

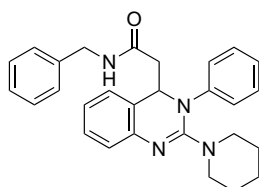
## Contents

### COMMUNICATIONS

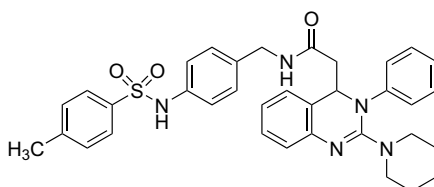
#### 3,4-Dihydroquinazoline derivatives as novel selective T-type $\text{Ca}^{2+}$ channel blockers

pp 3379–3384

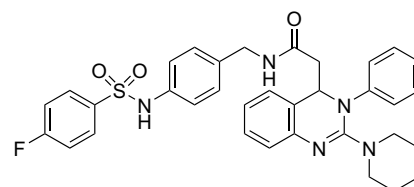
Yong Sup Lee, Bum Hoon Lee, Seong Jun Park, Soon Bang Kang, Hyewhon Rhim,  
Jin-Yong Park, Jung-Ha Lee, Seong-Woo Jeong and Jae Yeol Lee\*



8a(KYS05001)



10a(KYS05041)

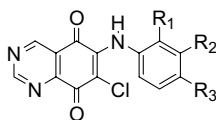


10b(KYS05042)

#### 6-Arylamino-7-chloro-quinazoline-5,8-diones as novel cytotoxic and DNA topoisomerase inhibitory agents

pp 3385–3388

Hyen Joo Park, Young-Shin Kim, Jin Sung Kim, Eun-Jin Lee, You-Jin Yi, Hye Jin Hwang,  
Myung-Eun Suh, Chung-Kyu Ryu and Sang Kook Lee\*

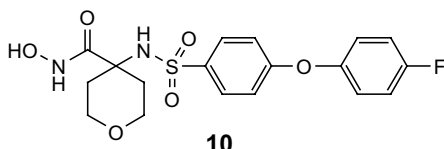


The cytotoxicity and DNA topoisomerase activity of a series of 6-arylamino-7-chloro-quinazoline-5,8-diones were evaluated. A new series of potential inhibitors, including 6-[(2'-bromo-4'-methyl)phenyl]amino-7-chloro-quinazoline-5,8-dione, have been identified, and thus providing novel chemical leads for the further development.

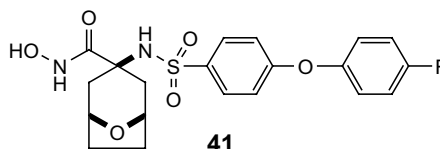
#### Pyran-containing sulfonamide hydroxamic acids: potent MMP inhibitors that spare MMP-1

pp 3389–3395

Lawrence A. Reiter,\* Ralph P. Robinson, Kim F. McClure, Christopher S. Jones, Matthew R. Reese,  
Peter G. Mitchell, Ivan G. Otterness, Marcia L. Bliven, Jennifer Liras, Santo R. Cortina, Kathleen M. Donahue,  
James D. Eskra, Richard J. Griffiths, Mary E. Lame, Arturo Lopez-Anaya, Gary J. Martinelli, Shunda M. McGahee,  
Sue A. Yocum, Lori L. Lopresti-Morrow, Lisa M. Tobiasen and Marcie L. Vaughn-Bowser



10

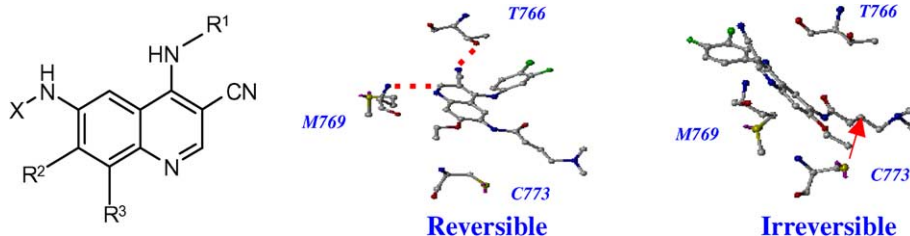


41

**Binding modes of 6,7 di-substituted 4-anilinoquinoline-3-carbonitriles to EGFR**

pp 3397–3400

Nagaraju Akula, Jag Bhalla, Jayalakshmi Sridhar and Nagarajan Pattabiraman\*

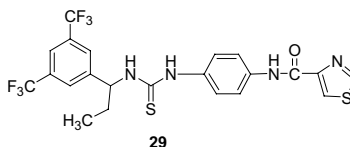


Modeling studies reveal two possible binding modes (reversible and irreversible) for 6,7 di-substituted 4-anilinoquinoline-3-carbonitriles with EGFRK.

**Thiourea inhibitors of herpes viruses. Part 2: *N*-Benzyl-*N'*-arylthiourea inhibitors of CMV**

pp 3401–3406

Jonathan D. Bloom,\* Russell G. Dushin, Kevin J. Curran, Fran Donahue, Emily B. Norton, Eugene Terefenko, Thomas R. Jones, Adma A. Ross, Boris Feld, Stanley A. Lang and Martin J. DiGrandi

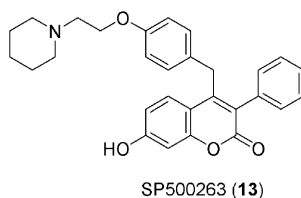


A series of highly potent thiourea inhibitors of cytomegalovirus (CMV) with improved stability properties was prepared and evaluated. Compound **29** inhibited the virus in cultured HFF cells with IC<sub>50</sub> of 0.2 nM.

