高分子科学系列讲座

高分子物理与化学国家重点实验室 中国科学院长春应用化学研究所

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报 告 人	Dr. Klaus Pors	职　　称	Lecturer
从事专业	Medicinal Chemistry		
建 议 人	黄宇彬	主 持 人	黄宇彬　研究员
报告时间	2013 年 6 月 14 日 10:30	报告地点	教育大厦 6039
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报告人背景

Sept 2005 - present: **Lecturer in Medicinal Chemistry & Team Leader,** Institute of Cancer Therapeutics, University of Bradford, U.K.

Feb 2013 - present: ***Guest Lecturer in Drug Discovery,*** École Supérieure de Chimie Organique et Minérale (ESCOM, Paris, France)

Oct 2011 - Nov 2011: ***Visiting Research Scientist,*** Institute of Materia Medica, Chinese Academy of Medical Sciences, Beijing, China.

Aug 2010 - Oct 2010: ***Visiting Research Scientist,*** Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, U.S.

Feb 2005 - Aug 2005: **Honorary Research Fellow in Medicinal Chemistry,** Institute of Cancer Therapeutics, University of Bradford, U.K.

Jun 2002 - Jan 2005: **Post-Doctoral Research Assistant in Medicinal Chemistry,** The School of Pharmacy, University of London, U.K., Supervisor: Prof. Laurence H. Patterson

Sep 1998 - May 2002: **PhD in Synthetic & Medicinal Chemistry,** The School of Pharmacy, University of London, U.K., Supervisors: Prof. Mark Searcey, Prof Laurence H. Patterson

May 2001 - Oct 2001: ***6 months Placement in Biophysics,*** DNA Interactions Research Group, UCL, London, U.K., Supervisor: Prof. John A. Hartley

Aug 1994 - Jan 1998: **BSc Chemical Engineering,** Ingeniørhøjskolen Odense Teknikum, Denmark

报告题目

Towards Tumour-Selective Therapies by Re-engineering Natural Product Scaffolds

内容摘要

Research in the Pors group is focussed on research at the interface between chemistry and biology. Traditional approaches to drug discovery such as target oriented synthesis and medicinal chemistry are used to develop focussed libraries of small molecules that are entirely new chemical entities or re-engineered versions of natural products. In addition, we use diversity-oriented synthesis to generate collections of small molecules of structural diverse architecture, which are used to probe new chemical space or known biological pathways that are not well understood.

In the context of cancer, small molecules are designed to (i) exploit enzymatic and/or physiological conditions found unique to the tumour microenvironment or (ii) circumvent or exploit resistance mechanisms present in malignant tissue. As an extension of the latter, we are actively engaged in understanding how epigenetic therapy may affect the regulation and expression of drug metabolising enzymes (pharmacoepigenetics).

In addition, we are also interested in developing molecular fluorescent probes that can be used to stain fixed or live cells with wide applications in routine and research laboratories utilising flow cytometry and fluorescence imaging methods.