

Bioorganic & Medicinal Chemistry Letters Vol. 16, No. 15, 2006

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Synthesis and pharmacological characterization of novel fluorescent histamine H₂-receptor ligands derived from aminopotentidine

pp 3886-3890

Sheng-Xue Xie, Georgiana Petrache, Erich Schneider, Qi-Zhuang Ye, Günther Bernhardt, Roland Seifert and Armin Buschauer*

The title compounds were prepared from potentidine-like building blocks by labeling with BODIPY[®]650/665-X or the cyanine dye S0536, respectively. Surprisingly, compound 5 turned out to be a relatively potent histamine H_2 receptor partial agonist $(K_B \sim 50 \text{ nM}; EC_{50} \sim 100-150 \text{ nM})$.

Synthesis and G-quadruplex stabilizing properties of a series of oxazole-containing macrocycles

pp 3891-3895

Gurpreet Singh Minhas, Daniel S. Pilch, John E. Kerrigan,

Edmond J. LaVoie and Joseph E. Rice*

The synthesis of 24-membered macrocycles containing four, six, and seven oxazole moieties is described. Selected compounds were evaluated for their ability to specifically bind and stabilize G-quadruplex DNA and for cytotoxic activity.

Estrogen receptor β -subtype selective tetrahydrofluorenones: Use of a fused pyrazole as a phenol bioisostere

pp 3896-3901

R. R. Wilkening,* R. W. Ratcliffe, A. K. Fried, D. Meng, W. Sun, L. Colwell, S. Lambert, M. Greenlee, S. Nilsson, A. Thorsell, M. Mojena, C. Tudela, K. Frisch, W. Chan, E. T. Birzin, S. P. Rohrer and M. L. Hammond

Synthesis of a series of potent, ERβ selective, fused pyrazole tetrahydrofluorenone analogs is described.

A diversity oriented synthesis of 3'-O-modified nucleoside triphosphates for DNA 'sequencing by synthesis'

pp 3902-3905

Genliang Lu and Kevin Burgess*



Diaryl substituted pyrrolidinones and pyrrolones as 5-HT_{2C} inhibitors: Synthesis and biological evaluation pp 3906–3912 Fabrizio Micheli,* Alessandra Pasquarello, Giovanna Tedesco, Dieter Hamprecht, Giorgio Bonanomi, Anna Checchia, Albert Jaxa-Chamiec, Federica Damiani, Silvia Davalli, Daniele Donati, Chiara Gallotti, Marcella Petrone, Marilisa Rinaldi, Graham Riley, Silvia Terreni and Martyn Wood

$$R^2$$
 R

The synthesis of a new class of potent and selective 5- $\mathrm{HT}_{2\mathrm{C}}$ antagonists (7) is reported.



Synthesis of 13-(substituted benzyl) berberine and berberrubine derivatives as antifungal agents

Ki Duk Park, Jong Hun Lee, Sung Han Kim, Tae Hoon Kang, Jae Sun Moon and Sung Uk Kim*

pp 3913–3916

We report the synthesis and antifungal activities of 13-(substituted benzyl) berberine and berberrubine derivatives.

Solid-phase synthesis of quinol fatty alcohols, design of N/O-substituted quinol fatty alcohols and comparative activities on axonal growth

pp 3917-3920

Mazen Hanbali, Dominique Bagnard and Bang Luu*

Following the promising activity of Q_2FA15 on axonal growth, two new series of N/O-substituted QFAs were synthesized, based on a S_N2 -type reaction. O-alkylated QFA bearing 14 carbon atoms on the side chain (n=14) shows a very potent activity on axonal growth though lowered when compared to Q_2FA15 . While O-alkylation allows good retention of the biological activity, N-alkylation abolishes it nonetheless. A solid-phase-supported synthesis of Q_2FA15 allowing the conception of new hybrid compounds is also described.

