

Contents

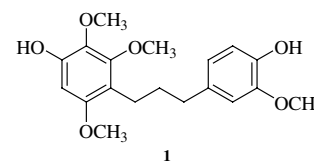
ARTICLES

Total synthesis and biological evaluation of viscolin, a 1,3-diphenylpropane as a novel potent anti-inflammatory agent

pp 6155–6160

Chung-Ren Su, Yuh-Chiang Shen, Ping-Chung Kuo,
Yann-Lii Leu, Amooru G. Damu, Yea-Hwey Wang and Tian-Shung Wu*

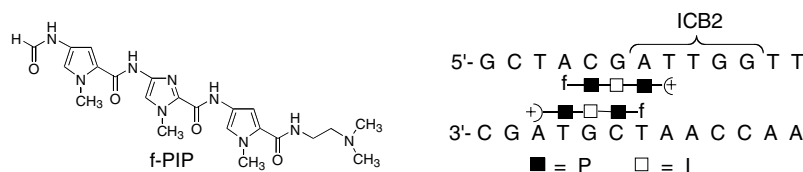
Total synthesis of viscolin, a 1,3-diphenyl propane, employing the Wittig reaction is reported. It exhibits leukocyte inhibitory activity by suppressing free radicals, possibly through modulation of PKC activity and calcium mobilization, and NO production with moderate free radical-scavenging effects that gives viscolin the potential to be anti-inflammatory agent for the treatment of oxidative stress-induced diseases.



Binding of f-PIP, a pyrrole- and imidazole-containing triamide, to the inverted CCAAT box-2 of the topoisomerase II α promoter and modulation of gene expression in cells

pp 6161–6164

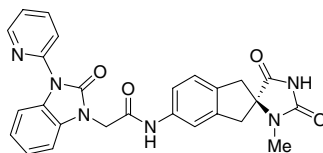
N. Minh Le, Alan M. Sielaff, Amanda J. Cooper, Hilary Mackay, Toni Brown,
Minal Kotecha, Caroline O'Hare, Daniel Hochhauser, Moses Lee*
and John A. Hartley



Identification of novel, orally bioavailable spirohydantoin CGRP receptor antagonists

pp 6165–6169

Ian M. Bell,* Rodney A. Bednar, John F. Fay, Steven N. Gallicchio, Jerome H. Hochman,
Daniel R. McMasters, Cynthia Miller-Stein, Eric L. Moore, Scott D. Mosser, Nicole T. Pudvah,
Amy G. Quigley, Christopher A. Salvatore, Craig A. Stump, Cory R. Theberge,
Bradley K. Wong, C. Blair Zartman, Xu-Fang Zhang, Stefanie A. Kane, Samuel L. Graham,
Joseph P. Vacca and Theresa M. Williams

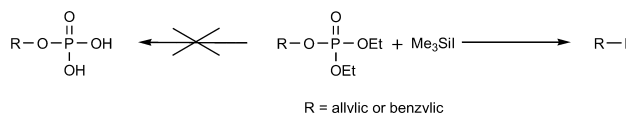


12 $K_i = 21$ nM

Allyl and benzyl iodides by the anomalous action of iodotrimethylsilane

pp 6170–6172

Qing Zhu* and Matthew S. Tremblay

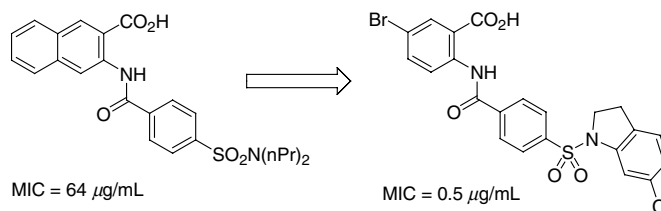


Iodotrimethylsilane (TMSI), routinely used for the dealkylation of ethers and esters, was found to efficiently convert allyl and benzyl phosphotriesters into the corresponding iodides.

Discovery and initial development of a novel class of antibacterials: Inhibitors of *Staphylococcus aureus* transcription/translation

pp 6173–6177

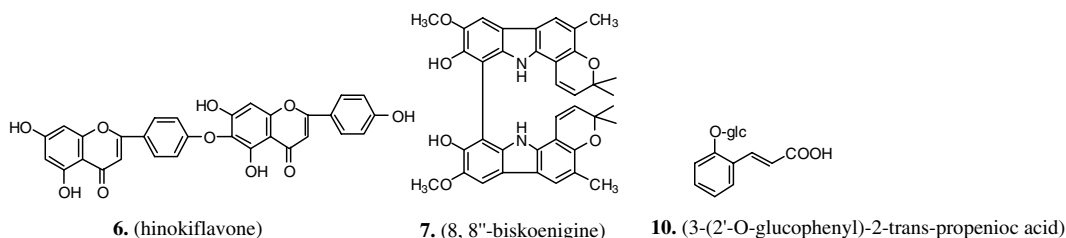
Scott D. Larsen,* Matthew R. Hester, J. Craig Ruble, Gregg M. Kamilar, Donna L. Romero, Brian Wakefield, Earline P. Melchior, Michael T. Sweeney and Keith R. Marotti



