Shree Warana Vibhag Shikshan Mandal's

Tatyasaheb Kore College of Pharmacy, Warananagar

Deployment of the Perspective Plan

6.2: Strategy Development and Deployment

6.2.1: The institutional perspective plan is effectively deployed and functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules, and procedures, etc.

<April 2023>

'Vision-2025' perspective plan was developed and implemented from the from 28t January 2020. The stakeholders of the HEI are sincerely taking efforts to accomplish the plan. To realize the desired goal of institutions the management of the Institution, GB, CDC, IQAC and other statutory and non-statutory committees are aligned to work in the direction set by the plan.

To accomplish the plan the HEI conducts meetings of the concern committees and the action plan is put on the floor for the open discussion. After thediscussion and feedback from various stakeholders the plan is approved by the respective committee followed by IQAC, CDC and finally in GB.

The part of the plan deployed in the tenured and the one which is yet to be enforced is as follows;

Strategic Plan	**Deployment (phase of implementation)**			
	Ideation	**Proof of Concept**	**Prototype development/ Pilot scale**	**In existence**
CURRICULAR ASPECTS				
To start the pharmacy courses which involves the scope of clinical career of graduates been passed i.e. Pharm. D., B. Pharmacy (Practice) courses;				**It is decided in the meeting of CDC to start Pharm. D. and B. Pharm. (Practice) course from academic year 2022-23.** **(Annexure I)**
To appeal and contribute in the syllabus updating periodically done by PCI, New Delhi, to keep updated with changing technologies;				**The Head of the HEI through BOS, Shivaji University is actively involved in such activities.** **(Annexure II: a-c)**
To start PG programmes – in the remaining branches than already existing i.e. for example M. Pharm. in Pharmacology, M. Pharm. in Regulatory Affairs, M. Pharm. in	**√**			

Pharmacognosy etc. to mitigate demand of the market;				
NEP-2020 demands multidisciplinary HEIs, makes us introduce certificate/ diploma courses in allied sciences including nutrition and dietetics, music therapy, yoga, bachelor of law in medico-legal cases, analytical method development, animal experimentation, herbal drug product development etc.;		√		
To introduce PG Diploma courses such as medical lab technology, clinical research, biostatistics, hospital administration, retail and wholesale pharmacy management, etc.;	√			
To introduce value added short term programmes for B. Pharm./ B.Sc. graduates in pharmaceutical marketing, identification of medicinal plants, ayurvedic formulation developments etc.;	√			
To introduce skill-oriented programme like pharmacist assistant, animal care and handling, biostatistics in research etc.				**Training to the M. Sc. Zoology students of YC Warana is availed (Annexure III)**
TEACHING-LEARNING AND EVALUATION				
To take measures to develop educated person and not just graduated;				**Measures to increase knowledge base of the students are started to be taken by using modern teaching techniques. (Annexure IV: a-b)**
To take a step towards bring quality culture in academia by introducing quality assurance tools in teaching-learning process including				**SOPs are introduced in all the activities of HEI. (Annexure V: a-c)**

SOPs, QbD, Risk Management etc.;				
To take special efforts to avoid developing of mind-set graduates leading to data-integrity issues in industry;				**Special efforts are taken by the HEI to inculcate culture of honesty and integrity. (Mentoring through celebration of birth/ death anniversary. (Annexure VI: a-b)**
To take special efforts to transform teachers into subject matter expert (SME) delivering his/ her knowledge using effective teaching techniques (ETT);			Teachers pedagogy workshops, human resource exchange, conference delegation by the faculty helped them grow in both SME and ETT	**Special efforts are taken by the HEI to transform teachers into SME through organization of teaching pedagogy on various subjects of UG and PG. (Annexure VII: a-c)**
Special efforts are taken by the HEI to inculcate culture of honesty and integrity.			**SOPs are in action**	**Special efforts are taken by the HEI to inculcate culture of honesty and integrity. (Mentoring through celebration of birth/ death anniversary. (Annexure VI: a-b)**
To make learning experience more and more experiential and activity based by introducing activities in day-to-day learning;			ZigSaw, Mentimeter, think-pair-share, padlet, mind-mup, kahoot hot potato, H5P, PHEt like techniques are employed by the faculty to make learning experience more and more	**HEI is taking efforts regularly to make learning more effective through use of various modern teaching tools, conduction of seminars, debate, poster exhibition, etc (Annexure IV: a-b and Annexure: VIII: a-f)**

			enjoyable	
To make learning experience more of knowledge application oriented than just reproducing information in the examinations by 'problem solving approach';			Activity-based learning component was increased	**HEI is taking efforts regularly to make learning more effective through conduction of seminars, debate, poster exhibition.** **(Annexure: IX: a-f)**
To strengthen ICT based blended teaching-learning methods by availing training to faculty on modern tools of teaching;			ICT tools, interactive LCDs are purchased and faculty are motivated to make maximum use of these facilities	
To introduce and strengthen ERP/ LMS system for enhanced e-learning;				**Full-pledge VmEdulife software was more exhaustively employed.** **(Annexure IX: a-b)**
To enhance the hybrid learning experience by increasing component of distance learning opportunities including video-conferencing and webinars;			Use of zoom, Microsoft teams, WebEx, google meet is prominently improved	
To make learning more inclusive by generating subject contents in local language i.e. in Marathi;			The Head if the HEI delivered many sessions on AIR, Akashwani Kolhapur in Marathi, same resources are made available in HEI's library	**Annexure X**