N-Acylated sulfonamide sodium salt: A prodrug of choice for the bifunctional 2-hydroxymethyl-4-(5-phenyl-3-trifluoromethyl-pyrazol-1-yl) benzenesulfonamide class of COX-2 inhibitors

pp 3921-3926

Sunil Kumar Singh,* Saibaba Vobbalareddy, Srinivasa Rao Kalleda, Seshagiri Rao Casturi, Ramesh Mullangi, Rajagopalan Ramanujam, Koteswar Rao Yeleswarapu and Javed Iqbal*



Design and synthesis of butynyloxyphenyl \beta-sulfone piperidine hydroxamates as TACE inhibitors

pp 3927-3931

Kaapjoo Park,* Alexis Aplasca, Mila T. Du, LinHong Sun, Yi Zhu, Yuhua Zhang and Jeremy I. Levin

Synthesis and efficacy of 1-[bis(4-fluorophenyl)-methyl]piperazine derivatives for acetylcholinesterase inhibition, as a stimulant of central cholinergic neurotransmission in Alzheimer's disease

pp 3932-3936

C. T. Sadashiva, J. N. Narendra Sharath Chandra, K. C. Ponnappa, T. Veerabasappa Gowda and Kanchugarakoppal S. Rangappa*

The novel bioactive 1-[bis(4-fluorophenyl)-methyl]piperazine derivatives were synthesized under mild conditions using different aryl/alkyl halides and heterocyclic alkyl halides with 1-[bis(4-fluorophenyl)-methyl]piperazine in the presence of powdered potassium carbonate in N,N-dimethylformamide. All the synthesized compounds were characterized by spectroscopic techniques, elemental analysis and were screened for their efficacy as AchE inhibitor. Some derivatives in this class showed good inhibition against AchE as compared to neostigmine as standard.

Synthesis and SAR of pyrrolotriazine-4-one based Eg5 inhibitors

pp 3937-3942

Kyoung Soon Kim,* Songfeng Lu, Lyndon A. Cornelius, Louis J. Lombardo, Robert M. Borzilleri, Gretchen M. Schroeder, Christopher Sheng, George Rovnyak, Donald Crews, Robert J. Schmidt, David K. Williams, Rajeev S. Bhide, Sarah C. Traeger, Patricia A. McDonnell, Luciano Mueller, Steven Sheriff, John A. Newitt, Andrew T. Pudzianowski, Zheng Yang, Robert Wild, Frances Y. Lee, Roberta Batorsky, James S. Ryder, Marie Ortega-Nanos, Henry Shen, Marco Gottardis and Deborah L. Roussell

Synthesis and SAR of substituted pyrrolotriazine-4-one analogues as Eg5 inhibitors are described. Analogue **26** demonstrated in vivo efficacy in an iv P388 murine leukemia model.

m-Carborane bisphenol structure as a pharmacophore for selective estrogen receptor modulators

pp 3943-3946

Takumi Ogawa, Kiminori Ohta, Tomohiro Yoshimi, Hiroto Yamazaki, Tomoharu Suzuki, Shigeru Ohta and Yasuyuki Endo*

The *m*-carborane bisphenol structure appears to be a favorable hydrophobic pharmacophore for the development of novel selective estrogen receptor modulators (SERMs).

Synthesis and in vitro antimycobacterial activity of N^1 -nicotinoyl-3-(4'-hydroxy-3'-methyl phenyl)-5-[(sub)phenyl]-2-pyrazolines

pp 3947-3949

Mohammad Shaharyar, Anees Ahamed Siddiqui, Mohamed Ashraf Ali, Dharmarajan Sriram* and Perumal Yogeeswari

A series of N^1 -nicotinoyl-3-(4'-hydroxy-3'-methyl phenyl)-5-(substituted phenyl)-2-pyrazolines were synthesized and were tested for their antimycobacterial activity in vitro. Compound (i) N^1 -nicotinyl-3-(4'-hydroxy-3'-methyl phenyl)-5-(1"-chlorophenyl)-2-pyrazoline was found to be the most active agent against MTB and INHR-MTB, with minimum inhibitory concentration of 0.26 μ m. When compared to INH-compound i was found to be 2.8- and 43.7-fold more active against MTB and INHR-MTB, respectively.

