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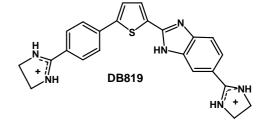
ARTICLES

Targeting the DNA minor groove with fused ring dicationic compounds: Comparison of in silico screening and a high-resolution crystal structure

Nancy H. Campbell, David A. Evans, Michael P. H. Lee, Gary N. Parkinson and Stephen Neidle*

The crystal structure of the DNA minor groove phenyl benzimidazole diamidine ligand DB819 has been determined, bound to the DNA sequence d(CGCGAATTCGCG)₂. Conditions for reliable in silico docking that reproduce the observed position of the ligand in the minor groove have been determined.

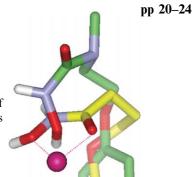
pp 15-19



N-Hydroxyurea as zinc binding group in matrix metalloproteinase inhibition: Mode of binding in a complex with MMP-8

Cristina Campestre, Mariangela Agamennone, Paolo Tortorella, Serena Preziuso, Alessandro Biasone, Enrico Gavuzzo, Giorgio Pochetti, Fernando Mazza, Oliver Hiller, Harald Tschesche, Valerio Consalvi and Carlo Gallina*

The first crystallographic structure of an N-hydroxyurea inhibitor bound into the active site of MMP-8 is reported. The hydroxyurea moiety, contrary to the analogous hydroxamate, binds the catalytic zinc ion as a monodentate rather than a bidentate ligand.

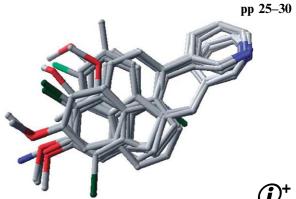




Development and evaluation of a pharmacophore model for inhibitors of aldosterone synthase (CYP11B2)

Sarah Ulmschneider, Matthias Negri, Marieke Voets and Rolf W. Hartmann*

The development of a pharmacophore model through alignment of a subset of inhibitors and non-inhibitors of aldosterone synthase (CYP11B2) is described as well as its validation by synthesis and biological evaluation of two novel compounds.





Design, synthesis and in vitro antimalarial activity of an acylhydrazone library

Patricia Melnyk,* Virginie Leroux, Christian Sergheraert and Philippe Grellier

pp 31-35



Peptide inhibitors of dengue virus NS3 protease. Part 1: Warhead

pp 36-39

Zheng Yin,* Sejal J. Patel, Wei-Ling Wang, Gang Wang, Wai-Ling Chan, K. R. Ranga Rao, Jenefer Alam, Duraiswamy A. Jeyaraj, Xinyi Ngew, Viral Patel, David Beer, Siew Pheng Lim, Subhash G. Vasudevan and Thomas H. Keller

$$HN$$
 NH_2 HN $(K_i = 43 \text{nM})$ Bz-Nie-Lys-Arg N B-OH H OH

Substrate-based tetrapeptide inhibitors with various warheads were designed, synthesized, and evaluated against the Dengue virus NS3 protease. Effective inhibition was achieved by peptide inhibitors with electrophilic warheads such as aldehyde, trifluoromethyl ketone, and boronic acid. A boronic acid has the highest affinity, exhibiting a K_i of 43 nM.

Peptide inhibitors of dengue virus NS3 protease. Part 2: SAR study of tetrapeptide aldehyde inhibitors

pp 40-43

Zheng Yin,* Sejal J. Patel, Wei-Ling Wang, Wai-Ling Chan, K. R. Ranga Rao, Gang Wang, Xinyi Ngew, Viral Patel, David Beer, John E. Knox, Ngai Ling Ma, Claus Ehrhardt, Siew Pheng Lim, Subhash G. Vasudevan and Thomas H. Keller

With the aim of discovering potent and selective dengue NS3 protease inhibitors, we systematically synthesized and evaluated a series of tetrapeptide aldehydes based on lead aldehyde 1 (Bz-Nle-Lys-Arg-Arg-H, $K_i = 5.8 \mu M$). In general, we observe that interactions of P_2 side chain are more important than P_1 followed by P_3 and P_4 . Tripeptide and dipeptide aldehyde inhibitors also show low micromolar activity. Additionally, an effective non-basic, uncharged replacement of P_1 Arg is identified.

