeirat / Editorial Consultants

K. von Bergmann, Bonn · H. Gerhartz, Berlin · T. Hirano,
Tokio · S. Hockertz, Hamburg · G. Houin, Toulouse ·
L. Jäger, Jena · F. H. Kemper, Münster/Westf. · F. Lembeck,
Graz · H. Marquardt, Hamburg · B. Müller-Oerlinghausen,
Berlin · K. Nádor, Budapest · A. Schmidt, Wuppertal ·
B. Schneider, Hannover · E. Schraufstätter, Wuppertal ·
H. Schütz, Gießen · W. Siegenthaler, Zürich · W. Szigoleit,
Halle/S. · R. G. Werner, Biberach/Riß

Section Editors "Biotechnology in Drug Research"

H.-D. Hörlein, Wuppertal · S. Müllner, Düsseldorf ·
M. Strauss, Berlin · R. G. Werner, Biberach/Riß

Herausgeberkollegium / Editorial Board

R. Ammon · N. Brock · J. Cheynol · R. Fischer ·
H. Oelschläger · H. Rašková · H. Schmidt · M. Steiner ·
H. R. Vogel

Begründer / Founder: Dr. Dr. Werner Saenger (1905–1983)

Listed in: ADONIS · All-Russian Institute of Scientific and
Technical Information (VINITI) · BIOSIS Data Base · BIO-
TEC · Cancernet · Chemical Abstracts Service (CAS) · Cur-
rent Contents (Life Sciences) · Elsevier BIOBASE/Current
Awareness in Biological Sciences · EMBASE/Excerpta Med-
ica · Index International de Cardiologia · International
Pharmaceutical Abstracts (IPA) · ISI Electronic Library ·
Journal of the American Medical Association (JAMA) ·
MEDLINE Database · Reference Update (RIS) · Science
Citation Index (SCI) · SCISEARCH · Unlisted Drugs ·
World Drug Alerts

Anfragen zu Sonderdrucken von Publikationen sind grund-
sätzlich an den Verlag zu richten (s. auch Impressum die-
ser Zeitschrift).

Reprint requests should be addressed to the publisher (see
this journal's masthead). For reprint and translation infor-
mation in North America, please contact: International Re-
print Corporation, 968 Admiral Callaghan, # 268, P.O.B.
1 20 04, Vallejo, CA 94590 (USA), Phone (7 07) 5 53-92 30,
Fax (7 07) 5 52-95 24.

■ Übersicht

■ Review

Wehling, M. G 73
β-Blocker und ihre Bedeutung für die Pharmako-
therapie kardiovaskulärer Erkrankungen im Ver-
gleich
*Comparing β-Blockers and their Relevance in the
Pharmacotherapy of Cardiovascular Diseases*

■ Hypnotika · Psychopharmaka · Sedativa ·
ZNS-Therapeutika

■ CNS-active Drugs · Hypnotics · Psychotropics ·
Sedatives

Arisawa, H., Fukui, K., Fujise, N., E 81
Masunaga, H.
Allgemeines pharmakologisches Profil des neu-
artigen Muskarinrezeptor-Agonisten SNI-2011
zur Behandlung von Xerostomie bei Sjögren-
Syndrom / 2. Mitteilung: Wirkungen auf das so-
matische und autonome Nervensystem sowie
die glatte Muskulatur
*General Pharmacological Profile of the Novel
Muscarinic Receptor Agonist SNI-2011, a Drug
for Xerostomia in Sjögren's Syndrome / 2nd Com-
munication: Effects on somatic nervous system
and on autonomic nervous system and smooth
muscle*

■ Herz-Kreislauf-Therapeutika · Kardiaka ·
Koronar-Therapeutika

■ Cardiac Drugs · Cardiac Stimulants ·
Coronary Drugs

Wittig, J., Leipolz, I., Graefe, E. U., Jaki, B., E 89
Treutter, D., Veit, M.
Quantifizierung von Procyanidinen in *Cratae-
gus*-Extrakte enthaltenden oralen Fertigarznei-
mitteln
*Quantification of Procyanidins in Oral Herbal
Medicinal Products Containing Extracts of Crat-
aegus Species*

■ Antiallergika · Antiasthmatica · Antitussiva ·
Bronchodilatoren · Bronchosekretolytika · Mukolytika

■ Antiallergic Drugs · Antiasthmatics · Antitussives ·
Bronchodilators · Bronchosecretogogues · Mucolytics

Küsters, S., Schuligoi, R., Hüttenbrink, K.-B., E 97
Rudert, J., Wachs, A., Szelenyi, I., Peskar, B. A.
Wirkung von Antihistaminika auf die Freisetzung
von Leukotrien und Cytokin aus dispergierten
Zellen nasaler Polypen
*Effects of Antihistamines on Leukotriene and
Cytokine Release from Dispersed Nasal Polyp
Cells*

■ Antibiotika · Chemotherapeutika · Virustatika ·
Zytostatika

■ Antibiotics · Antiviral Drugs · Chemotherapeutics ·
Cytostatics

Pandeya, S. N., Yogeewari, P., Sausville, E. A., E 103
Mauger, A. B., Narayanan, V. L.
Synthese und tumorhemmende Evaluierung von
4-Bromphenyl-semicarbazon-Derivaten
*Synthesis and Antitumour Evaluation of 4-Bromo-
phenyl Semicarbazones*

Braga, P. C., Dal Sasso, M. E 109
Einfluß subinhibitorischer Konzentrationen von
Gatifloxacin auf die Hemmung der Adhärenz
von *Staphylococcus aureus* und *Escherichia coli*
*Effects of Sub-minimum Inhibitory Concentra-
tions of Gatifloxacin on the Inhibition Staphylo-
coccus aureus and Escherichia coli Adherence*

E = Publication in English. G = Publication in German.

