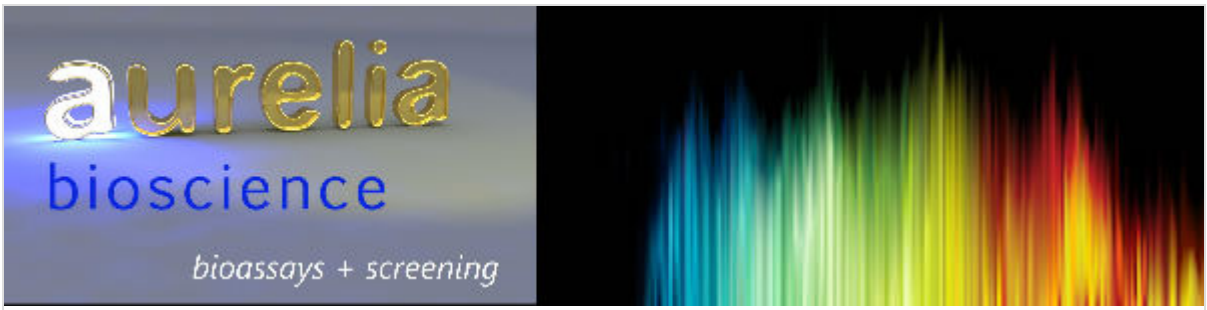


Welcome to the first edition of our newsletter.

The newsletter will allow us to present and discuss aspects of bioassay technology, drug discovery and compound screening which we believe are important in the field. This will be presented both in the context of work taking place at Aurelia Bioscience and the rapidly changing world of pharmaceutical research. We hope that you will find this of interest and welcome any feedback relating to topics for discussion.

Aurelia Bioscience has rapidly established itself as a valued partner for organisations involved in the discovery stages of drug development. Our inspiration comes from working with our partners to address unmet medical need. Happy New Year.

Gary Allenby

Kathy Dodgson

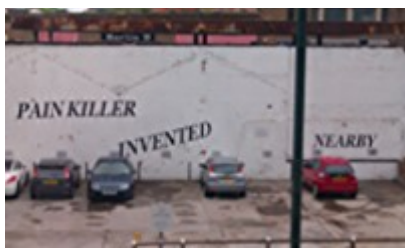
Kev Hart

www.Aureliabio.com

Biocity Nottingham - home sweet home

We are based in fully-serviced laboratories in the Innovation building at Biocity, Nottingham. BioCity provides business support, laboratories and offices to life science companies. Many other life science companies are housed on the site, forming a dynamic and relevant community. Inspiration is provided by the view from our office window (below right) reminding us that the site has a track record of drug discovery i.e. the discovery of ibuprofen by the Boots Group when they occupied the site.

For further Biocity information contact Miranda Knaggs at m.knaggs@biocity.co.uk



Origin of the name Aurelia Bioscience

We often get asked about the origin of the name Aurelia Bioscience. After rejecting the all-too-common Midas, we switched to the Latin name for golden “Aurelia” (remember the periodic table Au = gold) and we had it ……..Aurelia Bioscience.

The observant amongst you will, of course, also know that Aurelia is a genus of scyphozoan jellyfish. This seems particularly apt as that incredibly useful molecule, Green Fluorescent Protein, was derived from a jellyfish!

Research interests

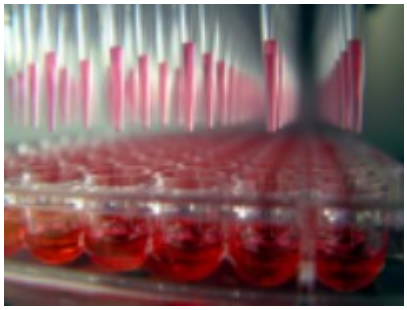
Although we are a service-providing organisation, we do perform original research so as to further develop our expertise in assay technology and drug screening. Below we discuss some of this work.