To develop institutional learning repository;	√			
To start campus FM radio for making campus life more-and-more entertaining while educating;	√			
To make continuous assessment more and more formative;				Continuous assessment is now becoming routine
To introduce open-book-exam and other examination formats to assess understanding and not just remembering;	√			
RESEARCH CONSULTANCYAND COLLABORATION				
To start Ph.D. programme by getting research lab recognition from SUK;				PhD programme is started **(Annexure XI)**
To grow in Ph.D. and PG research both quantitatively and qualitatively;			Research of the HEI is gearing up with impactful publications	**Annexure XII: a-f**
To grow in collaboration qualitatively and quantitively initially by establishing repo of exchange of HR, research facilities and then establishing MoUs with institutions of importance and impact in India and abroad;			The HEI is growing in networking day-bay-day	**Annexure XIII: a-d**
To create research culture that leads to outcomes with high technology readiness level (TRL) increasing patents awarded;			**One of the project reached to the incubation award**	**Annexure XIV**
To develop into Centre of Excellence in academic pharmaceutical research;	√			
To have our own journal of repute publishing quality pharmaceutical research, indexed in		√		

SCOPUS in near future;				
To excel in Ph.D. research making it more impactful not only by publishing and patenting but commercializing the products;		**√**		
To promote research by giving financial supports to faculty and students doing excellent research recognized by its outcomes;		The GB has decided to make substantial contribution in developing teachers profile		
To identify 3-5 teachers every year for sabbatical leave and higher studies.	**√**			
To undertake and excel in consultancies etc.			**Consultancies for animal studies and instrumental analysis is increasing day-by day**	**Annexure XV: a-d**
INFRASTRUCTURE AND LEARNING RESOURCES				
Library				
To add valued reference books every year in library as true knowledge resource;			**Reputed reference books are added in every year's purchase**	
To take exclusive efforts to increase foot-falls of teachers and students in the library;			**To increase footfalls of the library, library bank limit is increased from 4 to 10 and mini libraries are set in boys and**	**Annexure XVI: a-b**

			girl hostel	
To set small library in boys and girls hostels;			**√**	
To enhance e-library facilities and resources;			Remote access to 3443 resources if provided through VmEdulife LMS	
To develop linkage with premier institutions of India and abroad for online, offline, and lectures and demonstrations;			**MoU with ICT and UTS, Australia are already in place, few other international MoUs are in pipeline**	**Annexure XIII: a-d and Annexure XVII**
To strengthen and decentralize the library, making it more-and-more utilizable by students and staff;	**√**			
To keep the library browsing and e-library open round the clock etc.			**√**	
IT Facilities			**√**	
To introduce biometry for staff;				
To introduce biometry for students;	**√**			
To make processes paperless by using LMS, ERP;			HEI plans to be paperless in near soon	
To establish language laboratories and improvise every year as communication is key attribute of success;	**√**			
To establish recording theatre to design and develop e-resources of high quality;	**√**			
To improvise in e-experience by conducting more-and-more webinars, video-conferencing			HEI is now actively organising e-	**Annexure XVII and Annexure XVIII**

etc.;			conferences	
Physical Infrastructure				
To set small canteen close to the college;		√		
To establish 500 plus capacity amphitheatre, in proximity of college; for conducting events like conferences, seminars, cultural feasts etc.;	√			
To make all basic facilities provided more-and-more sophisticated every year;	√			
To upgrade auditorium to state-of-the-art facility provided with air-conditioning, and all ICT and AV facilities;	√			
To remove the obsolescence and to upgrade as per as high-end instrumentation facilities are concerned;			State-of-the art facilities including cell culture laboratory, CO_2 extractor are set	**Annexure XIX: a-b**
To get GLP accreditation to CCSEA approved animal house facility (AHF);			√	
INSTITUTIONAL SOCIAL RESPONSIBILITIES				
To enhance the contribution of leadership, faculty and students in safe use of medicines, and other health related issues;			The HEI and other faculties are already working as resource persons now	
To take more efforts on the village we adopt for NSS camp, to improvise the village in health and hygiene related conducts;			NSS camps are arranged with full zeal and enthusiasm	
To carry out health awareness camps more-and-more extensively bringing true revolution in the health of the society;			HEI is doing this but NOT prominently	

