Bioorg. Med. Chem. 9 (2001) 2757

QSAR of Anticancer Compounds. Bis(11-oxo-11*H*-indeno[1,2-*b*] quinoline-6-carboxamides), Bis(phenazine-1-carboxamides), and Bis(naphthalimides)

Suresh Babu Mekapati,[a] William A. Denny,[b] Alka Kurup[a] and Corwin Hansch[a]

[a]*Department of Chemistry, Pomona College, Claremont, CA 91711, USA*
[b]*Auckland Cancer Society Research Center, Faculty of Medical and Health Sciences, University of Auckland, Private Bag 92019, Auckland, New Zealand*

QSAR have been developed for the anticancer activity (growth inhibition) of various tumor cells by bis(11-oxo-11*H*-indeno[1,2-*b*]quinoline-6-carboxamides), bis(phenazine-1-carboxamides), and bis(naphthalimides). Of the seven QSAR, positive hydrophobic interactions are found in only two examples: bis(naphthalimides) versus human colon cancer cells.

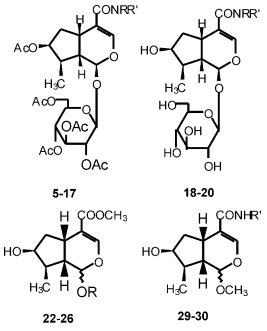
Bioorg. Med. Chem. 9 (2001) 2763

Modified Iridoid Glycosides as Anti-implantation Agents: Inhibition of Cell Adhesion as an Approach for Developing Pregnancy Interceptive Agents

Anju P. Misra,[a] Vijayavitthal T. Mathad,[a] Kanwal Raj,[a] Amiya P. Bhaduri,[a] Rashmi Tiwari,[b] Anuradha Srivastava[b] and P.K. Mehrotra[b]

[a]*Medicinal Chemistry Division, Central Drug Research Institute, Lucknow 226-001, India*
[b]*Endocrinology Division, Central Drug Research Institute, Lucknow 226-001, India*

Structural modifications in iridoid glycosides and evaluation of their efficacy on adhering capability (in vitro) of immature hamster uterine epithelial cells to the substratum have been studied. Out of 31, eight compounds in vitro, five compounds in utero and two in vivo showed adhesion/implantation preventing activity, respectively. The results provide an indication for further exploration in the line of development of anti-adhesive agents.



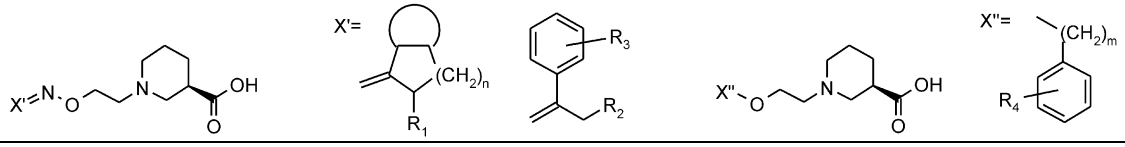
Bioorg. Med. Chem. 9 (2001) 2773

Synthesis of Novel GABA Uptake Inhibitors. Part 6: Preparation and Evaluation of *N*-Ω Asymmetrically Substituted Nipecotic Acid Derivatives

Knud Erik Andersen, Jesper Lau, Behrend F. Lundt, Hans Petersen, Per O. Huusfeldt, Peter D. Suzdak and Michael D.B. Swedberg

Health Care Discovery, Novo Nordisk A/S, Novo Nordisk Park, DK 2760 Måløv, Denmark

Asymmetric analogues of known symmetric GABA uptake inhibitors, in which one of the aryl groups has been exchanged with an alkyl, alkylene or cycloalkylene moiety, have been investigated.



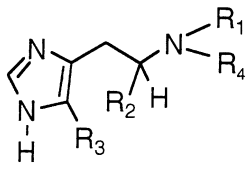
Bioorg. Med. Chem. 9 (2001) 2787

QSAR Studies on Acylated Histamine Derivatives

Vijay K. Agrawal[a] and Padmakar V. Khadikar[b]

[a]*Department of Chemistry, A.P.S. University, Rewa 486 003, India*
[b]*Research Division, Laxmi Pest and Fumigation Pvt. Ltd., 3 Khatipura, Indore 452 007, India*

H_3-receptor antagonist activity in terms of $-\log K_i$ for a series of acylated histamine derivatives was modelled topologically in that combination of molecular redundancy and molecular connectivity indices with indicator parameter gave best results. The results are discussed based on adjusted R^2_A.

