

Anti-Cancer/Anti-Tumor

Web URL: 10.1021/np050096g

1. **Sesquiterpenes from the red alga *Laurencia tristicha***

Sun, J., Shi, D., Ma, M., Li, S., Wang, S., Han, L., Yang, Y., Fan, X., Shi, J. and He, L.

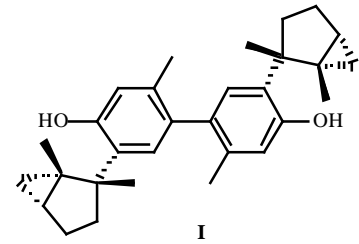
Institute of Materia Medica, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing 100050, People's Republic of China

Journal of Natural Products 2005, **68**(6), 915-919; *C.A.* **143**(10): 169262u

Abstract: This manuscript describes the isolation, structure elucidation and biological evaluation of seven novel sesquiterpenes and seven known sesquiterpenes, including leurebiphenyl (**I**), from the red alga, *Laurencia tristicha*, as cytotoxic agents.

Activity: Of the natural products, the sesquiterpene **I** exhibited cytotoxic activity against the lung adenocarcinoma (A549), stomach cancer (BGC-823), hepatoma (Bel 7402), colon cancer (HCT-8), and HeLa cell lines, with IC_{50} = 1.68, 1.22, 1.91 and 1.61 $\mu\text{g/mL}$, respectively.

Origin: Synthetic



Web URL: 10.1021/np058006v

2. **Cytotoxic diterpenoids from the soft coral *Sinularia microclavata***

Zhang, C. X., Yan, S. J., Zhang, G. W., Lu, W. G., Su, J. Y., Zeng, L. M., Gu, L. Q., Yang, X. P. and Lian, Y. J.

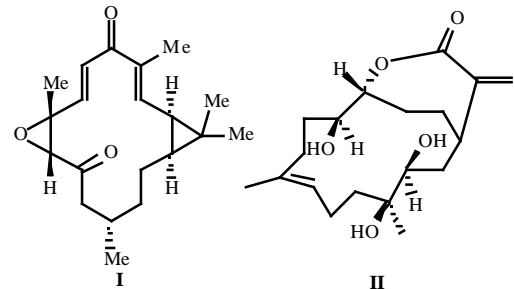
School of Chemistry and Chemical Engineering, Sun Yat-sen University, Guangzhou, 510275, People's Republic of China

Journal of Natural Products 2005, **68**(7), 1087-1089; *C.A.* **143**(10): 169683g

Abstract: Herein this manuscript, the isolation of a new diterpenoid, microclavatin (**I**) and a known cembranolide (**II**), from the soft coral *Sinularia microclavata*, has been described which are also evaluated as cytotoxic agent.

Activity: The microclavatin (**I**) exhibited cytotoxicities against tumor cell lines KB and MCF with IC_{50} = 5.0 and 20.0 $\mu\text{g/mL}$, respectively, whereas compound **II** showed potency against tumor cell line (A-549) with an IC_{50} = 0.5 $\mu\text{g/mL}$.

Origin: Natural Product



Web URL: <http://www.sciencedirect.com/science/journal/0960894X>

3. **Total synthesis and bioactivity of unique flavone desmosdumotin B and its analogs**

Nakagawa-Goto, K., Bastow, K. F., Wu, J. H., Tokuda, H. and Lee, K. H.

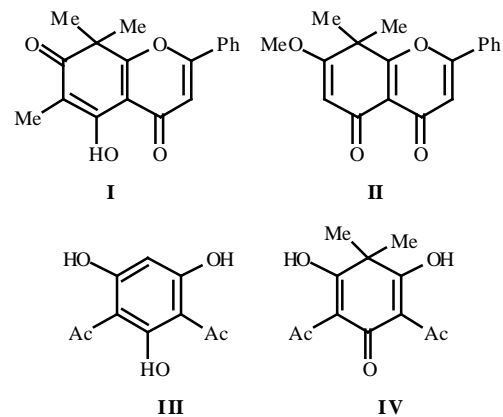
School of Pharmacy, Natural Products Laboratory, University of North Carolina, Chapel Hill, NC 27599, USA

Bioorganic & Medicinal Chemistry Letters 2005, **15**(12), 3016-3019; *C.A.* **143**(10): 172665h

Abstract: The total synthesis of unique flavone desmosdumotin B (**I**) and its analogues (**II-IV**) and evaluation of their cytotoxicities against a panel of cancer cell lines is described.

Activity: The compound **I** exhibited cytotoxicity against a multi-drug resistant cell line (KB-VIN) with an ED_{50} = 2.0 $\mu\text{g/mL}$. Flavone **II** showed cytotoxicity against 1A9 ovarian carcinoma with ED_{50} = 0.7 $\mu\text{g/mL}$. The compounds **III** and **IV** also showed good activity.