To identify the disasters and recruit TKCP's human resources to help the society and the nation;		**√**		
To participate in national health mission projects like polio vaccination, BCG vaccination, prevention of TB, malaria, AIDS, dengue, swine flu, cancer, life style disorders;		**√**		
To establish an augmented reality/ virtual reality lab;			**RGSTC have sanctioned INR 3.5 crores to set virtual laboratory in WSIAC, active coordinator of the HEI**	**Annexure XX**
To create awareness about millets and wild vegetables to contribute in conserving health of the society;	**√**			
To adopt rural schools and support children to understand science concepts by learning-by-doing;	**√**			
To improvise herbal garden using ICT tools etc.		**√**		
To introduce and improvise quality assurance of academic/ administrative/ co- and extra-curricular/ research/ extension activities by using various tools;			SOPs are introduced across the HEI helping all the stakeholders in doing everything in most accurate and precisely	
To improvise in NIRF ranking by improving in quality research publications particularly;	**√**			

To improvise in e-governance by introducing ERP/ LMS in all activities in the college;			**HEI is now using LMS in all activities it carries**	**(Annexure IX: a-b)**
To get NABL accreditation to cell culture laboratory and GLP certification to animal house facility (AHF);	**√**			**Annexure XXI**
To implement performance-based appraisal system to extend incentives;				**√**
To promote research by giving incentives, awards to impactful research(s);	**√**			
To undertake projects to improvise employability and entrepreneurship skills and competencies like: • Making EDC more-and-more vibrant; • Setting incubation centre to imbibe skills and abilities;	**√**			
Starting 'Section-8' company to provide hands-on-experiences about providing technological solutions to industry's problems;	**√**			
INNOVATIONS AND BEST PRACTICES				
To establish a model solar power grid for power generation;			**Campus is with full-fledge solar generating**	
To collect rain-water in well and recycle; as well as to collect the waste water from campus including mess and recycle the same using water body;			**Rain water Harvesting and water recycling is already in place**	**Annexure XXII**

To develop "TKCP faculty student club" to create awareness in the society about global warming, emerging infectious diseases and their prevention/ control;	**√**			
To improvise pharmacists' share in health conservation of society by actively involving in national health plans/ programmes;	**√**			
To update all SOPs, internal audits on regular basis and hence bringing good overall practice (GXP);			**SOPs are in action**	
To work extensively for adopted village(s) for NSS programmes for bringing total health care;			**HEI is doing this every year with the support of affiliating university**	
To work jointly with WSIAC in making society plastic free;	**√**			
To take project related to treating solid waste and converting it into organic manure in collaboration with WSIAC;		**We are working on this project in small scale**		

Annexure I

PHARMACY COUNCIL OF INDIA

A Statutory body under Ministry of Health and Family Welfare Government of India

E - MAIL : registrar@pci.nic.in
WEBSITE : www.pci.nic.in
Telephone : 011-61299900
011 - 61299901, 011 - 61299902
011-61299903

NBCC Centre, 3rd Floor
Plot No.2, Community Centre
Maa Anandamai Marg
Okhla Phase I
NEW DELHI - 110020

DECISION LETTER

Institute Name / Inst ID: Tatyasaheb Kore College Of Pharmacy Warananagar Tal Penhala Distt Kolhapur / PCI-2469
State: MAHARASHTRA
District: KOLHAPUR
Sub-District: Panhala
Village/Town/City: WARANANAGAR
Pin Code: 416113

Sir / Madam

With reference to the subject cited above I am directed to convey the approval of PCI as per Following Details

Course	Name of Affiliation body/University	Decision	Approval Status	Approval Upto	Approval Intake
B.Pharm	The Registrar Shivaji University Vidyanagar Kolhapur	B.Pharm Extend approval upto 2023-2024 academic session for 60 admissions for B.Pharm course.	Approved	2023-2024	60
B.Pharm(Practice)	The Registrar Shivaji University Vidyanagar Kolhapur	B.Pharm (Practice) Grant approval for 2023-2024 academic session for the conduct of 2nd year for B.Pharm (Practice) course. Allow 40 admissions in 2023-2024 academic session in 1st year.	Approved	2023-2024	40
D.Pharm	The Registrar Maharashtra State Board of Technical Education Kherwadi Bandra East Mumbai	D.Pharm Extend approval upto 2023-2024 academic session for 60 admissions for D.Pharm course.	Approved	2023-2024	60
Pharm.D	The Registrar Shivaji University Vidyanagar Kolhapur	Pharm D Grant approval for 2023-2024 academic session for the conduct of 2nd year for 30 admissions for Pharm.D course. Allow 30 admissions in 2023-2024 academic session in 1st year.	Approved	2023-2024	30
M.Pharm Pharmaceutics	The Registrar Shivaji University Vidyanagar Kolhapur	M.Pharm (Pharmaceutics)- 15	Approved	2023-2024	15
M.Pharm Pharmaceutical Quality Assurance	The Registrar Shivaji University Vidyanagar Kolhapur	M.Pharm (Pharmaceutical Quality Assurance)- 15 The last approval for 2022-23 academic session is restored and vide notification dt. 22.10.2022 read with 3.11.2022 instructed the institutions to submit affidavit. In view of above, it was decided to verify the said affidavit during the inspection process of 2023-2024 academic session.	Approved	2023-2024	15