Amino substituted analogs of 1-phenyl-3-phenylimino-2-indolones with potent galanin Gal₃ receptor binding affinity and improved solubility

pp 3950-3954

Michael J. Konkel,* Mathivanan Packiarajan, Heidi Chen, Upendra P. Topiwala, Hermogenes Jimenez, Ian Jamie Talisman, Heather Coate and Mary W. Walker

Carbonic anhydrase activators: Activation of isozyme XIII with amino acids and amines

pp 3955-3959

Seppo Parkkila, Daniela Vullo, Luca Puccetti, Anna-Kaisa Parkkila, Andrea Scozzafava and Claudiu T. Supuran*

P2-P4 Macrocyclic inhibitors of hepatitis C virus NS3-4A serine protease

pp 3960-3965

Ashok Arasappan,* F. George Njoroge, Kevin X. Chen, Srikanth Venkatraman, Tejal N. Parekh, Haining Gu, John Pichardo, Nancy Butkiewicz, Andrew Prongay, Vincent Madison and Viyyoor Girijavallabhan

Synthesis and HCV NS3 serine protease inhibitory activity of P2–P4 macrocyclic inhibitors and SAR around this macrocyclic core is described in this communication. X-ray structure of inhibitor 38 bound to the protease is discussed.

R = O, NH, NMe, CH_2NMe , $(CH_2)_{0-2}$; X = H, Me, OMe, n = 0-2

The synthesis and in vitro testing of structurally novel antibiotics derived from acylnitroso Diels-Alder adducts

pp 3966-3970

George P. Nora, Marvin J. Miller* and Ute Möllmann

$(\hat{\boldsymbol{U}})^{+}$

Synthesis and biological evaluation of type VI \(\beta\)-turn templated RGD peptidomimetics

pp 3971-3974

Christopher J. Creighton,* Yanming Du, Rosemary J. Santulli, Brett A. Tounge and Allen B. Reitz

Discovery of 3-hydroxy-4-carboxyalkylamidino-5-arylamino-isothiazoles as potent MEK1 inhibitors

pp 3975-3980

Chamakura V. N. S. Varaprasad,* Dinesh Barawkar, Hassan El Abdellaoui, Subrata Chakravarty, Matthew Allan, Huanming Chen, Weijian Zhang, Jim Z. Wu, Robert Tam, Robert Hamatake, Stanley Lang and Zhi Hong

$$S^{N}$$
 OH H H OH OH OH OH



The synthesis and SAR of 2-arylsulfanylphenyl-1-oxyalkylamino acids as GlyT-1 inhibitors

pp 3981-3984

Garrick Smith,* Gitte Mikkelsen, Jørgen Eskildsen and Christoffer Bundgaard

A novel series of GlyT-1 inhibitors is described. The most potent compound, **38**, has a GlyT-1_b $IC_{50} = 59$ nM. In vitro and in vivo assessment of CNS penetration showed that lead compounds had poor CNS exposure most likely due to active efflux by PgP transporters.

Design, synthesis, and biological evaluation of novel tricyclic HIV-1 integrase inhibitors by modification of its pyridine ring

pp 3985-3988

Sammy E. Metobo,* Haolun Jin, Manuel Tsiang and Choung U. Kim

A series of novel analogs of 1 were synthesized and biologically evaluated against HIV-1 integrase. The analogs made were modifications made to the pyridine ring with a variety of heterocycles and substitutions.