Origin: Synthetic



Web URL: <http://www.sciencedirect.com/science/journal/0960894X>

4. **Synthesis, antitumor evaluation and DNA photocleaving activity of novel methylthia-zonaphthalimides with aminoalkyl side chains**

Li, Z., Yang, Q. and Qian, X.

State Key Lab. of Fine Chemicals, Dalian University of Technology, Dalian 116012, People's of Republic of China

Bioorganic & Medicinal Chemistry Letters 2005, **15**(12), 3143-3146; *C.A.* **143**(10): 172798d

Abstract: A panel of methylthiazonaphthalimides has been synthesized and evaluated as efficient DNA intercalators, antitumor agents and DNA photocleavers.

Web URL: <http://www.sciencedirect.com/science/journal/00319422>

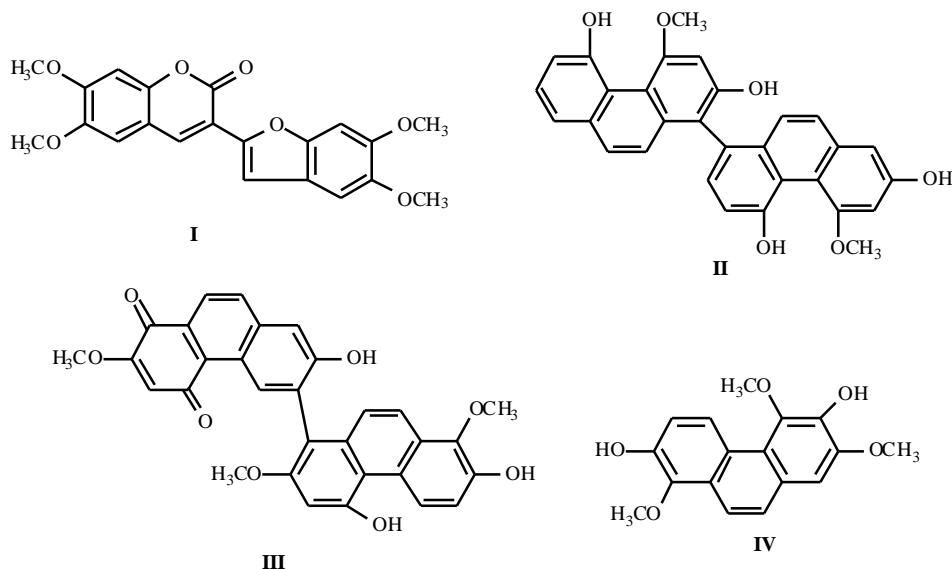
8. Bi-bicyclic and bi-tricyclic compounds from *Dendrobium thyrsiflorum*

Zhang, G. N., Zhong, L. Y., Bligh, S. W. A., Guo, Y. L., Zhang, C. F., Zhang, M., Wang, Z. T. and Xu, L. S. Department of Pharmacognosy, China Pharmaceutical University, Nanjing 210038, People's Republic of China *Phytochemistry* 2005, **66**(10), 1113–1120; C.A. **143**(11): 189951w

Abstract: This manuscript describes the isolation and structure elucidation of one bi-bicyclic and two bi-tricyclic derivatives of coumarin-benzofuran, phenanthrene-phenanthrene and phenanthrene-phenanthraquinone, along with seven known compounds and evaluated against different cancer cell lines.

Activity: Compounds **I-IV** exhibited promising cytotoxicity against HeLa with $IC_{50} = 13.5, 9.3, 9.9$ and $2.7 \mu M$, respectively, against K-562 with $IC_{50} = 0.45, 16, 6.0$ and $2.3 \mu M$, respectively, and against MCF-7 with $IC_{50} = 18.1$ not to 3.5 and $4.8 \mu M$, cell lines, respectively.

Origin: Synthetic



Web URL: <http://www.sciencedirect.com/science/journal/0960894X>

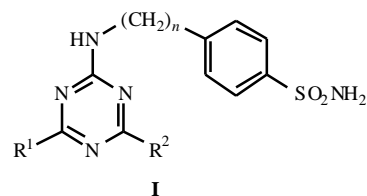
9. Carbonic anhydrase inhibitors: Novel sulfonamides incorporating 1,3,5-triazine moieties as inhibitors of the cytosolic and tumour-associated carbonic anhydrase isozymes I, II and IX

Garaj, V., Puccetti, L., Fasolis, G., Winum, J. Y., Montero, J. L., Scozzafava, A., Vullo, D., Innocenti, A. and Supuran, C. T. Laboratorio di Chimica Bioinorganica, Università degli Studi di Firenze, 50019 Sesto Fiorentino Florence, Italy *Bioorganic & Medicinal Chemistry Letters* 2005, **15**(12), 3102–3108; C.A. **143**(11): 193978e

Abstract: A library of sulfonamides **I** has been synthesized by the reaction of cyanuric chloride with sulfanilamide, homosulfanilamide or 4-aminoethylbenzenesulfonamide followed by substitution with different nucleophiles, such as ammonia, hydrazine, primary and secondary amines, amino acids derivatives or phenols and this library has been tested for inhibition of three physiologically relevant carbonic anhydrase (CA, EC 4.2.1.1) isoenzymes, cytosolic hCA I and II and transmembrane, tumor associated hCA IX inhibition.

