Mobile applications for life sciences: perspectives, limitations, and real examples

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Alex Clark is the founder of Molecular Materials Informatics, which is dedicated to bringing cheminformatics software to future platforms such as mobile, cloud & web.

Since 2010 the company has produced a number of cutting edge apps and cloud-based webservices for manipulating chemical structures for iOS and Android, and is able to demonstrate powerful chemistry and life sciences workflows for the post-PC era.

The tutorial will demonstrate manipulation of chemical structures and associated data using the mobile platform. Apps can be used to create or import content and organise it on the device, and from there it can be browsed, visualised, modified, shared and published, as well as for searching online databases, building models and calculating properties.

The union of gesture-based mobile interfaces with cloud-hosted webservices can be used to accomplish a broad variety of tasks that were formerly only practical for the desktop platform.

The new computing platform provides a number of advantages in addition to mobility, such as inexpensive modular components, shorter learning curves, and ultimate ease of deployment based on the “app store” model.

Demonstrations will be performed using the iOS platform (iPhone/iPod/iPad), and focus on real-world problems encountered in chemical informatics and computer-aided drug design.