

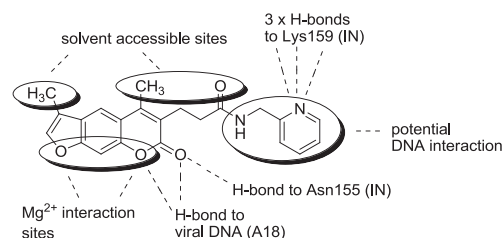
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## Regular Articles

### Novel furocoumarins as potential HIV-1 integrase inhibitors

pp 1–4

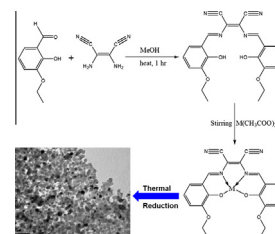
Temitope O. Olomola, Salerwe Mosebi, Rosalyn Klein,  
Telisha Traut-Johnstone, Judy Coates, Raymond Hewer and Perry T. Kaye\*



### Synthesis of copper/nickel nanoparticles using newly synthesized Schiff-base metals complexes and their cytotoxicity/catalytic activities

pp 5–12

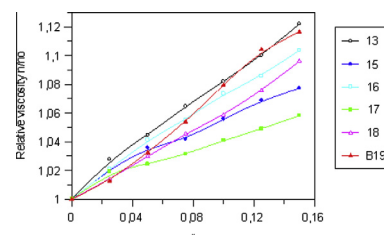
Elham S. Aazam and Waleed Ahmed El-Said\*



### Novel trisubstituted acridines as human telomeric quadruplex binding ligands

pp 13–29

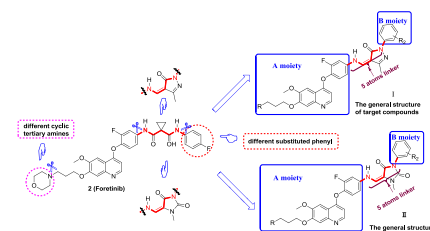
Jan Ungvarsky, Jana Plsikova, Ladislav Janovec, Jan Koval, Jaromir Mikes, Lucia Mikesová,  
Denisa Harvanova, Peter Fedorocko, Pavol Kristian, Jana Kasparkova, Viktor Brabec,  
Maria Vojtickova, Danica Sabolova, Zuzana Stramova, Jan Rosocha, Jan Imrich and  
Maria Kozurkova\*



## Design, synthesis and pharmacological evaluation of 6,7-disubstituted-4-phenoxyquinoline derivatives as potential antitumor agents

pp 30–42

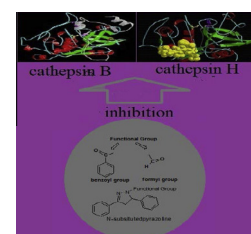
Shunguang Zhou, Jianguo Ren, Mingmei Liu, Lixiang Ren, Yajing Liu and Ping Gong\*



## N-formylpyrazolines and N-benzoylpyrazolines as novel inhibitors of mammalian cathepsin B and cathepsin H

pp 43–50

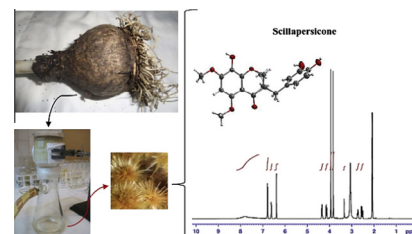
N. Raghav\* and S. Garg



## Biochemical and biophysical properties of a novel homoisoflavonoid extracted from *Scilla persica* HAUSSKN

pp 51–56

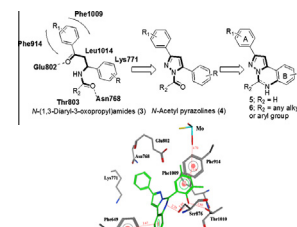
Salar Hafez Ghoran,\* Soodabeh Saeidnia, Esmaeil Babaei, Fumiyuki Kiuchi, Michal Dusek, Vaclav Eigner, Aliakbar Dehno Khalaji, Alireza Soltani, Pouneh Ebrahimi and Hossein Mighani