Activity: The compounds exhibited hCAI inhibition with inhibition constants of 31–8500 nM, hCAII with inhibition constants of 14–765 nM and hCAIX with inhibition constants of 1.0–640 nM.

Origin: Synthetic



$n = 0, 1, 2$; $R^1 = R^2 = PhO, H_2N, Me_2N, Et_2N, EtNH, 2-(1-piperazinyl)ethylamino, etc.$; $R^1 = Cl, R^2 = HO_2CCH_2NH, MeO_2CCH_2NH, HO_2CCH_2CH_2NH$

Web URL: <http://www.sciencedirect.com/science/journal/02235234>

10. Design, synthesis and *in vitro* cytotoxic studies of novel bis-pyrrolo[2,1][1,4] benzodia-zepine-pyrrole and imidazole polyamide conjugates

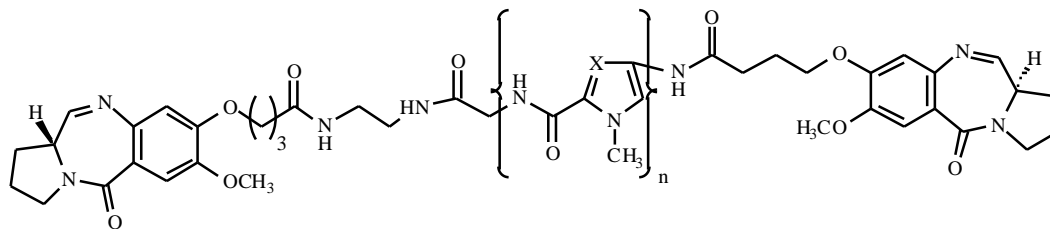
Kumar, R. and Lown, J. W.

Department of Chemistry, University of Alberta, Edmonton, Alta., Canada, T6G 2G2 *European Journal of Medicinal Chemistry* 2005, **40**(7), 641–654; C.A. **143**(11): 193982z

Abstract: Novel bis-pyrrolo[2,1][1,4]benzodia-zepine pyrrole and imidazole polyamide (**I-IV**) conjugates are described and their cytotoxicity in *in vitro* studies evaluated.

Activity: Most of the bis-PBD-pyrrole and imidazole polyamide conjugates were found to be potent against a panel of human cancer cell lines with activity profile in the range of $\log_{10} GI_{50} = 4.37-8.0 \mu M$ for compound **I**, $4.67 - 6.67 \mu M$ for compound **II**, $4.42 - 6.63 \mu M$ for compound **III**, $4.70 - 8.00 \mu M$ for compound **IV**, $4.68 - 8.00 \mu M$ for compound **V** and $4.68 - 6.43 \mu M$ for compound **VI**.

Origin: Synthetic



I n = 1, X = CH **IV** n = 1, X = N
II n = 2, X = CH **V** n = 2, X = N
III n = 3, X = CH **VI** n = 3, X = N

Web URL: <http://www.sciencedirect.com/science/journal/00319422>

11. A sugar ester and an iridoid glycoside from *Scrophularia ningpoensis*

Nguyen, A. T., Fontaine, J., Hugues, M., Claeys, M., Luhmer, M. and Duez, P.

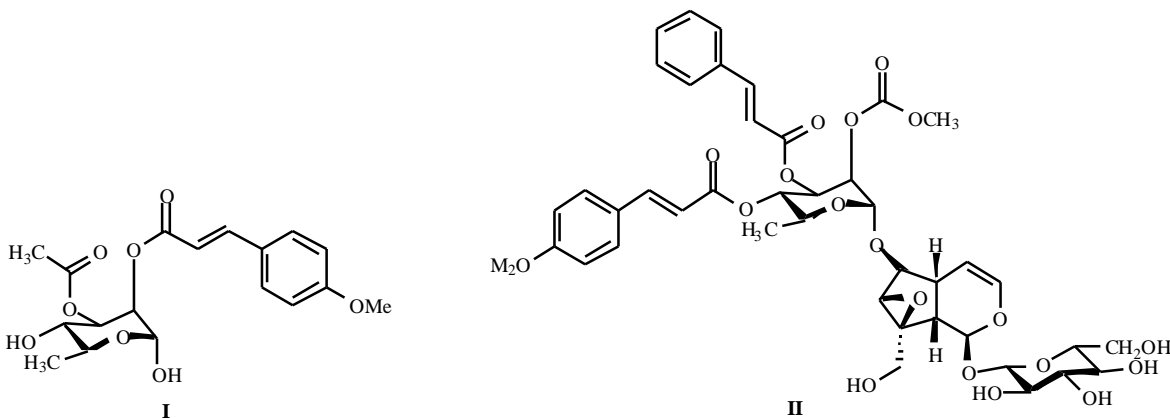
Laboratory of Pharmacognosy, Bromatology and Human Nutrition, Institute of Pharmacy CP 205-9, Université Libre de Bruxelles, B-1050 Brussels, Belgium

