RFP Addendum: Technical questionnaire

To be filled & submitted along with technical & financial proposals

The following questions will help us understand your proposed solution better. While relevant details are encouraged, we encourage concise and specific responses that can be implemented with reasonable effort. *(Recommended word count for each: upto 200 words)*

1. The real world is messy, and AI solutions are vulnerable to changes in data characteristics and noise. Describe your strategies to make your solution **robust** against noise and data-drift.

2. What will **scaling** your technical approach look like, both horizontal (more labs) and vertical (process more images per day)? What are the trade-offs one needs to consider to deploy the solution in a mobile/smart phone?

3. Understanding why certain interpretations provided is crucial to progressively detecting failure modes, and also gain end-user trust. Describe your strategies to provide **post-hoc explanations.**

4. Nobody is perfect, including the Algorithm/Model. It is desirable, sometimes, to say "I don't know", rather than making an incorrect call. Explain your approach to providing **confidence scores** for the results provided at the band and strip levels.

5. Describe how a **human-in-the-loop** can be integrated into the solution, discuss benefits, challenges and ways to overcome them.

6. A successful deployment will require the algorithm to work in a diverse range of contexts (in labs across the country). Describe how your solution may be deployed as multiple **parallel models (heterogeneous deployment)** customised for each context, with appropriate **version control.**

7. Describe your approach for performing basic sanity checks, enabling **continuous monitoring** of input data and model outputs?

8. Does your proposed solution involve a **self-learning approach**, i.e. can the algorithm be tuned to improve performance as more data is generated? If so, briefly describe this element.

9. Accomplishing all of the above simultaneously can be challenging. If you were to pick and choose, what will you pick and why?

10. What tools (tech stack) and processes do you intend to use in developing the solution?