Design, synthesis, and SAR studies of novel and highly active tri-cyclic HIV integrase inhibitors

pp 3989-3992

Haolun Jin,* Ruby Z. Cai, Laura Schacherer, Salman Jabri, Manuel Tsiang, Maria Fardis, Xiaowu Chen, James M. Chen and Choung U. Kim

A novel class of tri-cyclic HIV integrase inhibitors were designed based on the conformational analysis of inhibitors for binding. SAR studies led to the identification of compound 1 exhibiting potent anti-HIV activity with $EC_{50} = 3.4 \text{ nM}$ and favorable physicochemical properties.

7-(Aryl/heteroaryl-2-ylethynyl)-4-phenylamino-3-quinolinecarbonitriles as new Src kinase inhibitors: Addition of water solubilizing groups

pp 3993-3997

Biqi Wu,* Ana Carolina Barrios Sosa, Diane H. Boschelli, Frank Boschelli, Erick E. Honores, Jennifer M. Golas, Dennis W. Powell and Yanong D. Wang

The synthesis and SAR studies of a new series of Src kinase inhibitors is described.

Discovery of protein-protein binding disruptors using multi-component condensations small molecules

pp 3998-4001

Karim Bedjeguelal, Hugues Bienaymé, Antoine Dumoulin, Stéphane Poigny,*

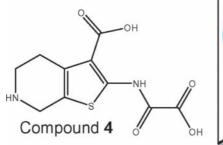
Philippe Schmitt and Eric Tam

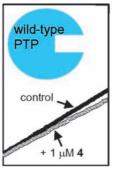
The synthesis of the compound 53 (IC_{50 ELISA} = $2 \mu M$) and analogues is reported.

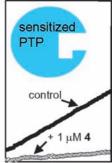
A gatekeeper residue for inhibitor sensitization of protein tyrosine phosphatases

pp 4002-4006

Anthony C. Bishop* and Elizabeth R. Blair









Photocleavage of o-nitrobenzyl ether derivatives for rapid biomedical release applications

pp 4007-4010

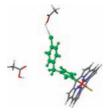
Moon Suk Kim and Scott L. Diamond*

The synthesis and photodecomposition of 1-o-nitrophenylethyl derivatives amenable for the creation of photo-labile compounds are reported.

Synthesis and biochemical evaluation of a range of potent benzyl imidazole-based compounds as potential inhibitors of the enzyme complex 17α -hydroxylase/17,20-lyase (P450_{17 α})

pp 4011-4015

Caroline P. Owen,* Sachin Dhanani, Chirag H. Patel, Imran Shahid and Sabbir Ahmed*

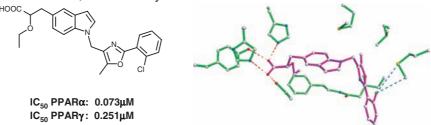


We report the synthesis and biochemical evaluation of a range of benzyl imidazole-based compounds which have been targeted against the two components of this enzyme, that is, 17α -hydroxylase (17α -OHase) and 17,20-lyase (lyase).

Structure-based design of indole propionic acids as novel PPARa/y co-agonists

pp 4016-4020

Bernd Kuhn,* Hans Hilpert,* Jörg Benz, Alfred Binggeli, Uwe Grether, Roland Humm, Hans Peter Märki, Markus Meyer and Peter Mohr



The structure-based discovery, chemical synthesis, X-ray structure, and biological *in vitro* data of indole propionic acids as potent PPAR $\alpha l \gamma$ co-agonists are described.

5-Benzylidene-hydantoins as new EGFR inhibitors with antiproliferative activity

pp 4021-4025

Caterina Carmi, Andrea Cavazzoni, Valentina Zuliani, Alessio Lodola, Fabrizio Bordi, Pier Vincenzo Plazzi, Roberta R. Alfieri, Pier Giorgio Petronini and Marco Mor*

A series of 1,5-disubstituted hydantoins, whose structure was designed to interact at the ATP-binding site of EGFR, was synthesized and evaluated for inhibition of EGFR kinase activity and antiproliferative action.

