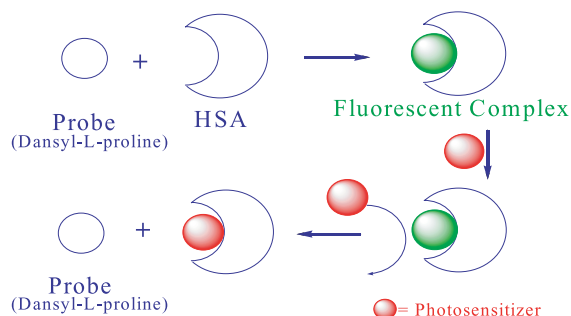


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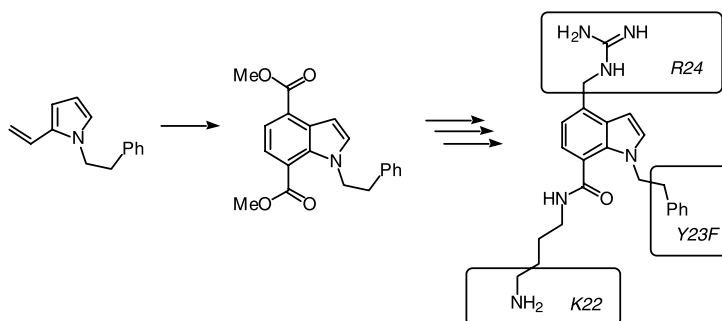
Investigation of human serum albumin (HSA) binding specificity of certain photosensitizers related to pyropheophorbide-a and bacteriopurpurinimide by circular dichroism spectroscopy and its correlation with in vivo photosensitizing efficacy pp 3189–3192

Yihui Chen, Razvan Miclea, Thamarapu Srikrishnan, Sathyamangalam Balasubramanian, Thomas J. Dougherty and Ravindra K. Pandey*



A three-residue, continuous binding epitope peptidomimetic of ShK toxin as a Kv1.3 inhibitor pp 3193–3196

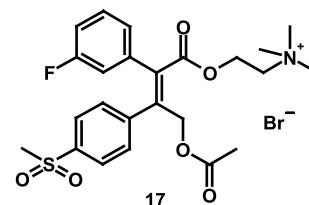
Andrew J. Harvey, Robert W. Gable and Jonathan B. Baell*



Water soluble prodrug of a COX-2 selective inhibitor suitable for intravenous administration in models of cerebral ischemia pp 3197–3200

Nicholas D. Smith,* Thomas S. Reger, Joseph Payne, Jasmine Zunic, Dan Lorrain, Lucie Correa, Nicholas Stock, Merryl Cramer, Weichao Chen, Jennifer Yang, Peppi Prasit and Benito Munoz

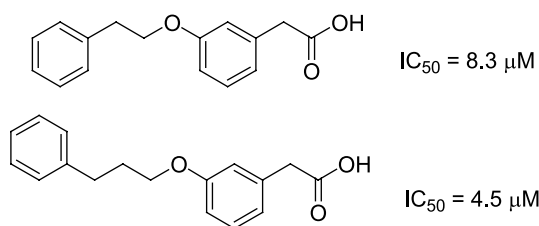
A water soluble choline prodrug (**17**) of a COX-2 selective inhibitor (**16**) suitable for intravenous dosing in models of cerebral ischemia has been developed. Constant infusion studies using **17** demonstrate that extrapolated brain levels of **16** may be maintained over 24 h in rats.



Ethers of 3-hydroxyphenylacetic acid as selective gamma-hydroxybutyric acid receptor ligands

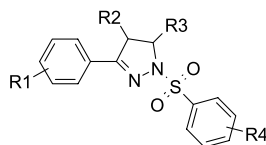
pp 3201–3202

Weibin Chen, Huifang Wu, R. Jason Hernandez, Ashok K. Mehta, Maharaj K. Ticku, Charles P. France and Andrew Coop*

