

Bioorganic & Medicinal Chemistry Letters Vol. 14, No. 11, 2004

Contents

COMMUNICATIONS

Novel 3,5-diaryl pyrazolines as human acyl-CoA:cholesterol acyltransferase inhibitors

pp 2715-2717

Tae-Sook Jeong, Kyung Soon Kim, So-Jin An, Kyung-Hyun Cho, Sangku Lee and Woo Song Lee*

A series of 3-(3,5-di-*tert*-butyl-4-hydroxyphenyl)-5-(multi-substituted 4-hydroxyphenyl)-2-pyrazolines **4a**–**i** have been synthesized and demonstrated to be moderate inhibitors of hACAT-1 and -2.

Novel 3,5-diaryl pyrazolines and pyrazole as low-density lipoprotein (LDL) oxidation inhibitor

pp 2719-2723

Tae-Sook Jeong, Kyung Soon Kim, Ju-Ryoung Kim, Kyung-Hyun Cho, Sangku Lee and Woo Song Lee*

A series of 3-(3,5-di-*tert*-butyl-4-hydroxyphenyl)-5-(multi-substituted 4-hydroxyphenyl)-2-pyrazolines **4a–j** and pyrazole **5** were synthesized and evaluated for LDL-antioxidant activity. Some derivatives exhibited high potency comparable to probucol.

Synthesis and characterization of bifunctional probes for the specific labeling of fusion proteins Maik Kindermann, India Sielaff and Kai Johnsson*

pp 2725-2728

Tetrahydroisoquinolines as subtype selective estrogen agonists/antagonists

pp 2729-2733

Richard Chesworth,* Michael P. Zawistoski, Bruce A. Lefker, Kimberly O. Cameron, Robert F. Day, F. Michael Mangano, Robert L. Rosati, Stacy Colella, Donna N. Petersen, Amy Brault, Bihong Lu, Lydia C. Pan, Pia Perry, Oicheng Ng, Tessa A. Castleberry, Thomas A. Owen, Thomas A. Brown, David D. Thompson and Paul DaSilva-Jardine

Two series of 6-hydroxy and 7-hydroxy tetrahydroisoquinolines were prepared. Evaluating a range of C-1, C-4, and N-substituents led to the discovery of ER α and ER β selective analogs.

Initial structure-activity relationships of lysophosphatidic acid receptor antagonists: discovery of a high-affinity LPA₁/LPA₃ receptor antagonist

pp 2735-2740

Brian H. Heasley,* Renata Jarosz, Kevin R. Lynch and Timothy L. Macdonald

$$\begin{array}{c}
O \\
HO - P \\
HO \\
\end{array}$$

$$\begin{array}{c}
O \\
\end{array}$$

$$\begin{array}{c}
Ar \\
\end{array}$$

 $\begin{aligned} \mathbf{1} \colon R_1 &= H; \, R_2 = NHC(O)C_{17}H_{33}; \, Ar = Ph \; (K_i = 137 \; nM \; LPA_1) \\ \mathbf{10t} \colon R_1 &= NHC(O)C_{17}H_{33}; \, R_2 &= H; \, Ar = 2\text{-pyr} \; (K_i = 18 \; nM \; LPA_1) \end{aligned}$

Initial structure–activity relationships (SARs) of lysophosphatidic acid (LPA) receptor antagonists are discussed. This study has resulted in the discovery of a high-affinity LPA_1/LPA_3 dual antagonist (10t).

Estrogen receptor ligands. Part 4: The SAR of the syn-dihydrobenzoxathiin SERAMs

pp 2741-2745

Seongkon Kim,* Jane Wu, Helen Y. Chen, Elizabeth T. Birzin, Wanda Chan, Yi Tien Yang, Lawrence Colwell, Susan Li, Johanna Dahllund, Frank DiNinno, Susan P. Rohrer, James M. Schaeffer and Milton L. Hammond

A series of estrogen receptor ligands based on a dihydrobenzoxathiin scaffold is described and evaluated for estrogen/anti-estrogen activity in both in vitro and in vivo models.