**Lead identification of a potent benzopyranone selective estrogen receptor modulator**

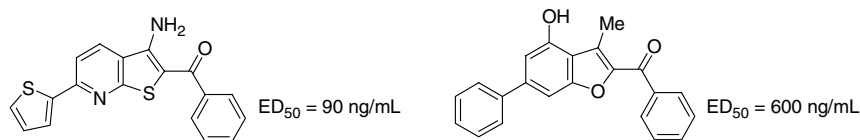
pp 3407–3410

Jeffrey A. McKie,\* Shripad S. Bhagwat, Helen Brady, Mary Doubleday, Leah Gayo, Mathew Hickman, Ravi K. Jalluri, Sak Khammungskhune, Adam Kois, Deborah Mortensen, Normand Richard, John Sapienza, Graziella Shevlin, Bernd Stein and May Sutherland

**Thienopyridine and benzofuran derivatives as potent anti-tumor agents possessing different structure–activity relationships**

pp 3411–3414

Ichiro Hayakawa, Rieko Shioya, Toshinori Agatsuma, Hidehiko Furukawa and Yuichi Sugano\*

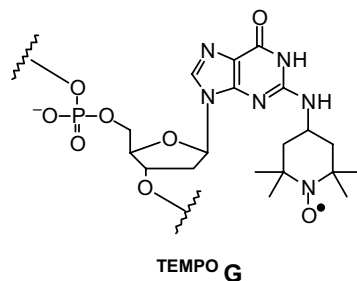


A SAR study was carried out on two hit compounds of a screening to indicate their differences and optimized structures.

**Nitroxide-labeled guanine as an ESR spin probe for structural study of DNA**

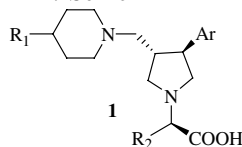
pp 3415–3418

Akimitsu Okamoto, Takeshi Inasaki and Isao Saito\*

**Syntheses and SAR studies of 4-(heteroaryl)piperidin-1-yl-methyl)-pyrrolidin-1-yl-acetic acid antagonists of the human CCR5 chemokine receptor**

pp 3419–3424

K. Shankaran,\* Karla L. Donnelly, Shrenik K. Shah, Ravindra N. Guthikonda, Malcolm MacCoss, Sander G. Mills, Sandra L. Gould, Lorraine Malkowitz, Salvatore J. Siciliano, Martin S. Springer, Anthony Carella, Gwen Carver, Daria Hazuda, Karen Holmes, Joseph Kessler, Janet Lineberger, Michael D. Miller, Emilio A. Emini and William A. Schleif

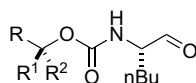


A series of pyrrolidineacetic acid derivatives (**1**) was prepared and assayed for their CCR5 receptor affinity, anti-HIV-1 activity in a HeLa cell-based assay, and oral bioavailability in the rat. These pyrrolidineacetic acid analogs ( $R_2$ ) incorporated a variety of 4-heterocyclic piperidine derivatives ( $R_1$ ) to optimize these potential antiviral properties.

**Exploration of the P<sup>2</sup>–P<sup>3</sup> SAR of aldehyde cathepsin K inhibitors**

pp 3425–3429

Eric E. Boros, David N. Deaton,\* Anne M. Hassell, Robert B. McFadyen, Aaron B. Miller, Larry R. Miller, Margot G. Paulick, Lisa M. Shewchuk, James B. Thompson, Derril H. Willard, Jr.\* and Lois L. Wright

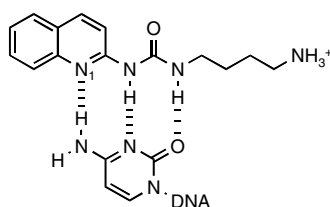


The synthesis and biological activity of a series of aldehyde inhibitors of cathepsin K are reported. Exploration of the properties of the S<sup>2</sup> and S<sup>3</sup> subsites with a series of carbamate derivatized norleucine aldehydes substituted at the P<sup>2</sup> and P<sup>3</sup> positions afforded analogs with cathepsin K IC<sub>50</sub>s between 600 nM and 130 pM.

**2-Ureidoquinoline: a useful molecular element for stabilizing single cytosine and thymine bulges**

pp 3431–3433

Akio Kobori, Takashi Murase, Hitoshi Suda, Isao Saito and Kazuhiko Nakatani\*

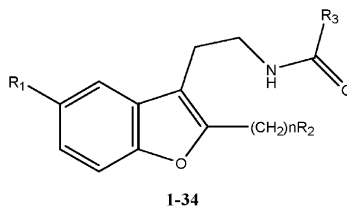


A new molecule, 2-ureidoquinoline having an alignment of hydrogen-bonding groups in the order of acceptor–donor–donor stabilizes single cytosine and thymine bulges in duplex DNAs.

**Exploring QSAR of melatonin receptor ligand benzofuran derivatives using E-state index**

pp 3435–3439

Chandana Sengupta, J. Thomas Leonard and Kunal Roy\*

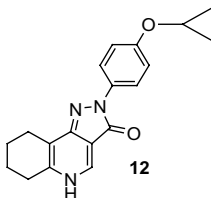


Considering the importance of developing selective melatonin receptor ligands, the present paper attempts QSAR modeling of MT<sub>1</sub> and MT<sub>2</sub> binding affinity and explores selectivity requirements for MT<sub>2</sub> versus MT<sub>1</sub> binding of benzofuran derivatives using electrotopological state (E-state) index.

