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](#).

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**Opportunities sought**

- Spinout companies
- Research projects
- Technologies

**Submissions**

Please submit relevant, non-confidential opportunities online via: [discover.in-part.com](http://discover.in-part.com)

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

**Have any questions?**

Contact our team at [discover@in-part.co.uk](mailto:discover@in-part.co.uk)

Syngenta is a global leader in Agtech innovation using world-class science to protect crops and improve seeds. They are committed to supporting farmers with technologies, knowledge and services so that they can sustainably provide the world with better food, feed, fiber, and fuel.