Phytochemistry 2005, **66**(10), 1186–1191; *C.A.* **143**(11): 189962a

Abstract: The bioassay-guided isolation of a new sugar ester (**I**) and a new iridoid glycoside (**II**) from the cytotoxic extracts of the roots of *Scrophularia ningpoensis* along with known compounds, oleanonic acid, ursolic acid, ursolic acid, cinnamic acid, 3-hydroxy-4-methoxy benzoic acid, 5-(hydroxymethyl)-2-furfural and -sitosterol are described.

Activity: The scrophuloside B4, an iridoid glycoside, (**II**) exhibited cytotoxicity against K562 and bower cells with $IC_{50} = 44.6$ and $90.2 \mu M$, respectively.

Origin: Natural Product



Web URL: <http://www.sciencedirect.com/science/journal/0960894X>

12. Synthesis and SAR of 2,3-diarylpyrrole inhibitors of parasite cGMP-dependent protein kinase as novel anticoccidial agents

Biftu, T., Feng, D., Ponpipom, M., Girotra, N., Liang, G. B., Qian, X., Bugianesi, R., Simeone, J., Chang, L., Gurnett, A., Liberator, P., Dulski, P., Leavitt, P. S., Crumley, T., Misura, A., Murphy, T., Rattray, S., Samaras, S., Tamas, T., Mathew, J., Brown, C., Thompson, D., Schmatz, D., Fisher, M. and Wyratt, M.

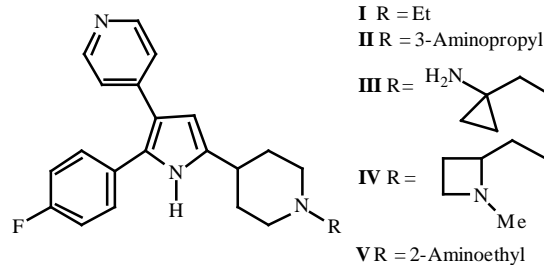
Merck Research Laboratories, Department of Medicinal Chemistry, Merck and Co., Rahway, NJ 07065-0900, USA

Bioorganic & Medicinal Chemistry Letters 2005, **15**(13), 3296–3301; *C.A.* **143**(11): 193877u

Abstract: The analogs of 2,3-diarylpyrroles, e.g. **I**, have been prepared and evaluated as inhibitors of *Eimeria tenella* cGMP-dependent protein kinase and in *in vivo* anticoccidial assays.

Activity: Compounds **I-V** of this series have been found to show potent antiparasitic cGMP-dependent protein kinase activity with $IC_{50} = 0.046-0.28$ nM.

Origin: Synthetic



Web URL: <http://www.sciencedirect.com/science/journal/02235234>

13. **Preparations of vitamin D analogs, spirostanols and furostanols from diosgenin and their cytotoxic activities**

Quan, H. J., Koyanagi, J., Komada, F. and Saito, S.

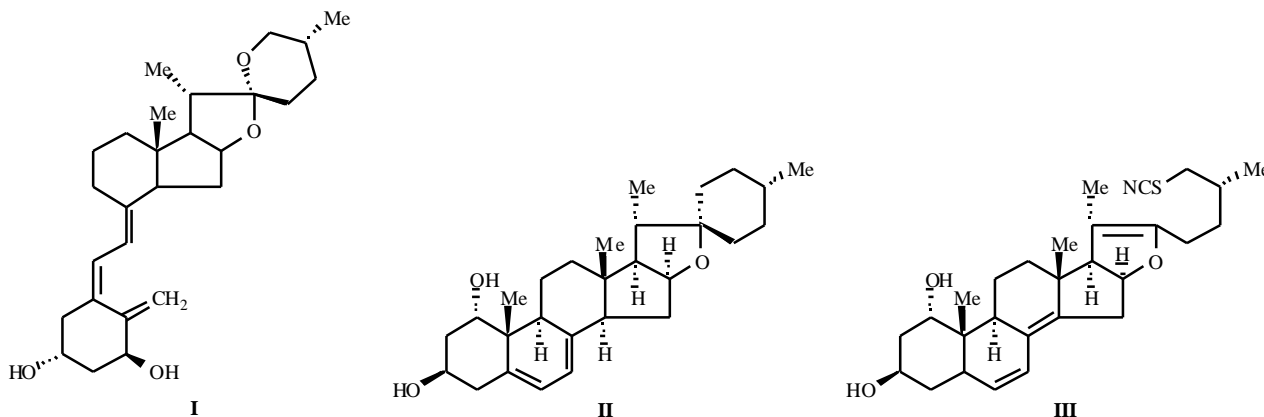
Faculty of Pharmaceutical Sciences, Josai University, Keyakidai 1-1, Sakado, Saitama 350-0295, Japan; College of Pharmacy, Yanbian University, Yanji, Jilin 133000, People's Republic of China

European Journal of Medicinal Chemistry 2005, **40**(7), 662–673; *C.A.* **143**(11): 194140k

Abstract: Using diosgenin as a starting material, the vitamin D analogs, spirostanols and furostanols (**I-III**), have been synthesized and reported to have cytotoxic activities.