**2,5-Dihydropyrazolo[4,3-c]pyridin-3-ones: functionally selective benzodiazepine binding site ligands on the GABA<sub>A</sub> receptor**

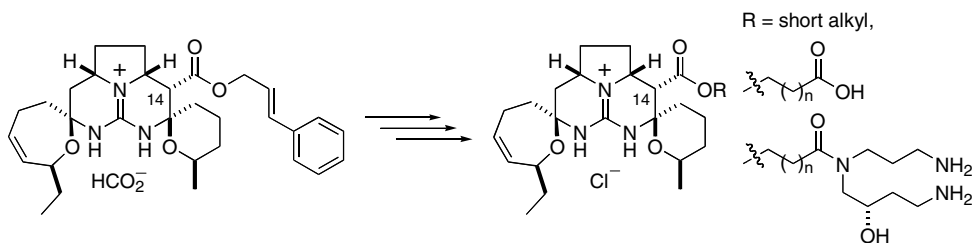
pp 3441–3444

Andrew Mitchinson,\* John R. Atack, Peter Blurton, Robert W. Carling, José L. Castro, Karen S. Curley, Michael G. N. Russell, George Marshall, Ruth M. McKernan, Kevin W. Moore, Robert Narquizian, Alison Smith, Leslie J. Street, Sally-Anne Thompson and Keith Wafford

**Synthesis and anticancer activity of side chain analogs of the crambescidin alkaloids**

pp 3445–3449

Zachary D. Aron, Halina Pietraszkiewicz, Larry E. Overman,\* Fredrick Valeriote and Carman Cuevas

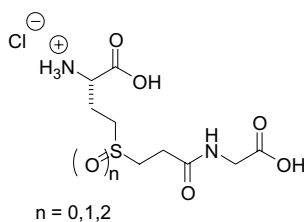


Synthesis, anticancer activity, and structure–activity relationships of crambescidin analogs that vary primarily at the C14 side chain are reported.

**Synthesis of S-alkyl L-homocysteine analogues of glutathione and their kinetic studies with  $\gamma$ -glutamyl transpeptidase**

pp 3451–3455

Christian Lherbet, Christian Gravel and Jeffrey W. Keillor\*

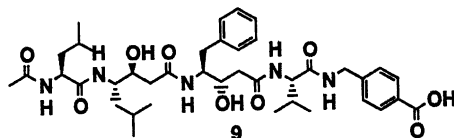


The synthesis of S-alkyl L-homocysteine glutathione analogues and their inhibition constants against rat kidney GGT are reported.

**Synthesis and SAR of bis-statine based peptides as BACE 1 inhibitors**

pp 3457–3460

Baihua Hu,\* Kristi Yi Fan, Kristie Bridges, Rajiv Chopra, Frank Lovering, Derek Cole, Ping Zhou, John Ellingboe, Guixiang Jin, Rebecca Cowling and Jonathan Bard

**Quantitative structure–polarization relationships (QSPR) study of BTEX tracers for the formation of antibody–BTEX–EDF complex**

pp 3461–3466

Taesung Moon, Myung Whan Chi, Myung Ja Choi and Chang No Yoon\*

The multiple linear regression (MLR) analysis and back propagation neural networks (NN) were performed to examine the quantitative structure–polarization relationships (QSPR) for the formation of antibody–BTEX–EDF complex. The selected descriptors have good linear relationships and play a significant role in the formation of antibody–tracer complex. The optimum regression model is as follows

$$FP = -2.404[HA] + 0.230[Area] - 10.027[HOMO] + 28.566[C_3] + 4.474[P_2] - 123.525$$

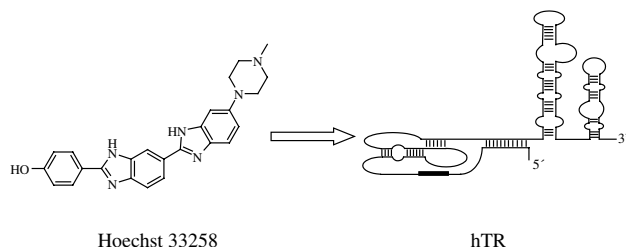
$(\pm 0.575) \quad (\pm 0.032) \quad (\pm 1.770) \quad (\pm 17.188) \quad (\pm 1.520) \quad (\pm 20.592)$

$$N = 18; \quad r^2 = 0.853; \quad s = 1.679; \quad F = 13.919$$

**Nucleic acid-binding ligands identify new mechanisms to inhibit telomerase**

pp 3467–3471

Pamela K. Dominick, Brian R. Keppler, Jason D. Legassie, Ian K. Moon and Michael B. Jarstfer\*

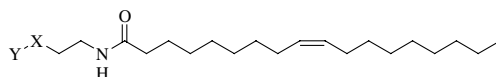


The ability of several known nucleic acid binding ligands to inhibit recombinant human telomerase is reported. One of these, Hoechst 33258, was demonstrated to bind human telomerase RNA with high affinity, suggesting that this is the target for inhibition.

