



# Bharath

## INSTITUTE OF HIGHER EDUCATION AND RESEARCH

(Declared as Deemed-to-be University under section 3 of UGC Act, 1956)  
(Vide Notification No. F.9-5/2000 - U.3, Ministry of Human Resource Development, Govt. of India, dated 4<sup>th</sup> July 2002)



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173, Agaram Road, Selaiyur, Tambaram,  
Chennai - 600 073. Tamil Nadu.

Ref. No.SMS-2015-O-05

Date: 17.08.2017

TO

Ms. Swathi  
Assistant Professor/Microbiology  
BIHER

Thro: Concern Head of the Department

Greetings!!!

We are happy to announce that the Research Advisory Committee has approved your proposal for Seed Money Scheme-2015 which was presented by you. You are requested to complete the proposal and send the progress report to the Dean Research in the prescribed time period.

**Title of the Project: Screening of *Chlamydia trachomatis* Infection among Childbearing Age Group Women in a Tertiary Center in South India**

**Seed Money Amount: Rs.1, 00,000/- (Rupees One Lakh Only)**

**Approved on: 02.08.2017**

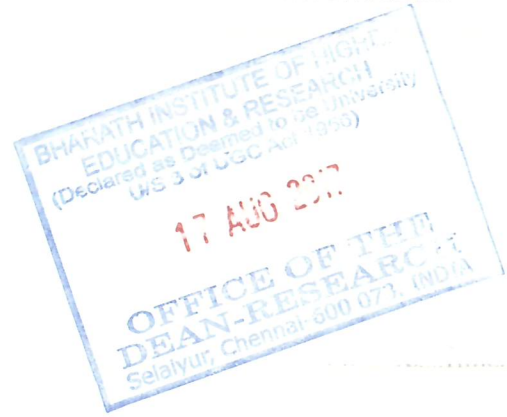
**Payment details:**

**Voucher No.40**

**Dated: 30.08.2017**

With Regards

Dean-Research



# Bharath University

SELAIYUR, CHENNAI - 600 073, TAMIL NADU, INDIA.

## CASH / PAYMENT VOUCHER

Date 30/08/2017  
V.No. 40

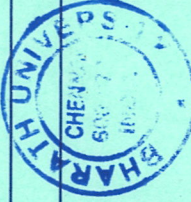
Debit \_\_\_\_\_ Amount \_\_\_\_\_

**Rs.**

PAID TO Dr. J. Swathi

RUPEES One lakh only

TOWARDS Seed money scheme - 2015



*[Signature]*

Authorised by

Finance Manager

Cashier/Accountant

*[Signature]*

Payee's Signature

## PROPOSAL SUBMISSION

### 1. Details of Principal Investigator

**Name** : Dr. S. Swathi  
**Designation** : Assistant Professor  
**Highest Qualifications** : M. Sc.,  
**Department** : Microbiology  
**E-mail** : swathi.mmb@gmail.com  
**Contact no** : 9047727660  
**Date of Joining** : 05.05.2015

### 2. Details of Co-Principal Investigator

**Name** : Dr. C. Naveen Kumar  
**Designation** : Associate Professor  
**Highest Qualifications** : Ph.D.  
**Department** : Microbiology  
**E-mail** : navin.mmb@gmail.com  
**Contact No** : 9047765601  
**Date of Joining** : 13.04.2013

## Technical details

### 1. Introduction:

Worldwide one of the most common genital infection causing pathogens is HIV, HbsAg, Chlamydia trachomatis (CT), etc 1, 2. Among this the CT took a silent and vital role in pelvic inflammatory disease, infertility, abortions, ectopic pregnancy, preterm labour are the main outcome of the infection 3-5. There also increased morbidity and mortality among neonates of infected women. Maternal Chlamydia infection leads to newborn prematurity and low birth weight. About 50–75% of infants were born with one or more sites of infections like conjunctiva, nasopharynx, vagina, etc from the infected mothers 6 Furthermore, the available Indian data show a wide variation from 3.3% to 33% based on the population, CT prevalence and methods of laboratory confirmation 7-16 (Table 1). The prevalence of CT in childbearing age group women in India has been differs from various geographic regions. Current obstetric practice in southern India does not include universal prenatal screening for CT. According to the CDC screening of CT must be performed from prenatal visit to 3rd trimester. Furthermore the screening and diagnosis by Clear view Chlamydia Test (CCT)Kit H (Inverness, Houston, TX 77038) is one of the few FDA approved rapid diagnostic tests (RDT) for CT but a wide range of sensitivity (53–73%) and specificity (68–99%) on endocervical specimens have been reported 17-21. Newer NAAT technology using the Roche AmplicorH CT/NG test (Roche Molecular Systems, Inc., Branchburg, NJ 08876) shows higher sensitivity of 93.3% and specificity of 99.7% on endocervical specimens 22. ELISA (Calbio tech in CA) has been performed to screen the CCT positive cases based on the manufactures guidelines 23. The current study conducted in Sri Lakshmi Narayana Institute of Medical Science, Pondicherry in 2016.