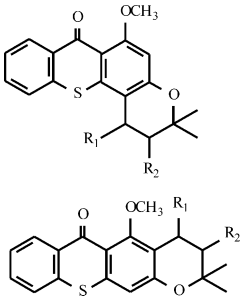


Bioorg. Med. Chem. 9 (2001) 2793

Synthesis, Cytotoxic Activity, NMR Study and Stereochemical Effects of Some New Pyrano[3,2-*b*]thioxanthen-6-ones and Pyrano[2,3-*c*]thioxanthen-7-ones

Ioannis K. Kostakis,[a] Nicole Pouli,[a] Panagiotis Marakos,[a] Emmanuel Mikros,[a] Alexios-Leandros Skaltsounis,[b] Stephane Leonce,[c] Ghanem Atassi[c] and Pierre Renard[c]

[a]*Department of Pharmacy, Division of Pharmaceutical Chemistry, university of Athens, Panepistimiopolis-Zografou, Athens 17345, Greece*
[b]*Division of Pharmacognosy, University of Athens, Panepistimiopolis-Zografou, Athens 17345, Greece*
[c]*Institut de Recherches SERVIER, 11 Rue des Moulineaux, 92150 Suresnes, France*



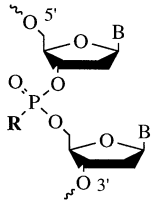
Some new substituted pyrano[3,2-*b*]thioxanthen-6-ones and pyrano[2,3-*c*]thioxanthen-7-ones were prepared and their cytotoxic activity was evaluated using acronycine as the reference compound. The conformation of the molecules was also investigated in an effort to correlate this parameter with the biological activity.

Bioorg. Med. Chem. 9 (2001) 2803

Immunostimulatory Activity of CpG Oligonucleotides Containing Non-Ionic Methylphosphonate Linkages

Dong Yu, Ekambar R. Kandimalla, Qiuyan Zhao, Yanping Cong and Sudhir Agrawal

Hybridon Inc., 345 Vassar Street, Cambridge, MA 02139, USA



R = S^- ; anionic linkage
R = CH_3; non-ionic linkage

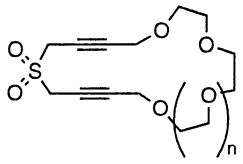
The placement of a non-ionic linkage closer than three internucleoside linkages in the 5′-flanking sequence to the CpG-motif suppressed immunostimulatory activity, while incorporation farther than three internucleoside linkages increased immunostimulatory activity compared with unmodified parent oligo. In general, the presence of a non-ionic linkage in the 3′-flanking sequence to the CpG-motif did not affect immunostimulatory activity significantly compared with the parent CpG oligo.

Bioorg. Med. Chem. 9 (2001) 2809

Synthesis, DNA Cleavage, and Cytotoxicity of a Series of Bis(propargylic) Sulfone Crown Ethers

Mark M. McPhee and Sean M. Kerwin

Division of Medicinal Chemistry, College of Pharmacy, The University of Texas at Austin, Austin, TX 78712, USA



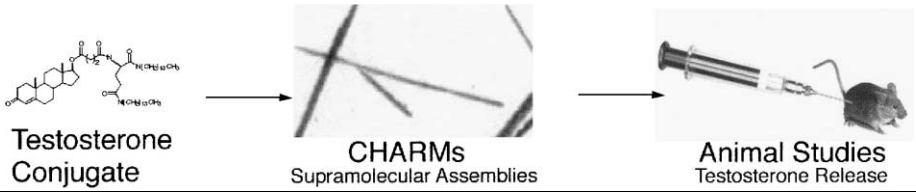
A series of bis(propargylic) sulfone crown ethers were synthesized and their alkali metal ion binding and alkali metal ion-regulated DNA cleavage ability determined.

Bioorg. Med. Chem. 9 (2001) 2819

Testosterone Delivery Using Glutamide-based Complex High Axial Ratio Microstructures

Alex S. Goldstein,[a] John K. Amory,[b] Stephanie M. Martin,[c] Chris Vernon,[a] Alvin Matsumoto[b] and Paul Yager[c]

[a]*Departments of Chemistry and Biochemistry, University of Washington, Box 351700, Seattle, WA 98195-1700, USA*
[b]*Geriatric Research Education and Clinical Center and General Internal Medicine Section (S-182-GRECC and S-111-GIMC), VA-Puget Sound Health Care System, University of Washington, 1660 S. Columbian Way, Seattle, WA 98108, USA*
[c]*Molecular Bioengineering Program, Department of Bioengineering, University of Washington, Box 352255, Seattle, WA 98195-2255, USA*

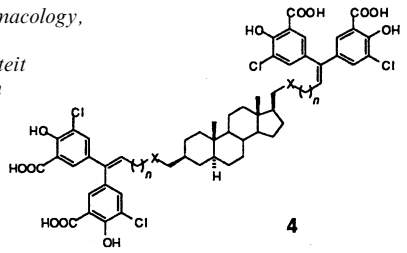


Bioorg. Med. Chem. 9 (2001) 2827

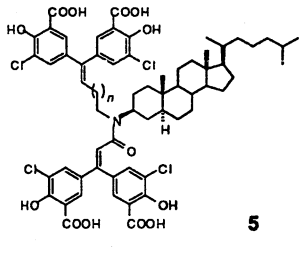
Synthesis and Anti-HIV Activity of Cosalane Analogues Incorporating Two Dichlorodisalicylmethane Pharmacophore Fragments

Agustin Casimiro-Garcia,[a] Erik De Clercq,[b] Christophe Pannecouque,[b] Myriam Witvrouw,[b] Tracy L. Loftus,[c] Jim A. Turpin,[c] Robert W. Buckheit, Jr.,[c] Phillip E. Fanwick[d] and Mark Cushman[a]

[a]*Department of Medicinal Chemistry and Molecular Pharmacology, Purdue University, West Lafayette, IN 47907, USA*
[b]*Rega Institute for Medical Research, Katholieke Universiteit Leuven, Minderbroedersstraat 10, B-3000 Leuven, Belgium*
[c]*Infectious Disease Research Department, Southern Research Institute, 431 Aviation Way, Frederick, MD 21701, USA*
[d]*Department of Chemistry, Purdue University, West Lafayette, IN 47907, USA*