**Synthesis and biological evaluation of phosphonic and thiophosphoric acid derivatives of lysophosphatidic acid**

pp 3473–3476

Webster L. Santos, Brian H. Heasley,\* Renata Jarosz, Karen M. Carter, Kevin R. Lynch and Timothy L. Macdonald



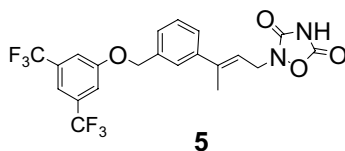
**1** (NAEPA): X = O; Y = PO<sub>3</sub>H<sub>2</sub>; LPA<sub>1/2</sub> dual agonist  
**17**: X = O; Y = PO<sub>3</sub>H<sub>2</sub>; EC<sub>50</sub> = 40 nM (LPA<sub>1</sub>), 108 nM (LPA<sub>2</sub>)  
**19**: X = S; Y = P(S)O<sub>2</sub>H<sub>2</sub>; EC<sub>50</sub> = 318 nM (LPA<sub>1</sub>), >5000 (LPA<sub>2</sub>)

Using an *N*-oleoyl ethanolamide scaffold, a series of phosphate mimetic analogues of lysophosphatidic acid (LPA) comprised of various  $\alpha$ -substituted phosphonates and thiophosphates was prepared and evaluated at the three LPA receptors of the endothelial differentiation gene (Edg) family.

**Design and synthesis of oxadiazolidinediones as inhibitors of plasminogen activator inhibitor-1**

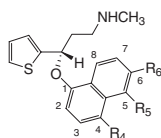
pp 3477–3480

Ariamala Gopalsamy,\* Scott L. Kincaid, John W. Ellingboe, Thomas M. Groeling, Thomas M. Antrilli, Girija Krishnamurthy, Ann Aulabaugh, Gregory S. Friedrichs and David L. Crandall

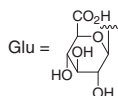
**Synthesis and biological activity of some known and putative duloxetine metabolites**

pp 3481–3486

F. Kuo,\* T. A. Gillespie, P. Kulanthaivel, R. J. Lantz, T. W. Ma, D. L. Nelson, P. G. Threlkeld, W. J. Wheeler, P. Yi and M. Zmijewski



1.  $R_4 = R_5 = R_6 = H$
2.  $R_4 = OH$ ;  $R_5 = R_6 = H$
3.  $R_4 = R_5 = H$ ;  $R_6 = OH$
4.  $R_4 = R_6 = H$ ;  $R_5 = OH$
5.  $R_4 = H$ ;  $R_5 = R_6 = OH$
6.  $R_4 = H$ ;  $R_5 = OH$ ;  $R_6 = OCH_3$
7.  $R_4 = H$ ;  $R_5 = OCH_3$ ;  $R_6 = OH$
8.  $C_5$ ,  $C_6$  dihydro analog of 5
9.  $R_4 = R_6 = OH$ ;  $R_5 = H$



10.  $R_4 = OGlu$ ;  $R_5 = R_6 = H$
11.  $R_4 = R_5 = H$ ;  $R_6 = OGlu$
12.  $R_4 = H$ ;  $R_5 = OSO_3^-$ ;  $R_6 = OCH_3$
13.  $R_4 = H$ ;  $R_5 = OGlu$ ;  $R_6 = OCH_3$
14.  $R_4 = H$ ;  $R_5 = OCH_3$ ;  $R_6 = OGlu$
15.  $R_4 = H$ ;  $R_5 = OH$ ;  $R_6 = OGlu$   
or  $R_5 = OGlu$ ;  $R_6 = OH$
16.  $R_4 = OGlu$ ;  $R_5 = H$ ;  $R_6 = OH$   
or  $R_4 = OH$ ;  $R_5 = H$ ;  $R_6 = OGlu$

**Synthesis and anti-inflammatory effects of novel pimarane diterpenoid analogs**

pp 3487–3490

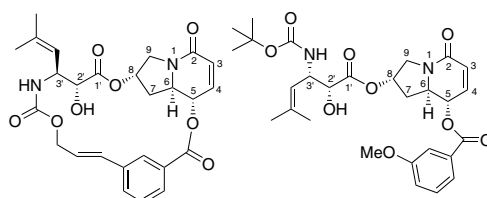
Young-Ger Suh,\* Kwang-Ok Lee, Sung-Hyun Moon, Seung-Yong Seo, Yong-Sil Lee, Seok-Ho Kim, Seung-Mann Paek, Young-Ho Kim, Yun-Sang Lee, Jae Min Jeong, Seung Jin Lee and Sang Geon Kim

Syntheses and anti-inflammatory effects of a series of novel acanthoic acid analogs are reported. In particular, the mechanistic basis for their excellent anti-inflammatory effects is also described.

**Design and synthesis of de novo cytotoxic alkaloids through mimicking taxoid skeleton**

pp 3491–3494

Xudong Geng, Raphaël Geney, Paula Pera, Ralph J. Bernacki and Iwao Ojima\*

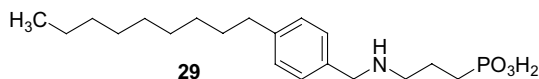


The design, synthesis, and biological activity of several novel cytotoxic alkaloids, mimicking and simplifying the taxoid skeleton are reported.

**The discovery of 3-(N-alkyl)aminopropylphosphonic acids as potent S1P receptor agonists**

pp 3495–3499

Jeffrey J. Hale,\* George Doherty, Leslie Toth, Zhen Li, Sander G. Mills, Richard Hajdu, Carol Ann Keohane, Mark Rosenbach, James Milligan, Gan-Ju Shei, Gary Chrebet, James Bergstrom, Deborah Card, Hugh Rosen and Suzanne Mandala

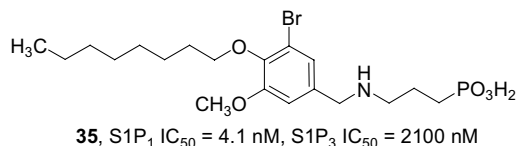


3-(N-Alkylamino)propylphosphonic acids exemplified by **29** are potent agonists of four of the five known sphingosine-1-phosphate (S1P) receptor subtypes.

