

High Throughput Plant Regulatory Element Evaluation Capability

Syngenta is seeking to engage with academic partners having access to, or who are able to facilitate, the **efficient development of tools for the precise control of transgenic trait genes via a high throughput regulatory element evaluation system**. The ideal system will allow for rapid testing of reporter gene expression in multiple tissues **in maize and soybean**. For maize, target tissues include silk, embryo, root and leaf. For soybean, target tissues include seed, pod, root and leaf. The technology will ideally comprise methods for:



1. Efficient, simultaneous preparation of appropriate assay materials for > two of the requested target tissues. Key issues include efficiency, yield, stability and genotype specificity
2. Efficient delivery of vectors to the assay target (ca. 80%)
3. Quantitative and sensitive assay readout to provide a reasonable estimate of tissue or cell specificity *in planta*, comparable between assays and tissues. Fluorescent-based in 96-well format is acceptable. Sorting is not required
4. Data management pipeline enabling data capture and flow from experimental design to data analysis and visualization

Ideal Solution: Access to a ready to deploy methodology for the simultaneous screening of 3-4 tissues at a scale of **minimum 25 constructs/technician week, with outline plans for future increase in testing capability and rationale**.

As a Minimum: Comprehensive methodology to efficiently and accurately evaluate 25 constructs a week in > two plant tissues, providing evidence of the ability to implement into practice within three months, for one of the target crops. Describe how a collaboration with Syngenta would bring this methodology to production scale in <6 months.

Opportunity for Collaboration:




Syngenta would be open to a range of possible collaboration outcomes (with the most appropriate being decided on a case by case basis), with these including:

- A fee for service offer which is desirable and/or identifying academic partners to provide the method as a service (if applicable, please provide details on the relevant fees and budgetary constraints in your application)
- Identifying and bringing in an assay to perform internally
- Co-developing less well-developed assays to bring them to maturity

Jurisdictions of Interest:

All submissions are welcomed, with submissions from the USA and China being of particular interest. Please see the attached document to access more information on this campaign and to submit a bespoke application [here](#).

Opportunities sought

-  Spinout companies
-  Research projects
-  Technologies

Submissions

Please submit relevant, non-confidential opportunities online via: discover.in-part.com

Deadline: **19th April 2021 - 10:59 pm GMT**

Have any questions?

Contact our team at discover@in-part.co.uk