Identification of thieno[3,2-b]pyrroles as allosteric inhibitors of hepatitis C virus NS5B polymerase

pp 4026-4030

Jesus M. Ontoria,* Jose I. Martin Hernando, Savina Malancona, Barbara Attenni, Ian Stansfield, Immacolata Conte, Caterina Ercolani, Jörg Habermann, Simona Ponzi, Marcello Di Filippo, Uwe Koch, Michael Rowley and Frank Narjes

Thieno[3,2-b]pyrroles are a novel class of allosteric inhibitors of HCV NS5B RNA-dependent RNA polymerase which show potent affinity for the NS5B enzyme. Introduction of a polar substituent in the position N1 led to a compound that efficiently blocks subgenomic HCV RNA replication in HUH-7 cells with an EC₅₀ of 2.9 μ M.

Effect of substitution on novel tricyclic HIV-1 integrase inhibitors

pp 4031-4035

Maria Fardis,* Haolun Jin, Salman Jabri, Ruby Z. Cai, Michael Mish, Manuel Tsiang and Choung U. Kim

 R^1 = H, Me, $SO_2N(Me)_2$

A series of novel tricyclic dihydropyrroloquinoline analogs was designed targeted at inhibition of HIV-1 integrase. Modification of R^2 and R^3 led to discovery of highly potent inhibitors of integrase.



Design of novel, potent, and selective human β-tryptase inhibitors based on α-keto-[1,2,4]-oxadiazoles pp 4036–4040 Chang-Sun Lee,* Weili Liu, Paul A. Sprengeler, John R. Somoza, James W. Janc, David Sperandio, Jeffrey R. Spencer, Michael J. Green and Mary E. McGrath

A series of novel α -keto-[1,2,4]-oxadiazoles has been synthesized as human tryptase inhibitors for evaluation as a new class of anti-asthmatic agent. The inhibitor design is focused on using a prime-side hydrophobic pocket and the S2 pocket of β -tryptase to achieve inhibition potency and selectivity over other serine proteases.

Lipase catalyzed synthesis of benzyl acetate in solvent-free medium using vinyl acetate as acyl donor pp 4041–4044 Abir B. Majumder, Bhupender Singh, Debjit Dutta, Sushabhan Sadhukhan and Munishwar N. Gupta*

Commercially available immobilized *Mucor miehei* lipase, Lipozyme[®] RM IM, with benzyl alcohol and vinyl acetate in 1:6 molar ratio, in solvent-free medium, at pH 7 and at 45 °C gives 100% yield of benzyl acetate in 10 min.

Design and synthesis of selective α_{1B} adrenoceptor antagonists

pp 4045-4047

Ryoji Hayashi,* Eiji Ohmori, Masafumi Isogaya, Mitsuhiro Moriwaki and Hiroki Kumagai

The synthesis of the potent and selective α_{1B} adrenoceptor antagonist 11 ($K_i = 0.63$ nM) is reported.

Substituted N-(2-aminophenyl)-benzamides, (E)-N-(2-aminophenyl)-acrylamides and their analogues: pp 4048–4052 Novel classes of histone deacetylase inhibitors

Oscar Moradei,* Silvana Leit, Nancy Zhou, Sylvie Fréchette, Isabelle Paquin, Stéphane Raeppel, Frédéric Gaudette, Giliane Bouchain, Soon H. Woo, Arkadii Vaisburg, Marielle Fournel, Ann Kalita, Aihua Lu, Marie-Claude Trachy-Bourget, Pu T. Yan, Jianhong Liu, Zuomei Li, Jubrail Rahil, A. Robert MacLeod, Jeffrey M. Besterman and Daniel Delorme

The synthesis and SAR studies of a structurally novel series of histone deacetylase (HDACs) inhibitors are described.