## Synthesis and xanthine oxidase inhibitory activity of 5,6-dihydropyrazolo/pyrazolo[1,5-c]quinazoline derivatives

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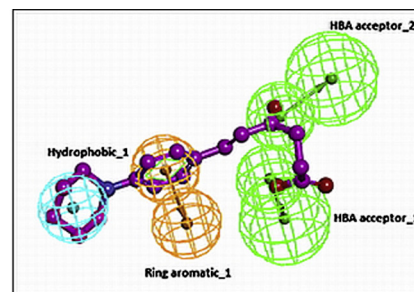
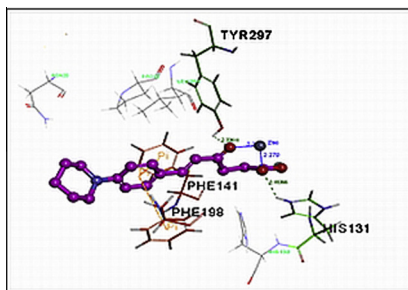
Deependra Kumar, Gagandeep Kaur, Arvind Negi, Sanjeev Kumar, Sandeep Singh and Raj Kumar\*



### Design, synthesis, 3D pharmacophore, QSAR, and docking studies of carboxylic acid derivatives as Histone Deacetylase inhibitors and cytotoxic agents

pp 65–82

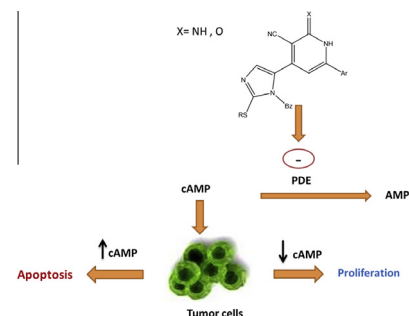
Mona M. Abdel-Atty, Nahla A. Farag, Shaymaa E. Kassab, Rabah A.T. Serya and Khaled A.M. Abouzid\*



### Synthesis and biological evaluation of novel pyridine derivatives as potential anticancer agents and phosphodiesterase-3 inhibitors

pp 83–89

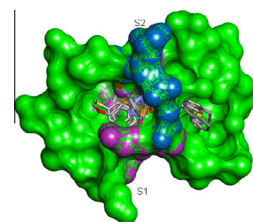
Atieh Sadat Davari, Khalil Abnous, Soghra Mehri, Morteza Ghandadi and Farzin Hadizadeh\*



### Design, synthesis, *in silico* and *in vitro* screening of 1,2,4-thiadiazole analogues as non-peptide inhibitors of beta-secretase

pp 90–98

Archana S. Gurjar, Vincenza Andrisano, Angela D. Simone and Vinay S. Velingkar\*

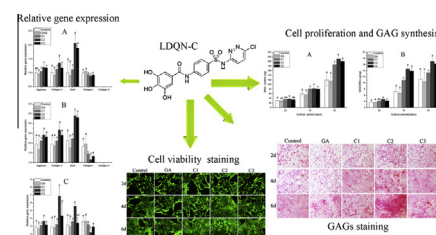


DACT1 active site with subsites and active ligands

### A novel synthesized sulfonamido-based gallic acid – LDQN-C: Effects on chondrocytes growth and phenotype maintenance

pp 99–107

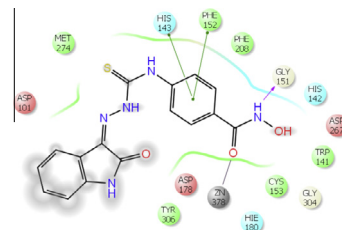
Zhenhui Lu, Shixiu Wei, Huayu Wu, Xiao Lin, Cuiwu Lin, Buming Liu, Li Zheng\* and Jinmin Zhao



