**A. Personal Information**

Name: Liza Kanungo

Qualification: M. Tech in Biotechnology

Designation (Student/ Faculty/ Alumni/ Any other): Student

Department (if student): Biotechnology

Year of Passing (if alumni):

Designation (if faculty):

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Date of Birth: 2nd July 1994

Gender: Female

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Collaborating Institutions/industries, if any: KIIT University

**B. Introduction to Ideation**

1. Broad Industry sector (Pharma/ Medical Devices/ Biotech/ Other)

Medical Devices/ Biotech

1. What is your product / service?

Neuro-HPAD Kit, Early diagnosis of Neurological disorders in elderly people.

1. Who is recipient / beneficiary of your product / service?

Geriatric population.

1. What is the idea / innovation?

Non-invasive; Early diagnosis of multiple neurological disorders at one go; Informing the nearest specialized doctor via sms within 20 minutes of the test results.

1. Is it an idea or have you validated any proof of concept?

It is an idea.

1. If you have started any work on it, has it generated any revenue?

Not yet started to work on it.

1. Any other information on status of your idea / start-up (in terms of technology)

It is a multipexed flow ELISA based diagnostic paper strip.

1. What is the problem you are trying to solve?

To let the elderly population, know about the occurrence of neurological degenerating diseases at the earliest so that the treatment can start at ASAP.

1. What experiments you will like to do?
2. Testing the antigens’ and antibodies’ flow over the nitrocellulose membrane.
3. Connection establishment between paper strip and doctor.
4. Antigen-Antibody reaction.
5. Sample testing over the strip.
6. What will be requirement to get idea conceptualised?
7. Membrane pads
8. Antigens and antibodies
9. Chemicals
10. Lab equipment
11. Accessories

**C. Strategy**

1. What if you do not get incubation support from DIIF?

We will look for other sources.

1. What if you get incubation support from DIIF?

The funds will be utilized in forming a running prototype and scale up.

1. How do you plan to scale up your start-up?

At first, running prototypes will be formed and will be tested on volunteers. If we get positive results then we will try to market a small batch of sample strips to the nearby hospitals and diagnostic centres. If the batch brings results then we will manufacture more.

1. What are the challenges you are facing now and you foresee in next 2 years?

The reagents, proteins, membrane pads are quite expensive. We need funds, first, to form the prototypes and second, for its testing.

**D. Requirements**

1. Infrastructure required (Workstation / Office space / Lab facility / Internet facility / Labs / Animal house)
2. Workstation
3. Lab facility
4. Internet facility
5. Office space
6. Justification of infrastructure required:
7. Workstation: To assemble the paper strip and for keeping lab equipment
8. Lab facility: To store the reagents, proteins and samples. To test the biological reactions, a sterile lab is required.
9. Internet facility: For instant literature survey.
10. Office space: To study the literature and for planning the outcomes.
11. Requirement of meeting room (Frequency of meetings being held / month):

4 times a month (weekly once).

1. Funds required upto 2 years:

20-25 Lakhs

1. Assistance required upto 2 years:

**E. Abstract / Summary of proposal (Maximum 200 words):**

This idea is focused on early diagnosis of neurological disorders of elderly population using Point of Care (POC), Multiplexed Flow ELISA based diagnostic device at a home setting. This finding would facilitate a nutritionist and or a physician to give recommendation in the same day as the data analysis can be done within 20 minutes by the assisted device. It’s a non-invasive device and the sample i.e. saliva, can be easily collected from the geriatric patients. The hurdles for the project are systematic method validation using Gold-labelled reference standards more so for accuracy than for precision.