4



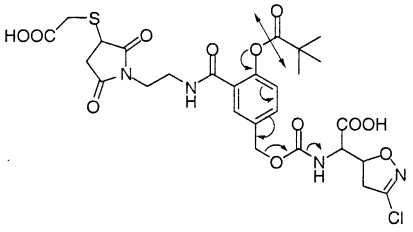
5

Bioorg. Med. Chem. 9 (2001) 2843

A New Acivicin Prodrug Designed for Tumor-Targeted Delivery

Christophe Antczak,[a,b] Brigitte Bauvois,[b] Claude Monneret[a] and Jean-Claude Florent[a]

[a]*Conception, synthèse et vectorisation de biomolécules, CNRS, UMR 176, Institut Curie-Section de Recherche, 26 rue d'Ulm, 75248 Paris cedex 05, France*
[b]*Interférons et cytokines, INSERM, U 365 Institut Curie-Section de Recherche, 26 rue d'Ulm, 75248 Paris cedex 05, France*



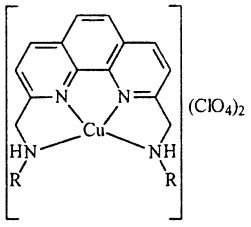
The synthesis and the in vitro characteristics of an antitumor agent prodrug designed for immunoconjugation are reported.

Bioorg. Med. Chem. 9 (2001) 2849

Copper(II) Complexes with *N*,*N*′-Dialkyl-1,10-phenanthroline–2,9-Dimethanamine: Synthesis, Characterization, DNA-Binding Thermodynamical and Kinetic Studies

Zhong-Ming Wang, Hua-Kuan Lin, Zhi-Fen Zhou, Meng Xu, Tian-Fu Liu, Shou-Rong Zhu and Yun-Ti Chen

Department of Chemistry, Nankai University, 300071, Tianjin, PR China



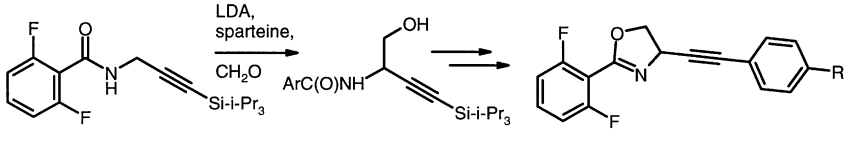
Copper(II) complexes (Cu–L, L = *N*,*N*′-dialkyl-1,10-phenanthroline-2,9-dimethanamine) were synthesized and characterized. Using ethidium bromide as a fluorescence probe, the binding mode of the complexes Cu–L with calf-thymus DNA was studied spectroscopically, and Kinetics of binding of the cupric complexes to DNA was studied for the first time with stopped-flow spectrophotometer under pseudo-first-order condition.

Bioorg. Med. Chem. 9 (2001) 2857

An Enantioselective Synthesis of Insecticidal 4-Alkynyloxazolines

David Clark and D. Andrew Travis

DuPont Crop Protection, Stine/Haskell Research Center, PO Box 30, Bldg 300, Newark, DE 19714, USA



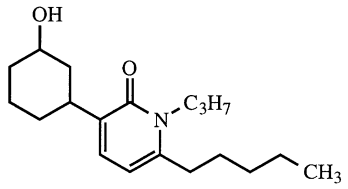
Bioorg. Med. Chem. 9 (2001) 2863

A Pyridone Analogue of Traditional Cannabinoids. A New Class of Selective Ligands for the CB_2 Receptor

John W. Huffman,[a] Jianzhong Lu,[a] George Hynd,[a] Jenny L. Wiley[b] and Billy R. Martin[b]

[a]*Howard L. Hunter Laboratory, Clemson University, Clemson, SC 29634-1905, USA*
[b]*Department of Pharmacology and Toxicology, Medical College of Virginia, Virginia Commonwealth University, Richmond, VA 23298-0613, USA*

The synthesis and pharmacology of both hydroxyl epimers of a pyridone analogue of traditional cannabinoids are described. Neither compound has significant affinity for the CB_1 receptor, but both have affinity in the 50 nM range for the CB_2 receptor.



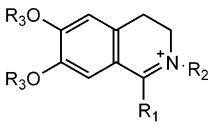
Bioorg. Med. Chem. 9 (2001) 2871

Simple Isoquinoline and Benzylisoquinoline Alkaloids as Potential Antimicrobial, Antimalarial, Cytotoxic, and Anti-HIV Agents

Kinuko Iwasa,[a] Masataka Moriyasu,[a] Yoko Tachibana,[b] Hye-Sook Kim,[c] Yusuke Wataya,[c] Wolfgang Wiegrebe,[d] Kenneth F. Bastow,[b] L. Mark Cosentino,[e] Mutsuo Kozuka[b] and Kuo-Hsiung Lee[b]

[a]*Kobe Pharmaceutical University, 4-19-1 Motoyamakita, Higashinada-ku, Kobe 658-8558, Japan*
[b]*Natural Products Laboratory, School of Pharmacy, University of North Carolina, Chapel Hill, NC 27599-7360, USA*
[c]*Faculty of Pharmaceutical Sciences, Okayama University, Tsushima, Okayama 700-8530, Japan*
[d]*Institute of Pharmacy, Regensburg University, D-93040 Regensburg, Germany*
[e]*Biotech Research Laboratories, Inc., 217 Perry Parkway, Gaithersburg, MD 20877, USA*

Twenty-six simple isoquinolines and 21 benzylisoquinolines were tested for antimicrobial, antimalarial, cytotoxic, and anti-HIV activity. Several simple isoquinoline alkloids were significantly active in each assay and may be useful as lead compounds for developing potential chemotherapeutic agents.