**Hydroxamates of *para*-aminobenzoic acid as selective inhibitors of HDAC8**

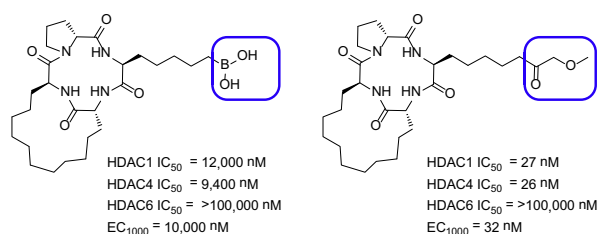
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Umasankar Kulandaivelu, Laxmi Manasa Chilakamari, Surender Singh Jadav, Tadikonda Rama Rao, K.N. Jayaveera, Boyapati Shireesha, Alexander-Thomas Hauser, Johanna Senger, Martin Marek, Christophe Romier, Manfred Jung\* and Venkatesan Jayaprakash\*

**Bicyclic tetrapeptide histone deacetylase inhibitors with methoxymethyl ketone and boronic acid zinc-binding groups**

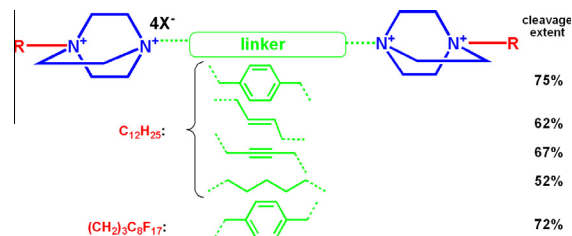
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Md. Nurul Islam,\* Md. Shahidul Islam, Md. Ashrafur Hoque, Tamaki Kato, Norikazu Nishino, Akihiro Ito and Minoru Yoshida

**Structure–activity relationships in new polycationic molecules based on two 1,4-diazabicyclo[2.2.2]octanes as artificial ribonucleases**

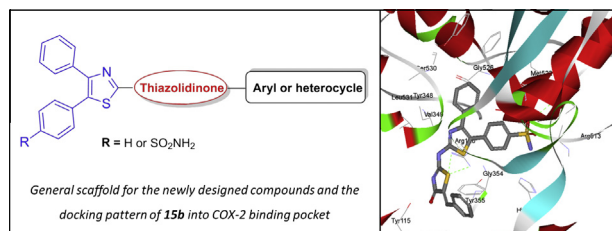
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E. Burakova,\* N. Kovalev, M. Zenkova, V. Vlassov and V. Silnikov

**Design, synthesis and biological evaluation of novel diphenylthiazole-based cyclooxygenase inhibitors as potential anticancer agents**

pp 132–141

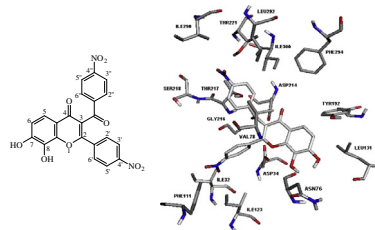
Ahmed H. Abdelazeem,\* Ahmed M. Gouda, Hany A. Omar and Mai F. Tolba



### Antimalarial activity of HIV-1 protease inhibitor in chromone series

pp 142–147

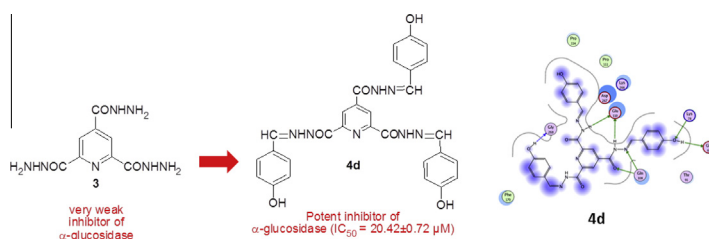
Pradith Lerdsirisuk, Chirattikan Maicheen and Jiraporn Ungwitayatorn\*



### Novel pyridine-2,4,6-tricarbohydrazide derivatives: Design, synthesis, characterization and *in vitro* biological evaluation as $\alpha$ - and $\beta$ -glucosidase inhibitors

pp 148–154

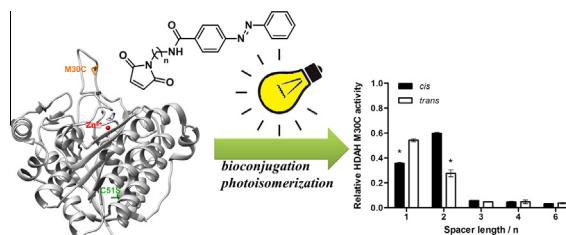
Sadaf Riaz, Islam Ullah Khan, Muhammad Yar,\* Muhammad Ashraf, Tanzeel Ur Rehman, Ayesha Shaukat, Syed Babar Jamal, Vera C.M. Duarte and Maria J. Alves