Potent nonpeptide vasopressin receptor antagonists based on oxazino- and thiazinobenzodiazepine templates

pp 2747–2752

Jay M. Matthews,* William J. Hoekstra, Alexey B. Dyatkin, Leonard R. Hecker, Dennis J. Hlasta, Brenda L. Poulter, Patricia Andrade-Gordon, Lawrence de Garavilla, Keith T. Demarest, Eric Ericson, Joseph W. Gunnet, William Hageman, Richard Look, John B. Moore, Charles H. Reynolds and Bruce E. Maryanoff*

Studies on aromatic compounds: inhibition of calpain I by biphenyl derivatives and peptide-biphenyl hybrids

pp 2753-2757

Ana Montero, Mercedes Alonso, Esperanza Benito, Antonio Chana, Enrique Mann, José M. Navas and Bernardo Herradón*

Design and synthesis of benzofused heterocyclic RXR modulators

pp 2759-2763

D. L. Gernert,* D. A. Neel,* M. F. Boehm, M. D. Leibowitz, D. A. Mais, P. Y. Michellys, D. Rungta, A. Reifel-Miller and T. A. Grese

Benzofused heterocyclic analogs of the RXR selective modulator 1 (LG101506) were synthesized, and tested for their ability to bind $RXR\alpha$ and activate RXR homo and heterodimers. Potency and efficacy were observed to be dependent upon the choice of heterocycle as well as the sidechain employed.

Synthesis and structure–activity relationship of 2-(aminoalkyl)-3,3a,8,12b-tetrahydro-2*H*-dibenzocyclohepta[1,2-*b*]furan derivatives: a novel series of 5-HT_{2A/2C} receptor antagonists

pp 2765-2771

José Cid,* José M. Alonso, José I. Andrés, Javier Fernández, Pilar Gil, Laura Iturrino, Encarna Matesanz, Theo F. Meert, Anton Megens, Victor K. Sipido and Andrés A. Trabanco

The synthesis of a series of substituted 2-(aminoalkyl)-3,3a,8,12b-tetrahydro-2H-dibenzocyclohepta[1,2-b]furan derivatives as 5-HT_{2A/2C} antagonists is reported. The mCPP antagonistic activity of a set of selected compounds is also disclosed.

Synthesis of new fluoroquinolones and evaluation of their in vitro activity on *Toxoplasma gondii* and *Plasmodium* spp.

pp 2773-2776

G. Anquetin, M. Rouquayrol, N. Mahmoudi, M. Santillana-Hayat, R. Gozalbes,

J. Greiner, K. Farhati, F. Derouin, R. Guedj and P. Vierling*

2/01

The significant effect of the carbohydrate structures on the DNA photocleavage of the quinoxaline-carbohydrate hybrids

pp 2777-2779

Kazunobu Toshima,* Tomohiro Ozawa, Tomonori Kimura and Shuichi Matsumura

Synthesis of OSW-1 analogs with modified side chains and their antitumor activities

pp 2781-2785

Lehua Deng, Hao Wu, Biao Yu,* Manrong Jiang and Jiarui Wu

$$R = -C(=0)CH_2CH_2CH(CH_3)_2 \text{ (OSW-1)}$$

$$-CH_2CH_2CH_2CH(CH_3)_2 \text{ (1)}$$

$$-CH(OH)CH_2CH_2CH(CH_3)_2 \text{ (2)}$$

$$-CH(=0)CH_2CH_2CH_3 \text{ (3)}$$

$$-CH(=0)CH_3CH_3 \text{ (4)}$$

In vivo MR detection of vascular endothelial injury using a new class of MRI contrast agent

pp 2787-2790

Tatsuhiro Yamamoto, Kenjiro Ikuta, Keiji Oi, Kohtaro Abe, Toyokazu Uwatoku, Fuminori Hyodo, Masaharu Murata, Noboru Shigetani, Kengo Yoshimitsu, Hiroaki Shimokawa, Hideo Utsumi and Yoshiki Katayama*

2,4-Bis(octadecanoylamino)benzenesulfonic acid sodium salt as a novel scavenger receptor inhibitor with low molecular weight

pp 2791–2795

Kazuya Yoshiizumi,* Fumio Nakajima, Rika Dobashi, Noriyasu Nishimura and Shoji Ikeda

This paper describes novel scavenger receptor inhibitors bearing two long chains whose orientations are fixed by the presence of benzene ring.