Synthesis and biological activity of novel 4-phenyl-1,8-naphthyridin-2(1H)-on-3-yl ureas: Potent acyl-CoA:cholesterol acyltransferase inhibitor with improved aqueous solubility

pp 44-48

Hitoshi Ban,* Masami Muraoka, Katsuhisa Ioriya and Naohito Ohashi

The synthesis and structure–activity relationships of 4-aryl-1,8-naphthyridin-2(1*H*)-on-3-yl urea derivatives with hydrophilic groups are described as a novel potent ACAT inhibitor.

Synthesis of the PPARβ/δ-selective agonist GW501516 and C4-thiazole-substituted analogs

pp 49-54

Raquel Pereira, Claudine Gaudon, Beatriz Iglesias, Pierre Germain, Hinrich Gronemeyer and Angel R. de Lera*

Crystal structure of human ERK2 complexed with a pyrazolo[3,4-c]pyridazine derivative

pp 55-58

Takayoshi Kinoshita,* Masaichi Warizaya, Makoto Ohori, Kentaro Sato, Masahiro Neya and Takashi Fujii

A series of pyrazolopyridazine compounds were briefly investigated as ERK2 inhibitors. The crystal structure of ERK2 complexed with the allyl derivative provides structural insight which could be used in the design of more potent ERK2 inhibitors.

3-Substituted indolizine-1-carbonitrile derivatives as phosphatase inhibitors

pp 59-63

Timo Weide, Lars Arve, Heino Prinz, Herbert Waldmann and Horst Kessler*

$$\bigcap_{N=1}^{R_{EWG}} \bigcap_{N=1}^{R_{EWG}}$$

The solid-phase supported synthesis and antiphosphatase activity of a series of indolizines are reported.

$p38 \ MAP \ kinase \ inhibitors: \ Metabolically \ stabilized \ piperidine-substituted \ quinolinones \ and \ naphthyridinones$

pp 64–68

Jianming Bao,* Julianne A. Hunt,* Shouwu Miao, Kathleen M. Rupprecht, John E. Stelmach, Luping Liu, Rowena D. Ruzek, Peter J. Sinclair, James V. Pivnichny, Cornelis E.C.A. Hop, Sanjeev Kumar, Dennis M. Zaller, Wesley L. Shoop, Edward A. O'Neill, Stephen J. O'Keefe, Chris M. Thompson, Rose M. Cubbon, Ruixiu Wang, Wen Xiao Zhang, James E. Thompson and James B. Doherty

Quinolinones and naphthyridinones with C7 *N-t*-butyl piperidine substituents were found to be potent p38 MAP kinase inhibitors. These compounds significantly suppress TNF-α release in both cellular and LPS-stimulated whole blood assays. They also displayed excellent PK profiles across three animal species. Quinolinone **4f** at 10 mpk showed comparable oral efficacy to that of dexamethasone at 1 mpk in a murine collagen-induced arthritis model.

Hexylitaconic acid: A new inhibitor of p53-HDM2 interaction isolated from a marine-derived fungus, *Arthrinium* sp.

pp 69-71

Sachiko Tsukamoto,* Takushi Yoshida, Hidetaka Hosono, Tomihisa Ohta and Hideyoshi Yokosawa

Hexylitaconic acid

(-)-Hexylitaconic acid (1), a new inhibitor of p53–HDM2 interaction, was isolated from a culture of marine-derived fungus, *Arthrinium* sp. Compound 1 is the second inhibitor isolated from natural resources.