### Synthesis of azobenzenealkylmaleimide probes to photocontrol the enzyme activity of a bacterial histone deacetylase-like amidohydrolase

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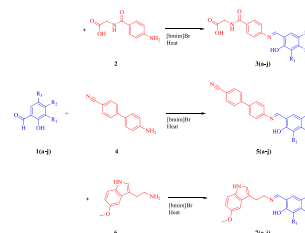
Benjamin Horstmann, Michael Korbus, Tatjana Friedmann, Christiane Wolff, Christina Marie Thiele and Franz-Josef Meyer-Almes\*



### Ionic liquid mediated synthesis and molecular docking study of novel aromatic embedded Schiff bases as potent cholinesterase inhibitors

pp 162–168

Basma M. Abd Razik, Hasnah Osman,\* Alireza Basiri,\* Abdussalam Salhin, Yalda Kia, Mohammed Oday Ezzat and Vikneswaran Murugaiyah

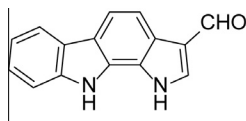


## Preliminary Communication

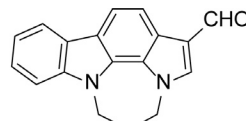
New N-1,N-10-bridged pyrrolo[2,3-*a*]carbazole-3-carbaldehydes: Synthesis and biological activities

pp 108–115

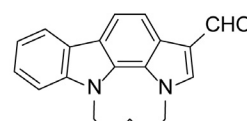
Francis Giraud, Marion Bourhis,  
Lionel Nauton, Vincent Théry, Lars Herfindal,  
Stein Ove Døskeland, Fabrice Anizon\* and  
Pascale Moreau\*



Hit compound

Pim-1 IC<sub>50</sub> = 0.12 μMPim-3 IC<sub>50</sub> = 0.01 μM

Compound 3

Pim-1 IC<sub>50</sub> = 0.042 μMPim-3 IC<sub>50</sub> = 0.05 μM

Compound 17

Pim-1 IC<sub>50</sub> = 0.009 μMPim-3 IC<sub>50</sub> = 0.026 μM

## Special Section: Enzyme and Coenzyme Reaction Mechanisms; Guest editor: John P. Richard

## Enzyme and coenzyme reaction mechanisms: Editorial overview

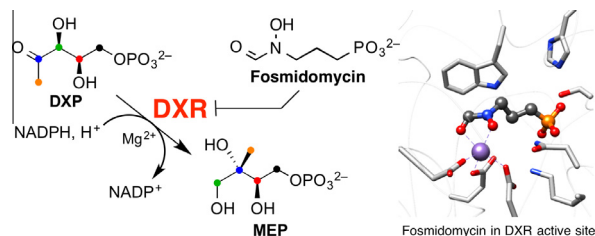
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John P. Richard

## Mechanism and inhibition of 1-deoxy-D-xylulose-5-phosphate reductoisomerase

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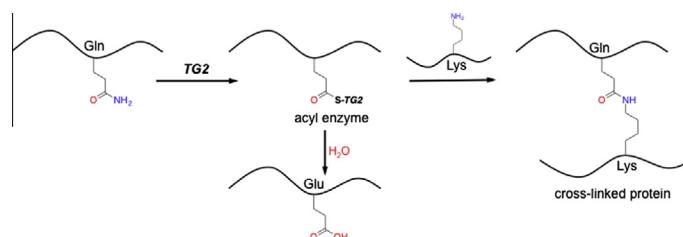
Andrew S. Murkin,\* Kathryn A. Manning and Svetlana A. Kholodar