**Discovery of non-steroidal mifepristone mimetics: Pyrazoline-based PR antagonists**

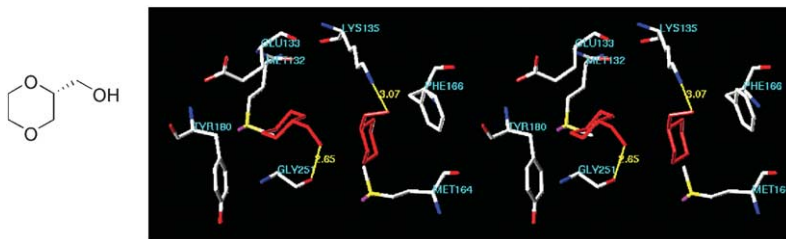
pp 3203–3206

David G. Jones, Xi Liang, Eugene L. Stewart, Robert A. Noe, Lara S. Kallander, Kevin P. Madauss, Shawn P. Williams, Scott K. Thompson, David W. Gray and William J. Hoekstra*

**Design, synthesis, and evaluation of dioxane-based antiviral agents targeted against the Sindbis virus capsid protein**

pp 3207–3211

Ha Young Kim, Chinmay Patkar, Ranjit Warriar, Richard Kuhn and Mark Cushman*

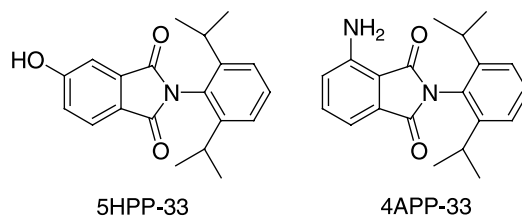


Dioxane-based antiviral agents targeted to the hydrophobic binding pocket of Sindbis virus capsid protein were designed by computer graphics molecular modeling and synthesized.

Cell differentiation inducers derived from thalidomide

pp 3212–3215

Tomomi Noguchi, Hiroyuki Miyachi, Ryohei Katayama, Mikihiro Naito and Yuichi Hashimoto*

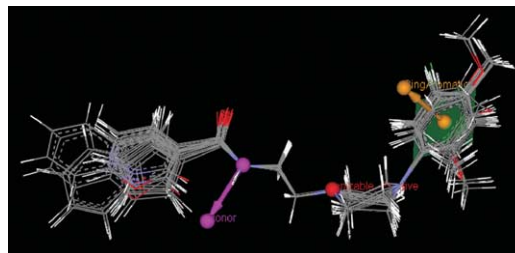


Pharmacophore-based design, synthesis, biological evaluation, and 3D-QSAR studies of aryl-piperazines as α_1 -adrenoceptor antagonists

pp 3216–3219

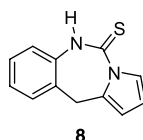
Min-Yong Li, Hao Fang and Lin Xia*

We successfully designed a series of potent aryl-piperazines as α_1 -AR antagonists based on a three-point pharmacophore. The 3D-QSAR study of this series of aryl-piperazines may provide some useful information for the designing of more potent aryl-piperazine analogues as α_1 -adrenoceptor antagonists.

**Action of a novel pyrrolo[1,2-c][1.3]benzodiazepine on the viability of Jurkat and neuronal/glia cells**

pp 3220–3223

Georgios Rotas, Ketevan Natchkebia, Nino Natsvlishvili, Merab Kekelidze, Athanasios Kimbaris, George Varvounis* and David Mikeladze*



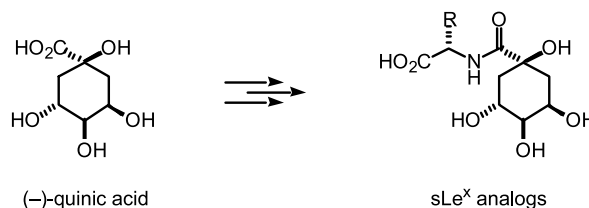
Pyrrolobenzodiazepine **8** was synthesized and found to cause cell death in both transformed Jurkat and non-transformed primary neuronal/glia cells, apparently by inducing damage to DNA.