Natural inhibitors targeting osteoclast-mediated bone resorption

pp 6178–6180

Guang-Zhi Zeng, Ning-Hua Tan,* Xiao-Jiang Hao, Quan-Zhang Mu and Rong-Tao Li

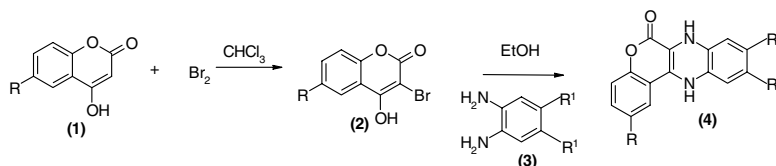


Ten natural inhibitors **1–10** were found for human cathepsin K (**1–7**), matrix metalloproteinase 9 (**8–9**), and integrin $\alpha_v\beta_3$ (**10**), respectively. They are novel natural inhibitors for these three enzymes.

Synthesis of antimicrobial 2,9,10-trisubstituted-6-oxo-7,12-dihydro-chromeno[3,4-b]quinoxalines

pp 6181–6184

Sandeep A. Kotharkar and Devanand B. Shinde*

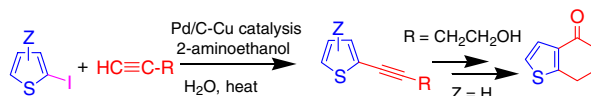


A simple and general method for the preparation of some novel antimicrobial coumarin condensed quinoxaline derivatives is reported.

Facile synthesis of substituted thiophenes via Pd/C-mediated sonogashira coupling in water

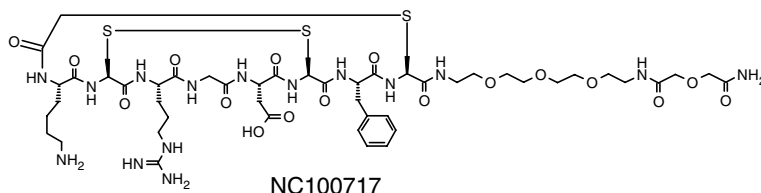
pp 6185–6189

Sirisilla Raju, P. Rajender Kumar, K. Mukkanti, Pazhanimuthu Annamalai and Manojit Pal*

**NC-100717: A versatile RGD peptide scaffold for angiogenesis imaging**

pp 6190–6193

Bård Indrevoll, Grete Mørk Kindberg, Magne Solbakken, Emma Bjurgert, John Henrik Johansen, Hege Karlsen, Marivi Mendizabal and Alan Cuthbertson*



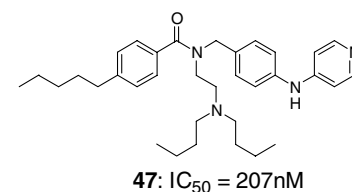
The development of a robust platform for the in vivo targeting of the integrins associated with angiogenesis is described. Derivatization of the core peptide NC-100717 with a range of reporter groups by amide bond formation at the ϵ -amino group of lysine gave a variety of molecular probes suitable for diagnostic imaging. All conjugates had affinities in the low nanomolar range.

Inhibitors of Plasmeprin II—potential antimalarial agents

pp 6194–6199

Olivier Corminboeuf,* Guillaume Dunet, Mehdi Hafsi, Julien Grimont, Corinna Grisostomi, Solange Meyer, Christoph Binkert, Daniel Bur, Andrew Jones, Lars Prade, Reto Brun and Christoph Boss

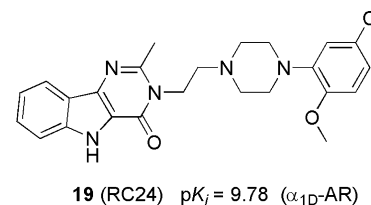
Optimization of a lead compound which showed low nanomolar activity on the isolated enzyme Plasmeprin II but above micromolar activity on a cell-based assay using *Plasmodium falciparum* infected human red blood cells allowed the discovery of compounds with submicromolar activity in the whole cell-based assay and without assay to assay shift.