Date 05th May 2023

For
(I/C) Registrar-cum-Secretary
PCI

Copy to

i) Registrar of the University

ii) Principal of the college

iii) Secretary/Chairman of the Trust/Society

iv) Guard File (PCI)

Note: Validity of the course details may be verified at www.pci.nic.in

Annexure II

a.

SHIVAJI UNIVERSITY, KOLHAPUR-416 004
शिवाजी विद्यापीठ, कोल्हापूर - ४१६ ००४, (महाराष्ट्र)
PHONE : (EPABX) (0231) 2609000
दूरध्वनी-(ईपीएबीएक्स) (०२३१) २६०९०००
Registrar Office Phone No.– (0231) 2609063, 2609057
Meeting & Elections Section Phone No. – (0231) 2609129, 2609130
Email ID :- meeting@unishivaji.ac.in
NAAC 'A' Grade

SU/MTG/NOM/BOS/ No 2210 Date : 9 MAR 2018

To,

Dr. Disoza John Intru,
Tatyasaheb Kore College of Pharmacy,
Warananagar, Dist.Kolhapur.

Subject : Nomination on Board of Studies.

Sir,

I am directed to inform you that, the Hon'ble Vice-Chancellor is pleased to nominate you as a member on the Board of Studies in **Pharmacy** under faculty of **Science and Technology** of this University under the provision of Maharashtra Public Universities Act, 2016 Section 40(2)(b)(ii) as Recognised Post Graduate Teacher in the Affiliated College or Recognised Institution, for a term as envisaged under Section 62 and 63 of the said Act.

I look forward to your active participation in the deliberations of the Board of Studies meetings.

With regards,

Yours faithfully,

Dr. V. D. Nandavadekar
Registrar

b.

डॉ. व्ही. एन. शिंदे
प्रभारी कुलसचिव
Dr. V. N. Shinde
Ag. Registrar

Estd. 1962
"A++" Accredited by NAAC (2021)
with CGPA 3.52
शिवाजी विद्यापीठ, कोल्हापूर
विद्यानगर, कोल्हापूर - ४१६ ००४
SHIVAJI UNIVERSITY,
Vidyanagar, Kolhapur - 416 004

दूरध्वनी : कार्यालय - (०२३१) २६०९०६३
मोबा. : ९६७३७८४४००
फॅक्स : ००९१-२३१-२६९२३३३
Tel. : Office - (0231) 2609063
Mob. : 9673784400
Fax : 0091-231-2692333
E-mail : registrar@unishivaji.ac.in
vilasshindevs44@gmail.com
Web : www.unishivaji.ac.in

NO.SU/MTG/NOM/BOS/2023/58 Date : 9 FEB 2023

To,

DR.DISOUZA JOHN INTRU
Tatyasaheb Kore College of Pharmacy, Warananagar,
Dist. Kolhapur

Subject : Nomination on Board of Studies.

Sir,

I am directed to inform you that, the Hon'ble Vice-Chancellor is pleased to nominate you as a member on the Board of Studies in **Pharmacy** under faculty of **Science and Technology** of this University under the provision of Maharashtra Public Universities Act, 2016 Section 40(2)(b)(ii) as Recognised Post Graduate Teacher in the Affiliated College or Recognised Institution, for a term as envisaged under Section 62 and 63 of the said Act.

I look forward to your active participation in the deliberations of the Board of Studies meetings.

With regards,

Yours faithfully,

(V. N. Shinde)
Ag. Registrar

c.