Sialyl Lewis^x analogs based on a quinic acid scaffold as the fucose mimic

pp 3224–3228

Christian Girard,* Jennifer Dourlat, Aline Savarin, Christine Surcin, Stefanie Leue, Virginie Escriviou,* Céline Largeau, Jean Herscovici and Daniel Scherman

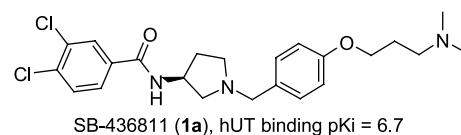
(–)-Quinic acid was used as a starting material for the preparation of sialyl Lewis^x mimetics to target E-selectin. Spatial orientation of the hydroxyl groups of quinic acid could mimic the L-fucose ones. Introduction of a side chain ending with a carboxylic acid was effected to replace the sialic acid interaction at the carbohydrate recognition domain. A first series of derivatives, incorporating amino acids linked to quinic acid, were tested for their affinity and found to interact with E-selectin with IC₅₀ within the millimolar range.

**Aminoalkoxybenzyl pyrrolidines as novel human urotensin-II receptor antagonists**

pp 3229–3232

Jian Jin,* Dashyant Dhanak, Steven D. Knight, Katherine Widdowson, Nambi Aiyar, Diane Naselsky, Henry M. Sarau, James J. Foley, Dulcie B. Schmidt, Carl D. Bennett, Bing Wang, Gregory L. Warren, Michael L. Moore, Richard M. Keenan, Ralph A. Rivero and Stephen A. Douglas

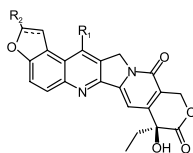
High throughput screening of the corporate compound collection led to the discovery of a novel series of substituted aminoalkoxybenzyl pyrrolidines as human urotensin-II receptor antagonists. The synthesis, initial structure–activity relationships, and optimization of the initial hit that led to the identification of a truncated sub-series, represented by SB-436811 (**1a**), are described.



Synthesis and antitumor activity of the hexacyclic camptothecin derivatives

pp 3233–3236

Heyong Gao, Xiongwen Zhang, Yi Chen, Hongwu Shen, Tao Pang, Jing Sun, Chenghui Xu, Jian Ding,* Chuan Li and Wei Lu*

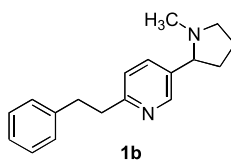


A series of hexacyclic camptothecins were synthesized and tested for antitumor activity in vitro and in vivo, and evaluated for the enzyme activity of inhibiting the topoisomerase I and the stability of the lactone ring.

6-(2-Phenylethyl)nicotine: A novel nicotinic cholinergic receptor ligand

pp 3237–3240

Anna Ramunno, Małgorzata Dukat, Mase Lee, Richard Young, Mohamed El-Zahabi, M. Imad Damaj, Billy Martin and Richard A. Glennon*

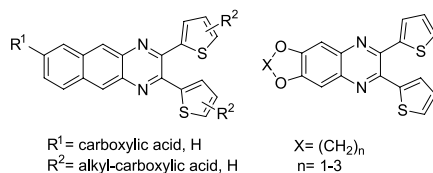


Defying presumed structure–affinity relationships, nicotine analog **1b** ($K_i = 15$ nM) was unexpectedly found to bind to $\alpha 4\beta 2$ nACh receptors. Administered via an intrathecal route, **1b** antagonized the antinociceptive actions of (–)nicotine in the mouse tail-flick assay.

Synthesis of selective SRPK-1 inhibitors: Novel tricyclic quinoxaline derivatives

pp 3241–3246

Zsolt Székelyhidi, János Pató, Frigyes Wáczek, Péter Bánhegyi, Bálint Hegymegi-Barakonyi, Dániel Erős, György Mészáros, Ferenc Hollósy, Doris Hafenbradl, Sabine Obert, Bert Klebl, György Kéri* and László Órfi



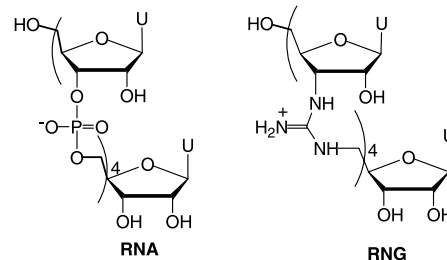
A series of novel tricyclic quinoxaline derivatives was prepared and examined on SRPK-1 kinase assay and on a selectivity panel of 19 kinase assays.