Activity: Compound, furostanols (25*R*)-1,3-dihydroxy-26-thiocyanofurosta-5,7,20,(22)-triene (**I**) and compound **III** showed prominent cytotoxicity on HCT 116 cell with IC₅₀ value of 4.9 ± 0.3 μM and 1.3 ± 0.2 μM, respectively. The spirostanol (25*R*)-1,3-dihydroxy-spirosta-5,7-diene (**II**) and furostanol **III** exhibited cytotoxicity on HepG2 cells with IC₅₀ values of 2.4 ± 0.8 μM and 2.8 ± 0.4 μM, respectively.

Origin: Synthetic



14. **Chemical investigations and biological studies of *Mallotus apelta*: Cytotoxic constituents from *Mallotus apelta***

Chau, V. M., Le, M. H., Phan, V. K., Nguyen, H. N., Jung, J. L. and Young, H. K.

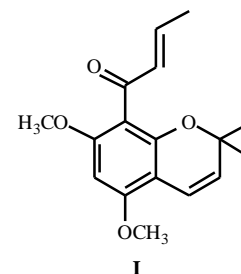
Institute of Natural Products Chemistry, Vietnamese Academy of Science and Technology, Vietnam

Tap Chi Hoa Hoc 2005, **43**(1), v-vi; *C.A.* **143**(9): 145584z

Abstract: A bioactive component has been isolated from *Mallotus apelta* and evaluated as an anticancer agent.

Activity: Malloapelta B (**I**) exhibited strong cytotoxic activity against the cancer cell line KB (human epidermoid carcinoma) with IC₅₀ = 2.12 ± 0.01 μg/mL.

Origin: Natural Product



15. **New cytotoxic isoflavone from the root bark of *Brosimum utile***

Ferrari, F., Delle Monache, F., Suarez, A. I., Arvelo, F. and Compagnone, R. S.

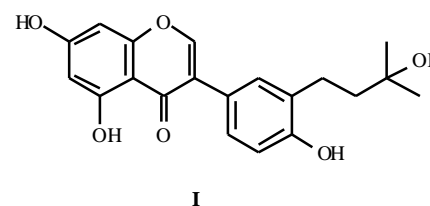
Istituto di Chimica del Riconoscimento Molecolare CNR, Istituto di Biochimica e Biochimica Clinica, Universita Cattolica del Sacro Cuore, Rome, Italy

Natural Product Research 2005, **19**(4), 331-335; *C.A.* **143**(9): 145968e

Abstract: The isolation and structure elucidation of a new cytotoxic isoflavone, 5,7,4'-trihydroxy-3'-(3-hydroxy-3-methylbutyl)isoflavone (isowigtheone hydrate) (**I**), from the root bark of *Brosimum utile* are presented.

Activity: Compound **I** was evaluated for *in vitro* cytotoxic activity against a panel of cell lines MCF7 (human breast carcinoma), PC3 (human prostate carcinoma), HT29 (human colon cancer and human dermis fibroblasts with IC₅₀ = 26.5, 28.4, >100 and 130 μg/mL.

Origin: Natural Product



Web URL: 10.1021/np040107q

16. **Antineoplastic Agents. 545. Isolation and structure of turbostatins 1-4 from the Asian marine mollusk *Turbo stenogyrus***

Pettit, G. R., Tang, Y. and John, C. K.

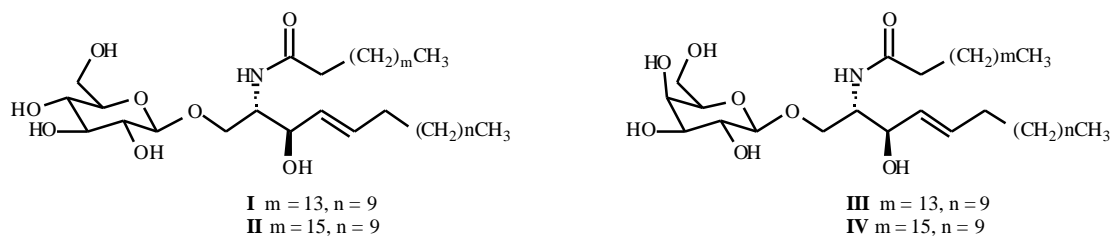
Cancer Research Institute and Department of Chemistry and Biochemistry, Arizona State University, PO Box 872404, Tempe, Arizona 85287-2404, USA

Journal of Natural Product 2005, 68(7), 974-978; C.A. 143(12): 209109h

Abstract: Bioassay-guided isolation resulted in the identification of four new cerebrosides **I-IV** from the marine mollusk *Turbo stenogyrus*, as antineoplastic agents.