**New pyrimido[5,4-*b*]indoles and [1]benzothieno[3,2-*d*]pyrimidines: High affinity ligands for the α_1 -adrenoceptor subtypes**

pp 6200–6203

Giuseppe Romeo,* Luisa Materia, Gabriella Marucci, Maria Modica, Valeria Pittalà, Loredana Salerno, Maria Angela Siracusa, Michela Buccioni, Piero Angeli and Kenneth P. Minneman

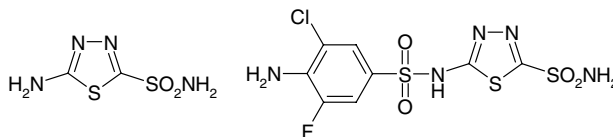
The synthesis and the binding and functional properties for the α_1 -AR subtypes of some new pyrimido[5,4-*b*]indole and [1]benzothieno[3,2-*d*]pyrimidine derivatives are reported.



Carbonic anhydrase inhibitors: X-ray crystallographic studies for the binding of 5-amino-1,3,4-thiadiazole-2-sulfonamide and 5-(4-amino-3-chloro-5-fluorophenylsulfonamido)-1,3,4-thiadiazole-2-sulfonamide to human isoform II

pp 6204–6208

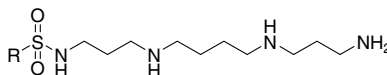
Valeria Menchise, Giuseppina De Simone,* Anna Di Fiore, Andrea Scozzafava and Claudiu T. Supuran*



Structural correlation between lipophilicity and lipopolysaccharide-sequestering activity in spermine-sulfonamide analogs

pp 6209–6212

Mark R. Burns,* Scott A. Jenkins, Nicolas M. Vermeulen, Rajalakshmi Balakrishna, Thuan B. Nguyen, Matthew R. Kimbrell and Sunil A. David*



SAR in a series of aryl and aliphatic spermine-sulfonamide analogs showed a strong correlation between hydrophobicity of the substituent and lipopolysaccharide-sequestration activity.

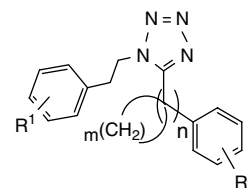


Discovery and in vitro/in vivo studies of tetrazole derivatives as Kv1.5 blockers

pp 6213–6218

Shengde Wu,* Andrew Fluxe, Jim Sheffer, John M. Janusz, Benjamin E. Blass, Ron White, Chris Jackson, Richard Hedges, Michael Murawsky, Bin Fang, Gina M. Fadayel, Michelle Hare and Laurent Djandjighian

A novel class of tetrazole-derived Kv1.5 blockers is disclosed. In in vitro studies, several compounds had IC₅₀ ranging from 180 to 550 nM. In vivo studies indicated that compounds **2f** and **2j** increased right atrial ERP about 40% without affecting ventricular ERP.



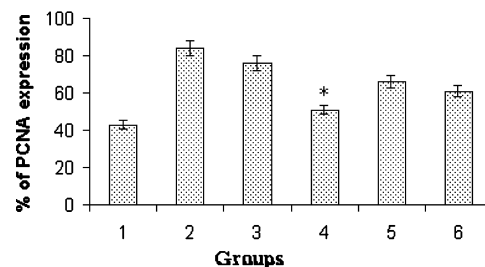
Fish venom (*Pterios volitans*) peptide reduces tumor burden and ameliorates oxidative stress in Ehrlich's ascites carcinoma xenografted mice

pp 6219–6225

M. Sri Balasubashini, S. Karthigayan, S. T. Somasundaram, T. Balasubramanian, V. Viswanathan, P. Raveendran and V. P. Menon*

The present study was carried out to assess the effect of *Pterios volitans* venom (mixture of peptides) on Ehrlich's ascites carcinoma (EAC) and its influence on antioxidant status in the liver. Among six groups of albino mice, three were treated with sublethal doses of venom, along with the standard drug, 5-fluorouracil. In EAC-bearing mice, mean life span and antioxidants were significantly decreased, whereas, body weight, tumor volume, viable tumor cell count, lipid peroxidation, and expression of proliferating cell nuclear antigen were significantly increased. These changes were brought back to near normal in treatment groups. The findings are further confirmed by histopathological observations.

