The Royal Botanic Gardens, Kew is undertaking early market engagement to test the clarity of our stated requirements and the availability of goods to meet these requirements.

For the avoidance of doubt:

* This notice is to conduct early market engagement and will not formally begin the procurement or constitute any commitment by RBG Kew to undertake any procurement exercise.
* This notice does not guarantee an invitation to participate in this or any future procurement that RBG Kew may conduct, nor that RBG Kew will procure any services or accepts any proposals offered. Potential bidders will not be prejudiced by any response or failure to respond to the early market engagement exercise.
* No expense in responding to this early market engagement will be reimbursed by RBG Kew.
* Any procurement by RBG Kew will be carried out strictly in line with the Public Contracts Regulations 2015.
* We will not accept any responsibility or liability for advising of any changes or additions to the information contained in this document.
* No representation, warranty or undertaking, expressed or implied is, or will be, made and no responsibility or liability will be accepted by RBG Kew as to the accuracy or completeness of the document or any other written or verbal information made available to any interested party or its advisors. Any liability however arising is expressly disclaimed.

If you feel that your organisation can contribute to this exercise, please provide the information requested below.

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| **Return information** | | | |
| Name of requirement | Chiroptical Spectrometer | Time for response | **Return of this questionnaire:**  30 September 2023  **Customer Engagement**.  Discussion with Customer to explain further your solutions to our requirement can continue after the above date until end of 2023 unless a procurement process is initiated by RBG Kew before then, in which case customer engagement will be in line with the UK Public Contracts Regulations 2015. |
| Address to return this questionnaire to | | [g.kite@kew.org](mailto:g.kite@kew.org) [Geoffrey Kite, Biochemistry Lab Manager] | |

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| **Confidentiality & Freedom of Information** |
| RBG Kew ask that participants in the early market engagement exercise sign a Non-Disclosure Agreement. This is to protect both RBG Kew and your confidential information. RBG Kew is subject to the disclosure requirements of the Freedom of Information Act (FoIA). Potentially any information we hold is liable to disclosure under that Act. For this reason, we would strongly advise that any information you consider to be confidential is labelled as such. If a request is subsequently made for disclosure under the FoIA that request will be dealt with in accordance with the legislation and giving full regard to the Non-Disclosure Agreement.  Please complete the document below: |
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| **Specification** | |
| Summary of requirement | To determine the absolute structure of pure natural products isolated from plants and fungi at RBG Kew for which the relative structure has been determined by nuclear magnetic resonance (NMR) spectroscopy. RBG Kew anticipates that the solution to this requirement is likely to be by chiroptical spectroscopic methods; however, as the compound may be new-to-science, no reference compound of known chirality will be available. The solution proposed must be applicable to the quantity of pure compound typically isolated for NMR spectroscopy at RBG Kew and, in most cases where the sample is in limited quantity, the sample used for NMR will be that presented to the absolute configuration workflow i.e. initially be in the deuterated solvent with TMS reference used for NMR. For compounds with multiple chiral centres, the NMR determination may have reduced the number of possibilities for the absolute structure. The requirement includes any molecular modelling techniques required to arrive at the absolute structure from the experimental data, be these your own proprietary methods/third-party or open access modelling software. |
| Requirement reference | Specification |
| 1 | Assign the absolute structure of pure natural products isolated from plants and fungi without need for standards of known chirality. Relative structure will have been determined by nuclear magnetic resonance (NMR) spectroscopy |
| 2 | Absolute configuration assigned with a confidence of at least 90%. |
| 3 | The minimum amount of compound required should be 3 mg or less if at least 90% of the compound can be recovered unaltered or 0.5 mg or less if the compound cannot be recovered. |
| 4 | The solution should be applicable to a wide range of natural product classes from plants and fungi |
| 5 | The approach must be acceptable to leading peer-reviewed scientific journals |
| 6 | Operational requirements or supplies other than power, air-conditioned room and liquid nitrogen (non-continuous supply), must be provided as options (e.g. nitrogen gas generator, cooling water etc) |
| 7 | Any required molecular modelling techniques to achieve Specification 1 must be included. These can be either your proprietary methods or third-party/open-access software demonstrated to be applicable (provide specifications of PC required) |
| 8 | Delivery, installation, and Customer training to at least two users included. |
| 9 | One year warranty. Option to purchase additional years of service contract |

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| **Questionnaire** |
| Would you be able to provide a solution to meet the overall Requirement as stated in the Summary above? What is the name of the solution you would provide? |
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| Can you meet all the draft specifications listed above? If ‘No’ which specifications can you not meet and why? |
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| What advice would you give to improve the clarity of the draft specifications? |
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| Would you be willing to discuss your proposed solution with the research scientists needing this requirement, either on-site at RBG Kew or virtually? |
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| What is the delivery timescale for a solution to meet the Specification? (order placement to delivery) |
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| We have established a preliminary budget of **£160,000 ex VAT** for this requirement.  Would you consider this sufficient to achieve the level of features required by the specification? If not:   * what would be a more realistic budget for delivering the specification? * what alterations to the specification would better align the requirement to the budget? |
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| If RBG Kew progressed to procure this opportunity, would your organisation be interested in submitting a tender?  If not, it would be helpful if you could help us to understand why not. |
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