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# PRINCETON COLLEGE OF PHARMACY

(Affiliated to JNTUH & Approved by AICTE, PCI, New Delhi)

Chowdariguda, Korremula Village, Chowdariguda Mandal, Medchal District

Date: 16/06/2018

To  
The Managing Director,  
Amritha enterprises,  
16-8/238/7/7, New Malakpet,  
Hyderabad- 500036.

Subject: Sponsorship for funded project – Dated: 16/06/2018.

Dear Sir,

Best wishes from Princeton College of Pharmacy

Princeton College of Pharmacy was established in the year 2007. PCOP is approved by AICTE New Delhi, affiliated to JNTU, Hyderabad and accredited by National Board of Accreditation (NBA). PCOP is an ISO 9001:2008 certified institution. The faculties of various departments are actively pursuing research in their respective technical departments under R&D wing of PCOP **Dr. SUNDEEP KADASI**, Professor, Department of PHARMACEUTICAL CHEMISTRY, is the principal investigator for this proposed work.

We request your kind cooperation and financial aid of INR. 3,20,000 (Three lakhs twenty thousand Rupees Only) in the “**Novel B-Rafkinase and HSP 90 inhibitors for cancer Therapy: Structure Based Drug Design (SBDD), Chemical Synthesis and Biological Activity Studies**”.

Herewith we have enclosed the budget proposal for the project. Our faculty will contact you in person along with this letter.

Princeton College of Pharmacy is expecting positive response from you.

Principal Investigator

Dept. of Pharmaceutical Chemistry



Principal

Princeton College of Pharmacy,  
Korremula Vtl, Vijayapuri Colony,  
Ghatkesar Mdl, Medchal Dist, Telangana.



Date: 16/06/2018

**Budget Proposal for “Novel B-Rafkinase and HSP 90 inhibitors for cancer Therapy: Structure Based Drug Design (SBDD), Chemical Synthesis and Biological Activity Studies”.**

**Introduction:**

Molecular chaperone proteins and cell signaling proteins have been a target of drug action in cancer therapeutics for decades. Some cell signaling proteins depend on molecular chaperone proteins for posttranslational modifications to become functional proteins and promote cancer aggravation. Several natural products and heterocyclic compounds have been developed to inhibit Hsp90 and BRaf kinase, but faced limitations. Combination drug therapy and dual/multiple binding of drug molecules, to the proteins involved in signaling pathway of cancer progression has been a novel intervention in cancer therapeutics. Targetting Hsp90 molecular chaperone protein and its client protein BRaf kinase by dual binding antagonism has been a novel scenario in the development of drug like molecules in cancer therapy. The significance of Hsp90 as a central molecular chaperone in regulating the activity of several proteins, has led to revolutionary progress in the development of Hsp90 inhibitors. Significant outcomes have been achieved in alleviating cancer progression for over a decade as multi-drug combinations, which include Hsp90 inhibitor in the combination drug therapy in several clinical study trials.

**Scope of work**

The present study, focuses on development of dual binding Hsp90 and its client protein BRaf kinase inhibitors by SBDD (Structure based drug design), docking ananlysis, chemical synthesis and spectral characterization of Pyrazolines (2.12a - 2.12m) followed by biological activity studies. The later part of study, significantly focuses on the development of Benzofuran derivatives (3.13a – 3.13j) as Hsp90 inhibitors by docking analysis, chemical synthesis, spectral characterization and biological activity studies, understanding the crucial role of Hsp90 in modulating the activity of several proteins involved in cancer progression. The final part of the study, envisaged at the identification and development of two important scaffolds of imidazole (4.3a – 4.3e) and Quinoxaline (4.3f – 4.3j), with an affinity to bind the Hsp90 molecular chaperone.