**Selecting against S1P<sub>3</sub> enhances the acute cardiovascular tolerability of 3-(N-benzyl)-aminopropylphosphonic acid S1P receptor agonists**

pp 3501–3505

Jeffrey J. Hale,\* George Doherty, Leslie Toth, Sander G. Mills, Richard Hajdu, Carol Ann Keohane, Mark Rosenbach, James Milligan, Gan-Ju Shei, Gary Chrebet, James Bergstrom, Deborah Card, Michael Forrest, Shu-Yu Sun, Sarah West, Huijuan Xie, Naomi Nomura, Hugh Rosen and Suzanne Mandala

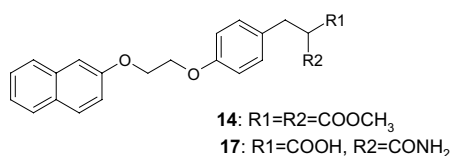


3-(N-Benzylamino)propylphosphonic acid S1P receptor agonists exemplified by **35** that maintain affinity for S1P<sub>1</sub> and have decreased affinity for S1P<sub>3</sub> are efficacious, but exhibit decreased acute cardiovascular toxicity in rodents than do nonselective agonists.

**Design, synthesis, and evaluation of a new class of noncyclic 1,3-dicarbonyl compounds as PPAR $\alpha$  selective activators**

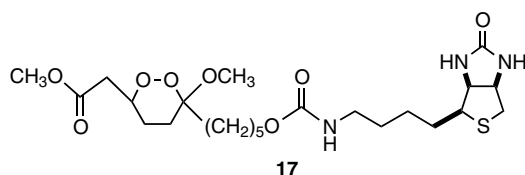
pp 3507–3511

Zhibin Li, Chenzhong Liao, Ben C. B. Ko, Song Shan, Edith H. Y. Tong, Zihui Yin, Desi Pan, Vincent K. W. Wong, Leming Shi, Zhi-Qiang Ning, Weiming Hu, Jiaju Zhou, Stephen S. M. Chung and Xian-Ping Lu\*

**Synthesis of a bioprobe for elucidation of target molecule of spongean anti-malarial peroxides**

pp 3513–3516

Nobutoshi Murakami, Motoyuki Kawanishi, Sawako Itagaki, Toshihiro Horii and Motomasa Kobayashi\*

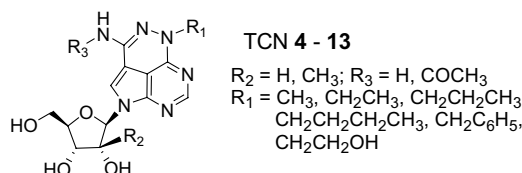


Two biotinylated probes to elucidate the target molecules of spongean anti-malarial peroxides were designed and synthesized. They showed potent anti-malarial activity, and one of them (**17**) was proved to form an irreversible binding with protein in a model experiment.

**Synthesis of new 2'-β-C-methyl related tricyridine analogues as anti-HCV agents**

pp 3517–3520

Kenneth L. Smith, Vicky C. H. Lai, Brett J. Prigaro, Yili Ding, Esmir Gunic, Jean-Luc Girardet, Weidong Zhong, Zhi Hong, Stanley Lang and Haoyun An\*

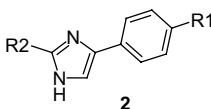


Ten new β-D-ribofuranosyl and 2'-β-C-methyl-β-D-ribofuranosyl tricyridine derivatives **4–13** were synthesized. HCV replicon studies of these compounds reveal some compounds possess interesting anti-HCV properties.

**2-Alkyl-4-arylimidazoles: structurally novel sodium channel modulators**

pp 3521–3523

Anne-Marie Liberatore,\* Jocelyne Schulz, Jacques Pommier, Marie-Anne Barthelemy, Marion Huchet, Pierre-Etienne Chabrier and Dennis Bigg

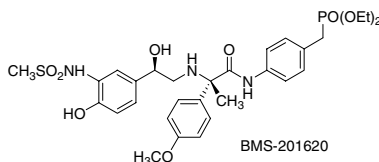


A series of 2-alkyl-4-arylimidazoles were prepared and their binding affinities to the site-2 sodium ( $\text{Na}^+$ ) channel were determined. SAR studies led to highly potent  $\text{Na}^+$  channel blockers.

**BMS-201620: a selective beta 3 agonist**

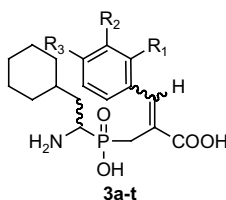
pp 3525–3529

W. N. Washburn,\* C.-Q. Sun,\* G. Bisacchi, G. Wu, P. T. Cheng, P. M. Sher, D. Ryono, A. V. Gavai, K. Poss, R. N. Girotra, P. J. McCann, A. B. Mikkilineni, T. C. Dejneka, T. C. Wang, Z. Merchant, M. Morella, C. M. Arbeeney, T. W. Harper, D. A. Slusarchyk, S. Skwish, A. D. Russell, G. T. Allen, B. Tesfamariam, B. H. Frohlich, B. E. Abboa-Offei, M. Cap, T. L. Waldron, R. J. George, D. Young, K. E. Dickinson and A. A. Seymour