1- And 2-substituted naphthalenes: a new class of potential hypotensive agents

pp 2797-2800

Vishnu K. Tandon,* Kunwar A. Singh and Gajendra K. Goswamy

A series of 1 and 2 were synthesized for evaluation for their hypotensive activity.

Novel factor Xa inhibitors based on a benzoic acid scaffold and incorporating a neutral P1 ligand

pp 2801-2805

Marc Nazaré, Hans Matter, Otmar Klingler, Fahad Al-Obeidi, Herman Schreuder, Gerhard Zoller, Jörg Czech, Martin Lorenz, Angela Dudda, Anusch Peyman, Hans Peter Nestler, Matthias Urmann, Armin Bauer, Volker Laux, Volkmar Wehner and David W. Will*

A series of novel, highly potent, achiral factor Xa inhibitors based on a benzoic acid scaffold and containing a chlorophenethyl moiety directed towards the protease S1 pocket is described. The compound shown was found to be the most active in a number of antithrombotic assays.

Direct superoxide anion scavenging by a highly water-dispersible carotenoid phospholipid evaluated by electron paramagnetic resonance (EPR) spectroscopy

pp 2807-2812

Bente Jeanette Foss, Hans-Richard Sliwka, Vassilia Partali, Arturo J. Cardounel, Jay L. Zweier and Samuel F. Lockwood*

Superoxide scavenging by highly water-dispersible carotenoid derivatives in vitro.

Synthesis of novel fluorescent-labelled dinucleoside polyphosphates

pp 2813-2816

Michael Wright and Andrew D. Miller*

A novel tandem synthetic–biosynthetic procedure is described for the synthesis of four new fluorescent dinucleoside polyphosphates: $mant-Ap_4A$, $mant-AppCH_2ppA$, $TNP-Ap_4A$ and $TNP-AppCH_2ppA$.

Hit-to-lead studies: the discovery of potent, orally active, thiophenecarboxamide IKK-2 inhibitors

pp 2817-2822

Andrew Baxter,* Steve Brough, Anne Cooper, Eike Floettmann, Steve Foster, Christine Harding, Jason Kettle, Tom McInally, Craig Martin, Michelle Mobbs, Maurice Needham, Pete Newham, Stuart Paine, Steve St-Gallay, Sylvia Salter, John Unitt and Yafeng Xue

22 IKK-2 IC₅₀ 0.063 μM

A hit-to-lead optimisation programme was carried out on the thiophenecarboxamide high throughput screening hits 1 and 2 resulting in the discovery of the potent and orally bioavailable IKK-2 inhibitor 22.

Pharmacophore-based search, synthesis, and biological evaluation of anthranilic amides as novel blockers of the Kv1.5 channel

pp 2823-2827

Stefan Peukert,* Joachim Brendel, Bernard Pirard, Carsten Strübing, Heinz-Werner Kleemann, Thomas Böhme and Horst Hemmerle

The search for novel Kv1.5 blockers based on an anthranilic amide scaffold employing a pharmacophore-based virtual screening approach is described. Synthesis and structure-activity relationships are discussed. The most potent compounds (e.g., 3i) display sub-micromolar inhibition of Kv1.5, no significant effect on the HERG channel and have good oral bioavailability.

Stability studies of C-4',6' acetal benzylmaltosides synthesized as inhibitors of smooth muscle cell proliferation

pp 2829-2833

Scott C. Mayer,* William Gallaway, John Kulishoff,* Maisheng Yin, Vidya Gadamasetti and Robert Mitchell

The chemical instability of the C-4',6' acetal of compound 6a was addressed in order to identify analogs that could be administered orally as inhibitors of smooth muscle cell (SMC) proliferation.

