BΦDD 2013
BIOPHYSICS IN DRUG DISCOVERY

NovAliX Conference 2013
BIOPHYSICS IN DRUG DISCOVERY

Developing the Synergy between Biophysics and Medicinal Chemistry to Deliver Better Drugs

Palais Universitaire | STRASBOURG, FRANCE | 15-18 OCTOBER 2013

SCOPE OF THE NOVALIX CONFERENCE 2013

The use of biophysical techniques in drug discovery is rapidly increasing, and many pharmaceutical companies have set up in-house biophysical platforms to speed up the target-to-candidate process and improve the quality of small-molecule therapeutics through a better understanding of their interactions with their targets.

In pharmaceutical companies, the **close communication between biophysicists and medicinal chemists** is key to increase the efficiency of the drug discovery process and thus deliver higher-quality lead molecules.

However, biophysics for drug discovery has not yet been the subject of a dedicated conference : most of the time, it is the topic of a specialised session within drug discovery conferences, and on the other hand biophysical meetings are often very academy-oriented and rarely extend their scope to drug discovery aspects. **The NovAliX Conference 2013 'Biophysics in Drug Discovery' aims at filling this gap by gathering scientists from both the biophysics and the medicinal chemistry communities.**

CONFIRMED SPEAKERS

- **Prof. Tom BLUNDELL** (University of Cambridge, Cambridge, UK)
  Biophysical Methods and Fragment Based Drug Discovery: Targeting Protein-Protein Interactions in Cell Regulatory Systems
- **Dr Darryl BORNHOP** (Vanderbilt University, Nashville, USA)
  Backscattering Interferometry Facilitates Quantification of Drug-Target Binding Affinity Across a Range of Matrix and Sample Complexity
- **Prof. Jamie CATE** (University of California, Berkeley, USA)
  Combining X-Ray Crystallography and Single-Molecule Methods to Probe Antibiotic Inhibition of Translation
- **Dr Rob COOKE** (Heptares, Welwyn Garden City, UK)
  Enabling GPCR Drug Discovery Through Structural and Biophysical Insights
- **Dr Robert COPELAND** (Epizyme, Cambridge, USA)
  Protein Methyltransferase Inhibitors as Personalised Cancer Therapeutics
- **Prof. Helena DANIELSON** (Uppsala University, Uppsala, SE)
  Application of SPR Biosensors Throughout the Drug Discovery Process
- **Dr Stefan DUHR** (Nanotemper, Munich, DE)
  Label-Free, Immobilisation-Free Interaction Studies Using Microscale Thermophoresis
- **Dr Matthias FRECH** (Merck, Darmstadt, DE)
  Biophysics to Drive Lead Discovery
- **Dr Michael HENNIG** (F. Hoffmann-La Roche, Basel, CH)
  Biophysical Methods to Escort Drug Discovery
- **Dr Geoff HOLDGATE** (AstraZeneca, Macclesfield, UK)
  Can we Use Kinetics and Thermodynamics to Guide Drug Discovery?
- **Dr Chris MARSHALL** (University of Toronto, Toronto, CA)
  Towards Personalised Cancer Medicine with New NMR Tools to Probe Small GTPase Proteins
- **Dr Till MAURER** (Genentech, San Francisco, USA)
  From Fragment Hit to Mode of Action: a Tractable Path for RAS Inhibition
- **Dr Johannes OTTL** (Novartis Institute of Biomedical Research, Basel, CH)
  Biophysics in Pharmaceutical Lead Discovery
- **Dr David SWINNEY** (IRND3, Belmont, USA)
  Molecular Mechanism of Action (MMOA) in Drug Discovery
- **Dr Glyn WILLIAMS** (Astex Therapeutics, Cambridge, UK)
  Investing in Knowledge: Combining Biophysical Data in Fragment-Based Drug Discovery

www.novalix-conferences.org

SCIENTIFIC COMMITTEE

- **Dr Michael HENNIG** (F. Hoffmann-La Roche, Basel, CH)
- **Dr Geoff HOLDGATE** (AstraZeneca, Macclesfield, UK)
- **Prof. Gerhard KLEBE** (Philipps-University Marburg, Marburg, DE)
- **Dr Lawrence KUO** (Johnson & Johnson, Spring House, USA)
- **Dr Jean-Paul RENAUD** (NovAliX, Illkirch, FR)