**Synthesis and evaluation of aminophosphinic acid derivatives as inhibitors of renal dipeptidase**

pp 3531–3533

Hallur Gurulingappa, Phillip Buckhalts, Kenneth W. Kinzler, Bert Vogelstein and Saeed R. Khan\*



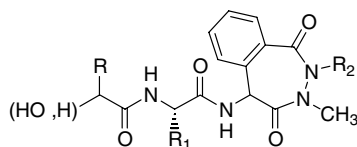
$R_1 = \text{H, I}; R_2 = \text{H, Cl, Br, I}; R_3 = \text{H, F, Cl, Br, I, CF}_3, \text{N(Et)}_2$



**2,3-Benzodiazepin-1,4-diones as peptidomimetic inhibitors of  $\gamma$ -secretase**

pp 3535–3538

C. V. C. Prasad,\* Shikha Vig, David W. Smith, Qi Gao, Craig T. Polson, Jason A. Corsa, Valerie L. Guss, Alice Loo, Donna M. Barten, Ming Zheng, Kevin M. Felsenstein and Susan B. Roberts

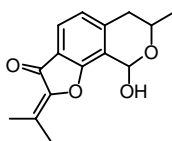


Introduced 2,3-benzodiazepin-1,4-diones as peptidomimetics at the carboxy terminus of hydroxytriamides.

**Pseudodeflectusin, a novel isochroman derivative from *Aspergillus pseudodeflectus* a parasite of the sea weed, *Sargassum fusiform*, as a selective human cancer cytotoxin**

pp 3539–3543

Akitsu Ogawa, Chikako Murakami, Shinji Kamisuki, Isoko Kuriyama, Hiromi Yoshida, Fumio Sugawara and Yoshiyuki Mizushima\*



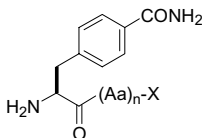
Pseudodeflectusin

9-hydroxy-7-methyl-2-(methylethylidene)-  
-furano[3,2-*H*]isochroman-3-one

**(4-Carboxamido)phenylalanine is a surrogate for tyrosine in opioid receptor peptide ligands**

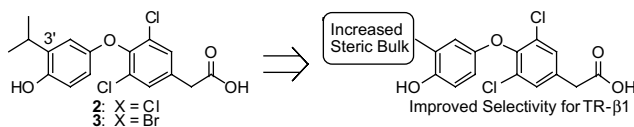
pp 3545–3548

Roland E. Dolle,\* Mathieu Machaut, Blanca Martinez-Teipel, Serge Belanger, Joel A. Cassel, Gabriel J. Stabley, Thomas M. Graczyk and Robert N. DeHaven

**Thyroid receptor ligands. Part 2: Thyromimetics with improved selectivity for the thyroid hormone receptor beta**

pp 3549–3553

Jon J. Hangeland,\* Arthur M. Doweyko, Tamara Dejneka, Todd J. Friends, Pratik Devasthale, Karin Mellström, Johnny Sandberg, Marlena Grynfarb, John S. Sack, Howard Einspahr, Mathias Färnegårdh, Bolette Husman, Jan Ljunggren, Konrad Koehler, Cheryl Sheppard, Johan Malm and Denis E. Ryono

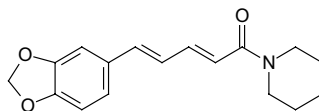


Thyromimetics having improved selectivity for TR- $\beta$ 1 were prepared by replacing the 3'-isopropyl group of **2** and **3** with substituents having increased steric bulk.

**Toxic effects of natural piperine and its derivatives on epimastigotes and amastigotes of *Trypanosoma cruzi***

pp 3555–3558

Tatiana Santana Ribeiro, Leonardo Freire-de-Lima, José Osvaldo Previato, Lucia Mendonça-Previato, Norton Heise and Marco Edilson Freire de Lima\*

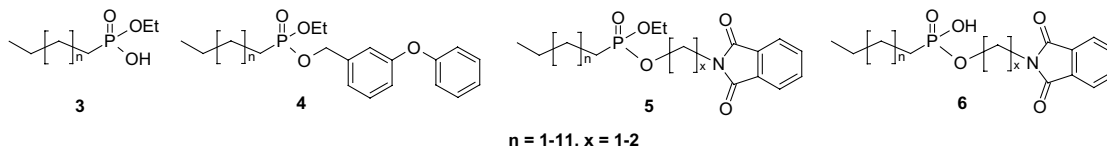


Piperine, isolated from *Piper nigrum*, and twelve synthetic derivatives were evaluated for trypanocidal activity against epimastigote and amastigote forms of the protozoan parasite *Trypanosoma cruzi*. The results obtained point to piperine as a template for the development of new drugs with trypanocidal activity.