The use of label free optical biosensors for studying integrated cellular responses as a phenotypic approach in drug discovery.

A recent publication[1] has shown that new medicines are more likely to be discovered using phenotypic screening as opposed to target-based approaches. The use of label free optical biosensors for studying integrated cellular responses as a phenotypic approach to drug discovery has increased over recent years. A major benefit of the phenotypic approach is the ability to measure responses without genetic manipulation or fluorescent dyes and to be able to do this in endogenous systems in primary cells with high sensitivity. Label free has been widely used to study G-protein coupled receptors (GPCR), where our understanding of the complexity of GPCR pharmacology in terms of multiple signalling pathways, ligand bias, allosteric modulation and receptor cross talk has challenged current screening approaches.

Aurelia Bioscience has a particular interest in the application of label free approaches to drug discovery. To bridge the gap between phenotypic and target-based screening we have used the DiscoveRx PathHunter Histamine H1 receptor to examine the feasibility of multiplexing a cell-based label free readout with other second messenger and downstream signalling assays (beta-arrestin) and cytotoxicity. A significant advantage of the label free approach is that it is non-invasive, allowing the same cells to be used in a second assay format. This allows mode of action, deconvolution and toxicity studies to be performed on the same cells that generated the label free responses (two bangs for one buck!). In a poster to be presented at the Society for Laboratory Automation and Screening in January 2013 we will describe our work to identify suitable assay conditions that enable both label free and secondary assays to be conducted on the same cells in the same wells of the assay plate. Being able to do this routinely is advantageous due to the reduced potential for cell biology variability through not having to run different assays under different conditions, as well as the more efficient use of resources.

[1]. “How were new medicines discovered?” Swinney, D & Anthony, J., Nature Reviews: Drug Discovery, vol 10, July 2011 p 507.



About Aurelia Bioscience

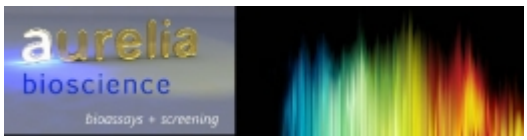
Aurelia Bioscience is a pre-clinical contract research organisation (CRO) which specializes in bioassay development, high-throughput screening, iterative cycle compound screening and associated equipment/reagent development work. Partners include top 50 pharmaceutical companies, research institutes, biotechnology companies and biological reagent manufacturers. Projects can be on a fee-for-service, project or FTE basis.

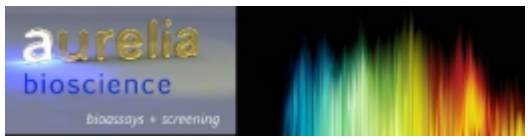
Our strengths lie in developing cell-based assays, providing phenotypic screening, supporting early stage compound screening and providing bioscreening equipment/reagent consultation. We have invested in a range of technologies which allow us to pick the most effective solution for each particular project. These technologies include :-

- FLIPR
- FMAT
- label free approaches
- high content imaging
- fluorescent and luminescent readouts.

The platforms are supported by automated liquid handling for bulk and discrete dispensing to address the needs of either assay development or compound screening. At a biological level, we believe it is important to strive to attain physiological screening conditions as far as is possible by using phenotypic cell types e.g. human neutrophils in FLIPR, label free approaches and imaging. Our expertise and interests are varied and cover many different bioassay formats and applications ranging from chemotaxis to 3-D cell culture across a range of disease areas e.g. respiratory and inflammatory disease, oncology and neuroscience. For instrument and reagent manufacturers we offer a laboratory base for bench marking, testing and confidential evaluation of new equipment/reagents.

Overall, we aim to generate high quality experimental data and understand it in the context of both the biology being addressed and the wider project aims, where multidisciplinary teams must deliver the goods.





Upcoming events :-

Scientists from Aurelia Bioscience will be attending SLA S 2013 in Orlando Florida, January 13th - 16th, 2013. Please drop by and say hello if you are in town - Booth 1037

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