Binding studies of cationic uridyl ribonucleic guanidine (RNG) to DNA

pp 3247–3251

Myunji Park and Thomas C. Bruce*

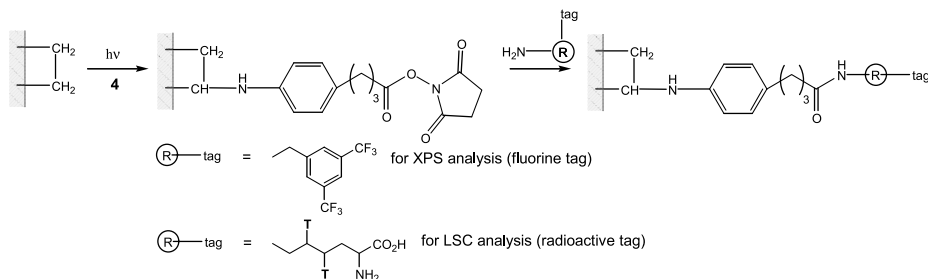
Replacement of the phosphodiester linkages of the polyanionic uridyl RNA with guanidium linkers provides polycationic uridyl ribonucleic guanidine (RNG) as a putative antisense/antigene agent. DNA binding characteristics of cationic uridyl RNG are described.



A practical molecular clip for immobilization of receptors and biomolecules on devices' surface: Synthesis, grafting protocol and analytical assay

pp 3252–3256

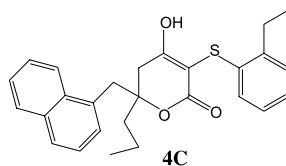
Sabrina Devouge, Claudio Salvagnini and Jacqueline Marchand-Brynaert*



Design, synthesis, and biological evaluation of novel 4-hydroxypyrrone derivatives as HIV-1 protease inhibitors

pp 3257–3262

Chun-Lai Sun, Rui-Fang Pang, Hang Zhang and Ming Yang*

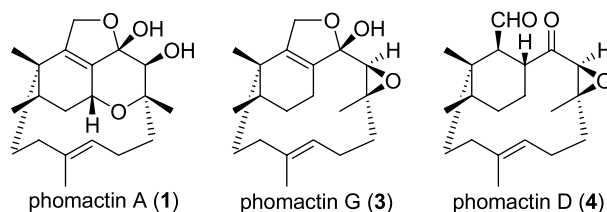


Synthesis and biological evaluation of 24 4-hydroxypyrrone derivatives are described. Compound **4C** was the most potent inhibitor in this study, with an EC_{50} value at 1.7 μM and a therapeutic index of 46.

Novel phomactin analogues as PAF receptor ligands

pp 3263–3266

William P. D. Goldring, Stephen P. H. Alexander, David A. Kendall and Gerald Pattenden*



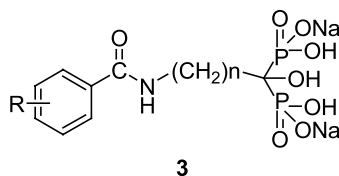
A range of natural and unnatural phomactins, recently synthesised in our laboratory, were found to exhibit PAF antagonism with pIC_{50} values in the range of 5.6–6.2.



Synthesis and biological evaluation of novel bisphosphonates with dual activities on bone in vitro

pp 3267–3270

Yuli Xie, Huasheng Ding, Lihui Qian, Xueming Yan, Chunhao Yang and Yuyuan Xie*

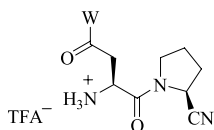


A novel series of bisphosphonates with activities both on bone resorption and formation have been synthesized.

Glutamic acid analogues as potent dipeptidyl peptidase IV and 8 inhibitors

pp 3271–3275

I-Lin Lu, Shiow-Ju Lee, Hsu Tsu, Su-Ying Wu, Kuo-His Kao, Chia-Hui Chien, Ying-Ying Chang, Yuan-Shou Chen, Jai-Hong Cheng, Chung-Nien Chang, Tung-Wei Chen, Sheng-Ping Chang, Xin Chen* and Weir-Torn Jiaang*



