The genome editing field is rapidly evolving, with a huge increase in both academic and pharmaceutical research, where do you see the market in 5 years’ time?
There are still technical, ethical, safety and regulatory challenges to face in many areas of genome editing, so 5 years is a relatively short time-scale to consider. However, there will be market opportunities in areas including: vector/reagent kits for specific research activities; mouse models for drug discovery and testing; agricultural and horticultural crops etc. In the longer-term there will opportunities in human and veterinary therapeutics, breeding specific traits in domesticated animals for farming and pets and in the management of insect vectors carrying human and animal diseases.

What do you think are the main challenges facing the industry today?
As a university academic, I’m not well-placed to comment on detailed industry challenges but I do feel that, in addition to the challenges I listed above, issues of public perception and consumer acceptance of the products and processes of genome editing will play a major part in determining their adoption by different societies. This will inevitably vary sector by sector and country by country. In addition, freedom to operate and access to patented processes may be a major challenge for some.

At our upcoming Genome Editing Congress, you will be talking on: ‘The Regulation of Genome Editing for Contained Use, Human Therapeutics and Agriculture’, to what extent do you think that regulatory issues will define the future of Genome Editing?
For certain processes and products it will be a major determining factor. For most academic research and ‘contained use’ applications, the road ahead seems relatively clear but for human germline therapeutics, plant and animal breeding for agriculture, control of vector-borne diseases especially via gene-drives etc., questions of ethics, risk assessment and regulation will be key.

Career and Experience
Huw has a global reputation in the development of plant transformation systems and the application of biotechnology approaches to study gene function. He has active research in applied genome editing and functional genomics but also works in the area of GMO risk assessment and regulatory policy of biotechnology. As well as his position at Aberystwyth University, he is vice-chair of the GMO panel, European Food Safety Authority and Honorary Professor in the School of Biosciences, Nottingham University. He has held two Defra licences for non-commercial, field trials of GM wheat in the UK and has published over 100 research papers, books and other articles.

Huw Jones will be speaking on Day 2 of Oxford Global’s 3rd Annual Genome Editing Congress in our Therapeutic Applications stream: The Regulation of Genome Editing for Contained use, Human Therapeutics and Agriculture