

HEALTHCARE ONCOLOGY PATIENT EXPERIENCE PORTAL

CONTEXT

Roche Diagnostics is part of Roche, a company founded in 1896 that has built a strong global reputation. They develop and integrate diagnostic solutions in more than 100 countries, offering the industry's most comprehensive in vitro diagnostics solutions.

Oncology is one of Roche's key focus areas. Cancer is a life-changing and complex disease. It does not discriminate and strikes both the old and young alike. When diagnosed, patients are forced to confront their own mortality. Emotionally and physically, it can be crippling for the patient and their loved ones.

Today, cancer patients and their families are often faced with multi-dimensional challenges including but not limited to:

- Having to make life-critical decisions with little knowledge of what is best for them.
- Trying to comprehend medical advice provided by doctors with no real understanding of what it all means.
- Being overwhelmed with everything available on the Internet and not knowing what is reliable and what is not.
- Struggling to use the information they find to make informed treatment decisions.
- Accessing various treatment options, clinical trials and new therapy alternatives. For some, the best treatment is inaccessible due to cost. For others, lack of knowledge and medical expertise in their geography inhibits use.

For patients, the vast information online can be overwhelming, false or incomplete. In this daunting journey, patients and their families have to make the most difficult decisions. These critical decisions have to be made while sifting through the morass of information, most of which patients and their family members do not have the required medical knowledge to comprehend, let alone judge for quality.

Roche Diagnostic's vision is to allow cancer patients the access to reliable and accurate information that enable patients and families to make informed decisions on their treatment options. To achieve this, Roche is therefore seeking a digital solution to empower patients on their medical journey. This will help them gain access to professional guidance, obtain financial counselling and seek peer support whenever needed.

PROBLEM STATEMENT

How might we create a digital platform to empower cancer patients and their families along their treatment and recovery journey with external parties and treatment information, so as to make better and sound decisions and stay connected with key communities?

WHAT ARE WE LOOKING FOR

- A prototype solution for cancer patients in Singapore to validate usability, functionality, utility and desirability. The solution should be able to scale to a regional and multi-lingual platform, designed to be patient centric, intuitive, personalised and engaging user experience.
- The solution should include the following data and information in order to act as a virtual portal that connects the patient and their family members to external parties:
 - Patient Diary and Patient-to-Patient:
 - Allows each patient to have his/her data available in a single platform for easy access, ready to be used whenever needed (such as for a second opinion, emergency or complication).
 - Permits the patient to record all important medical data such as symptoms, side effects, behaviour changes etc. in a simple and easy way.
 - Allows the patient to connect with other fellow patients globally with the same condition.
 - Allows the patient to share experiences and garner emotional support (could be for difficult cases, per type of cancer etc.).
 - Patient-to-Professionals:
 - Enables certified professionals to join the platform to interact with patients as well as assessing their medical files.
 - Provides easy access to professional advice that patients can understand and digest.
 - Permits "On-demand" human face-to-face interaction.
 - Provides access to professionals such as the following - Oncologist / Nurse / Pathologist / Nutritionist / Psychologist.
 - Allows patient data sharing via modules that require patient consent and provide indemnity agreements.
 - Allows professionals to post diagnosis and recommendations.
 - Allows recording or monitoring and eventually connecting the patient with a certified health professional.

- Oncology financial calculator/counselling:
 - Provides a financial dashboard to facilitate discussion of treatment options between a patient and a certified health professional.
 - Takes into account the Singapore context e.g. incorporate Medisave treatment options and associated regulations.

There are no restrictions on the geographic location of the problem solvers who may choose to apply to this challenge. However, the prototype needs to be demonstrated in Singapore (or similar markets in Asia).

POSSIBLE USE CASE

A 42-year-old woman finds a lump in her breast. The anxiety begins immediately. After a series of imaging and diagnostics tests, she is diagnosed with breast cancer.

Her doctor starts to discuss next steps - mastectomy, radiotherapy, chemotherapy etc. She is overwhelmed and shocked. At home, together with her husband, she decides to read up on the diagnosis and proposed treatment options. However, neither she nor her husband understand medical jargon and how the treatment options will impact her life. They proceed to do their own research on Google. However, they struggle with the scientific terms and plethora of information sources available.

Her doctor had tried to explain many things during the short consultation, most of which she was unable to comprehend at that time. She would love to speak to a professional and go through all the information in the comfort of her own home, while being accompanied by her family. Apart from treatment, there is so much more she wants to know, such as side effects, nutritional requirements, changes in lifestyle etc. She would like to speak to someone who has been through it all, in order to learn how to cope with all these changes and emerge a stronger person.

The long-term therapy is going to take a toll on the family's financial health as well. While she has both government health insurance (Medisave) and a basic private insurance plan from Prudential, she is unsure of the coverage details and whether all the tests and therapies can be fully reimbursed. She understood from her friends that treatments such as immunotherapy typically require a significant cash top up on top of the medical insurance.

At this point in time, availability of reliable information that can help address some of these questions would help her entire family cope with the stress and allow her to focus on getting her health back on track.

WHAT'S IN IT FOR YOU

- SGD 25,000 of prize money (GST-inclusive, if any) for the winner of this challenge (see Award Model).
- Access to Roche Diagnostics' sample data and domain expertise for the development of the prototype.
- Opportunity to test, demonstrate and validate solution in partnership with the Roche Diagnostics APAC team.

EVALUATION CRITERIA

The Applicants shall be evaluated in accordance with the evaluation criteria set out below:

Solution Fit

- To what extent does the proposed solution address the problem statement effectively?

Solution Readiness

- How ready is the proposed solution to go to market?
- Is there any evidence to suggest capacity to scale?

Solution Advantage

- Is the solution truly innovative, does it make use of new technologies in the market, and can it potentially generate new IP?

Company Profile

- Does the product have user and revenue traction?
- Do the team members possess strong scientific/technical background?

AWARD MODEL

30% of the prize money will be awarded to each selected finalist at the start of the prototype development process, with the remainder 70% to be awarded during the prototype development process, based on milestones agreed between Roche Diagnostics and the solver.

Note that a finalist who is selected to undertake the prototype development process will be required to enter into an agreement with Roche Diagnostics that will include more detailed conditions pertaining to the prototype development.

DEADLINE

All submissions must be made by **14 February 2020, 1600 hours (SGT/GMT +8)**. Roche and IMDA may extend the deadline of the submission at their discretion. Late submissions will not be considered.