Pyrazole CCK₁ receptor antagonists. Part 1: Solution-phase library synthesis and determination of Free–Wilson additivity

pp 72-76

Kelly McClure, Michael Hack, Liming Huang, Clark Sehon, Magda Morton, Lina Li, Terrance D. Barrett, Nigel Shankley and J. Guy Breitenbucher*

(i)+

Pyrazole CCK_1 receptor antagonists. Part 2: SAR studies by solid-phase library synthesis and determination of Free-Wilson additivity

pp 77-80

Clark Sehon, Kelly McClure, Michael Hack, Magda Morton, Laurent Gomez, Lina Li, Terrance D. Barrett, Nigel Shankley and J. Guy Breitenbucher*



Safrole oxide induces apoptosis by activating caspase-3, -8, and -9 in A549 human lung cancer cells

pp 81–83

AiYing Du, BaoXiang Zhao,* DeLing Yin, ShangLi Zhang and JunYing Miao*

Safrole reacted with 3-chloroperoxybenzoic acid (mCPBA) in chloroform to yield 3,4-(methylenedioxy)-1-(2',3'-epoxypropyl)-benzene (safrole oxide). Safrole oxide induced apoptosis in A549 human lung cancer cells by activating caspase-3, -8, and -9.



NBD-labeled derivatives of the immunomodulatory drug FTY720 as tools for metabolism and mode of action studies

pp 84–87

Peter Ettmayer,* Thomas Baumruker, Danilo Guerini, Diana Mechtcheriakova, Peter Nussbaumer, Markus B. Streiff and Andreas Billich

Fluorescently labeled bioactive analogs of FTY720 and its phosphate with variable aliphatic spacers between the aromatic ring and the NBD label have been synthesized. Efficient phosphorylation in vitro, in vivo as well as signaling via the S1P receptors were

demonstrated for the octanyl and undecanyl derivatives.

FTY720

OH

NH2

OH

NH2

Fluorescent derivatives 1a-d

$$n = 4,6,8,11$$

OH

NH2

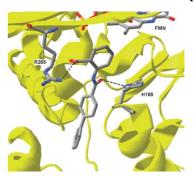
OH

NH2

The first de novo designed inhibitors of *Plasmodium falciparum* dihydroorotate dehydrogenase

Timo Heikkilä, Srinath Thirumalairajan, Matthew Davies, Mark R. Parsons, A. Glenn McConkey, Colin W. G. Fishwick* and A. Peter Johnson*

The de novo molecular design program SPROUT has been applied to the X-ray crystal structures of *Plasmodium* and human dihydroorotate dehydrogenase, respectively. The resulting design templates were used to prepare a series of molecules which, in keeping with predictions, showed useful levels of species-selective enzyme inhibition.



Analogues of N-terminal truncated synthetic peptide fragments derived from RANTES inhibit HIV-1 infectivity

pp 93-95

Emabelle J. Ramnarine, Anthony L. DeVico and Sandra C. Vigil-Cruz*

Ac-Tyr-Ser-Ser-Asp-Thr-Thr-Pro-Ala-Ala-Phe-Ala-Tyr-NH₂
AA314

In a preliminary screening assay, several small peptide fragments derived from RANTES retained anti-HIV activity despite N-terminal truncation, with AA314 exhibiting anti-HIV activity at 10 nM.

Scaffold oriented synthesis. Part 1: Design, preparation, and biological evaluation of thienopyrazoles as kinase inhibitors

pp 96–99

Irini Akritopoulou-Zanze,* Daria Darczak, Kathy Sarris, Kathleen M. Phelan, Jeffrey R. Huth, Danying Song, Eric F. Johnson, Yong Jia and Stevan W. Djuric

$$R^1$$
 R^2
 R
 R
 R
 R

We report the synthesis of kinase targeted libraries based on the thienopyrazole scaffold. Several thienopyrazole analogs have been identified as submicromolar inhibitors of KDR.

pp 88-92

Tetrahydrobenzothiophene inhibitors of hepatitis C virus NS5B polymerase

pp 100-103

M. G. LaPorte,* T. A. Lessen, L. Leister, D. Cebzanov, E. Amparo, C. Faust, D. Ortlip, T. R. Bailey, T. J. Nitz, S. K. Chunduru, D. C. Young and C. J. Burns

$$R = \begin{cases} 4 & \text{CO}_2\text{Et} \\ \frac{5}{6} & \text{NH} \end{cases}$$

A series of tetrahydrobenzothiophenes have been prepared and identified as potent inhibitors of HCV NS5B polymerase. R = 6,6-Dimethyl, $R' = CONHSO_2Ar$.