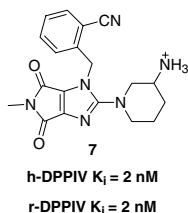
PCNA expression in liver of EAC and FV treated mice



Xanthine mimetics as potent dipeptidyl peptidase IV inhibitors

pp 6226–6230

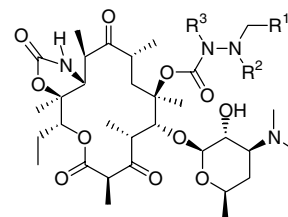
Ravi Kurukulasuriya,* Jeffrey J. Rohde, Bruce G. Szczepankiewicz, Fatima Basha, Chunqui Lai, Hwan-Soo Jae, Martin Winn, Kent D. Stewart, Kenton L. Longenecker, Thomas W. Lubben, Stephen J. Ballaron, Hing L. Sham and Thomas W. von Geldern

**Synthesis and antibacterial activity of C6-carbazate ketolides**

pp 6231–6235

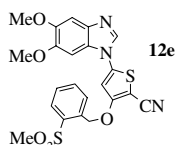
Manomi A. Tennakoon,* Todd C. Henninger, Darren Abbanat, Barbara D. Foleno, James J. Hilliard, Karen Bush and Mark J. Macielag

A novel series of ketolides containing various heteroaryl groups linked to the macrolide core via a C6-carbazate functionality has been successfully synthesized. Select compounds of this series display in vitro and in vivo (sc dosing) activity comparable to telithromycin.

**5-(1*H*-Benzimidazol-1-yl)-3-alkoxy-2-thiophenecarbonitriles as potent, selective, inhibitors of IKK- ϵ kinase**

pp 6236–6240

Paul Bamborough, John A. Christopher,* Geoffrey J. Cutler, Marion C. Dickson, Geoffrey W. Mellor, James V. Morey, Champa B. Patel and Lisa M. Shewchuk



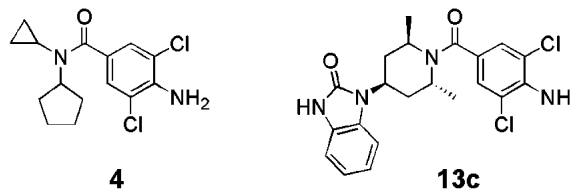
The identification and hit-to-lead exploration of a novel, potent, and selective series of substituted benzimidazole-thiophene carbonitrile inhibitors of IKK- ϵ kinase is described. Compound **12e** was identified with an IKK- ϵ enzyme potency of pIC_{50} 7.4, and has a highly encouraging wider selectivity profile, including selectivity within the IKK kinase family.

Discovery of potent and selective inhibitors of 11 β -HSD1 for the treatment of metabolic syndrome

pp 6241–6245

Steven Richards,* Bryan Sorensen, Hwan-soo Jae, Marty Winn, Yixian Chen, Jiahong Wang, Steven Fung, Katina Monzon, Ernst U. Frevort, Peer Jacobson, Hing Sham and J. T. Link

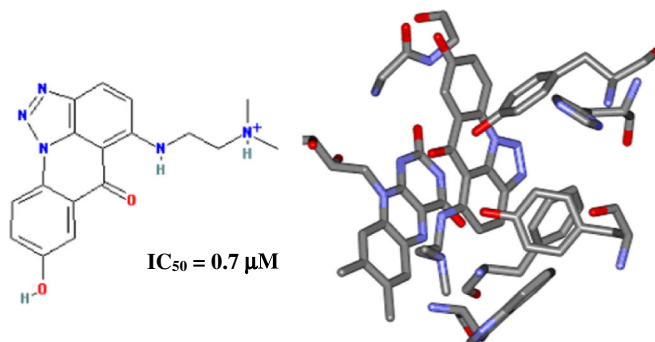
High throughput screening efforts have identified a novel class of dichloroaniline amide 11 β -HSD1 inhibitors. SAR studies initiated from dichloroaniline **4** focused on retaining the potency and selectivity profile of the lead.



In silico identification and biochemical characterization of novel inhibitors of NQO1

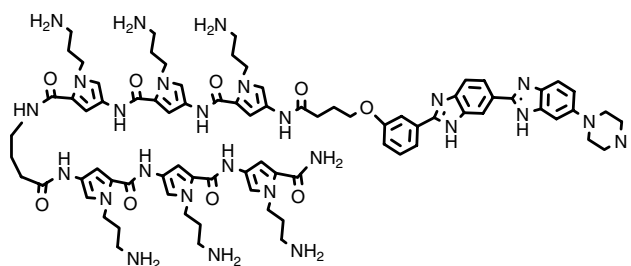
pp 6246–6254

Karen A. Nolan, David J. Timson, Ian J. Stratford* and Richard A. Bryce*

**DNA sequence recognition in the minor groove by hairpin microgonotropens**

pp 6255–6261

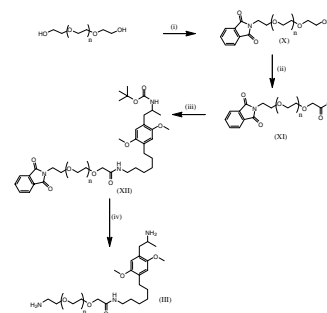
Alexandra L. Kahane and Thomas C. Bruice*