A facile route to dynamic glycopeptide libraries based on disulfide-linked sugar-peptide coupling

pp 2835-2838

Shinsuke Sando,* Atsushi Narita and Yasuhiro Aoyama'

Gentle air oxidation of a slightly basic aqueous solution of 1-thiosugar and cysteine-rich oligopeptide building blocks affords a dynamic glycopeptide library composed of disulfide-linked sugar-peptide conjugates.

The oxime bond formation as an efficient chemical tool for the preparation of 3',5'-bifunctionalised oligodeoxyribonucleotides

pp 2839-2842

Om Prakash Edupuganti, Olivier Renaudet, Eric Defrancq* and Pascal Dumy

The preparation of oligonucleotide conjugates bearing the same reporter group (i.e., a peptide or a carbohydrate) at both extremity was achieved using chemoselective oxime bond formation.

Solid-phase synthesis of kojic acid-tripeptides and their tyrosinase inhibitory activity, storage stability, and toxicity

pp 2843-2846

Hanyoung Kim, Jaehui Choi, Jin Ku Cho, Sun Yeou Kim and Yoon-Sik Lee*

Kojic acid-FWY exhibited 100-fold tyrosinase inhibitory activity compared with kojic acid. The storage stabilities of these kojic acid-tripeptides were 15 times higher and their toxicity was lower than that of kojic acid.

PDE2 inhibition by the PI3 kinase inhibitor LY294002 and analogues

pp 2847-2851

Belinda M. Abbott and Philip E. Thompson*

Synthetic 2-morpholinochromones, including the known PI3-kinase inhibitor LY294002, have been evaluated in vitro as inhibitors of isolated human platelet phosphodiesterases. Inhibition of the cAMP-phosphodiesterases, PDE2 and PDE3 by LY294002 is reported for the first time. Preliminary screening across a range of 2-morpholinochromones has revealed structural features for optimised PDE2 inhibition.

Silanediol peptidomimetics. Evaluation of four diastereomeric ACE inhibitors

pp 2853-2856

Jaeseung Kim and Scott McN. Sieburth

Four diastereomers of a Phe-Ala peptide mimic incorporating a central silanediol group have been individually prepared and tested as inhibitors of angiotensin-converting enzyme (ACE). Three of the silanediols exhibit levels of inhibition that are similar to those of corresponding ketones reported by Almquist. For the fourth diastereomer, with both stereogenic carbons inverted relative to the most active isomer, the ketone gives the least enzyme inhibition whereas the silanediol shows a surprisingly low IC₅₀ value.

Design, synthesis and structure-activity relationship studies of novel indazole analogues as DNA gyrase inhibitors with Gram-positive antibacterial activity

pp 2857-2862

Akihiko Tanitame,* Yoshihiro Oyamada, Keiko Ofuji, Yoko Kyoya, Kenji Suzuki, Hideaki Ito, Motoji Kawasaki, Kazuo Nagai, Masaaki Wachi and Jun-ichi Yamagishi

Potent DNA gyrase inhibitors; novel 5-vinylpyrazole analogues with Gram-positive antibacterial activity pp 2863–2866 Akihiko Tanitame,* Yoshihiro Oyamada, Keiko Ofuji, Kenji Suzuki, Hideaki Ito, Motoji Kawasaki, Masaaki Wachi and Jun-ichi Yamagishi

Chemo- and stereoselective synthesis of benzocycloheptene and 1-benzoxepin derivatives as α -sympathomimetic and anorexigenic agents

pp 2867–2870

Vishnu K. Tandon,* Kunwar A. Singh, Anoop K. Awasthi, J. M. Khanna, Bansi Lal and Nitya Anand

Chemo- and stereoselective synthesis of 4 and 5 is described.

3,4-Dihydronaphthalen-1(2H)-ones: novel ligands for the benzodiazepine site of α 5-containing GABA_A receptors

pp 2871–2875

Helen J. Szekeres,* John R. Atack, Mark S. Chambers, Susan M. Cook, Alison J. Macaulay, Gopalan V. Pillai and Angus M. MacLeod

The identification of a novel class of ligands for the benzodiazepine site of α 5-containing GABA_A receptors with a range of efficacies is reported.