The design, synthesis, and evaluation of two universal doxorubicin-linkers: Preparation of conjugates that retain topoisomerase II activity

pp 104-107

Chengzao Sun,* Simon E. Aspland, Carlo Ballatore, Rosario Castillo, Amos B. Smith, III* and Angelo J. Castellino*

Two universal DOX-linkers were synthesized, which in turn allowed the parallel preparation of DOX conjugates that retain topoisomerase II activity.

Design and preparation of 2-benzamido-pyrimidines as inhibitors of IKK

pp 108-112

Rudolf Waelchli,* Birgit Bollbuck, Christian Bruns, Thomas Buhl, Jörg Eder, Roland Feifel, Rene Hersperger, Philipp Janser, Laszlo Revesz, Hans-Günter Zerwes and Achim Schlapbach

A series of 4-substituted 2-benzamido-pyrimidines has been synthesized and evaluated for their IKK2 inhibitory activities.

Biological evaluation of 1-alkyl-3-phenylthioureas as orally active HDL-elevating agents

pp 113-117

Gary M. Coppola,* Robert E. Damon, J. Bruce Eskesen, Dennis S. France and James R. Paterniti, Jr.

A series of 1-alkyl-3-phenylthioureas were evaluated as HDL- and Apo A-I-elevating and triglyceride-lowering agents. Analogue **8d** (HDL376) raises HDL cholesterol in rat, hamster, dog, and monkey models.

Discovery of A-770041, a src-family selective orally active lck inhibitor that prevents organ allograft rejection

pp 118-122

Andrew Burchat, David W. Borhani, David J. Calderwood,* Gavin C. Hirst,* Biqin Li and Robert F. Stachlewitz

We describe the identification, SAR, and pharmacology of the src-family selective lck inhibitor A-770041 that prolongs the survival of major histocompatibility mismatched allografts in models of solid organ transplant rejection for greater than 65 days.

Discovery, SAR, and X-ray structure of novel biaryl-based dipeptidyl peptidase IV inhibitors

pp 123-128

Lei Qiao, Christian A. Baumann, Carl S. Crysler, Nisha S. Ninan, Marta C. Abad, John C. Spurlino, Renee L. DesJarlais, Jukka Kervinen, Mike P. Neeper, Shariff S. Bayoumy, Robyn Williams, Ingrid C. Deckman, Malini Dasgupta, Rolanda L. Reed, Norman D. Huebert, Bruce E. Tomczuk and Kevin J. Moriarty*

The discovery, SAR, and X-ray crystal structure of novel biarylaminoacyl-(S)-2-cyano-pyrrolidines and biarylaminoacylthiazolidines as potent inhibitors of dipeptidyl peptidase IV (DPP IV) are reported.

Synthesis of a novel biotin-tagged photoaffinity probe for VEGF receptor tyrosine kinases

pp 129-133

Sun-Young Han, Seok-Soon Park, Woo Ghil Lee, Yong Ki Min* and Bum Tae Kim

A novel biotin-tagged photoaffinity probe (2) was synthesized and evaluated as a vascular endothelial growth factor receptor-2 (VEGFR-2) tyrosine kinase inhibitor.



Design and synthesis of downsized metastin (45-54) analogs with maintenance of high GPR54 agonistic activity

pp 134-137

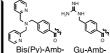
Ayumu Niida, Zixuan Wang, Kenji Tomita, Shinya Oishi, Hirokazu Tamamura, Akira Otaka, Jean-Marc Navenot, James R. Broach, Stephen C. Peiper and Nobutaka Fujii*

H-GTSLSPPPESSGSRQQPGLSAPHSRQIPAP QGAVLVQREKDLPNYNWNSFGLRF-NH₂ metastin M.W. 5857.5

H-Tyr-Asn-Trp-Asn-Ser-Phe-Gly-Leu-Arg-Phe-NH2

metastin (45-54) M.W. 1302.5

Novel Low Molecular GPR54 Agonists		M.W.
Bis(Py)-Amb-Phe-Gly-Leu-Arg-Trp-NH ₂	32	992.2
Gu-Amb-Phe-Gly-Leu-Arg-Trp-NH ₂	33	852.0
Ac-Trp-Asn-Arg-Phe-Gly-Leu-Arg-Trp-NH ₂	39	1175.3





New metabolically stable fatty acid amide ligands of cannabinoid receptors: Synthesis and receptor affinity studies

pp 138-141

Paolo Urbani, Paolo Cavallo, Maria Grazia Cascio, Mariafrancesca Buonerba, Giovanni De Martino, Vincenzo Di Marzo* and Carmela Saturnino

UP70 (CB1 Ki = 0.3 μ M; CB2 Ki = 5.1 μ M)

Thirty-five novel stable fatty acid amide ligands selective for cannabinoid CB₁ receptors are reported, including some tertiary amides of arachidonic acid.