Ortega, M. A., Sainz, Y., Montoya, M. E.,
Jaso, A., Zarranz, B., Aldana, I., Monge, A.
Derivate von Chinoxalin-2-carbonitril und
Chinoxalin-2-carbonitril-1,4-di-N-oxid mit
Wirkung gegen *Mycobacterium tuberculosis*
Anti-Mycobacterium tuberculosis Agents Derived
from Quinoxaline-2-carbonitrile and Quinox-
aline-2-carbonitrile 1,4-di-N-oxide

E 113

C. F. Gomes, D. de, Alegrio, L. V., Freire de
Lima, M. E., Leon, L. L., Araújo, C. A. C.
Synthetische Derivate von Curcumin und ihre
Wirksamkeit gegen *Leishmania amazonensis*
Synthetic Derivatives of Curcumin and their
Activity against Leishmania amazonensis

E 120

■ Besondere Themen

■ Special Themes

Yunes, R. A., Heinzen, V. E. F., Filho, V. C.,
Lazzarotto, M.
Von der manuellen Topliss-Methode hin zu
einer modifizierten quantitativen Methode
From the Manual Method of Topliss to a
Modified Quantitative Method

E 125

■ Patentinformationen

■ Information on Patents

Habernickel, V. J.
Der Pharmamarkt im Spiegel der Patente /
Anxiolytika und Antidepressiva / Wirkstoffe zur
Behandlung kognitiver Störungen / Antibakte-
rielle Substanzen / Antithrombotika
The Pharma Market as Reflected by Patents /
Agents for the treatment of anxiety and depres-
sion / Agents for the treatment of e.g. cognitive
disorders / Compounds having antibacterial
activity / Agents for the treatment of thrombo-
embolic disorders

E 133

■ Buchbesprechungen

■ Book Reviews

137

■ Biotechnology in Drug Research:

Scientific Centers / Companies in Biobusiness

BioRegion – Biotechnology in Lower Saxony E 140

Effects of Antihistamines on Leukotriene and Cytokine Release from Dispersed Nasal Polyp Cells

Sabine Küsters^a, Rufina Schuligoi^b, Karl-Bernd Hüttenbrink^c, Jutta Rudert^a, Angela Wachs^a,
Istvan Szelenyi^a, and Bernhard A. Peskar^b

Pulmonary Pharmacology, Corporate Research ASTA Medica AG / Arzneimittelwerk Dresden GmbH^a,
Radebeul (Germany), Institute of Experimental and Clinical Pharmacology, University of Graz^b, Graz (Austria),
and Clinic for Otolaryngology, Dresden University of Technology^c, Dresden (Germany)

Summary

In this study the effects of antihistamines on the release of eicosanoids and the pro-inflammatory cytokine tumor necrosis factor alpha (TNF α) were compared. Enzymatically dispersed cells from human nasal polyps served as an in vitro model of chronic respiratory mucosal inflammation. Nasal polyp cells (2×10^6 /ml) were sensitized with human IgE preincubated with azelastine (CAS 58581-89-8), terfenadine (CAS 50679-08-8), levocabastine (CAS 79516-68-0) or cetirizine (CAS 83881-51-0), and stimulated with anti-human immunoglobulin E (IgE). Thromboxane B₂ (TBX₂) and leukotriene C₄ (LTC₄) were measured by radioimmunoassay (RIA), TNF α by enzyme-linked immunosorbent assay (ELISA). Data represent mean values of % inhibition estimated from the untreated positive

control or mean IC₅₀ (n = 5). Azelastine and terfenadine inhibited TNF α release with IC₅₀ values of 6.2 μ mol/l and 4.3 μ mol/l, respectively. Terfenadine reduced TXB₂ release by 37 ± 15 %, and LTC₄ release was decreased by azelastine and terfenadine very potently by 86 % and 100 %, respectively. Azelastine shows anti-inflammatory properties in therapeutically relevant concentrations as assessed by its ability to reduce TNF α release as well as its ability to inhibit LTC₄ production in allergically stimulated human nasal polyp cells.

Zusammenfassung

Wirkung von Antihistaminika auf die Freisetzung von Leukotrienen und Cytokinen aus dispergierten Zellen nasaler Polypen

In der vorliegenden Studie wurde die Wirkung von Antihistaminika auf die Freisetzung von Eicosanoiden und des

entzündungsfördernden Cytokins „Tumor necrosis factor“ α (TNF α) untersucht. Enzymatisch dispergierte Zellen von menschlichen nasalen Polypen dienen als In-vitro-Modell der chronischen mukosalen Entzündung der Atemwege. Diese Zellen (2×10^6 /ml) wurden mit

Key words

- Azelastine
- Cetirizine
- Leukotriene
- Levocabastine
- Nasal polyps, human
- Terfenadine
- Tumor necrosis factor α

Arzneim.-Forsch./Drug Res.
52, No. 2, 97-102 (2002)

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.