

X-ray crystal structure of lovastatin bound to the CD11a I-domain of beta 2 integrin, LFA-1. PDB ID: 1CQP. Kallen et al., J. Mol. Biol. 1999, 292, 1-9

Integrin Targeted Drug Discovery

Thursday, 28th March 2019

Royal Society of Chemistry at Burlington House, London, UK

Second announcement and call for posters



ROYAL SOCIETY
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Synopsis

Integrins are heterodimeric, transmembrane receptors that function in cell adhesion and signalling. They are central to many disease states, including cancer, thrombosis, multiple sclerosis and Crohn's disease. Integrin targeted therapeutics have been under investigation for some time, but few compounds have made it to/ remained on the market due to side effects or lack of efficacy. Given the more recent structural insights, better understanding of downstream pathways, and potential application to a range of therapeutic areas, there has been a resurgence of interest in integrin inhibitors. This symposium will bring together researchers in this area to provide both a historical overview of the area and recent progress in designing the next generation of integrin inhibitors.

Programme Themes and Features

Therapeutic targets for integrins
Targeting different RGD recognising integrins
Drug discovery, medicinal chemistry & structure-based design
Plenary speakers, poster session and trade exhibition

Programme (provisional)

- 09.15 Registration and refreshments
10.00 *Integrins as therapeutic targets: a superficial, but non-trivial family*
Simon Goodman, formerly of Preclinical Oncology, Merck Serono
10.50 *Discovery of novel integrin inhibitors*
Thomas McNally, University of Nottingham, UK
11.25 *Succinimide-based conjugates improve isoDGR cyclopeptide affinity to $\alpha v\beta 3$ without promoting integrin allosteric activation*
Giovanna Musco, San Raffaele Hospital Milan, Italy
12.00 *New beta-lactam derivatives modulate cell adhesion and signaling mediated by RGD-binding and leukocyte integrins*
Daria Giacomini, Chemistry, University of Bologna, Italy
12.30 Lunch, posters and exhibition
13.30 *Challenges in discovering integrin antagonists- lessons learnt from GPIIb/IIIa antagonists (prov)*
Dermot Cox, Molecular and Cellular Therapeutics, Royal College of Surgeons in Ireland, Ireland
14.05 *Integrin $\alpha v\beta 6$ -specific peptide-drug conjugates provide a novel and effective therapy for pancreatic cancer*
Kate Moore, Barts Cancer Institute, UK
14.40 *New strategies to improve the efficacy of small molecule integrin antagonists*
Helen Sheldrake, Cancer Therapeutics, University of Bradford, UK
15.15 Refreshments, exhibition and posters
15.45 *Design of highly potent selective ligands for RGD recognizing integrin subtypes and their application in medicine*
Horst Kessler, Chemistry, Technical University of Munich, Germany
16.20 *Metadynamics-inspired discovery of cyclic pentapeptides as selective $\alpha v\beta 6$ integrin ligands*
Luciana Marinelli, University of Naples, Italy
17.00 Meeting close

Registration, Students and Bursaries

Registration is open, and discounted rates are available for students and RSC members. In addition, a number of student bursaries are available for post-graduate students.

Exhibition and Sponsorship Opportunities

There will be a small, relevant trade exhibition - please see website - and sponsors are sought to support the low registration fees.

Venue

Royal Society of Chemistry at Burlington House,
Piccadilly, London, W1J 0BA, UK.

Secretariat Contact

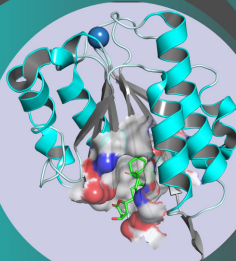
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Websites

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Call for Posters

Applications for poster presentations are welcomed. Posters will be displayed throughout the day. The closing date has been extended to 7th February, and a template may be downloaded from the website.



Organising Committee

Richard Hatley, GlaxoSmithKline
Douglas Williamson, Vernalis (chairman)
Alison Woolford, Astex Pharmaceuticals

Twitter Hashtag
#Integrins19