The structure-activity relationships of mansonone F, a potent anti-MRSA sesquiterpenoid quinone: SAR studies on the C6 and C9 analogs

pp 142-145

Young-Ger Suh,* Sun Nam Kim, Dong-Yun Shin, Soon-Sil Hyun, Do-Sang Lee, Kyung-Hoon Min, Sae Mi Han, Funan Li, Eung-Chil Choi and Seong-Hak Choi

For the systematic SAR study on mansonone F, a series of C6 and C9 analogs of mansonone F have been synthesized and their anti-MRSA activities were evaluated. Most of the analogs exhibited good or excellent anti-MRSA activities. In particular, the 6-n-butyl mansonone F showed fourfold higher antibacterial activities compared to that of vancomycin.

4-Phenyl-4-[1*H*-imidazol-2-yl]-piperidine derivatives, a novel class of selective δ-opioid agonists

pp 146-149

Andrés A. Trabanco,* Shirley Pullan, José M. Alonso, Rosa M. Alvarez, José I. Andrés, Inge Boeckx, Javier Fernández, Antonio Gómez, Laura Iturrino, Frans E. Janssens, Joseph E. Leenaerts, Ana I. De Lucas, Encarna Matesanz, Theo Meert and Thomas Steckler

A new chemical class of selective δ -opioid agonists based on the 4-phenyl-4-[1*H*-imidazol-2-yl]-piperidine scaffold is reported. A highly selective δ agonist (18a, EC₅₀ = 14 nM) was identified.

3-Arylpiperazinylethyl-1*H*-pyrrolo[2,3-*d*]pyrimidine-2,4(3*H*,7*H*)-dione derivatives as novel, high-affinity and selective α_1 -adrenoceptor ligands

pp 150-153

Valeria Pittalà,* Giuseppe Romeo, Loredana Salerno, Maria Angela Siracusa, Maria Modica, Luisa Materia, Ilario Mereghetti, Alfredo Cagnotto, Tiziana Mennini, Gabriella Marucci, Piero Angeli and Filippo Russo

The discovery of a new series of selective and high-affinity α_1 -adrenoceptor (α_1 -AR) ligands, characterized by a 1*H*-pyrrolo[2,3-*d*]pyrimidine-2,4(3*H*,7*H*)-dione system, is described in this paper.

Photoreactive threading agent that specifically binds to abasic sites in DNA

pp 154-157

Alain Martelli, Muriel Jourdan, Jean-François Constant,* Martine Demeunynck* and Pascal Dumy

The synthesis and DNA binding of an acridine photoreactive agent are described.

Affinity identification of δ-opioid receptors using latex nanoparticles

pp 158-161

Makoto Hasegawa, Hiroshi Ohno, Hiroshi Tanaka, Mamoru Hatakeyama, Haruma Kawaguchi, Takahai Takahashi* and Hiroshi Handa*

The synthesis of three types of nanoparticles carrying naltrindole derivatives and their use as probes for the affinity isolation of the δ -opioid receptor are described.

A novel class of potent influenza virus inhibitors: Polysubstituted acylthiourea and its fused heterocycle derivatives

pp 162-166

Chuanwen Sun,* Hai Huang, Meiqing Feng, Xunlong Shi, Xiaodong Zhang and Pei Zhou*

A series of polysubstituted and fused heterocycle derivatives of acylthiourea was prepared and shown to be a novel class of highly potent and selective inhibitors of influenza virus. Derivatives 16 and 50 were further investigated as potential candidates for future development.