Antimelanomal activity of the copper(II) complexes of 1-substituted 5-amino-imidazole ligands against B16F10 mouse melanoma cells

pp 2877-2882

Uday Sandbhor,* Pallavi Kulkarni, Subhash Padhye,* Gopal Kundu, Grahame Mackenzie and Robin Pritchard

The copper complexes of 5-amino-imidazole ligands were prepared and characterized by various spectroscopic techniques. Ligands and copper complexes exhibited dose-dependent antiproliferative effects on the growth of B16F10 melanoma cells line but lower IC₅₀ values were observed for the copper complexes.

Synthesis of jaspaquinol and effect on viability of normal and malignant bladder epithelial cell lines

pp 2883-2887

Alexandre Demotie, Ian J. S. Fairlamb,* Feng-Ju Lu, Nicola J. Shaw, Peter A. Spencer and Jennifer Southgate

Synthesis and biological activity of novel platinum(II) complexes of glutamate tethered to hydrophilic hematoporphyrin derivatives

pp 2889–2892

Yeong-Sang Kim, Rita Song,* Chong Ock Lee and Youn Soo Sohn*

Structure-activity relationships of trans-cinnamic acid derivatives on α -glucosidase inhibition

pp 2893-2896

Sirichai Adisakwattana, Kasem Sookkongwaree, Sophon Roengsumran, Amorn Petsom, Nattaya Ngamrojnavanich, Warinthorn Chavasiri, Sujitra Deesamer and Sirintorn Yibchok-anun*

4-methoxy-trans-cinnamic acid

4-methoxy-trans-cinnamic acid ethyl

The substitution at 4-position in *trans*-cinnamic acid with OH– and OC_2H_5 -group increased the α -glucosidase inhibitory activity. Both 4-methoxy-*trans*-cinnamic acid and 4-methoxy-*trans*-cinnamic acid ethyl ester exerted the highest potent inhibitory activity among those of *trans*-cinnamic acid derivatives.

Reverse hydroxamate-based selective TACE inhibitors

pp 2897-2900

Noriyuki Kamei, Tomohiro Tanaka, Kentaro Kawai, Kyosei Miyawaki, Akihiko Okuyama, Yoshiko Murakami, Yoshio Arakawa, Makoto Haino, Tatsuhiro Harada and Masanao Shimano*

Reverse hydroxamate-based selective TACE inhibitors are described. Compound 18 has a potent TACE inhibitory activity and a high selectivity against MMPs, and has demonstrated an excellent oral inhibitory activity of the lipopolysaccharide (LPS)-stimulated TNF- α production in rats.

Synthesis and evaluation of novel 1,4-naphthoquinone derivatives as antiviral, antifungal and anticancer agents

pp 2901-2904

Vishnu K. Tandon,* Ravindra V. Singh and Dharmendra B. Yadav

The synthesis, antiviral, antifungal and anticancer activities of 4-10 is described.

N-Aryl- γ -lactams as integrin $\alpha_v \beta_3$ antagonists

pp 2905-2909

Ning Xi, Stephen Arvedson, Shawn Eisenberg, Nianhe Han, Michael Handley, Liang Huang, Qi Huang, Alexander Kiselyov, Qingyian Liu, Yuelie Lu, Gladys Nunez, Timothy Osslund, David Powers, Andrew S. Tasker, Ling Wang, Tingjian Xiang, Shimin Xu, Jiandong Zhang, Jiawang Zhu, Richard Kendall and Celia Dominguez*

Novel $\alpha_{\nu}\beta_{3}$ antagonists based on the N-aryl- γ -lactam scaffold were prepared. SAR studies led to the identification of potent antagonists for $\alpha_{\nu}\beta_{3}$ receptor with excellent selectivity against the structurally related $\alpha_{IIb}\beta_{3}$ receptor. Additional interactions of N-aryl- γ -lactam derivatives with $\alpha_{\nu}\beta_{3}$ were found when compared to c(-RGDf[NMe]V-) peptide antagonist. The effects of the conformation and configuration of the γ -lactam core on the binding were also assessed.