Bioorg. Med. Chem. 9 (2001) 2885

Comparative QSAR Studies on Bibenzimidazoles and Terbenzimidazoles Inhibiting Topoisomerase I

Suresh Babu Mekapati and Corwin Hansch

Department of Chemistry, Pomona College, Claremont, CA 91711, USA

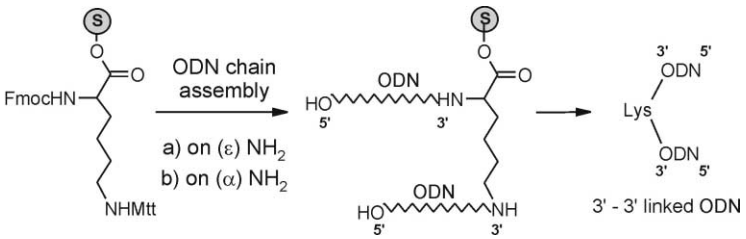
QSAR studies have been derived on published activity data for bibenzimidazole and terbenzimidazole derivatives inhibiting topoisomerase I.

Bioorg. Med. Chem. 9 (2001) 2895

Oligonucleotides Containing a Lysine Residue as 3′–3′ Junction for Alternate Strand Triple Helix Formation

Guido Barone,[a] Lorenzo De Napoli,[b] Giovanni Di Fabio,[b] Concetta Giancola,[a] Anna Messere,[c] Daniela Montesarchio,[b] Luigi Petraccone[a] and Gennaro Piccialli[d]

[a]*Dipartimento di Chimica, Università di Napoli "Federico II", Via Cinthia, 4, Complesso Universitario di Monte S. Angelo, I-80126 Napoli, Italy*
[b]*Dipartimento di Chimica Organica e Biochimica, Università di Napoli "Federico II", Via Cinthia, 4, Complesso Universitario di Monte S. Angelo, I-80126 Napoli, Italy*
[c]*Dipartimento di Scienze Ambientali, Seconda Università di Napoli, via Vivaldi 43, 81100 Caserta, Italy*
[d]*Facoltà di Scienze, Università del Molise, Via Mazzini, 8, I-86170 Isernia, Italy*



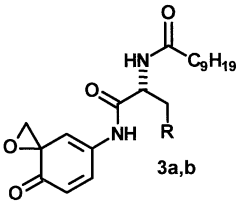
Bioorg. Med. Chem. 9 (2001) 2901

Synthesis and Biochemical Investigation of Scyphostatin Analogues as Inhibitors of Neutral Sphingomyelinase

Christoph Arenz, Michael Gartner, Veit Wascholowski and Athanassios Giannis

Institut für Organische Chemie, Universität Karlsruhe, Richard-Willstätter Allee 2, 76128 Karlsruhe, Germany

The enzymatic investigations of two scyphostatin analogues **3a** and **3b** reveals the importance of the primary hydroxy group for **3c** of N-SMase inhibition.



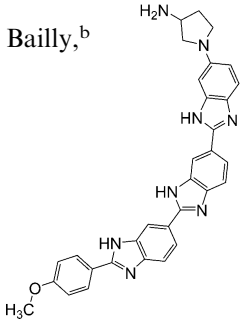
a: R = H b: R = C_6H_5 c: R = OH

Bioorg. Med. Chem. 9 (2001) 2905

Tris-benzimidazole Derivatives: Design, Synthesis and DNA Sequence Recognition

Yu-Hua Ji,[a] Daniel Bur,[a] Walter Häsler,[a] Valérie Runtz Schmitt,[a] Arnulf Dorn,[a] Christian Bailly,[b] Michael J. Waring,[c] Remo Hochstrasser[a,d] and Werner Leupin[a,e]

[a]*F. Hoffmann-La Roche Ltd, Pharma Research Preclinical Gene Technologies and Infectious Diseases, CH-4070 Basel, Switzerland*
[b]*INSERM Unité 524 et Laboratoire de Pharmacologie Antitumorale du Centre Oscar Lambret, Place de Verdun, 59045 Lille, France*
[c]*Department of Pharmacology, University of Cambridge, Tennis Court Road, Cambridge CB2 1QJ, UK*
[d]*Biocentre of the University of Basel, Department of Biophysical Chemistry, Klingelbergstrasse 70, CH-4056 Basel, Switzerland*
[e]*Gymnasium Liestal, Abteilung Chemie, Friedensstrasse 20, CH-4410 Liestal, Switzerland*



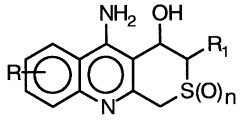
Bioorg. Med. Chem. 9 (2001) 2921

Velnacrine Thiaanalogues as Potential Agents for Treating Alzheimer's Disease

Oriana Tabarrini,[a] Violetta Cecchetti,[a] Andrea Temperini,[a] Enrica Filipponi,[a] Maria Giuseppina Lamperti[b] and Arnaldo Fravolini[a]