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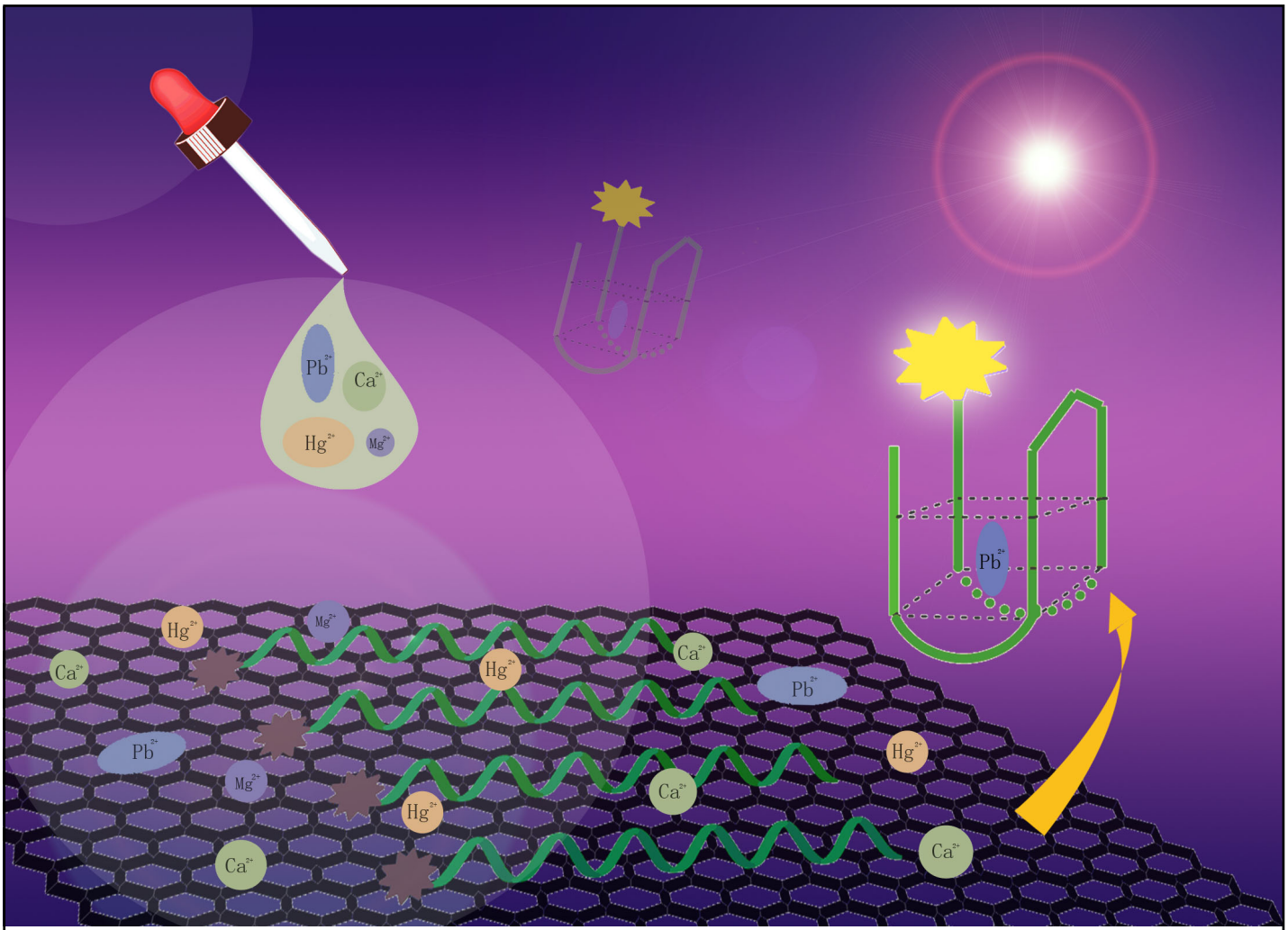
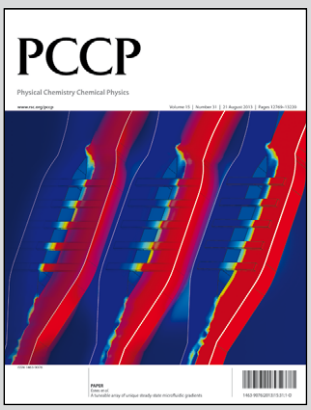


Showcasing the work of the Key Laboratory of Green Chemical Media and Reactions, Henan Normal University, PR China

Title: A "turn-on" fluorescent sensor for detection of Pb^{2+} based on graphene oxide and G-quadruplex DNA

In this work, we designed a highly selective and sensitive sensor for Pb^{2+} detection by using graphene oxide and G-quadruplex DNA. The sensing system provided a promising alternative to Pb^{2+} detection with high efficiency.

As featured in:



See Lu *et al.*, *Phys. Chem. Chem. Phys.*, 2013, **15**, 12800.

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