Estd. 1962
"A++" Accredited by NAAC(2021)
With CGPA 3.52

SHIVAJI UNIVERSITY, KOLHAPUR - 416 004, MAHARASHTRA
PHONE : EPABX – 2609000, www.unishivaji.ac.in, bos@unishivaji.ac.in
शिवाजी विद्यापीठ, कोल्हापूर - ४१६ ००४,महाराष्ट्र
दूरध्वनी - ईपीएबीएक्स - २६०९०००, अध्यासनंडळे विभाग दूरध्वनी क्रमांक ०२३१-२६०९०९३/९४

MEETING NOTICE

A meeting of the Board of Studies in **Pharmacy** is convened on Dated 04/08/2022 at 12.30 p.m. in the Annex Building Shivaji University, Kolhapur

By Order

Deputy Registrar

Vidyanagar,
Kolhapur - 416 004
No. SU/BOS/ № 0 0 6 3 7
Date: 27/07/2022 28 JUL 2022

To,

The Members of the BOS in Pharmacy

1)	Dr.H.N.More (Chairman)	Kolhapur	8)	Dr.N.M.Bhatia	Kolhapur
2)	Dr.S.G.Killedar	Kolhapur	9)	Dr.N.R.Jadhav	Kolhapur
3)	Dr.J.I.Disouza	Warananagar	10)	Dr.K.S.Lodha	Mumbai
4)	Dr.S.S.Patil	Peth-Vadgaon	11)	Dr.Subarna Roy	Belgavi
5)	Dr.C.S.Magdum	Kasegaon	12)	Dr.J.N.Sangashetti	Aurangabad
6)	Dr. Smt. Naikwade Nilofar S.	Sangli	13)	Shri.Sushrut Kulkarni	Mumbai
7)	Dr.M.S.Bhatia	Kolhapur	14)	Shri.Vinay L. Thakur	Kolhapur

Important Note:-

68 (2)	If a person nominated, elected, appointed or co-opted to any authority or body remains absent without prior permission of the authority or body for three consecutive meetings, he shall be deemed to have vacated his membership and he shall cease to be a member from the date of the third such meeting in which he has remained absent: Provided that, such member should have attended at least one meeting in the previous year.

As per 0.111 (2) When a member travels by own car or hired vehicle, is required to take (written) prior permission of the Hon'ble Vice-Chancellor and should also produce the toll receipts along with the T.A. Bill for the journey undertaken on the toll route.

Copy to:-

	Appointment Section	5)	**Accounts Section (TA/ DA) BH : A.51.P.18**

For Information & n.a.if any
P.T.O.- Agenda

Annexure III

NAAC Accreditation : 16 February 2004
NAAC Reaccreditation : 08 January 2011
NAAC Reaccreditation : 28 March 2017

Estd. : June 1964

NAAC : 'A' (CGPA : 3.01)

UGC (2F) dt. 20-03-1967
Perm. Aff. No. Aff. 2 P 35 8275 dt. 31-12-2002
Jr. College No. J 23.10.001

Shree Warana Vibhag Shikshan Mandal's

Yashwantrao Chavan Warana Mahavidyalaya

WARANANAGAR - 416 113, DIST. KOLHAPUR (MAHARASHTRA)
Affiliated to Shivaji University, Kolhapur

I/C Principal
Prof. Dr. Prakash S. Chavurdakar
M.A.B.Ed. M.Phil., Ph.D.

Office : 02328 - 224041
Principal : 02328 - (O) 222820
Fax : 02328 - 224031
Website : www.ycwm.ac.in
E-Mail : ycwcwarana@yahoo.co.in

Founder Chairman : Late Shri V. A. Alias Tatyasaheb Kore

Chairman : Dr. Vinay V. Kore
M.L.A.

Ref. No.: YCWM : /202 - 202

Date : 13 OCT 2022

प्रति,

मा.प्राचार्यसो,
तात्यासाहेब कोरे कॉलेज ऑफ बी.फार्मसी,
वारणानगर

विषय : Certificate Course (Animals in Biomedical Research) सुरु करण्याबाबत ....

महोदय,

आमच्या महाविद्यालयातील M.Sc. Zoology या विषयासाठी CBE - 302 Laboratory Animals in Biomedical Research या पेपरला अनुसरून आपण Certificate Course कोर्स सुरु करण्याविषयी आमच्या प्राणीशास्त्र विषयाचे संबधीत प्राध्यापक आपणास भेटून चर्चा केली होती. कृपया सदरचा Certificate Course सुरु झाल्यास M.Sc. Zoology च्या विद्यार्थ्यांना त्याचा उपयोग होईल व त्यांची Placement लवकर होण्यास मदत होईल. तरी कृपया, सदरचा Certificate Course लवकरात-लवकर सुरु व्हावा ही विनंती.

कळावे,

आपला विश्वासू,

प्राचार्य,
यशवंतराव चव्हाण कोरणा महाविद्यालय
वारणानगर, जि. कोल्हापूर.