Identification of metabolites of the tryptase inhibitor CRA-9249: Observation of a metabolite derived from an unexpected hydroxylation pathway

pp 4053-4058

Walter Yu, Jeffrey M. Dener,* Daniel A. Dickman, Paul Grothaus, Yun Ling, Liang Liu, Chris Havel, Kimberly Malesky, Tania Mahajan, Colin O'Brian, Emma J. Shelton, David Sperandio, Zhiwei Tong, Robert Yee and Joyce J. Mordenti

Control of function of a small peptide by a protein

pp 4059-4062

Fujie Tanaka* and Roberta Fuller

A peptide that functions only in the presence of a protein has been developed using reaction-based selection from peptide phage libraries.

Dibasic non-imidazole histamine H₃ receptor antagonists with a rigid biphenyl scaffold

pp 4063-4067

Giovanni Morini,* Mara Comini, Mirko Rivara, Silvia Rivara, Simone Lorenzi, Fabrizio Bordi, Marco Mor, Lisa Flammini, Simona Bertoni, Vigilio Ballabeni, Elisabetta Barocelli and Pier Vincenzo Plazzi

$$\begin{array}{c|c}
N \\
\hline
5 pK_i = 9.47
\end{array}$$

A class of rigid dibasic H₃ antagonists is reported. Compound 5 with subnanomolar affinity for human H₃ receptor was identified.

Synthesis, enzymatic inhibition, and cancer cell growth inhibition of novel δ -lactam-based histone deacetylase (HDAC) inhibitors

pp 4068–4070

Hwan Mook Kim, Kiho Lee, Bum Woo Park, Dong Kyu Ryu, Kangjeon Kim, Chang Woo Lee, Song-Kyu Park,* Jung Whan Han, Hee Yoon Lee, Hyun Yong Lee and Gyoonhee Han*

$$(CH_2)nNH_2$$

$$N O$$

$$N O$$

$$N O$$

$$N O$$

$$N O$$

$$N O$$

Synthesis and biological evaluation of novel δ -lactam-based hydroxamic acids as inhibitors of histone deacetylase (HDAC) is reported.

Synthesis and biological activity of nociceptin/orphanin $FQ(1-13)NH_2$ analogues modified in 9 and/or 13 position

pp 4071-4074

Emilia D. Naydenova,* Vanya I. Zhivkova, Rositza N. Zamfirova, Lubomir T. Vezenkov, Yordanka G. Dobrinova and Polina I. Mateeva

H-Phe-Gly-Gly-Phe-Thr-Gly-Ala-Arg-X9-Ser-Ala-Arg-X13-NH2

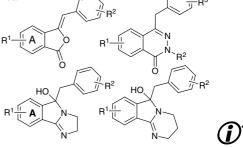
 $X^{9,13} = Lys$ (1); $X^9 = Lys$, $X^{13} = Orn$ (2); $X^9 = Orn$, $X^{13} = Lys$ (3); $X^{9,13} = Orn$ (4); $X^{9,13} = Dab$ (5); $X^{9,13} = Dap$ (6). The biological activities of the parent compound and its analogues were tested in vitro on electrically stimulated rat vas deferens.

Anti-HIV activity of stilbene-related heterocyclic compounds

pp 4075-4079

Luis M. Bedoya, Esther del Olmo, Rocío Sancho, Bianca Barboza, Manuela Beltrán, Ana E. García-Cadenas, Sonsoles Sánchez-Palomino, José L. López-Pérez, Eduardo Muñoz, Arturo San Feliciano and José Alcamí*

The inhibitory activity of several benzalphthalides, phthalazin-1-ones, imidazo-[2,1-a]isoindoles and pyrimido[2,1-a]isoindoles on NF- κ B, Tat and HIV replication is evaluated.



Estimation of the hydrophobicity of 2,4-diphenyl-1,3-oxazoline analogs and QSAR analysis of their ovicidal activity against *Tetranycus urticae*

pp 4080-4084

Chieka Minakuchi, Junji Suzuki, Kazuya Toda, Miki Akamatsu and Yoshiaki Nakagawa*

Log P (P, partition coefficient between 1-octanol and water) values of 2-(substituted phenyl)-1,3-oxazolines were experimentally measured and the QSAR analysis for the ovicidal activity of 2,4-diphenyl-1,3-oxazolines against the two-spotted spider mite Tetranycus urticae was executed.