**Phosphonate inhibitors of antigen 85C, a crucial enzyme involved in the biosynthesis of the *Mycobacterium tuberculosis* cell wall**

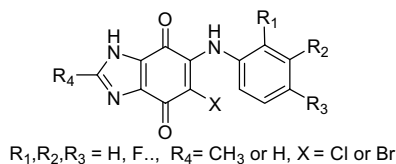
pp 3559–3562

Stanislav Gobec,\* Ivan Plantan, Janez Mravljak, Rosalind A. Wilson, Gurdyal S. Besra and Danijel Kikelj\*


**Synthesis and biological evaluation of benzimidazole-4,7-diones that inhibit vascular smooth muscle cell proliferation**

pp 3563–3566

Sung-Yu Hong, Kwang-Hoe Chung, Hea-Jung You, Ik Hwa Choi, Mi Jin Chae, Ja-Young Han, Ok-Jai Jung, Soo-Jung Kang and Chung-Kyu Ryu\*

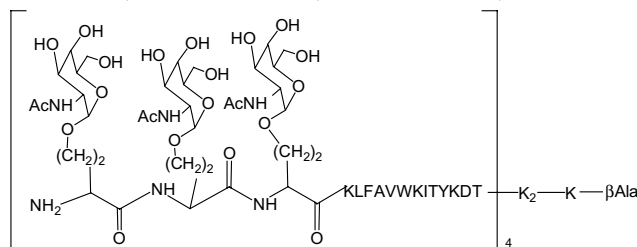


Benzimidazole-4,7-diones were synthesized and tested for their antiproliferative activity on rat aortic smooth muscle cells. Among them, 6-arylamino-5-chloro-2-methyl-benzimidazole-4,7-diones exhibited potent antiproliferative activity.

**Synthesis and immunological evaluation of an antitumor neoglycopeptide vaccine bearing a novel homoserine Tn antigen**

pp 3567–3570

Sophie Vichier-Guerre, Richard Lo-Man, Valérie Huteau, Edith Dériaud, Claude Leclerc and Sylvie Bay\*

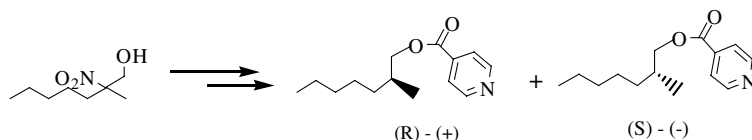


The glycopeptide vaccine MAG:Tn(hSer)3-PV induces a strong antibody immune response (IgG), which recognizes native tumor-associated antigens at the surface of human tumor cells.

**Synthesis, absolute stereochemistry and molecular design of the new antifungal and antibacterial antibiotic produced by *Streptomyces* sp.201**

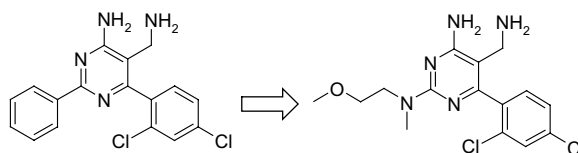
pp 3571–3574

J. Boruwa, B. Kalita, N. C. Barua,\* J. C. Borah, S. Mazumder, D. Thakur, D. K. Gogoi and T. C. Bora

**An aminomethylpyrimidine DPP-IV inhibitor with improved properties**

pp 3575–3578

Jens-Uwe Peters,\* Daniel Hunziker, Holger Fischer, Manfred Kansy, Silja Weber, Stéphane Kritter, Aranka Müller, Angelina Wallier, Fabienne Ricklin, Markus Boehringer, Sonia Maria Poli, Miklos Csato and Bernd-Michael Loeffler

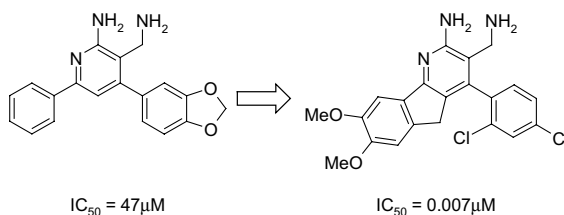


Phospholipidosis liability and CYP3A4 inhibition were addressed in a series of DPP-IV inhibitors.

**Aminomethylpyridines as DPP-IV inhibitors**

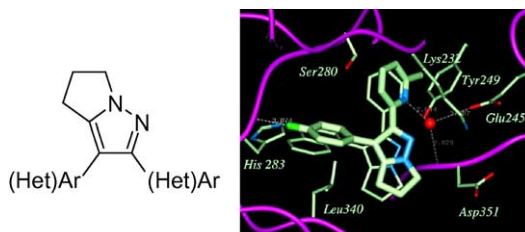
pp 3579–3580

Jens-Uwe Peters,\* Silja Weber, Stéphane Kritter, Peter Weiss, Angelina Wallier, Daniel Zimmerli, Markus Boehringer, Matthias Steger and Bernd-Michael Loeffler

**Synthesis and activity of new aryl- and heteroaryl-substituted 5,6-dihydro-4H-pyrrolo[1,2-b]-pyrazole inhibitors of the transforming growth factor- $\beta$  type I receptor kinase domain**

pp 3581–3584

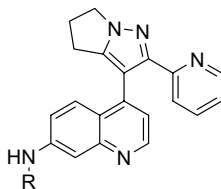
J. Scott Sawyer,\* Douglas W. Beight, Karen S. Britt, Bryan D. Anderson, Robert M. Campbell, Theodore Goodson, Jr., David K. Herron, Hong-Yu Li, William T. McMillen, Nicholas Mort, Stephen Parsons, Edward C. R. Smith, Jill R. Wagner, Lei Yan, Faming Zhang and Jonathan M. Yingling



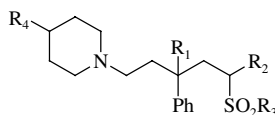
**Novel and potent transforming growth factor beta type I receptor kinase domain inhibitor:  
7-amino 4-(2-pyridin-2-yl-5,6-dihydro-4H-pyrrolo[1,2-b]pyrazol-3-yl)-quinolines**

pp 3585–3588

Hong-yu Li,\* Yan Wang, Lei Yan, Robert M. Campbell, Bryan D. Anderson, Jill R. Wagner and Jonathan M. Yingling