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## Professional Fees

Our Lump Sum professional fees for carrying out the above the scope of work will be INR.3, 20,000 (Three lakhs Twenty thousand Rupees only)

## 1.0 Terms of Payment

S. No.	Mode of payment	Amount (INR)
1.	Term-1 (Work order& Analysis)	1,10,000
2.	Term-2( Modeling and Design)	1,00,000
3.	Term-3(Fabrication, Machining and Testing and Delivery)	1,10,000
	Total	3,20,000

Kindly acknowledge the receipt of this proposal and looking forward to get the work order.

Principal Investigator



Principal

**PRINCIPAL**

Princeton College of Pharmacy,  
Korremula Vill V. S. Colony,  
Ghatkesar Md, Medchal Dist, Telangana.



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(Affiliated to JNTUH &amp; Approved by AICTE, PCI, New Delhi)

Chowdariguda, Korremula Village, Chowdariguda Mandal, Medchal District

Date: 13/07/2018

To  
The Managing Director,  
Amritha enterprises,  
16-8/238/7/7, New Malakpét,  
Hyderabad- 500036.

Project: Work order for “Novel B-Rafkinase and HSP 90 inhibitors for cancer Therapy: Structure Based Drug Design (SBDD), Chemical Synthesis and Biological Activity Studies”.

Ref: DP/WO/PCOP/PHARMACY/2018-19/01 Dated 16/06/2018.

Dear Sir,

As per your work order and subsequent discussions with principal investigator, I request you to kindly release the following bill amount.

Bill - 1		
S. No.	Mode of payment	Amount (INR)
1.	Term-1 (Work order & Analysis)	1,10,000
	<b>Total</b>	<b>1,10,000</b>

Thanking You.

Principal Investigator



Principal  
PRINCIPAL

Princeton College of Pharmacy,  
Korremula Vill, Vinayapuri Colony,  
Ghatkesar Mdl, Medchal Dist, Telangana.



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# PRINCETON COLLEGE OF PHARMACY

(Affiliated to JNTUH & Approved by AICTE, PCI, New Delhi)

Chowdariguda, Korremula Village, Chowdariguda Mandal, Medchal District

Date: 07/08/2018

To  
The Managing Director,  
Amritha enterprises,  
16-8/238/7/7, New Malakpet,  
Hyderabad- 500036.

**Project:** Work order for “Novel B-Rafkinase and HSP 90 inhibitors for cancer Therapy: Structure Based Drug Design (SBDD), Chemical Synthesis and Biological Activity Studies”.

**Ref:** DP/WO/PCOP/PHARMACY/2018-19/01 Dated 16/06/2018.

Dear Sir,

As per your work order and subsequent discussions with principal Investigator, I request you to kindly release the following bill amount.

Bill - 2		
S. No.	Mode of payment	Amount (INR)
1.	Term-2( Modeling and Design)	1,00,000
	<b>Total</b>	<b>1,00,000</b>

Thanking You.

Principal Investigator



Principal  
**PRINCIPAL**

Princeton College of Pharmacy,  
Korremula Vll, Vijayapuri Colony,  
Ghatkesar Mdl, Medchal Dist, Telangana.



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# PRINCETON COLLEGE OF PHARMACY

(Affiliated to JNTUH &amp; Approved by AICTE, PCI, New Delhi)

Chowdariguda, Korremula Village, Chowdariguda Mandal, Medchal District

Date: 16/09/2018

To  
The Managing Director,  
Amritha enterprises,  
16-8/238/7/7, New Malakpet,  
Hyderabad- 500036.

Project: Work order for “Novel B-Rafkinase and HSP 90 inhibitors for cancer Therapy: Structure Based Drug Design (SBDD), Chemical Synthesis and Biological Activity Studies”.

Ref: DP/WO/PCOP/PHARMACY/2018-19/01 Dated 16/06/2018.

Dear Sir,

As per your work order and subsequent discussions with principal Investigator, I request you to kindly release the following bill amount.

Bill - 3		
S. No.	Mode of payment	Amount (INR)
1.	Term-3 (Fabrication, Machining and Testing and Delivery)	1,10,000
	<b>Total</b>	<b>1,10,000</b>

Thanking You.