[a]*Dipartimento di Chimica e Tecnologia del Farmaco, Università di Perugia, Via del Liceo 1, 06123 Perugia, Italy*
[b]*Mediolanum Farmaceutici, via S. G. Cottolengo 31, 20143 Milano, Italy*

In searching for new potent AChEIs, a series of variously substituted thiopyranoquinolines were synthesized as velnacrine thiaanalogues. The anti-AChE data show that the bioisosteric substitution carried out maintains the activity; moreover the presence of a chlorine atom in certain positions of the aromatic ring increases the activity. A molecular docking study to evaluate the possible binding modes of the synthesized compounds inside the tacrine binding site was also performed.



thiopyranoquinolines

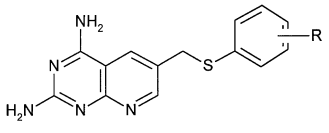
R = H, Cl, OCH_3
R_1 = H, CH_3, CH_2Ph
n = 0, 1

Bioorg. Med. Chem. 9 (2001) 2929

Synthesis of 2,4-Diamino-6-(thioarylmethyl)pyrido[2,3-*d*] pyrimidines as Dihydrofolate Reductase Inhibitors

Aleem Gangjee,[a] Ona Adair[a] and Sherry F. Queener[b]

[a]*Division of Medicinal Chemistry, Graduate School of Pharmaceutical Sciences, Duquesne University, Pittsburgh, Pennsylvania 15282, USA*
[b]*Department of Pharmacology and Toxicology, Indiana University School of Medicine, Indianapolis, Indiana 46202, USA*

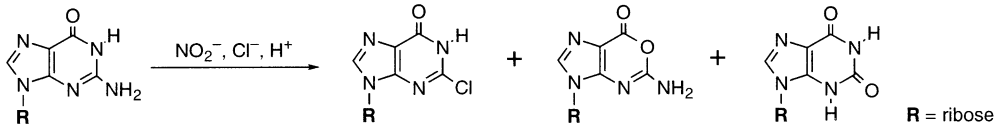


Bioorg. Med. Chem. 9 (2001) 2937

Formation of 2-Chloroinosine from Guanosine by Treatment of HNO_2 in the Presence of NaCl

Toshinori Suzuki,[a] Hiroshi Ide,[b] Masaki Yamada,[a] Takashi Morii[a] and Keisuke Makino[a]

[a]*Institute of Advanced Energy, Kyoto University, Gokasho, Uji 611-0011, Japan*
[b]*Department of Mathematical and Life Sciences, Graduate School of Science, Hiroshima University, Kagamiyama, Higashi-Hiroshima 739-8526, Japan*

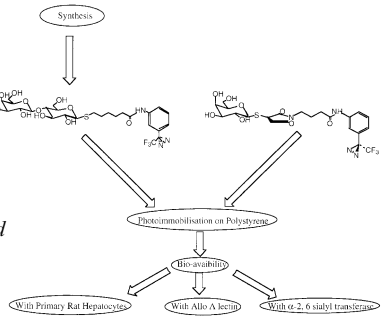


Bioorg. Med. Chem. 9 (2001) 2943

Immobilisation on Polystyrene of Diazirine Derivatives of Mono- and Disaccharides: Biological Activities of Modified Surfaces

Y. Chevolot,[a] J. Martins,[b] N. Milosevic,[c] D. Léonard,[a] S. Zeng,[d] M. Malissard,[d] E.G. Berger,[d] P. Maier,[c] H.J. Mathieu,[a] D.H.G. Crout[b] and H. Sigrist[e]

[a]*Département des Matériaux, LMCH, Ecole Polytechnique Fédérale de Lausanne (EPFL), CH-1015 Lausanne-EPFL, Switzerland*
[b]*Department of Chemistry, University of Warwick, CV4 5AL Coventry, UK*
[c]*Institute of Toxicology, Swiss Federal Institute of Technology of Zürich (ETH), Schorenstrasse 16, CH-8603 Schwerzenbach, Switzerland*
[d]*Institute of Physiology, University of Zürich, Winterthurerstrasse 190, CH-8057 Zürich, Switzerland*
[e]*CSEM (Centre Suisse d'Electronique et de Microtechnique SA), Jaquet-Droz 1, CH-2007 Neuchâtel, Switzerland*



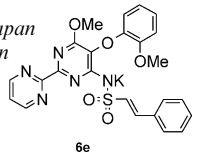
Bioorg. Med. Chem. 9 (2001) 2955

Ethenesulfonamide and Ethanesulfonamide Derivatives, a Novel Class of Orally Active Endothelin-A Receptor Antagonists

Hironori Harada,[a] Jun-ichi Kazami,[a] Susumu Watanuki,[a] Ryuji Tsuzuki,[b] Katsumi Sudoh,[a] Akira Fujimori,[a] Masanao Sanagi,[a] Masaya Orita,[a] Hideaki Nakahara,[a] Jun Shimaya,[c] Shin-ichi Tsukamoto,[a] Akihiro Tanaka[d] and Isao Yanagisawa[a]