## Acyl transfer mechanisms of tissue transglutaminase

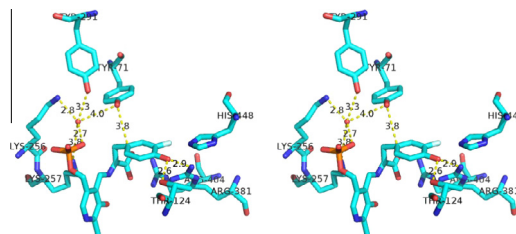
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Jeffrey W. Keillor,\* Christopher M. Clouthier,  
Kim Y.P. Apperley, Abdullah Akbar and Amina Mulani

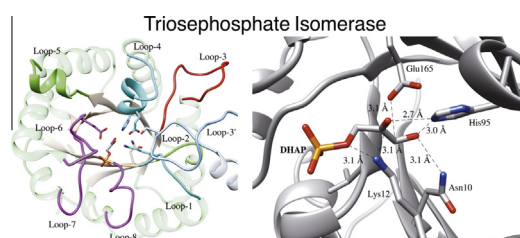


**The role of substrate strain in the mechanism of the carbon–carbon lyases****pp 198–205**

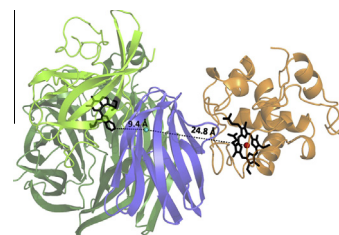
Robert S. Phillips,\* Tatyana V. Demidkina and Nicolai G. Faleev

**Reflections on the catalytic power of a TIM-barrel****pp 206–212**

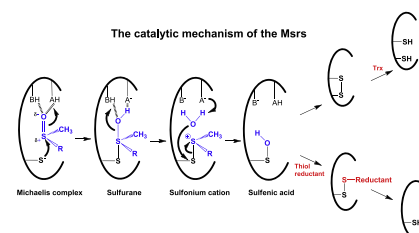
John P. Richard,\* Xiang Zhai and M. Merced Malabanan

**Mechanisms for control of biological electron transfer reactions****pp 213–221**

Heather R. Williamson, Brian A. Dow and Victor L. Davidson\*

**Methionine sulfoxide reductase: Chemistry, substrate binding, recycling process and oxidase activity****pp 222–230**

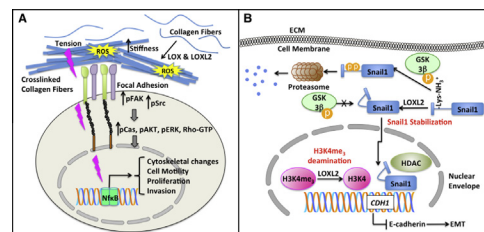
Sandrine Boschi-Muller and Guy Branlant\*



## Human lysyl oxidase-like 2

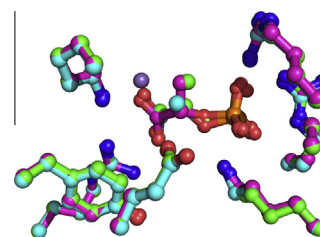
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Hee-Jung Moon, Joel Finney, Trey Ronnebaum and Minae Mure\*

Structural analysis of substrate-mimicking inhibitors in complex with *Neisseria meningitidis* 3-deoxy-D-arabino-heptulosonate 7-phosphate synthase – The importance of accommodating the active site water

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Logan C. Heyes, Sebastian Reichau, Penelope J. Cross, Geoffrey B. Jameson and Emily J. Parker\*



## Progress in the experimental observation of thiamin diphosphate-bound intermediates on enzymes and mechanistic information derived from these observations

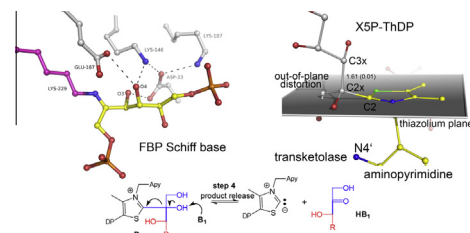
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Frank Jordan\* and Natalia S. Nemeria\*

## Sweet siblings with different faces: The mechanisms of FBP and F6P aldolase, transaldolase, transketolase and phosphoketolase revisited in light of recent structural data

pp 263–280

Kai Tittmann\*



\*Corresponding author