Novel, potent, selective, and orally bioavailable human BII-tryptase inhibitors

pp 4085-4089

David Sperandio,* Vincent W.-F. Tai, Julia Lohman, Bernie Hirschbein, Rohan Mendonca, Chang-Sun Lee, Jeffrey R. Spencer, James Janc, Margaret Nguyen, Jerlyn Beltman, Paul Sprengeler, Heleen Scheerens, Tong Lin, Liang Liu, Ashwini Gadre, Alisha Kellogg, Michael J. Green and Mary E. McGrath

13 K_i (tryptase) = $0.0054 \mu M$

The synthesis and structure–activity relationship of the potent and selective tryptase inhibitor 13 ($K_i = 0.0054 \, \mu M$) is reported.

Discovery of thiochroman derivatives bearing a carboxy-containing side chain as orally active pure antiestrogens

pp 4090-4094

Yoshitake Kanbe,* Myung-Hwa Kim, Masahiro Nishimoto, Yoshihito Ohtake, Toshiaki Tsunenari, Kenji Taniguchi, Iwao Ohizumi, Shin-ichi Kaiho, Yoshiaki Nabuchi, Setsu Kawata, Kazumi Morikawa, Jae-Chon Jo, Hee-An Kwon, Hyun-Suk Lim and Hak-Yeop Kim

Thiochroman derivatives bearing the carboxy moiety in the long side chain exhibited remarkable antiestrogen activity when administered orally.

HO₂C
$$(CH_2)_m(CF_2)_lF$$

 $(CH_2)_n$ OH $I = 2, 4$
 $m = 2, 3, 4, 5$
 $n = 7, 8, 9, 10$

Proton dissociation is important to understanding structure-activity relationships of gallic acid antioxidants

pp 4095-4098

Hong-Fang Ji, Hong-Yu Zhang* and Liang Shen

If the proton dissociation of gallic acid derivatives is considered, their structure-antioxidant activity relationships can be better understood.



Azadideoxyadenosine: Synthesis, enzymology, and anti-HIV activity

pp 4099-4101

Abdumalik A. Nishonov, Xiaohui Ma and Vasu Nair*

A new azanucleoside with anti-HIV activity.

Synthesis of [11C]Iressa as a new potential PET cancer imaging agent for epidermal growth factor receptor tyrosine kinase

pp 4102-4106

Ji-Quan Wang, Mingzhang Gao, Kathy D. Miller, George W. Sledge and Qi-Huang Zheng*

Synthesis and structure–activity relationships of 3,4-diaminocyclobut-3-ene-1,2-dione CXCR2 antagonists pp 4107–4110

J. Robert Merritt,* Laura L. Rokosz, Kingsley H. Nelson, Jr., Bernd Kaiser, Wei Wang,

Tara M. Stauffer, Lynne E. Ozgur, Adriane Schilling, Ge Li, John J. Baldwin,

Arthur G. Taveras, Michael P. Dwyer and Jianping Chao

A novel series of 3,4-diaminocyclobut-3-ene-1,2-diones was prepared with potent inhibitory activity of CXCR2 binding and IL-8-mediated chemotaxis.

Magnetic resonance imaging of tumor cells by targeting the amino acid transport system

pp 4111-4114

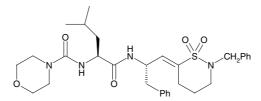
Luciano Lattuada,* Silvia Demattio, Veronica Vincenzi, Claudia Cabella, Massimo Visigalli, Silvio Aime, Simonetta Geninatti Crich and Eliana Gianolio

With the aim of discovering an early diagnosis of cancer by magnetic resonance imaging (MRI), we synthesized and studied six DTPA and DOTA-like gadolinium complexes conjugated to agmatine, arginine, and glutamine (e.g., 7a), able to target tumor cells by means of the glutamine transport system.

