1. PERSONAL INFORMATION
2. Name
3. Dr (Prof). Y.Madhusudhan Rao

Director,  
Department of Pharmaceutics,

Vaagdevi Institute of Pharmaceutical Sciences,

Bollikunta, Warangal

b. Dr.S.Gurunath,

Head and Principal,

Department of Pharmcology and Toxicology,

Vaagdevi Institute of Pharmaceutical Sciences,

Bollikunta, Warangal

2. Qualification:

a. Dr (Prof).Y.Madhusudhan Rao, M.Pharm., Ph.D

b. Dr.S.Gurunath., M.Pharm., Ph.D

3. Designation:

a. Dr (Prof).Y.Madhusudhan Rao, Director

b. Dr.S.Gurunath., Head and Principal

4. Address: Vaagdevi Institute of Pharmaceutical Sciences, Bollikunta, Warangal

5. Date of Birth:

a. Dr.S.Gurunath., DOB: April, 16, 1979

6. Gender: Male

7. Email and mobile: s.gurunath1979@gmail.com., mobile – 9966555091

8. Collaborating Institutions/industries (if any):

Our institution is collaborating with **DyAnsys India Pvt Ltd** and **Oniosome Healthcare Pvt. Ltd. P. No.: F-237 Phase 8B, Industrial area, Mohali-160771.**

B. INTRODUCTION TO IDEATION

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

A: Pharma industry.

2. What is your product / service

A: Our product is applicable for using as a pharmaceutical excipient in various drug

delivery applications

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

A: Pharmaceutical or Biotech Companies or Bulk drug industry or R & D or

academic institutions etc

4. What is the idea/innovation?

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

A: Yes. We have validated proof concept through our preliminary studies.

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

A: No revenue has been generated till now through this work.

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

technology)A: It is an ongoing research project; hence the other relevant information will

be updated periodically

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

A: It is a novel pharmaceutical excipient employed for various drug applications such

as disintegrants, emulsifying agents, suspending agents and binder. It can also be

used formulating immediate sustained relese dosage forms.

7. What experiments you will like to do?

1. Extraction and isolation and precipitation.

2. Drying and characterization by using spectro-photometric analysis of

amorphous sample.

3. Physico-chemical evaluation of the amorphous sample

4. Physical evaluation of dosage forms

5. In-vitro dissolution studies

6. Stability studies

7. In-vivo pharmacokinetics studies (rodents and non-rodents)

8. What will be requirement to get idea conceptualized?

A: The above listed experiments have to be confirmed and validated with one

or more experiments to get the idea conceptualized.

C. STRATEGY

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

A: The proof of concept has been achieved through preliminary studies therefore

the various drug delivery applications of a novel pharmaceutical excipient

becomes limited and time consuming without incubation support from DIIF.

2. What if you get incubation support from DIIF?

A: We can perform extensive and elaborative experimental studies within a stipulated time period for the early outcomes or results with incubation support of DIIF.

3. How do you plan to scale up your start –up?

A: If results are encouraging and satisfactory, we will contact third party for the

scaling up our start up.

4. What are the challenges you are facing now and you foresee in next 2

years

A: The proposed pharmaceutical excipient is a novel polysaccharide obtained

form natural origin. Hence it has a potential application for developing into

various drug delivery dosage forms such as suspending, emulsifying agents and

binders, sustained release formulations etc. These applications will be planned

sequentially with one after another potential application of pharmaceutical

excipient on need basis.

D.REQUIREMENTS

1. Infrastructure required (workstation/office space/lab facility/internet

facility/ Labs/Animal house)

A: Yes. Laboratory facilities for various experimentations that cannot be

performed with our existing laboratory conditions will be proposed. Animal

studies not limited to in-vitro, in-vivo and toxicological studies will be

anticipated.

2. Justification of infrastructure required.

A: The infrastructure proposal will be justified through generating quotations

from vendors or any other relevant information.

3. Requirement of meeting room

A: Monthly once meeting will be held on own facility.

4. Funds required up to 2 years

A: Approximate estimation for the requirement of funds of 15 lacs

5. Assistance required up to 2 years

A: Assistance is required for 2 years with constant review of

experimentation expenditure incurred and expert advice for the cost effective

experimentation over a period of 2 years.

E. ABSTRACT/ SUMMARY OF PROPOSAL (MAXIMUM 200 WORDS)

The novel natural gum or polysaccharide obtained from the fruits of natural origin by precipitation using ethanol as a fluffy precipitate. The precipitate will be treated successively using various organic solvents, purified, concentrated and lyophilized at -40ºC to obtain finally the pure polysaccharide in the form of a light Brown amorphous powder. The powder will be characterized by spectral analysis such as FTIR, X-ray, DSC, NMR, Mass spectroscopy etc and subjected for various physicochemical evaluations such as solubility studies etc for pre-formulation studies. The powder will further be subjected for toxicity studies as per OECD guidelines to rule out the Powder thus obtained is safe for using as a pharmaceutical excipient. The amorphous powder thus confirmed safe for human use will be employed for various drug delivery applications as disintegrants, emulsifying agents, suspending agents and binders. They have been also found useful in formulating immediate and sustained release preparations.