[a]*Institute for Drug Discovery Research, Yamanouchi Pharmaceutical Co., Ltd., 21 Miyukigaoka, Tsukuba, Ibaraki 305-8585, Japan*
[b]*Bulk Manufacturing & Technology Division, Yamanouchi Pharmaceutical Co., Ltd., 160-2 Matsukubo, Akahama, Takahagi, Ibaraki 318-0001, Japan*
[c]*Institute for Drug Development Research, Yamanouchi Pharmaceutical Co., 3-17-1 Hasune, Itabashi, Tokyo 174-8612, Japan*
[d]*Corporate Planning Department, Yamanouchi Pharmaceutical Co., Nihonbashi-Honcho, Chuo-ku, Tokyo 103-0023, Japan*

The synthesis and SARs of a novel class of orally active endothelin antagonists including **6e** (YM598 monopotassium) are described.

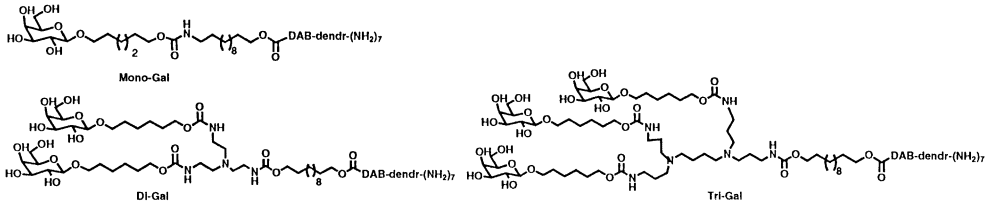


Bioorg. Med. Chem. 9 (2001) 2969

Synthesis of Galactosyl Compounds for Targeted Gene Delivery

Tan Ren, Guisheng Zhang and Dexi Liu

Department of Pharmaceutical Sciences, School of Pharmacy, University of Pittsburgh, Pittsburgh, PA 15261, USA

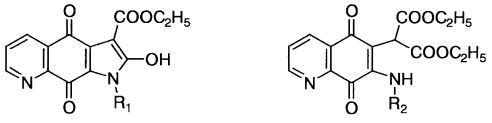


Bioorg. Med. Chem. 9 (2001) 2979

Synthesis of Pyridino[2,3-*f*]indole-4,9-dione 6,7-Disubstituted Quinoline-5,8-dione Derivatives and Evaluation on their Cytotoxic Activity

Myung-Eun Suh,[a] So-Young Park[a] and Chong-Ock Lee[b]

[a]*Division of Medicinal Chemistry, College of Pharmacy, Ewha Womans University, Seoul 120-750, South Korea*
[b]*Pharmaceutical Screening Division, Korea Research Institute of Chemical Technology, TaeJon 305-606, South Korea*



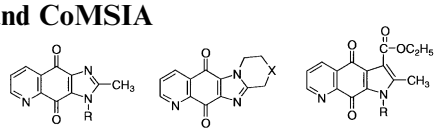
A B

Bioorg. Med. Chem. 9 (2001) 2987

The 3-D QSAR Study of Anticancer 1-*N*-substituted Imidazo- and Pyrrolo-quinoline-4,9-dione Derivatives by CoMFA and CoMSIA

Myung-Eun Suh, Min-Jung Kang and So-Young Park

Division of Medicinal Chemistry, College of Pharmacy, Ewha Womans University, Seoul 120-750, South Korea



A B C

A : 2-Methyl-1-substituted-imidazo[4,5-g]quinoline-4,9-dione

B : 7,8-Dihydro-10H-[1,4]oxazino[3`,4`:2,3]imidazo[4,5-g]quinoline-5,12-dione (X = O), 7,8-Dihydro-10H-[1,4]thiazino[3`,4`:2,3]imidazo[4,5-g]quinoline-5,12-dione (X = S), 7,8-Dihydro-10H-[1,4]piperidino[3`,4`:2,3]imidazo[4,5-g]quinoline-5,12-dione (X = C)

C : 3-Ethoxycarbonyl-2-methyl-1-substituted-pyrrolo[4,5-g]quinoline-4,9-dione

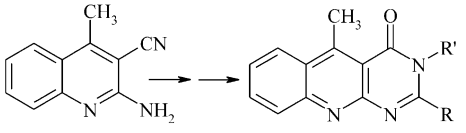
Bioorg. Med. Chem. 9 (2001) 2993

Synthesis, Characterization and Reactions of 2-Deoxo-5-deazaalloxazines

Abd El-Wareth A. O. Sarhan,[a] Zeinab A. Hozien[a] and Hosney A. H. El-Sherief[b]

[a]*Chemistry Department, Faculty of Science, Assiut University, Assiut 71516, Egypt*
[b]*Pharmaceutical Chemistry Department, Faculty of Pharmacy, Al-Azhar University, Assiut 71525, Egypt*

2-Deoxo-5-deazalloxazine, acetylation, cyclization, condensation, hydrazinolysis.