### 2. Review of status of Research and Development in the subject

World Health Organization, Sexually Transmitted Diseases – Chlamydia trachomatis, 2010.

The screening of the CT by the Rapid methods plays a main part for the early detection and treatment. Chlamydia trachomatis infection in healthy childbearing women in a setting using NAAT technique has been proven in past years. The overall prevalence of genital chlamydial infection in the present study shows was 16%. Tissue culture is the gold standard method to screen the CT though high range of technical issues are predominant and most of the hospitals are not available with the culture methods, hence serological methods and rapid, cost effective, time saver and simple to perform. The Prevalence study of the CT is based on the demographic area, according to the previous studies in India the ratio of the prevalence is differs from 3.3% to 33 %, hence the prevalence ratio in Tamilnadu is 10 to 30% has reported but the current prevalence study shows the CT infections is about 16% in and around Puducherry.

#### 2.1. International Status:

C. trachomatis is a highly prevalent sexually transmitted diseases in many regions, and it seriously affects public health; therefore it needs effective epidemiological control, starting with

an adequate method for correct and effective diagnosis. In the current study, there was an overall prevalence of 10% of *C. trachomatis* infection was observed among pregnant women. The major infection was found among women in the age group of 20–25 and was found to be 59% followed by 26–30, and its prevalence was 34%. The prevalence of *C. trachomatis* infection among fertile women detected by molecular methods seems to be a good alternative. By considering the high specificity and sensitivity of PCR, it could be used as a screening technique during the antenatal check-up. However, this suggests that ELISA is a practical and cheaper alternative to the molecular tests for routine screening and diagnosis, especially in resource-poor countries

## **2.2. National Status:**

NIL

## **3. Progress/ achievement so far, if any**

- a). Reference papers was collected.
- b). Literature survey was studied.
- c). Materials and methods were designed.

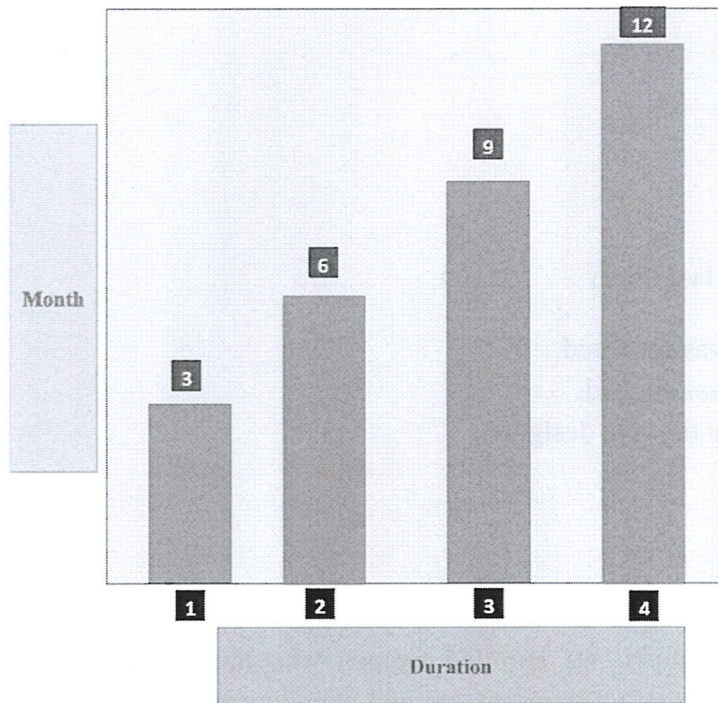
## **4. Work plan**

### **4.1 Methodology**

In this cross-sectional study, we enrolled women who had the history of infertility, dyspareunia, cervical discharge, miscarriage, etc and attending the Gynaecology out Patient Department (OPD) of Sri Lakshmi Narayana Institute of Medical Science, Pondicherry. The Outpatients are from Pondicherry and Tamilnadu. Outpatient were randomly chosen and explained about the procedure. Of those who were willing to the test with well-informed written consent and follow-up 465 patients had an endocervical swab and blood. (Table 2) With the help of sterile bivalve speculum cervix the cervix was visualized, before doing a digital examination. Endocervical swabs were then collected chlamydia swab (Inverness, Houston, TX 77038). On the same day the sample was processed in the Microbiology and Immunology laboratories. The Chlamydial antigen was detected using the Clearview Chlamydia Test (CCT) kit (Inverness, Houston, TX 77038) as per the manufacturer's instructions. CCT principle based on enzyme immune assay, this is a rapid point of care immunochromatographic tests 19, 20. The NAAT samples were tested using the Roche AmplicorH CT/NG test for Chlamydia trachomatis (Roche Molecular Systems, Inc., Branchburg, NJ 08876). The test was performed according to the instructions has mentioned. Internal positive controls all tested positive. Screening of antibodies (IgM and IgG) has been processed in ELISA from the blood sample collected from the patients. With help of SPSS 16.0 statistics software (Released 2007. SPSS for Windows, Version 16.0. Chicago, SPSS

Inc.) The results were analysed. The study was approved by the Institutional Review Board and Ethics Committee.

