Max Ryadnov, J Antivir Antiretrovir 2011, 3:4
doi: http://dx.doi.org/10.4172/1948-5964.S1.11

OMICS Group Conferences
Accelerating Scientific Discovery

International Conference and Exhibition on
VIROLOGY
5-7 September 2011 Baltimore, USA

Prescriptive peptide design for cell-based therapies

Max Ryadnov
National Physical Laboratory, UK

Prescriptive peptide design provides an efficient strategy for matching molecular structure with biological function. Steady attention to the approach extends beyond purely academic interest prompting the emergence of novel therapeutic platforms defined and constructed at the subcellular scale. Synthetic designs derived from biological assemblies underpin various applications. Examples include viral mimetics for gene therapy,extracellular matrix mimetics for tissue repair,and autonomously responsive antimicrobial and antimetastatic agents. The main tendency therefore is to borrow from Nature's molecular assemblies to specialist constructions improving our understanding of macromolecular organisation and its relation to function in a variety of biomedical contexts.

Biography

Max Ryadnov is a scientific leader in the UK's National Physical Laboratory and a Lecturer in Chemical Physics at the University of Edinburgh. He has completed his PhD at the Russian Academy of Science and Moscow State University and postdoctoral studies at Sussex University. He has published over 40 high-impact publications and international patents and pursues active research in biomolecular design and metrology.