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Science Bridges China Research Profile

Name: **Victoria Vinader**

Position: **Academic Researcher /New Project Investigator**

Institute/division: **Institute of Cancer Therapeutics, University of Bradford**

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SUMMARY OF MY RELEVANT RESEARCH AREAS:

Synthetic and medicinal chemistry, Molecular modelling, Drug discovery

合成和药物化学，分子模拟，药物发现。

Primary Research interests:

Medicinal chemistry: Extensive experience in many areas of medicinal chemistry, having worked in a number of projects including: Substance P antagonist for treatment of emesis, Thrombin inhibitors for treatment of deep vein thrombosis, Adenosine agonists for treatment of neuropathic pain, Non-Steroidal corticoid agonist for treatment of inflammation and asthma, Histamine antagonist for treatment of allergic rhinitis and currently Anticancer therapies.

Synthetic Chemistry Extensive experience in synthetic organic chemistry, including synthesis of a number of natural products.

Molecular modeling: Homology modeling of GPCR receptors and other proteins, virtual high-throughput screening and identification of molecular probes that interact with these receptors/ enzymes.

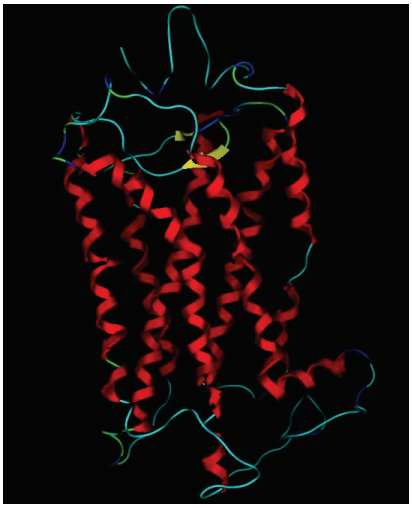
Drug discovery: Using our dual expertise in medicinal chemistry and molecular modeling, we have discovered a number of small molecule antagonists of chemotactic receptors, including CXCR4 antagonist ICT5040, CCR7 antagonist ICT5888 and FPR-1 antagonist ICT5100, that are being developed at ICT as new anti-metastatic and anti-inflammatory agents.

Topics in which you would like to develop collaborative research:

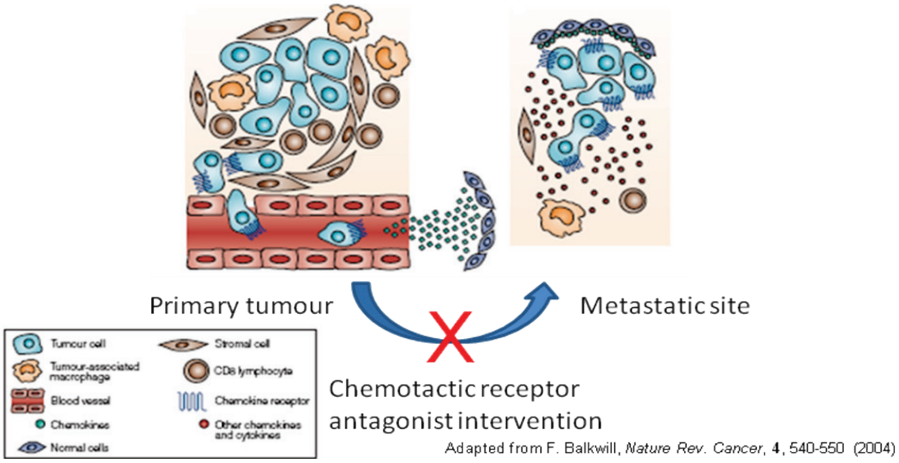
Discovery and development of new anti-metastatic and anti-inflammatory agents.

Relevant existing collaborations (academic/clinical/commercial) inside or outside China.
Prof. Xiu-wu Bian, Institute of Pathology and Southwest Cancer Center, Third Military Medical University, Chongqing, China

Relevant graphics, figures, pictures:



Homology model of FPR based on bovine bathorhodopsin 2G87



Chemotactic receptor antagonist intervention in cancer metastasis:

Publications and other outputs relevant to your interest in this programme (up to 5)

An agarose spot chemotaxis assay for chemokine receptor antagonists. Victoria Vinader, Yousef Al-Saraireh, Helen L Wiggins, Joshua Z Rappoport, Steve D Shnyder, Laurence H Patterson and Kamyar Afarinkia, Pharmacol Toxicol Methods (**2011**), 64(3), 213-216.

The Emerging Role of CXC Chemokines and Their Receptors In Cancer Vinader, V.; Afarinkia, K. Future Medicinal Chemistry (**2012**), 4 (7), 853-867.

A beginners' guide to chemokines Vinader, V.; Afarinkia, K. Future Medicinal Chemistry (**2012**), 4(7), 845-852.

Oxazolidinones as novel human CCR8 antagonists. Jin J, Wang Y, Wang F, Kerns JK, Vinader VM, Hancock AP, Lindon MJ, Stevenson GI, Morrow DM, Rao P, Nguyen C, Barrett VJ, Browning C, Hartmann G, Andrew DP, Sarau HM, Foley JJ, Jurewicz AJ, Fornwald JA, Harker AJ, Moore ML, Rivero RA, Belmonte KE, Connor. Bioorganic & Medicinal Chemistry Letters (**2007**), 17 (6), 1722-1725.

Dissociated nonsteroidal glucocorticoid receptor modulators; Discovery of the agonist trigger in a tetrahydronaphthalene-benzoxazine series. Barker M.; Clackers, M.; Copley, R.; Demaine, D.A.; Humphreys, D.; Inglis, G.G.A.; Johnston, M.J.; Jones, H.T.; Haase, M.V.; House, D.; Loiseau, R.; Nisbet, L.; Pacquet, F.; Skone, P.A.; Shanahan, S.E.; Tape, D.; Vinader, V.M.; Washington, M.; Uings, I.; Upton, R.; Mclay, I.M.; Macdonald, S.J.F. Journal of Medicinal Chemistry (**2006**), 49 (14), 4216-4231.

3- (4-{ [4-(4-{ [3-(3, 3-Dimethyl-1-piperidinyl) propyl] oxy} phenyl) -1-piperidinyl] carbonyl}-1-napthalenyl) propanoic or propenoic acid as H1 and H3 receptor antagonists for the treatment of inflammatory and/or allergic disorders. Hodgson, S. T.; Procopiou P. A.; Vinader Brugarolas M-V. PCT Int. Appl. (**2007**), WO2007071691 A1.

Preparation of heterocycle-substituted N-benzoxazinylpropanamides as glucocorticoid receptor binders and agonists for the treatment of inflammatory, allergic and skin diseases. Barker, M.D.; Demaine, D.A.; House, D.; Inglis, G.G.A.; Johnston, M.J.; Jones, H.T.; Macdonald, S.J.F.; Mclay, I.M.; Shanahan, S.; Skone, P.A.; Vinader, M.V. PCT Int. Appl. (**2004**), WO2004071389 A2.