**4.2 Time Schedule of activities giving milestones through BAR diagram. (Maximum of 1/2 pages)**



S. No	Activity/ mile stolon	1 <sup>st</sup> Year			
		1-3 month	4-6 month	7-9 month	10-12 month
1	Literature review				
2	Analysis of existing work	-			
3	Designing & work initiated	-	-		
4	Statistics & Discussion with results	-	-	-	

#### 4.3 Expected outcome within the time period of See Money Scheme

Study findings suggest that current C. trachomatis infection among childbearing age group women's was statistically significant. The asymptomatic patients also involved in the screening for the better management and to provide proper knowledge about the infection. This study also reveals the awareness among the public and also warrants the physicians to involve the routine screening in the OPD of the hospital and the laboratory too. This study concludes that it provide enough knowledge to the society and view the serious threats of the infections and prevalence of C. trachomatis in future.

#### 5. Suggested Plan of action stating the name of funding agency where the project will be communicated for financial support within the time period of project.

Nil

#### 6. Bibliography: Nil

Nil

#### 7. List of Projects submitted/implemented by the Investigators (Separate for Pi and Co-PI)

##### 7.1 Details of Projects submitted to various funding agencies:

S.No	Title	Cost in Lakhs	Month of Submission	Role as PI/Co-PI	Agency	Status
1	NA	NA	NA	NA	NA	NA

##### 7.2 Details of Projects under implementation

Sl. No.	Title	Cost in lakhs	Duration	Role as PI/ Co-PI	Agency
1	NA	NA	NA	NA	NA

##### 7.3 Details of Projects completed during the last 5 years

Sl. No.	Title	Cost in lakhs	Duration	Role as PI/ Co-PI	Agency
1	NA	NA NA	NA	NA	NA

**8. List of publications published by the Investigators, if any:**

**a) Principal Investigator**

S. No	Author names	Title of paper	Name of Journal	Vol (Issue)	Page No.	Year
1.	<b>1Swathi.S*</b> , 2Naveen Kumar.C, 3Abarna. V, 4Jayapradha. S, 5Kamatchi. S	Prevalence of Intestinal Parasites in a Tertiary Care Hospital in Rural Puducherry	Journal of Current Trends in Clinical Medicine & Laboratory Biochemistry	3(3)	16-21	2017
2.	S Ayyappan, Sachu Philip, N Bharathy, V Ramesh, C Naveen Kumar, <b>S Swathi</b> , A Arun Kumar	Antioxidant status in neonatal jaundice before and after phototherapy	Journal of pharmacy & Bioallied sciences	7(1)	S16-19	2015
3.	KP Shiva Govindan, Saleem Basha, V Ramesh, C Naveen Kumar, <b>S Swathi</b>	A comparative study on serum lipoprotein (a) and lipid profile between rheumatoid arthritis patients and normal subjects	Journal of Pharmacy & Bioallied Sciences	7(1)	S22-25	2015
4.	Jayaranjani.K Jayarani.K, Sandhyarani.T, Naveen Kumar's, <b>Swathi.S</b>	Detection of MBL Producing Pseudomonas aeruginosa in Tertiary Care Hospital, Pondicherry	International Journal of Recent Scientific Research	5(8)	1460-1463	2014

**b). Co-Principal Investigator**

S. No	Author names	Title of paper	Name of Journal	Vol (Issue)	Page No.	Year
1.	<b>Naveen kumar C1</b> , Srikumar R2, Swathi S3, Chidambaram R4, Muthukrishnan G5, E Prabhakar Reddy6	Phytochemical Analysis and Antifungal Activity of Ganoderma lucidum	Indian Journal of Public Health Research & Development,	9(120)	130-135	2018
2.	<b>Naveen Kumar C</b> , Sri Kumar R, Swathi R, Prabhakar Reddy	Role of Ganoderma lucidum against trizole drugs resistant Aspergillus species	International Journal of Research	9(4)	1189-1195	2018