New 7,8-ethylenedioxy-2,3-benzodiazepines as noncompetitive AMPA receptor antagonists

pp 167-170

Maria Zappalà, Alessia Pellican, Nicola Micale,* Frank S. Menniti, Guido Ferreri, Giovambattista De Sarro, Silvana Grasso and Carlo De Micheli

Synthesis, anticonvulsant activity and AMPA receptor affinity of 1-aryl-3,5-dihydro-7,8-ethylenedioxy-4*H*-2,3-benzodiazepin-4-ones (2a-f) are reported.

Synthesis and biological evaluation of novel heterocyclic quinones as inhibitors of the dual specificity protein phosphatase CDC25C phosphatase CDC25C

Olivier Lavergne,* Anne-Cécile Fernandes, Laetitia Bréhu, Alban Sidhu, Marie-Christine Brézak, Grégoire Prévost, Bernard Ducommun and Marie-Odile Contour-Galcera

Pulvinones as bacterial cell wall biosynthesis inhibitors

pp 176-180

Schuyler Antane,* Craig E. Caufield, William Hu, David Keeney, Pornpen Labthavikul, Koi Morris, Shaughnessy M. Naughton, Peter J. Petersen, Beth A. Rasmussen, Guy Singh and Youjun Yang

Pulvinones were synthesized (>180) in arrays and evaluated as inhibitors of early stage cell wall biosynthesis enzymes MurA–MurD. Several pulvinones inhibited Mur enzymes with IC₅₀'s in the 1–10 μ g/mL range and demonstrated antibacterial activity against Gram-positive bacteria including methicillin-resistant *Staphyloccus aureus*, vancomycin-resistant *Enterococcus faecalis*, and penicillin-resistant *Streptococcus pneumoniae*.

pulvinones

C8c-C15 monoseco-analogues of the phenanthroquinolizidine alkaloids julandine and cryptopleurine exhibiting potent anti-angiogenic properties

pp 181–185

Martin G. Banwell,* Anna Bezos, Christopher Burns, Irma Kruszelnicki, Christopher R. Parish, Stephen Su and Magne O. Sydnes

Hydroxylated analogues of the orally active broad spectrum antifungal, Sch 51048 (1), and the discovery of posaconazole [Sch 56592; 2 or (S,S)-5]

pp 186-190

Frank Bennett,* Anil K. Saksena, Raymond G. Lovey, Yi-Tsung Liu, Naginbhai M. Patel, Patrick Pinto, Russel Pike, Edwin Jao, Viyyoor M. Girijavallabhan, Ashit K. Ganguly, David Loebenberg, Haiyan Wang, Anthony Cacciapuoti, Eugene Moss, Fred Menzel, Roberta S. Hare and Amin Nomeir

Macrocyclic peptidomimetic inhibitors of β -secretase (BACE): First X-ray structure of a macrocyclic peptidomimetic-BACE complex

Isabel Rojo,* José Alfredo Martín, Howard Broughton, David Timm, Jon Erickson, Hsiu-Chiung Yang and James R. McCarthy

The synthesis of novel macrocyclic peptidomimetic inhibitors of BACE1 is described. These macrocycles are derived from a hydroxyethylene core structure. Compound 7 was co-crystallized with BACE1 and the X-ray structure of the complex elucidated at 1.6 Å resolution. This molecule inhibits the production of the A β peptide in HEK293 cells overexpressing APP751sw.

pp 196-199

Synthesis and preliminary biological evaluation of (2S,1'R,2'S)- and (2S,1'S,2'R)-2-(2'-phosphonocyclopropyl)glycines, two novel conformationally constrained L-AP4 analogues

Laura Amori, Michaela Serpi, Maura Marinozzi, Gabriele Costantino,

Monica Gavilan Diaz, Mette Brunsgaard Hermit, Christian Thomsen and Roberto Pellicciari*

$$H_2O_3P$$
 S
 R
 NH_2
 CO_2H
 H_2O_3P
 NH_2
 NH_2
 NH_2
 $PCG-1$
 $PCG-2$

Identification and initial evaluation of 4-N-aryl-[1,4]diazepane ureas as potent CXCR3 antagonists

pp 200-203

Andrew G. Cole,* Ilana L. Stroke, Marc-Raleigh Brescia, Srilatha Simhadri, Joan J. Zhang, Zahid Hussain, Michael Snider, Christopher Haskell, Sofia Ribeiro, Kenneth C. Appell, Ian Henderson and Maria L. Webb

The synthesis and evaluation of 4-N-aryl-[1,4]diazepane ureas as CXCR3 antagonists are reported.