Activity: All the four natural products **I-IV** showed promising cancer cell growth inhibition activity against murine p388 lymphocytic leukemia (GI_{50} 0.15-2.6 $\mu\text{g/mL}$) and also against a panel of human cancer cell lines.

Origin: Natural Product



Web URL: <http://www.sciencedirect.com/science/journal/0960894X>

17. Non-hydroxamate 5-phenylpyrimidine-2,4,6-trione derivatives as selective inhibitors of tumor necrosis factor-converting enzyme

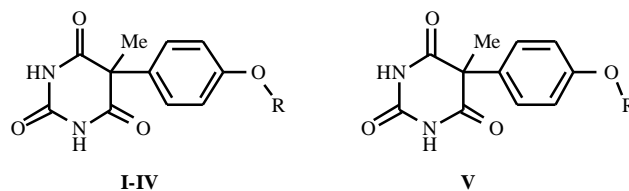
Duan, J. J. W., Lu, Z., Wasserman, Z. R., Liu, R. Q., Covington, M. B. and Decicco, C. P. Bristol-Myers Squibb Pharmaceutical Research Institute, Princeton, NJ 08543-4000, USA

Bioorganic & Medicinal Chemistry Letters 2005, 15(12), 2970-2973; C.A. 143(9): 145802u

Abstract: Several non-hydroxamate 5-phenylpyrimidine-2,4,6-trione derivatives have been identified as leads for selective inhibition of tumor necrosis factor-converting enzyme.

Activity: The 5-phenylpyrimidine-2,4,6-trione derivatives **I-XX** have been found to show tumor necrosis factor-converting enzyme (TACE) inhibition activity with IC_{50} values around 100 nM in porcine TACE assay and selective over MMP-1, -2, -9, -13 and aggrecanase.

Origin: Synthetic



I (2-Methylquinolin-4-yl)methyl
II Phenyl
III H
IV Benzyl
V (2-Methylquinolin-4-yl)methyl
VI Piperidin-1-yl
VII Morpholin-4-yl
VIII Piperazin-1-yl
IX 4-Me-piperazin-1-yl
X 4-*i*-Pr-piperazin-1-yl

XI 4-*n*-Hex-piperazin-1-yl
XII 4-*neo*-Pent-piperazin-1-yl
XIII 4-Bn-piperazin-1-yl
XIV 4-[Ph(CH₂)₂]-piperazin-1-yl
XV 4-[Ph((CH₂)₃)-piperazin-1-yl
XVI 4-(4-NO₂-Ph)-piperazin-1-yl
XVII 4-Ac-piperazin-1-yl
XVIII 4-Piv-piperazin-1-yl
XIX 4-Ms-piperazin-1-yl
XX 4-Boc-piperazin-1-yl

Web URL: <http://www.sciencedirect.com/science/journal/0960894X>

18. Synthesis of gossypol atropisomers and derivatives and evaluation of their anti-proliferative and anti-oxidant activity

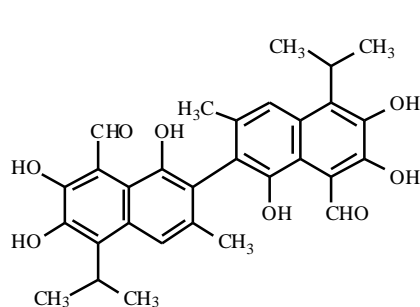
Dodou, K., Anderson, R. J., Lough, W. J., Small, D. A.P., Shelley, M. D. and Paul, G. W. Sunderland Pharmacy School, University of Sunderland, Wharncle Street, Sunderland SR1 3SD, UK

Bioorganic & Medicinal Chemistry 2005, 13(13), 4228-4237; C.A. 143(12): 205761s

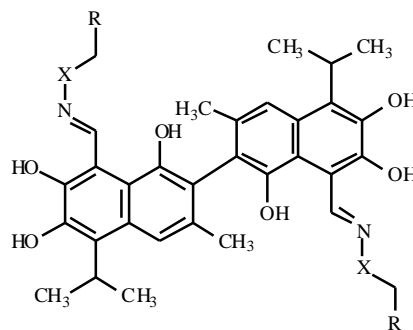
Abstract: The synthesis of gossypol, gossypolone and a series of *bis* and half Schiff's bases of gossypol with antiproliferative and anti-oxidant activities are presented.