	E, Chidambaram R.		Pharmaceutical Sciences			
3.	S Ayyappan, Sachu Philip, N Bharathy, V Ramesh, <b>C Naveen Kumar</b> , S Swathi, A Arun Kumar	Antioxidant status in neonatal jaundice before and after phototherapy	Journal of pharmacy & Bioallied sciences	7(1)	S16-19	2015
4.	KP Shiva Govindan, Saleem Basha, V Ramesh, <b>C Naveen Kumar</b> , S Swathi	A comparative study on serum lipoprotein (a) and lipid profile between rheumatoid arthritis patients and normal subjects	Journal of Pharmacy & Bioallied Sciences	7(1)	S22-25	2015
5.	Jayaranjani.K Jayarani.K, Sandhyarani.T, <b>Naveen Kumar.C</b> , Swathi.S	Detection of MBL Producing Pseudomonas aeruginosa in Tertiary Care Hospital, Pondicherry	International Journal of Recent Scientific Research	5(8)	1460-1463	2014
6.	Janani.S Sandhyarani T, Jayarani.K, Sai Ravikiran B, <b>Naveenkumar.C</b>	Microbiological Profile and Spectrum of Drug Susceptibility In Asymptomatic Bacteriuria Among Antenatal Women	Universal Research Journal Of Medical Sciences	1(1)	13-16	2014

## 9. Budget

SI. No	Head	Amount (Rs.)
1	BP Apparatus, Stethoscopes, Body weight weighing machine, SPSS version 16 Chicago, IL, USA, ECG machine	45000
2	Consumables (gels bottles, cotton, sprit, testing charges, tools, etc.)	10000
3	Travel support for the purpose of research work.	10000
4	Contingency	25000
5	Other's consumables	10000
	<b>Total</b>	<b>1,00,000</b>

\*In case of any joint proposal for purchasing a same equipment, each of the associated PLs is also required to give separate budget (without any clubbing) to avoid any ambiguity, if all the associated projects are not awarded by committee.

**10. Name of at least two subject experts from the Institute and one from the outside Institute with their contact details:**


<p>1. <b>Dr. Florida,</b> Research Scientist, Sree Balaji Medical College and Hospital, Chennai <b>Mobile No:</b> 9940027169 <b>E-mail id:</b> biozonediagnostics@gmail.com</p>	<p>2. <b>Dr. Suba,</b> Professor in Microbiology, Rela Transplantation Institute, Chennai <b>Mobile No:</b> 9962526457 <b>E-mail id:</b> subamicro@gmail.com</p>
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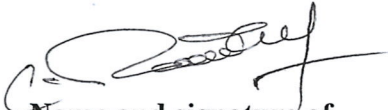
## CERTIFICATE FROM THE INVESTIGATOR

**Project Title:** Screening of Chlamydia trachomatis Infection among Childbearing Age Group Women in a Tertiary Center in South India

It is certified that


1. I do hereby agree to submit a complete proposal for financial support to the external funding agency within the time period of SMS-2015.
2. I undertake that spare time on equipment procured in the project will be made available to other users.
3. I agree to submit a certificate from Institutional Biosafety Committee, if the project involves the utilization of genetically engineered organisms. I also declare that while conducting experiments, the Biosafety Guidelines of Department of Biotechnology, Department of Health Research, GOI would be followed in to.
4. I agree to submit ethical clearance certificate from the concerned ethical committee, if the project involved field trails/experiments/exchange of specimens, human & animal materials etc.
5. I agree to abide by the terms and conditions of SMS-2015, BIHER, and Chennai.

  
Name and signature of  
Principal Investigator

  
Name and signature of  
Co-Principal Investigator

**Date:** 28.07.2017

**Place:** Pondicherry

  
Forwarded by Head of the Department

Signature of the Head

  
**DEAN**  
SRI LAKSHMI NARAYANA INSTITUTE OF MEDICAL SCIENCES  
OSUDU, AGARAM VILLAGE,  
KODAPAKKAM POST,  
PUDUCHERRY - 605 502

## PROJECT EVALUATION FORMAT

### Recommendation sheet

Name of the Principal Investigator	DR. S. Swathi
Name of the Co-Principal Investigator	Dr. C. NaveenKumar
Name of the Department	Microbiology
Title of project	Screening of Chlamydia trachomatis Infection among Childbearing Age Group Women in a Tertiary Center in South India
Recommendation of the evaluation committee (Recommended/Revision/Not Recommended)	<i>Recommended</i>
Financial allocation recommended	<i>Rs - 1,00,000/-</i>

SI. No.	Head	Amount
1	BP Apparatus, Stethoscopes, Body weight weighing machine, SPSS version 16 Chicago, IL, USA, ECG machine	45000
2	Consumables- Gel bottles, cotton, sprit, testing charges, tools, etc.	10000
3	Travel support for the purpose of research work.	10000
4	Contingency	25000
5	Others consumables	10000
	<b>Total</b>	<b>1,00,000</b>

Name and Signature of the Research Advisory Committee members with date



*Sum*  
(Dr. G. Jayalalitha)