**Universal polyethylene glycol linkers for attaching receptor ligands to quantum dots**

pp 6262–6266

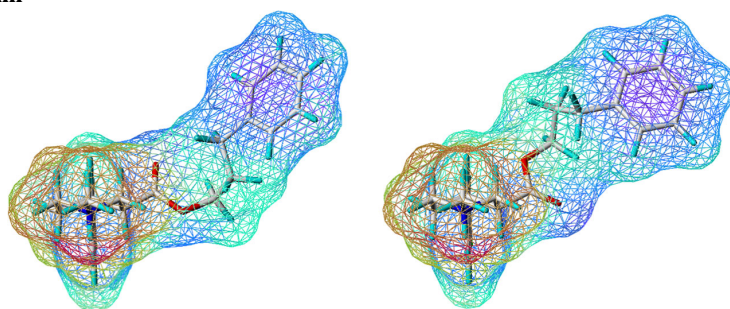
Ian D. Tomlinson, Anthony P. Gies, Paul J. Gresch, Joel Dillard, Rebecca L. Orndorff, Elaine Sanders-Bush, David M. Hercules and Sandra J. Rosenthal*

(i) Phthalimide, PPh₃, DIAD; (ii) HNO₃; (iii) DCC, NHS, *tert*-butyl 1-(4-(6-aminohexyl)-2,5-dimethoxyphenyl)propan-2-ylcarbamate; (iv) (a) TFA, (b) hydrazine hydrate.

**Improved 3D-QSAR CoMFA of the dopamine transporter blockers with multiple conformations using the genetic algorithm**

pp 6267–6272

Hongbin Yuan and Pavel A. Petukhov*

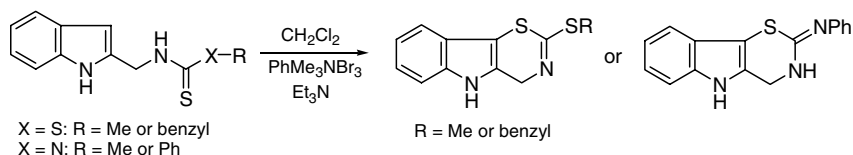


Multiple conformations of the ligands with the flexible 3 α -substituent satisfy the same pharmacophore model.

Isobrassinin and its analogues: Novel types of antiproliferative agents

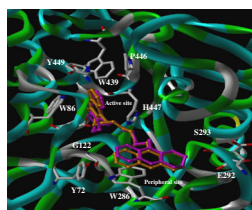
pp 6273–6276

Péter Csomós, István Zupkó, Borbála Réthy, Lajos Fodor,* George Falkay and Gábor Bernáth

**3D QSAR studies of AChE inhibitors based on molecular docking scores and CoMFA**

pp 6277–6280

Nagaraju Akula, Laurent Lecanu,* Janet Greeson and Vassilios Papadopoulos



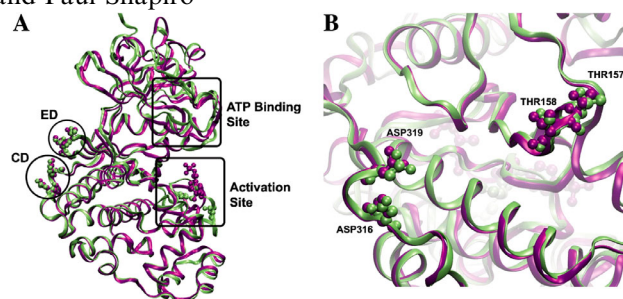
Comparison of the FlexX and FlexiDock, ligand–protein complexes of compound **3B**. The bound inhibitor is shown as ball and stick model. Magenta colored ligand is FlexX docked structure where orange color structure is FlexiDock. The backbone of the protein structure is rendered as shaded ribbon with color by property and the labeled protein residues are in capped stick model with color by atom.