Synthesis and biological activity of some structural modifications of pancratistatin

pp 2911-2915

Uwe Rinner, Heather L. Hillebrenner, David R. Adams, Tomas Hudlicky* and George R. Pettit

Synthesis of 3a,4-dihydro-3*H*-[1]benzopyrano[4,3-c]isoxazoles, displaying combined 5-HT uptake pp 2917–2922 inhibiting and α_2 -adrenoceptor antagonistic activities. Part 2: Further exploration on the cinnamyl moiety

Joaquín Pastor, Jesús Alcázar, Rosa M. Alvarez, J. Ignacio Andrés,* José M. Cid, Ana I. De Lucas, Adolfo Díaz, Javier Fernández, Luis M. Font, Laura Iturrino, Celia Lafuente, Sonia Martínez, Margot H. Bakker, Ilse Biesmans, Lieve I. Heylen and Anton A. Megens

The synthesis and preliminary pharmacological activity of new substituted cinnamyl derivatives of our novel series of 3-piperazinylmethyl-3a,4-dihydro-3H-[1]benzopyrano-[4,3-c]isoxazoles are reported.

New highly selective inhibitors of class II fructose-1,6-bisphosphate aldolases

pp 2923-2926

Matthieu Fonvielle, Philippe Weber, Kasia Dabkowska and Michel Therisod*

PGA and PGHz, two new derivatives of phosphoglycolic acid, were synthesised and successfully tested as selective inhibitors of class II FBP-aldolase.

Synthesis and DNA binding properties of dioxime-peptide nucleic acids

pp 2927-2930

Andriy Mokhir,* Roland Krämer, Yan Z. Voloshin and Oleg A. Varzatskii

Peptide nucleic acids (PNAs) C- or N-modified with dioxime ligands were prepared by solid-phase synthesis using iron(II)-clathrochelates as protected dioxime building blocks. These PNA bind complementary DNA sequence specifically, though with much reduced affinity in comparison with nonmodified PNA. The dioxime–PNA conjugates bind Cu^{2+} and Ni^{2+} at μM concentration.



Plasmepsin II inhibition and antiplasmodial activity of Primaquine-Statine 'double-drugs'

pp 2931-2934

Sergio Romeo,* Mario Dell'Agli, Silvia Parapini, Luca Rizzi, Germana Galli, Monica Mondani, Anna Sparatore, Donatella Taramelli and Enrica Bosisio

 $IC_{50} = 0.59$ nM (Plasmepsin II); $IC_{50} = 0.4$ µM (P. falciparum)

Orally active factor Xa inhibitors: 4,5,6,7-tetrahydrothiazolo[5,4-c]pyridine derivatives

pp 2935-2939

Noriyasu Haginoya,* Syozo Kobayashi, Satoshi Komoriya, Yumiko Hirokawa, Taketoshi Furugori and Takayasu Nagahara

3c: R = H, 3d: R = Me

4,5,6,7-Tetrahydrothiazolo[5,4-c]pyridine derivatives were found to be potent and selective fXa inhibitors. Compound 3c or 3d exhibited potent anti-fXa activity and evident prolongation with the good intestinal absorption.

The discovery of N-(1,3-thiazol-2-yl)pyridin-2-amines as potent inhibitors of KDR kinase

pp 2941-2945

Mark T. Bilodeau,* Leonard D. Rodman, Georgia B. McGaughey, Kathleen E. Coll, Timothy J. Koester, William F. Hoffman, Randall W. Hungate, Richard L. Kendall, Rosemary C. McFall, Keith W. Rickert, Ruth Z. Rutledge and Kenneth A. Thomas

$$\begin{array}{c|c} & & H \\ N & & N \\ N & & S \\ \hline & N \\ & & Cell \ IC_{50} = 6 \pm 2 \ nM \\ \end{array}$$

Synergetic inhibition of genistein and D-glucose on α-glucosidase

pp 2947-2950

Yufang Wang, Lin Ma,* Chaole Pang, Minju Huang, Zhishu Huang and Lianquan Gu*

The mode of synergetic inhibition was studied and explained by the following illustration, when D-glucose, a reversible competitive inhibitor (I_1) , and genistein (I_2) , a reversible noncompetitive inhibitor were added to the reactant solution containing substrate and enzyme at the same time.