Activity: (-)-Gossypol (-)-**I**, has been found to show potent inhibition of the proliferation of HPV-16 keratinocyte cell line, in MTT viability assay, with a GI_{50} = 4.8 μM . On the other hand, the *bis* Schiff's base of (-)-gossypol with-tyrosine ethyl ester, (-)-**II**, has been found to be the most potent inhibitor of iron/ascobate lipid peroxidation in the thiobarbituric acid test, with an IC_{50} = 11.7 μM . Similarly, the compound (-)-**I**, (-)-gossypol, has been found to be the next most potent compound with an IC_{50} = 13.1 μM in this test.

Origin: Synthetic



(-)-I



(-)-II

R = C₆H₄OH-4, X = (S)-CHCO₂CH₂CH₃

Web URL: <http://www.sciencedirect.com/science/journal/00404020>

19. Biselides A–E: novel polyketides from the Okinawan ascidian *Didemnidae* sp.

Teruya, T., Suenaga, K., Maruyama, S., Kurotaki, M. and Kigoshi, H.

Department of Chemistry, University of Tsukuba, Tennoudai, Tsukuba 305-8571, Japan

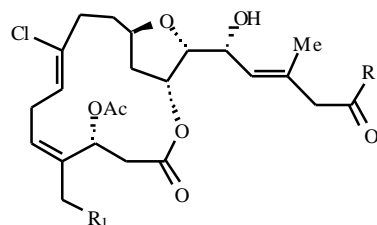
Evaluation Group, Biology Department, R&D Division, Pharmaceuticals Group, Nippon Kayaku Co., Ltd, Kita-ku, Tokyo 115-8588, Japan

Tetrahedron 2005, **61**(27), 6561–6567; *C.A.* **143**(12): 209110b

Abstract: The biselides A, B, C, D and E have been isolated from Okinawan ascidian *Didemnidae* species and evaluated as cytotoxic agents.

Activity: The biselides A (**I**) and C (**II**) have been found to show cytotoxic activity against human cancer cell lines NCI-H460 with IC₅₀ = 3.53 and 18.0 μM, respectively, and MDA-MB-231 with IC₅₀ 3.72 and 25.5 μM, respectively.

Origin: Natural product



R₁ R₂

I OAc OH

II OH OH

20. Steroids from the Antarctic Octocoral *Anthomastus bathyproctus*

Mellado, G. G., Zubía, E., Ortega, M. J. and López-González, P. J.

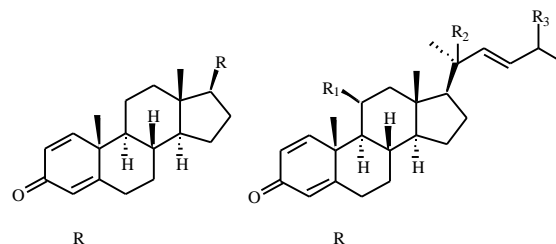
Departamento de Química Organica, Facultad de Ciencias del Mar y Ambientales, Universidad de Cadiz, Puerto Real, Spain 11510

Journal of Natural Products 2005, **68**(7), 1111-1115; *C.A.* **143**(12): 209111c

Abstract: The present investigation has resulted in the isolation of seven new steroids **I–VII**, from the Antarctic octocoral *Anthomastus bathyproctus* and evaluates these natural products as anti-cancer agents.

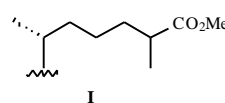
Activity: Four out of seven natural products, **II–V**, were found to show cytotoxicity against three human tumor cell lines. The compounds **II–V** displayed *in vitro* cytotoxicity against MDA-MB-231 (GI₅₀ = 21.2, 18.4, NA, and 22.4 μM, respectively) against A-549 (lung carcinoma) (GI₅₀ = 16.5, NA, 23.4, and 21.4 μM, respectively), and against HT-29 (colon adenocarcinoma) (GI₅₀ = 15.3, NA, NA, and 20.2 μM, respectively).

Origin: Natural product

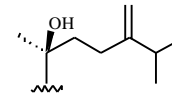


R

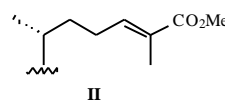
R



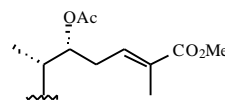
I



IV



II



III

R₁ R₂ R₃

V H H CO₂Me

VI OH H Me

VII H OH Me

21. Combretastatins D-3 and D-4, new macrocyclic lactones from *Getonia floribunda*

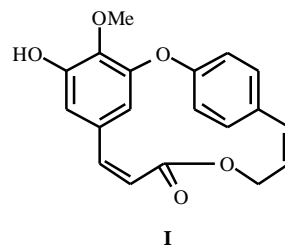
Vongvanich, N., Kittakoop, P., Charoenchai, P., Intamas, S., Danwisetkenjana, K. and Thebtaranonth, Y.
Department of Chemistry, Faculty of Science, Mahidol University, Bangkok, Thailand

Planta Medica 2005, **71**(2), 191-193; *C.A.* **143**(13): 225979x

Abstract: Two new macrocyclic lactones, combretastatins D-3 and D-4 have been obtained from *Getonia floribunda* and found to be cytotoxic agents.