Optimization of CCR4 antagonists: Side-chain exploration

pp 204-207

Ashok V. Purandare,* Honghe Wan, Aiming Gao, John Somerville, Christine Burke, Wayne Vaccaro, XiaoXia Yang, Kim W. McIntyre and Michael A. Poss

$$\bigcap_{N} \bigcap_{N} \bigcap_{N} \bigcap_{N} \bigcap_{H} \bigcap_{C}$$

The design, synthesis, and activity of novel and selective small molecule antagonists of the CC chemokine receptor-4 (CCR4) are presented. Compound **8c** was efficacious in a murine allergic inflammation model.

In vitro photo-release of a TRPV1 agonist

pp 208-212

James L. Carr, Kerrie N. Wease, Michael P. Van Ryssen, Suzanne Paterson, Ben Agate, Katherine A. Gallagher, C. Tom A. Brown, Roderick H. Scott and Stuart J. Conway*

Intracellular photolysis of a novel 'caged' capsaicin analogue results in in vitro activation of the capsaicin receptor TRPV1.

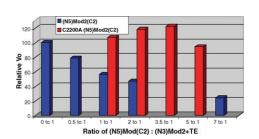


pp 213-216

Modular polyketide synthases: Investigating intermodular communication using 6 deoxyerythronolide B synthase module 2

David A. Moffet, Chaitan Khosla and David E. Cane*

Co-incubation of two engineered variants of 6-deoxyerythronolide B synthase module 2 designed to communicate with one another results in inhibition of catalytic processing of free substrate by the downstream, acceptor module. This inhibition was relieved when a catalytically inactive form of the upstream, donor module was used.



(i)+

Synthesis and monoamine transporter affinity of new 2 β -carbomethoxy-3 β -[aryl or heteroaryl]phenyltropanes

pp 217-220

Gilles Tamagnan,* David Alagille, Xing Fu, Nora S. Kula, Ross J. Baldessarini, Robert B. Innis and Ronald M. Baldwin

A series of 16 new 2β -carbomethoxy- 3β -[aryl or heteroaryl]phenyltropane derivatives was synthesized and evaluated for binding to monoamine transporters. Most of the compounds exhibited subnanomolar affinity for the serotonin transporter (SERT).

Synthesis and biological evaluation of novel C (7) modified chrysin analogues as antibacterial agents

pp 221-224

K. Suresh Babu, T. Hari Babu, P. V. Srinivas, K. Hara Kishore, U. S. N. Murthyand J. Madhusudana Rao*

A series of 7-O-alkyl amino derivatives of chrysin were prepared and their antibacterial potential is studied.

Design, synthesis, and biological evaluation of the N-diarylalkenyl-piperidinecarboxylic acid derivatives as GABA uptake inhibitors (I)

pp 225-227

Jianbin Zheng, Ren Wen,* Xiaomin Luo, Guoqiang Lin, Jiange Zhang, Linfeng Xu, Lihe Guo and Hualiang Jiang

Twenty novel *N*-diarylalkenyl-piperidinecarboxylic acid derivatives were synthesized and evaluated as γ -aminobutyric acid uptake inhibitors. The biological assay showed that (*R*)-1-[4,4-bis(3-phenoxymethyl-2-thienyl)-3-butenyl]-3-piperidinecarboxylic hydrochloride (**4e**) possessed almost as strong GAT1 inhibitory activity as tiagabine. The synthesis and structure–activity relationships are discussed.

The crystal structures of 3-TAPAP in complexes with the urokinase-type plasminogen activator and picrate pp 228–234 Ewa Żesławska, Uwe Jacob, Jörg Stürzebecher and Barbara J. Oleksyn*

We have investigated the conformation of a uPA inhibitor in different crystalline environments. The crystal structures of the urokinase-type plasminogen activator in complex with 3-TAPAP and 3-TAPAP picrate were determined.

OTHER CONTENTS

Summary of instructions to authors

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*Corresponding author

(1) Supplementary data available via Science Direct

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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