Dipeptide vinyl sultams: Synthesis via the Wittig-Horner reaction and activity against papain, falcipain-2 and *Plasmodium falciparum*

pp 4115-4119

Cláudia Valente, Rita C. Guedes, Rui Moreira,* Jim Iley,* Jiri Gut and Philip J. Rosenthal



 $IC_{50} = 13.7 \mu M$ (falcipain-2) $IC_{50} = 7.8 \mu M$ (P. falciparum W2)

Vinyl sultams were prepared via the Wittig-Horner reaction and revealed to be active against recombinant falcipain-2 and *Plasmodium falciparum* W2.



The influence of pH on the G-quadruplex binding selectivity of perylene derivatives

pp 4120-4126

Wirote Tuntiwechapikul,* Thanachai Taka, Mathilde Béthencourt, Luksana Makonkawkeyoon and T. Randall Lee

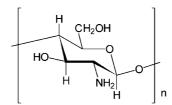
Three new perylene derivatives with branched ionizable side chains were investigated for their G-quadruplex binding specificities, in comparison with two well-studied G-quadruplex ligands: PIPER and TmPyP₄.



Preparation of chitosan-copper complexes and their antitumor activity

pp 4127-4129

Yong Zheng, Ying Yi, Yipeng Qi,* Yuting Wang,* Weian Zhang and Ming Du





The design and synthesis of a tricyclic single-nitrogen scaffold that serves as a 5-HT_{2C} receptor agonist

pp 4130-4134

Bayard R. Huck,* Luis Llamas, Michael J. Robarge, Thomas C. Dent, Jianping Song, William F. Hodnick, Chris Crumrine, Alain Stricker-Krongrad, John Harrington, Kurt R. Brunden and Youssef L. Bennani

We describe the identification, SAR, and biological properties of a series of agonists to the 5- $\mathrm{HT}_{2\mathrm{C}}$ receptor, a GPCR that has been implicated as an obesity target.

Synthesis, molecular modeling studies, and selective inhibitory activity against monoamine oxidase of N_1N' -bis[2-oxo-2H-benzopyran]-3-carboxamides

pp 4135-4140

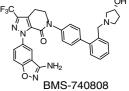
Franco Chimenti, Daniela Secci,* Adriana Bolasco, Paola Chimenti, Arianna Granese, Simone Carradori, Olivia Befani, Paola Turini, Stefano Alcaro and Francesco Ortuso



1-[3-Aminobenzisoxazol-5'-yl]-3-trifluoromethyl-6-[2'-(3-(R)-hydroxy-N-pyrrolidinyl)methyl-[1,1']-biphen-4-yl]-1,4,5,6-tetrahydropyrazolo-[3,4-c]-pyridin-7-one (BMS-740808) a highly potent, selective, efficacious, and orally bioavailable inhibitor of blood coagulation factor Xa

pp 4141–4147

Donald J. P. Pinto,* Michael J. Orwat, Mimi L. Quan, Qi Han, Robert A. Galemmo, Jr., Eugene Amparo, Brian Wells, Christopher Ellis, Ming Y. He, Richard S. Alexander, Karen A. Rossi, Angela Smallwood, Pancras C. Wong, Joseph M. Luettgen, Alan R. Rendina, Robert M. Knabb, Lawrence Mersinger, Charles Kettner, Steven Bai, Kan He, Ruth R. Wexler and Patrick Y. S. Lam



Efforts to further optimize the pyrazole factor Xa inhibitors by masking the aryl aniline P4 moiety resulted in a novel bicyclic tetrahydropyrazolo-pyridinone scaffold. Optimization of this series resulted in the identification of BMS-740808 (6f), a highly potent and selective orally bioavailable inhibitor of blood coagulation factor Xa.

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*Corresponding author

(1) 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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