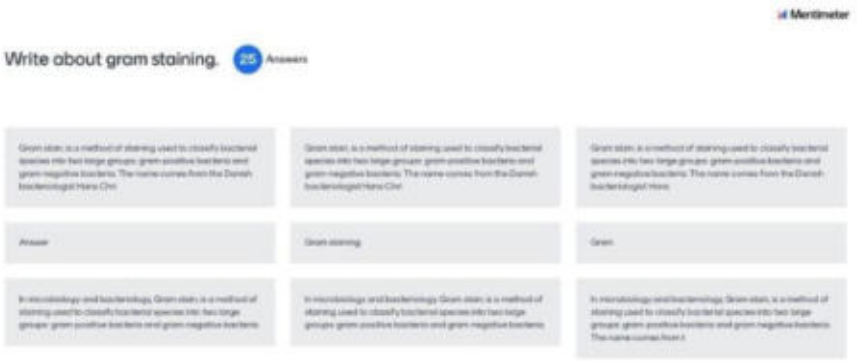
Annexure IV

a.

Shree Warana Vibhag Shikshan Mandal's
Tatyasaheb Kore College of Pharmacy, Warananagar
Tal: - Panhala, Dist.: - Kolhapur, Maharashtra, India, Pin 416 113

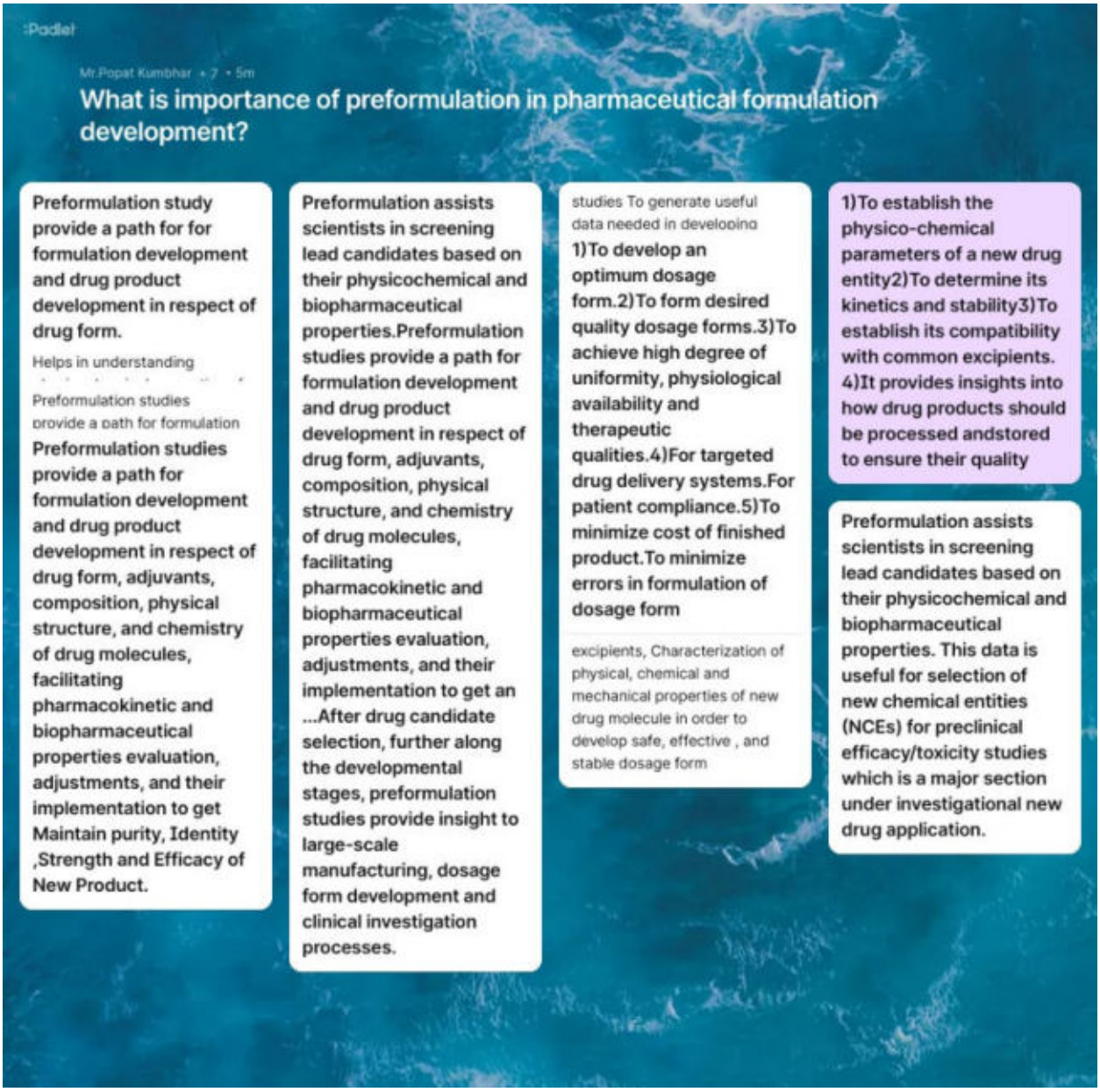
S. Y. B. Pharm (SEM-III)