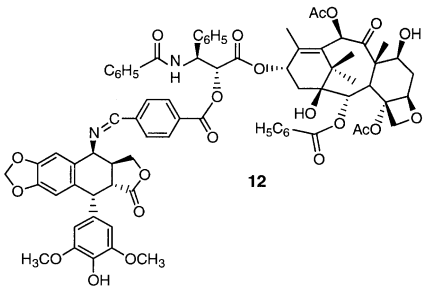
Bioorg. Med. Chem. 9 (2001) 2999

Antitumor Agents 210. Synthesis and Evaluation of Taxoid–Epipodophyllotoxin Conjugates as Novel Cytotoxic Agents

Qian Shi,[a] Hui-Kang Wang,[a] Kenneth F. Bastow,[a] Yoko Tachibana,[a] Ke Chen,[a] Fang-Yu Lee[b] and Kuo-Hsiung Lee[a]

[a]*Natural Products Laboratory, School of Pharmacy, University of North Carolina, Chapel Hill, NC 27599, USA*
[b]*Yung-Shin Pharmaceutical Industrial Company, 1191, Section 1, Chung-Shan Road, Taichia, Taichung, Taiwan*

Five compounds composed of a taxoid (paclitaxel or cephalomannine) and a 4′-*O*-demethyl epipodophyllotoxin derivative joined by an imine linkage were prepared and evaluated as cytotoxic agents and inhibitors of mammalian DNA topoisomerase II. Compounds **12** and **14**–**16** exhibited comparable or better activity than the unconjugated epipodophyllotoxin derivatives in most tumor cell lines, and **12**, **15**, and **16** also showed enhanced activity against paclitaxel-resistant cells.



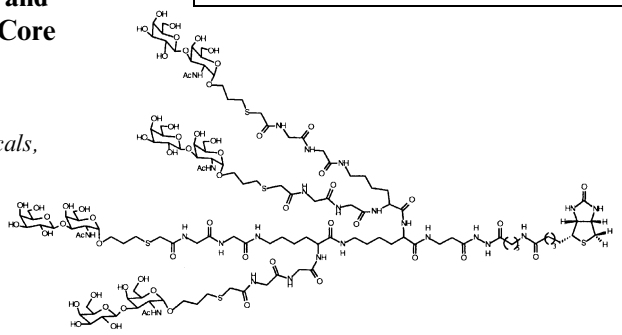
12

Bioorg. Med. Chem. 9 (2001) 3005

Simultaneous Binding of Mouse Monoclonal Antibody and Streptavidin to Heterobifunctional Dendritic L-Lysine Core Bearing T-Antigen Tumor Marker and Biotin

Myung-Gi Baek and René Roy

Department of Chemistry, Centre for Research in Biopharmaceuticals, University of Ottawa, Ottawa, Ontario, Canada K1N 6N5



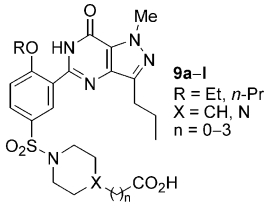
Bioorg. Med. Chem. 9 (2001) 3013

Synthesis and Phosphodiesterase Inhibitory Activity of New Sildenafil Analogues Containing a Carboxylic Acid Group in the 5′-Sulfonamide Moiety of a Phenyl Ring

Dae-Kee Kim, Ju Young Lee, Namkyu Lee, Do Hyun Ryu, Jae-Sun Kim, Sukho Lee, Jin-Young Choi, Je-Ho Ryu, Nam-Ho Kim, Guang-Jin Im, Won-Son Choi and Tae-Kon Kim

Life Science Research Center, SK Chemicals, 600 Jungja-Dong, Changan-Ku, Suwon-Si, Kyungki-Do 440–745, South Korea

Synthesis and in vitro PDE activities of new sildenafil analogues possessing a carboxylic acid group in the 5′-sulfonamide of the phenyl ring, **9a**–**l**, are described.



Bioorg. Med. Chem. 9 (2001) 3023

Modification of Cell Response to Insulin by Membrane-Acting Agents in Rat White Adipocytes: Analysis of Structural Features by Computational Simulation

Kazuto Ohkura[a,b] and Hitoshi Hori[a]

[a]*Department of Biological Science and Technology, Faculty of Engineering, University of Tokushima, 2-1 Minamijosanjima-cho, Tokushima 770-8506, Japan*
[b]*Bioagricultural Science, Nagoya University, Furo-cho, Chikusa-ku, Aichi 464-8601, Japan*

The relationship between the effect of membrane-acting agents, biscoclaurine alkaloids (cepharanthine, tetrandrine, isotetrandrine), carbobenzoxy-D-Phe-L-Phe-Gly (z-FFG), tyrphostin AG17 on the insulin-involved fatty acid synthesis and the structural configuration of them were examined.

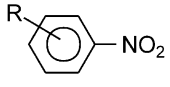
Bioorg. Med. Chem. 9 (2001) 3035

QSAR Prediction of Toxicity of Nitrobenzenes

V.K. Agrawal[a] and P.V. Khadikar[b]

[a]*QSAR & Chemical Laboratories, A. P. S. University, Rewa-486 003, India*
[b]*Research Division, Laxmi Pest and Fumigation Pvt. Ltd., 3, Khatipura, Indore 452 007, India*

A QSAR analysis of the toxicities of mono-substituted nitrobenzenes have been carried out using PI, Sz, MRI and J indices. Better results are obtained by using indicator parameters, the most significant being a penta-parametric model.