W=1,2,3,4-tetrahydroisoquinolin derivatives

W=piperazine derivatives

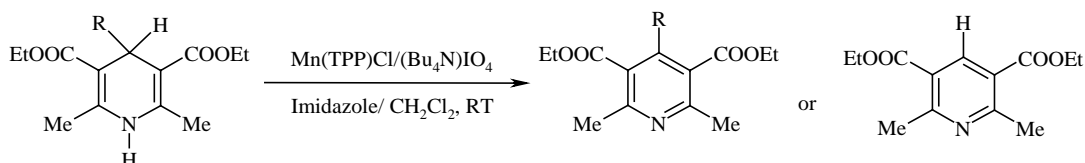
W=benzylamine derivatives

W=phenethylamine derivatives

**Biomimetic oxidation of Hantzsch 1,4-dihydropyridines with tetra-*n*-butylammonium periodate catalyzed by tetraphenylporphyrinatomanganese(III) chloride [Mn(TPP)Cl]**

pp 3276–3278

Masoud Nasr-Esfahani, Majid Moghadam,* Shahram Tangestaninejad and Valiollah Mirkhani

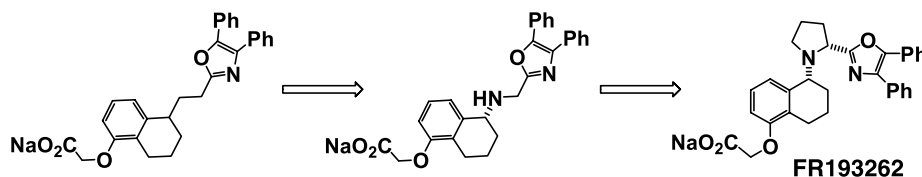


Efficient oxidation of Hantzsch 1,4-dihydropyridines to their corresponding pyridine derivatives with (Bu₄N)IO₄ catalyzed by tetraphenylporphyrinatomanganese(III) chloride, [Mn(TPP)Cl], is reported.

Discovery of new diphenyloxazole derivatives containing a pyrrolidine ring: Orally active prostacyclin mimetics. Part 2

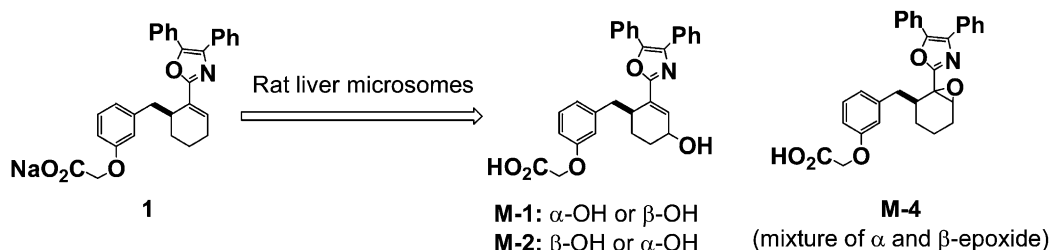
pp 3279–3283

Kouji Hattori,* Osamu Okitsu, Seichiro Tabuchi, Kiyoshi Taniguchi, Mie Nishio, Satoshi Koyama, Jiro Seki and Kazuo Sakane

**Metabolism investigation leading to novel drug design: Orally active prostacyclin mimetics. Part 4**

pp 3284–3287

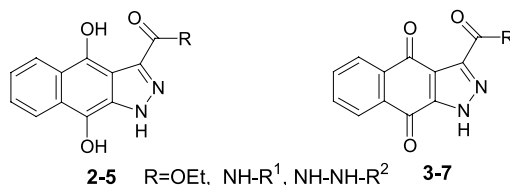
Kouji Hattori,* Fujiko Takamura, Akira Tanaka, Hisashi Takasugi, Kiyoshi Taniguchi, Mie Nishio, Satoshi Koyama and Jiro Seki, Kazuo Sakane



Synthesis of (1,4)-naphthoquinono-[3,2-*c*]-1*H*-pyrazoles and their (1,4)-naphthohydroquinone derivatives as antifungal, antibacterial, and anticancer agents

pp 3288–3291

Vishnu K. Tandon,* Dharmendra B. Yadav, Ashok K. Chaturvedi and Praveen K. Shukla



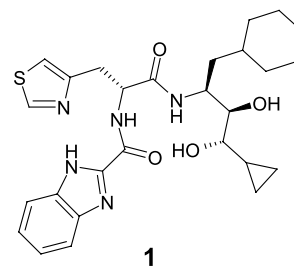
A series of (1,4)-naphthoquinono [3,2-*c*]-1*H*-pyrazoles and their (1,4)-naphthohydroquinone derivatives **2–7** were synthesized and evaluated for antifungal, antibacterial, and anticancer activities.