Characterization of ATP-independent ERK inhibitors identified through in silico analysis of the active ERK2 structure

pp 6281–6287

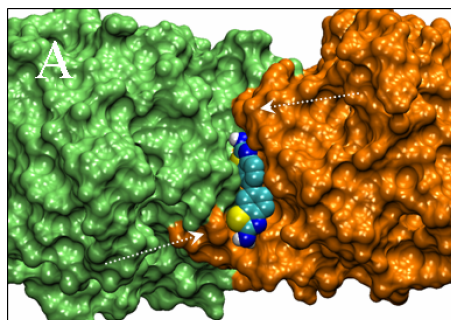
Fengming Chen, Chad N. Hancock, Alba T. Macias, Joseph Joh, Kimberly Still, Shijun Zhong, Alexander D. MacKerell, Jr.* and Paul Shapiro*

(A) Disruption of ERK interactions with substrates by targeting the CD and ED docking domains. (B) Expanded view of CD (Asp316, 319) and ED (Thr157, 158) docking domains.

**Toward a rational design of selective multi-trypanosomatid inhibitors: A computational docking study**

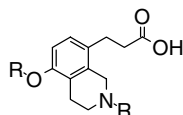
pp 6288–6292

L. Michel Espinoza-Fonseca* and José G. Trujillo-Ferrara



Tetrahydroisoquinoline PPAR γ agonists: Design of novel, highly selective non-TZD antihyperglycemic agents pp 6293–6297

James R. Henry,* Yihong Li, Alan M. Warshawsky, Joseph T. Brozinick, Eric D. Hawkins, Elizabeth A. Misener, Daniel A. Briere, Chahrazad Montrose-Rafizadeh, Richard W. Zink, Nathan P. Yumibe, Rose T. Ajamie, Brad Wilken and Viswanath Devanarayan



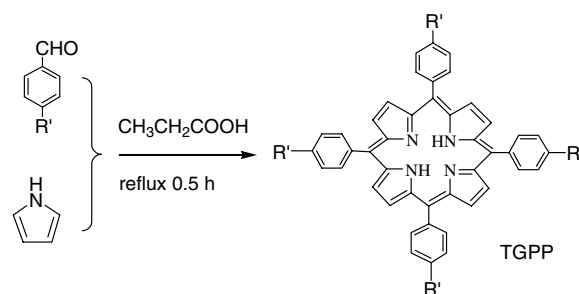
Novel tetrahydroisoquinolines have been developed as potent PPAR ligands.


Study on synthesis and biological activity of a galactosylated piperazinyl porphyrin

pp 6298–6301

He-Ping Li*

5,10,15,20-tetra[4-(4'-Galactosylpiperazinyl)phenyl]porphyrin (**TGPP**) is reported. The biological activity on cancer cells and the pharmacokinetics are also reported.



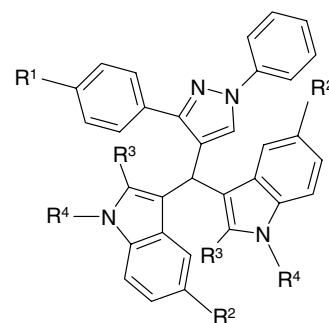
The synthesis of **TGPP**

Synthesis and anti-microbial activity of pyrazolylbisindoles—Promising anti-fungal compounds

pp 6302–6305

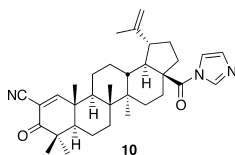
Ganesabaskaran Sivaprasad, Paramasivan T. Perumal,* Vaiyapuri R. Prabavathy and Narayanasamy Mathivanan

The synthesis and anti-fungal activity of pyrazolylbisindoles is reported.


Design, synthesis, and anti-inflammatory activity both in vitro and in vivo of new betulinic acid analogues having an enone functionality in ring A

pp 6306–6309

Tadashi Honda,* Karen T. Liby, Xiaobo Su, Chitra Sundararajan, Yukiko Honda, Nanjoo Suh, Renee Risingsong, Charlotte R. Williams, Darlene B. Royce, Michael B. Sporn and Gordon W. Gribble*



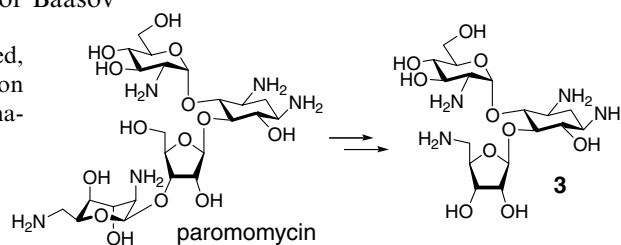
The new betulinic acid analogue **10**, at oral dosing of 2 μ M, causes significant induction of the anti-inflammatory, cytoprotective enzyme, heme oxygenase-1, in the liver.