Pharmaceutical Microbiology



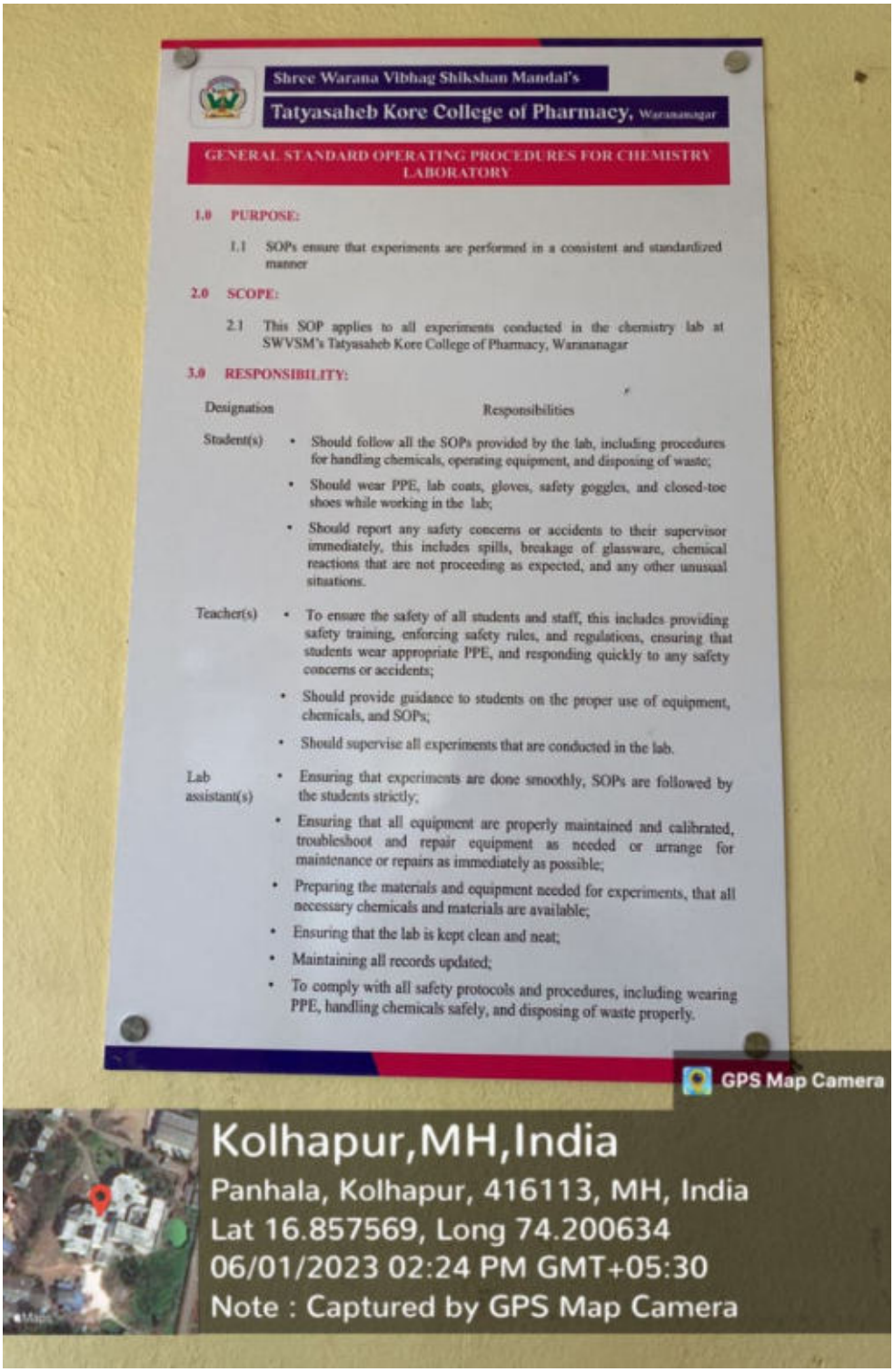
Created by	Checked by	Approved by	Authorized by

b.