Design, synthesis, and characterization of an ATP-peptide conjugate inhibitor of protein kinase A Aliya C. Hines and Philip A. Cole*

pp 2951-2954

A bisubstrate analogue inhibitor of protein kinase A was designed and synthesized. Kinetic characterization provides novel evidence for the dissociative transition state of protein serine/threonine kinases and illustrates a simple method to convert a low affinity peptide substrate to a selective and modest affinity ligand for these enzymes.

Identification of purine inhibitors of phosphodiesterase 7 (PDE7)

pp 2955-2958

William J. Pitts,* Wayne Vaccaro, Tram Huynh, Katerina Leftheris, Jacques Y. Roberge, Joseph Barbosa, Junqing Guo, Baerbel Brown, Andrew Watson, Karen Donaldson, Gary C. Starling, Peter A. Kiener, Michael A. Poss, John H. Dodd and Joel C. Barrish

A series of purine based inhibitors of PDE7 has been derived from screening lead 1a. The synthesis, structure–activity relationships (SAR), and selectivity against several other PDE family members are described.

Synthesis and DNA damaging ability of enediyne model compounds possessing photo-triggering devices

pp 2959-2962

Ichiro Suzuki,* Shinsaku Uno, Yuko Tsuchiya, Akira Shigenaga, Hisao Nemoto and Masayuki Shibuya

Design, synthesis, and structure-activity relationship of new isobenzofuranone ligands of protein kinase C

pp 2963–2967

Yoshiyasu Baba, Yosuke Ogoshi, Go Hirai, Takeshi Yanagisawa, Kumiko Nagamatsu, Satoshi Mayumi, Yuichi Hashimoto and Mikiko Sodeoka*

Evaluation of series of isobenzofuranone dimers as PKC α ligands: implication for the distance between the two ligand binding sites

pp 2969-2972

Yoshiyasu Baba, Satoshi Mayumi, Go Hirai, Hidekazu Kawasaki, Yosuke Ogoshi, Takeshi Yanagisawa, Yuichi Hashimoto and Mikiko Sodeoka*

Synthesis and biological activity of N-aryl-2-aminothiazoles: potent pan inhibitors of cyclin-dependent kinases

pp 2973-2977

Raj N. Misra,* Hai-yun Xiao, David K. Williams, Kyoung S. Kim, Songfeng Lu, Kristen A. Keller, Janet G. Mulheron, Roberta Batorsky, John S. Tokarski, John S. Sack, S. David Kimball, Francis Y. Lee and Kevin R. Webster

N-Aryl-2-aminothiazoles (structure above) were prepared and found to be inhibitors of CDK1/CDK2/CDK4 in vitro. Modification of the aryl group afforded analogues with in vivo anticancer activity.

Antitumor agents. Part 230: C₄-esters of GL-331 as cytotoxic agents and DNA topoisomerase II inhibitors

pp 2979-2982

Shiqing Han, Zhiyan Xiao, Kenneth F. Bastow and Kuo-Hsiung Lee*

Synthesis of dammarane-type triterpenoids with anti-inflammatory activity in vivo

pp 2983-2986

Dieter Scholz,* Karl Baumann, Max Grassberger, Barbara Wolff-Winiski, Grety Rihs, Hansrudolf Walter and Josef G. Meingassner

The synthesis and in vivo activity of new potent anti-inflammatory triterpenoids are described.

Synthesis and evaluation of spirobenzazepines as potent vasopressin receptor antagonists

pp 2987-2989

Min Amy Xiang, Robert H. Chen,* Keith T. Demarest, Joseph Gunnet, Richard Look, William Hageman, William V. Murray, Donald W. Combs and Mona Patel*

Spirobenzazepines as V_{1a} selective as well as V_{1a}/V₂ dual vasopressin receptor antagonists have been described.

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*Corresponding author

** Supplementary data available via ScienceDirect

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 htBl (center) allows structural selection with the Fc portion of Immunoglobulin (left), while the residues randomized on the red sheet of htBl (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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