Principal Investigator



Principal  
Princeton College of Pharmacy,  
Korremula Vill, Vijayapuri Colony,  
Ghatkesar Mdl, Medchal Dist, Telangana.



# PRINCETON COLLEGE OF PHARMACY

(Affiliated to JNTUH & Approved by AICTE, PCI, New Delhi)

Chowdariguda, Korremula Village, Chowdariguda Mandal, Medchal District

## GRANT UTILIZATION CERTIFICATE

Date: 21/09/2018

This is to certify that the grant of Rs. 3,20,000 (Rupees Three lakhs twenty thousand rupees only) from **Amritha enterprises** as per the following installments was received by Princeton College of Pharmacy, Chowdaryguda, Ghatkesar for the project “**Novel B-Rafkinase and HSP 90 inhibitors for cancer Therapy: Structure Based Drug Design (SBDD), Chemical Synthesis and Biological Activity Studies**” via electronic money transfer NEFT or cheque to institute SBI & HDFC bank account (As per Bank account details provided by us to Amritha Enterprises.)

Name of the Company	Term	Proposed Amount	Released Amount
Amritha Enterprises	1	1,10,000	1,10,000
	2	1,00,000	1,00,000
	3	1,10,000	1,10,000
<b>Total Amount</b>			<b>3,20,000</b>

Principal Investigator

Auditor



Principal

PRINCIPAL

Princeton College of Pharmacy,  
Korremula Vill, Mayapuri Colony,  
Ghatkesar Mdl, Medchal Dist, Telangana.

# AMRITHA ENTERPRISES

## Work Order

Ref: AM/PCOP/PH/2018-19/01

Date: 01/07/2018

To  
The Principal,  
Princeton College of Pharmacy,  
Narapally, Chowdaryguda,  
Secunderabad-500 088.

**Ref:** Sponsorship for funded project Dated: 16/06/2018

**Subject:** Release of Work order for the project “**Novel B-Rafkinase and HSP 90 inhibitors for cancer Therapy: Structure Based Drug Design (SBDD), Chemical Synthesis and Biological Activity Studies**”

Dear Sir,

We have undergone the proposed project with our senior professionals. We extend our full support to carry out this research work. In this regard, we are glad to release the work order for the project “**Novel B-Rafkinase and HSP 90 inhibitors for cancer Therapy: Structure Based Drug Design (SBDD), Chemical Synthesis and Biological Activity Studies**” from today onwards. The following terms of payment will follow as per the budget proposal to complete the project.

S. No.	Mode of payment	Amount (INR)
1.	Term-1 (Work order& Analysis)	1,10,000
2.	Term-2( Modeling and Design)	1,00,000
3.	Term-3 (Fabrication, Machining and Testing and Delivery)	1,10,000
	<b>Total</b>	<b>3,20,000</b>

Best wishes from Amritha Enterprises, New Malakpet.



**Managing Director  
(Amritha Enterprises)**



# AMRITHA ENTERPRISES

## Letter of Acceptance

Date: 01/07/2018

Ref: AM/PCOP/PH/2018-19/01

To  
The Principal,  
Princeton College of Pharmacy,  
Narapally, Chowdaryguda,  
Secunderabad-500 088.

Ref: Sponsorship for Project Dated: 16/06/2018

Subject: Acceptance of  
Financial aid for the project  
(Amritha Enterprises)

Dear Sir,

Best wishes from Amritha Enterprises, New Malakpet, Hyderabad.  
Our staff and officials have undergone the scope of work for the proposed project. We extend our full support to carry out this research work. In this regard, we are glad to sponsor your project "**Novel B-Rafkinase and HSP 90 inhibitors for cancer Therapy: Structure Based Drug Design (SBDD), Chemical Synthesis and Biological Activity Studies**" with INR. 3,20,000 (Three lakhs Twenty Thousand rupees only)

Managing Director  
(Amritha Enterprises)