Redesign of aminoglycosides for treatment of human genetic diseases caused by premature stop mutations

pp 6310–6315

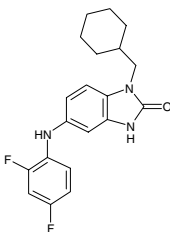
Igor Nudelman, Annie Rebibo-Sabbah, Dalia Shallom-Shezifi, Mariana Hainrichson, Ido Stahl, Tamar Ben-Yosef* and Timor Baasov*

A series of new derivatives of paromomycin was designed, synthesized, and evaluated for read-through activity of premature stop codon mutations. Compound **3** showed excellent activity in cultured mammalian cells.

**Discovery and design of benzimidazolone based inhibitors of p38 MAP kinase**

pp 6316–6320

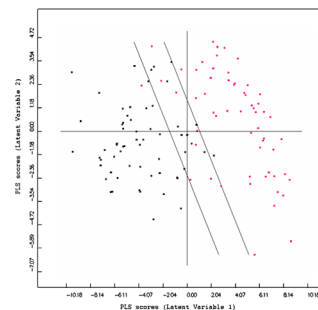
Abdelhakim Hammach, Antonio Barbosa, Faith Corbo Gaenzler, Tazmeen Fadra, Daniel Goldberg, Ming-Hong Hao, Rachel R. Kroe, Pingrong Liu, Kevin C. Qian, Mark Ralph, Christopher Sarko, Fariba Soleymanzadeh and Neil Moss*

**In silico modeling of protein tyrosine phosphatase 1B inhibitors with cellular activity**

pp 6321–6327

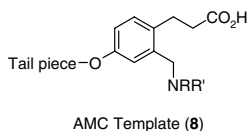
Xin Hu*

The cellular activity of PTP1B inhibitors in relation to the 3D structure we investigated using classical VolSurf analysis. A model based on the VolSurf descriptors for a set of 80 compounds of PTP1B inhibitors was analyzed using the PCA approach. The PCA model was applied to predict the cellular activities of an external data set of 40 PTP1B inhibitors and satisfactory results were obtained. Further PLS analysis revealed useful information about the behavior of the VolSurf descriptors in predicting the cellular permeability and pharmacokinetic properties of PTP1B inhibitors.

**Synthesis and evaluation of aminomethyl dihydrocinnamates as a new class of PPAR ligands**

pp 6328–6333

Alan M. Warshawsky,* Charles A. Alt, Joseph T. Brozinick, Allen R. Harkness, Eric D. Hawkins, James R. Henry, Donald P. Matthews, Anne R. Miller, Elizabeth A. Misener, Chahrzad Montrose-Rafizadeh, Gary A. Rhodes, Quanrong Shen, Jennifer A. Vance, Uko E. Udodong, Minmin Wang, Tony Y. Zhang and Richard W. Zink



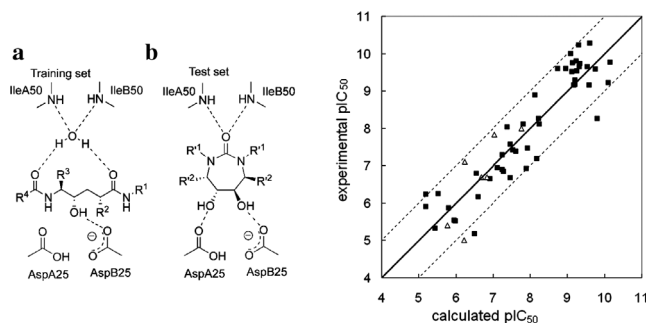
PPAR ligands with varied subtype selectivity have been synthesized using an achiral aminomethyl dihydrocinnamate (AMC) template.

Binding affinity prediction of non-peptide inhibitors of HIV-1 protease using COMBINE model introduced from peptide inhibitors

pp 6334–6337

Shinya Nakamura, Isao Nakanishi* and Kazuo Kitaura

The COMBINE analysis predicted binding affinities of compounds with distinct scaffold from the training set.



Intelligent fluorescent nucleoside in sensing cytosine base: Importance of hydrophobic nature of perylene fluorophore

pp 6338–6341

Subhendu Sekhar Bag, Yoshio Saito, Kazuo Hanawa, Satoshi Kodate, Isamu Suzuka and Isao Saito*