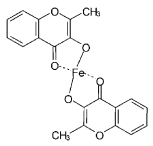


Bioorg. Med. Chem. 9 (2001) 3041

3-Hydroxy-(4*H*)-benzopyran-4-ones as Potential Iron Chelating Agents In Vivo

Marco Ferrali,[a] Donato Donati,[b] Sabrina Bambagioni,[c] Marco Fontani,[b] Gianluca Giorgi[c] and Antonello Pietrangelo[d]

[a]*Department of Physiopathology and Experimental Medicine, Siena University, via A.Moro, 53100 Siena, Italy*
[b]*Department of Chemistry, Siena University, via A. Moro, 53100 Siena, Italy*
[c]*Interdepartmental Center of Analysis and Structural Determinations, Siena University, via A. Moro, 53100 Siena, Italy*
[d]*Department of Internal Medicine, University of Modena and Reggio Emilia, via del Pozzo 71, 41100 Modena, Italy*



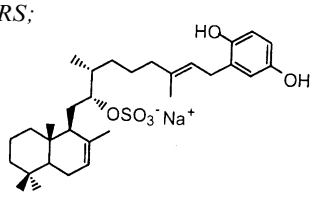
Design, synthesis and characterization of 3-hydroxy(4*H*)benzopyran-4-one as iron chelating agent in vitro with preliminary evidence of liver capture from blood circulation and urine excretion in rats are presented.

Bioorg. Med. Chem. 9 (2001) 3049

Coscinosulfate, a CDC25 Phosphatase Inhibitor from the Sponge *Coscinoderma Mathewsi*

Ali Loukaci,[a] Isabelle Le Saout,[a] Mohammad Samadi,[a] Sophie Leclerc,[b] Eve Damiens,[b] Laurent Meijer,[b] Cécile Debitus[c] and Michèle Guyot[a]

[a]*Laboratoire de Chimie des Substances Naturelles, Muséum d'Histoire Naturelle, associé au CNRS; 63 rue Buffon, 75005 Paris, France*
[b]*C.N.R.S., Station Biologique de Roscoff, 29680 Roscoff, France*
[c]*ORSTOM, Nouméa, Nouvelle-Calédonie, France*

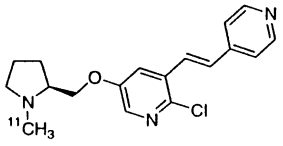


Bioorg. Med. Chem. 9 (2001) 3055

Radiosynthesis of 5-(2-(4-pyridinyl)vinyl)-6-chloro-3-(1-[^{11}C] methyl-2-(*S*)-pyrrolidinylmethoxy)pyridine, a High Affinity Ligand for Studying Nicotinic Acetylcholine Receptors by Positron Emission Tomography

LaVerne L. Brown, Olga Pavlova, Alexey Mukhin, Alane S. Kimes and Andrew G. Horti

Brain Imaging Center, National Institute on Drug Abuse, National Institutes of Health, 5500 Nathan Shock Drive, Baltimore, MD 21224, USA



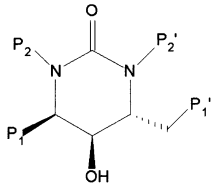
The radiosynthesis of a potential PET tracer, with a high affinity for nicotinic acetylcholine receptors (K_i = 56 pM, 37 °C), is reported.

Bioorg. Med. Chem. 9 (2001) 3059

A Quantitative Structure–Activity Relationship Study on Some HIV-1 Protease Inhibitors Using Molecular Connectivity Index

P. Gayathri,[a] V. Pande,[b] R. Sivakumar[c] and S.P. Gupta[a]

[a]*Department of Chemistry, Birla Institute of Technology and Science, Pilani 333 031, India*
[b]*Department of Biological Sciences, Birla Institute of Technology and Science, Pilani 333 031, India*
[c]*Department of Pharmacy, Birla Institute of Technology and Science, Pilani 333 031, India*



Tetrahydropyrimidinones

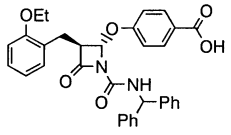
Using first-order valence molecular connectivity index, $^{1}\chi^{v}$, a quantitative structure–activity relationship (QSAR) study is made on two different series of tetrahydropyrimidinones acting as HIV-1 protease inhibitors and the implications of the correlations are discussed.

Bioorg. Med. Chem. 9 (2001) 3065

Design, Synthesis and Pharmacological Evaluation of 3-Benzylazetidine-2-one-based Human Chymase Inhibitors

Yasunori Aoyama,[a] Masaaki Uenaka,[a] Makoto Kii,[a] Mamoru Tanaka,[a] Toshiro Konoike,[b] Yoko Hayasaki-Kajiwara,[c] Noriyuki Naya[c] and Masatoshi Nakajima[c]

[a]*Shionogi Research Laboratories, Shionogi & Co., Ltd., Fukushima-ku, Osaka 553-0002, Japan*
[b]*Shionogi Research Laboratories, Shionogi & Co., Ltd., Amagasaki, Hyogo 660-0813, Japan*
[c]*Shionogi Research Laboratories, Shionogi & Co., Ltd., Futaba-cho, Toyonaka, Osaka 561-0825, Japan*



23

3-Benzylazetidine-2-one derivatives were designed and evaluated as a novel series of chymase inhibitors. Structure–activity relationship studies of 3-benzylazetidine-2-ones led to compounds **23**, which exhibited 3.1 nM inhibition of human chymase and enhancement of stability in human plasma.