Discovery and synthesis of a novel and selective drug-like P2X₁ antagonist

pp 3292–3295

S. Jaime-Figueroa,* R. Greenhouse, F. Padilla, M. P. Dillon, J. R. Gever and A. P. D. W. Ford

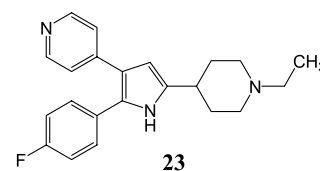
We report the discovery, gram scale synthesis and binding results for compound **1**, the first potent, drug-like selective P2X₁ receptor antagonist described. Compound **1** was shown to be more than 30-fold selective over other purinergic receptor subtypes.

**Synthesis and SAR of 2,3-diarylpyrrole inhibitors of parasite cGMP-dependent protein kinase as novel anticoccidial agents**

pp 3296–3301

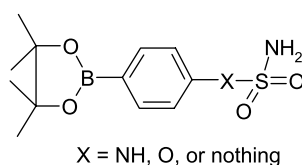
Tesfaye Biftu,* Dennis Feng, Mitree Ponpipom, Narindar Girotra, Gui-Bai Liang, Xiaoxia Qian, Robert Bugianesi, Joseph Simeone, Linda Chang, Anne Gurnett, Paul Liberator, Paula Dulski, Penny Sue Leavitt, Tami Crumley, Andrew Misura, Terence Murphy, Sandra Rattray, Samantha Samaras, Tamas Tamas, John Mathew, Christine Brown, Don Thompson, Dennis Schmatz, Michael Fisher and Matthew Wyvratt

Several analogs of 2,3-diaryl pyrroles were synthesized and evaluated as inhibitors of *Eimeria tenella* cGMP-dependent protein kinase and in in vivo anticoccidial assays. The *N*-ethyl analog **23** was chosen for a field trial as a novel anticoccidial agent.

**Carbonic anhydrase inhibitors. Synthesis and inhibition of cytosolic/tumor-associated carbonic anhydrase isozymes I, II, and IX with boron-containing sulfonamides, sulfamides, and sulfamates: Toward agents for boron neutron capture therapy of hypoxic tumors**

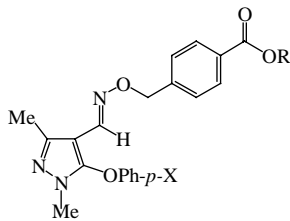
pp 3302–3306

Jean-Yves Winum,* Alessandro Cecchi, Jean-Louis Montero, Alessio Innocenti, Andrea Scozzafava and Claudiu T. Supuran*



Identification of antitumor activity of pyrazole oxime ethers**pp 3307–3312**

Hyun-Ja Park, Kyung Lee, Su-Jin Park, Bangle Ahn, Jong-Cheol Lee, HeeYeong Cho and Kee-In Lee*



A series of pyrazole oxime ether derivatives were prepared and examined as cytotoxic agents. In particular, 5-phenoxy pyrazole was comparable to doxorubicin, while exhibiting very potent cytotoxicity against XF 498 and HCT15.

OTHER CONTENTS**Corrigenda****pp 3313–3317****Contributors to this issue****pp I–II****Instructions to contributors****pp III–VI**

*Corresponding author

i⁺ Supplementary data available via ScienceDirect**COVER**

Ameliorating transthyretin amyloidogenesis by native state kinetic stabilization mediated by small molecule binding. Small molecule binding to the amyloidogenic protein transthyretin kinetically stabilizes the native tetrameric state, preventing dissociation to folded monomers that misfold and misassemble into toxic intermediates, amorphous aggregates, and amyloid fibrils. The Kelly laboratory has developed several structurally distinct inhibitor families, depicted in the background, that are undergoing pharmacological evaluation. Created by Steven M. Johnson, graduate student in Professor Jeffery W. Kelly's laboratory, Department of Chemistry, The Skaggs Institute for Chemical Biology, The Scripps Research Institute, 10550 N. Torrey Pines Road, La Jolla, CA 92037, USA.

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