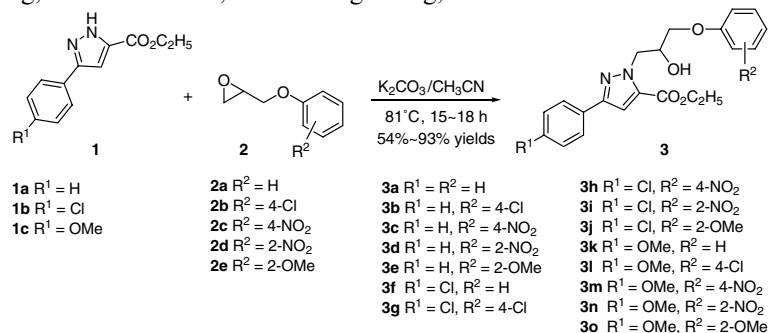


Design, synthesis, and preliminary biological evaluation of novel ethyl 1-(2'-hydroxy-3'-aroxypropyl)-3-aryl-1H-pyrazole-5-carboxylate

pp 6342–6347

Fang Wei, Bao-Xiang Zhao,* Bin Huang, Lu Zhang, Chun-Hui Sun, Wen-Liang Dong, Dong-Soo Shin* and Jun-Ying Miao*

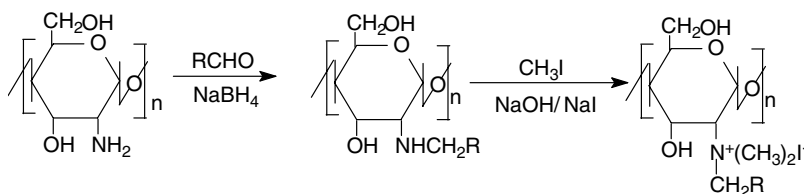
A series of ethyl 1-(2'-hydroxy-3'-aroxypropyl)-3-aryl-1H-pyrazole-5-carboxylate derivatives (15 compounds) was synthesized and the effects of all of the compounds on A549 cell growth were investigated.



Hydroxyl radicals scavenging activity of N-substituted chitosan and quaternized chitosan

pp 6348–6350

Zhanyong Guo, Hongying Liu, Xiaolin Chen, Xia Ji and Pengcheng Li*

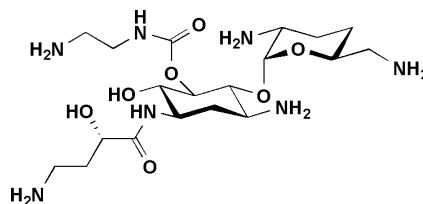


R = phenyl; 2-hydroxyl-phenyl; furfuryl.

Synthesis and antibacterial activity of novel neamine derivatives

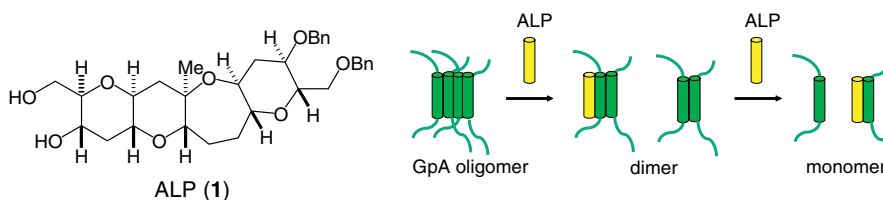
pp 6351–6354

Nobuto Minowa,* Yoshihisa Akiyama, Yukiko Hiraiwa, Kazunori Maebashi,
Takayuki Usui and Daishiro Ikeda

**Design and synthesis of an artificial ladder-shaped polyether that interacts with glycoporphin A**

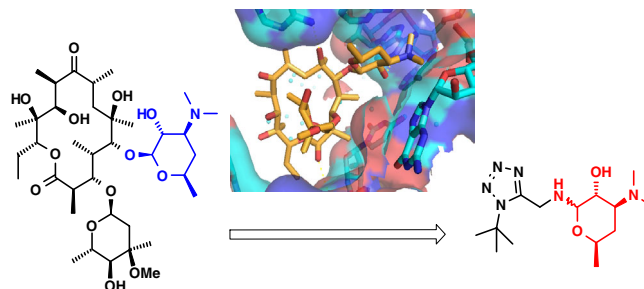
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**Desosamine in multicomponent reactions**

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Design, synthesis and screening of desosamine-moiety containing MCR products is reported.

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Summary of instructions to authors

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Supplementary data available via ScienceDirect

COVER

View of the crystal structure of the DB819-d(CGCGAATTCGCG)₂ complex, looking down the minor groove of the DNA (see Campbell, N.H.; Evans, D.A.; Lee, M.P.H.; Parkinson, G.N.; Neidle, S. *Bioorg. Med. Chem. Lett.* **2006**, 16, 15). The DB819 molecule is shown in space-filling mode. Visualisation produced with the VMD program. [Humphrey, W.; Dalke, A.; Schulten, K. *J. Mol. Graphics* **1996**, 14, 33.]

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