**Syntheses and biological evaluation of 5-(piperidin-1-yl)-3-phenyl-pentylsulfones as CCR5 antagonists** pp 3589–3593

K. Shankaran,\* Karla L. Donnelly, Shrenik K. Shah, Charles G. Caldwell, Ping Chen, Paul E. Finke, Bryan Oates, Malcolm MacCoss, Sander G. Mills, Julie A. DeMartino, Sandra L. Gould, Lorraine Malkowitz, Salvatore J. Siciliano, Martin S. Springer, Gloria Kwei, Anthony Carella, Gwen Carver, Renee Danzeisen, Daria Hazuda, Karen Holmes, Joseph Kessler, Janet Lineberger, Michael D. Miller, Emilio A. Emini and William A. Schleif

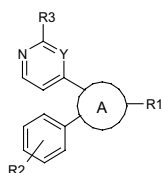


Ongoing efforts from these laboratories have resulted in the identification of 5-(piperidin-1-yl)-3-phenylpentylsulfones as a potent CCR5 antagonists. The syntheses and biological activities such as analogs are described.

**Novel p38 inhibitors with potent oral efficacy in several models of rheumatoid arthritis**

pp 3595–3599

Laszlo Revesz,\* Ernst Blum, Franco E. Di Padova, Thomas Buhl, Roland Feifel, Hermann Gram, Peter Hiestand, Ute Manning and Gerard Rucklin

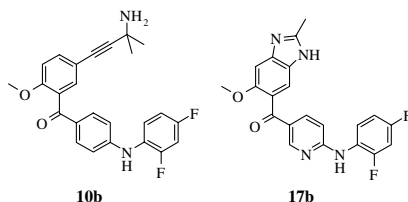


A pilot library of trisubstituted oxazoles, thiazoles, imidazoles (1,2,4- and 2,4,5-substituted) and imidazo[1,2-b]pyridines was prepared and evaluated in vitro and in vivo as p38 $\alpha$  inhibitors. Four structures—**32**, **37**, **45** and **59**—were identified as potent inhibitors of p38 $\alpha$  with high oral efficacy in three models of rheumatoid arthritis.

**SAR of benzoylpyridines and benzophenones as p38 $\alpha$  MAP kinase inhibitors with oral activity**

pp 3601–3605

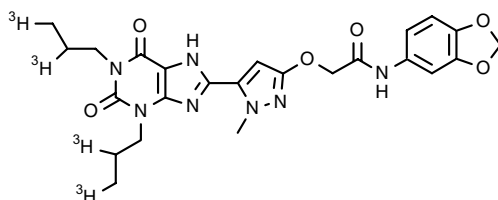
Laszlo Revesz,\* Ernst Blum, Franco E. Di Padova, Thomas Buhl, Roland Feifel, Hermann Gram, Peter Hiestand, Ute Manning and Gerard Rucklin



**10b** and **17b** were identified as the most potent and selective compounds of the series, demonstrating IC<sub>50</sub>s of 14 and 21 nM against p38 $\alpha$  and efficacy in the rat CIA model with ED<sub>50</sub>s of 9.5 and 8.6 mg/kg po qd. The effect of a set substituents on in vitro and in vivo potency is discussed.

**[<sup>3</sup>H]-MRE 2029-F20, a selective antagonist radioligand for the human A<sub>2B</sub> adenosine receptors** pp 3607–3610

Pier Giovanni Baraldi,\* Mojgan Aghazadeh Tabrizi, Delia Preti, Andrea Bovero, Francesca Fruttarolo, Romeo Romagnoli, Allan R. Moorman, Stefania Gessi, Stefania Merighi, Katia Varani and Pier Andrea Borea

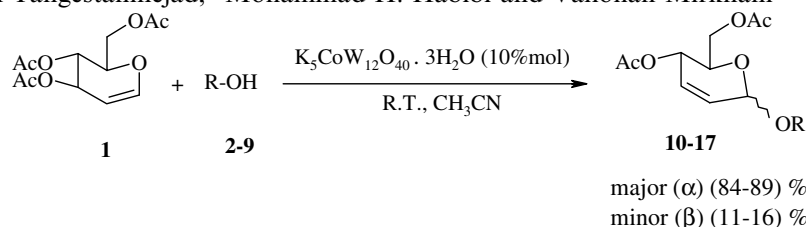


The synthesis and the preliminary biological evaluation of a selective antagonist radioligand for the human A<sub>2B</sub> adenosine receptors have been described.

**A mild, efficient and  $\alpha$ -selective glycosidation by using potassium dodecatungstocobaltate trihydrate as catalyst**

pp 3611–3614

Ezzat Rafiee, Shahram Tangestaninejad,\* Mohammad H. Habibi and Valiollah Mirkhani



2,3-Unsaturated glycopyranosides are produced in excellent yields with good anomeric selectivity, from treatment of tri-*O*-acetyl-D-glucal with several alcohols in the presence of catalytic amount of dodecatungstocobaltate trihydrate as a heterogeneous, cheap and reusable catalyst.

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\*Corresponding author

**COVER**

Cover figure provided by **Indraneel Ghosh**, Department of Chemistry, University of Arizona. The cover depicts the **Dual Surface Selection** methodology developed by the author: the blue helix of htBI (center) allows structural selection with the Fc portion of Immunoglobulin (left), while the residues randomized on the red sheet of htBI (center) allows for functional selection against thrombin (right) [Rajagopal, S.; Meza-Romero, R.; Ghosh, I. *Bioorg. Med. Chem. Lett.* **2004**, *14*, 1389].



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