Activity: Of the two macrocyclic lactones, the combretastatin D-3 (**I**) showed potent cytotoxic activity towards the small lung cancer cell line (NCI-H187) with $IC_{50} = 13.0 \pm 0.2 \mu\text{g/mL}$.

Origin: Natural product

**I****22. Preparation of heteroaryl substituted naphthalenes as inhibitors of Lck, VEGFR and/or HGF related activity**

Potashman, M., Kim, T. S., Bellon, S., Booker, S., Cheng, Y., Kim, J.L., Tasker, A., Xi, N., Xu, S., Harmange, J. C., Borg, G., Weiss, M., Hodous, B. L., Graceffa, R., Buckner, W. H., Masse, C. E., Choquette, D., Martin, M. W., Germain, J., Dipietro, L. V., Chaffee, S. C., Nunes, J. J., Buchanan, J. L., Habgood, G. J., McGowan, D. C. and Whittington, D. A.
Amgen Incorporation, M/S 27-4-A, One Amgen Center Drive, Thousand Oaks, CA 91320-1799, USA

PCT Int. Appl. WO 2005, 70891 (Cl. C07D215/00), 4 Aug. 2005, US Appl. 2004/PV538, 691, 23 Jan. 2004; 444 pp; *C.A.* **143**(12): 211847r

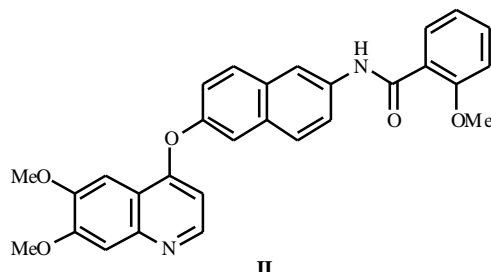
Abstract: In this patent, the authors describe the preparation of heteroaryl substituted naphthalenes (**I** and **II**) as inhibitors of Lck, VEGFR and/or HGF related activity.

Activity: The title compound **I** exhibited Lck kinase, c-Met kinase, and VEGFR kinase inhibition at less than 10 μM concentration.

Origin: Synthetic



(un)substituted aryl, heterocyclyl, cycloalkyl, etc.; R^1 (un)substituted quinolinyl, quinazoliny, pyrimidinyl, etc.; A = (un)substituted naphthalenediyl, etc.; X = O, S, (un)substituted NH, CH_2 ; Y = NHCO, CONH, etc.

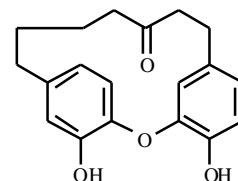
**II****23. Pterocaraine, a new diarylheptanoid from *Pterocarya tonkinensis*, its cell cycle inhibition at G_0/G_1 phase and induction of apoptosis in HCT-15 and K562 cells**

Liu, H. B., Cui, C. B., Cai, B., Gu, Q. Q., Zhang, D. Y., Zhao, Q. C. and Guan, H. S.
Key Laboratory of Marine Drugs, Ministry of Education, People's Republic of China
Chinese Chemical Letters 2005, **16**(2), 215-218; *C.A.* **143**(12): 208910a

Abstract: The bioassay-guided fractionation of *Pterocarya tonkinensis* (Franch) Dode, leading to the identification and biological evaluation of a new diarylheptanoid compound, pterocaraine (**I**) are described.

Activity: Compound **I** showed inhibition of the proliferation of FT210, HCT-15 and K562 cells with the inhibition rates of 20.2 ± 2.4 , 23.8 ± 2.4 and $50.5 \pm 1.2\%$ at 10 $\mu\text{g/mL}$, respectively.

Origin: Synthetic

**I****24. Cytotoxic constituents from *Cratoxylum arborescens***

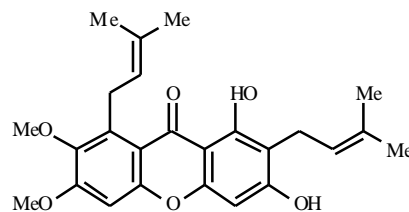
Pattanaprateeb, P., Ruangrunsi, N. and Cordell, G. A.
Department of Pharmacognosy, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok, Thailand 10330

Planta Medica 2005, **71**(2), 181-183; *C.A.* **143**(12): 208922f

Abstract: The isolation and structure elucidation of a new natural xanthone, 1,3-dihydroxy-6,7-dimethoxy-2,8-diprenyl xanthone (**I**), along with four known compounds from the stem barks of *Cratoxylum arborescens* (Vahl.) Blume are described.

Activity: Of these, compound **I** showed good activity against small cell lung cancer NCI-H187 cell line with $IC_{50} = 3.69 \pm 1.27 \mu\text{g/mL}$.

Origin: Natural product

**I**