:Padlet
Mr.Popat Kumbhar • 7 • 5m
What is importance of preformulation in pharmaceutical formulation development?
Preformulation study provide a path for for formulation development and drug product development in respect of drug form.
Helps in understanding
Preformulation studies provide a path for formulation
Preformulation studies provide a path for formulation development and drug product development in respect of drug form, adjuvants, composition, physical structure, and chemistry of drug molecules, facilitating pharmacokinetic and biopharmaceutical properties evaluation, adjustments, and their implementation to get Maintain purity, Identity ,Strength and Efficacy of New Product.
Preformulation assists scientists in screening lead candidates based on their physicochemical and biopharmaceutical properties.Preformulation studies provide a path for formulation development and drug product development in respect of drug form, adjuvants, composition, physical structure, and chemistry of drug molecules, facilitating pharmacokinetic and biopharmaceutical properties evaluation, adjustments, and their implementation to get an ...After drug candidate selection, further along the developmental stages, preformulation studies provide insight to large-scale manufacturing, dosage form development and clinical investigation processes.
studies To generate useful data needed in developing
1)To develop an optimum dosage form.2)To form desired quality dosage forms.3)To achieve high degree of uniformity, physiological availability and therapeutic qualities.4)For targeted drug delivery systems.For patient compliance.5)To minimize cost of finished product.To minimize errors in formulation of dosage form
excipients, Characterization of physical, chemical and mechanical properties of new drug molecule in order to develop safe, effective , and stable dosage form
1)To establish the physico-chemical parameters of a new drug entity2)To determine its kinetics and stability3)To establish its compatibility with common excipients. 4)It provides insights into how drug products should be processed andstored to ensure their quality
Preformulation assists scientists in screening lead candidates based on their physicochemical and biopharmaceutical properties. This data is useful for selection of new chemical entities (NCEs) for preclinical efficacy/toxicity studies which is a major section under investigational new drug application.

Annexure V

a.



Shree Warana Vibhag Shikshan Mandal's

Tatyasaheb Kore College of Pharmacy, Warananagar

GENERAL STANDARD OPERATING PROCEDURES FOR CHEMISTRY LABORATORY

1.0 PURPOSE:

1.1 SOPs ensure that experiments are performed in a consistent and standardized manner

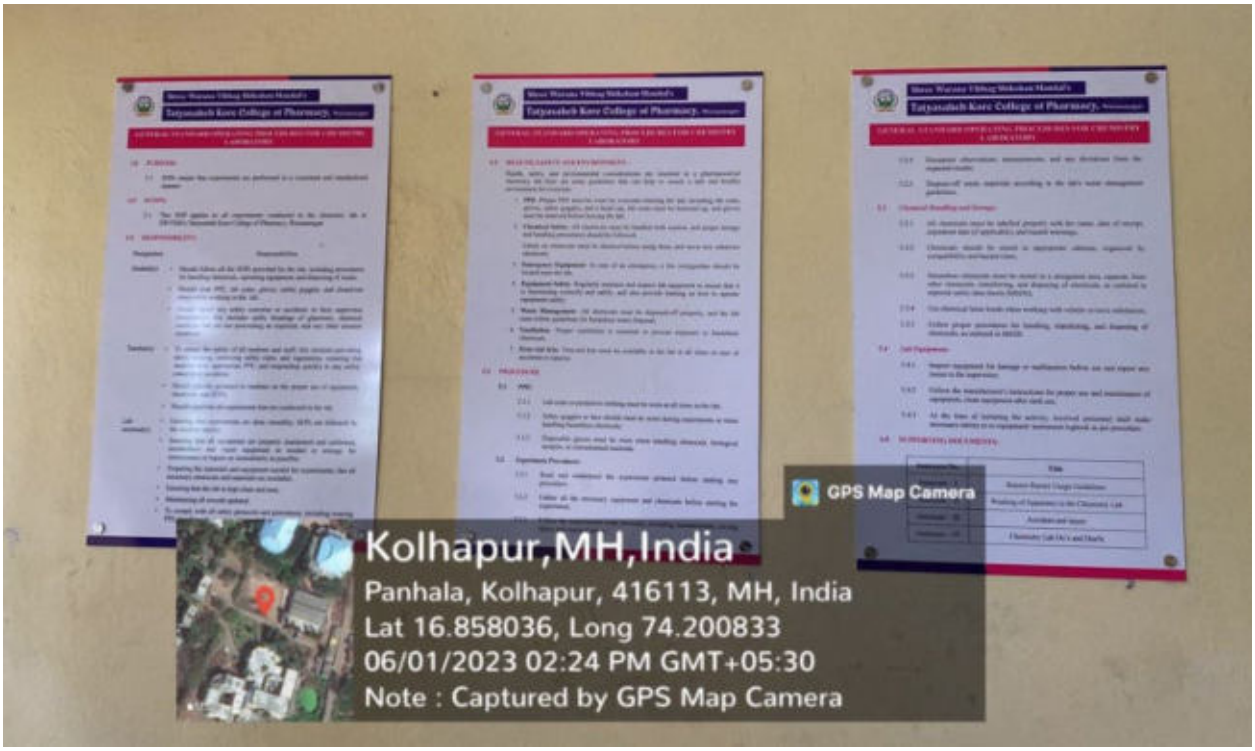
2.0 SCOPE:

2.1 This SOP applies to all experiments conducted in the chemistry lab at SWVSM's Tatyasaheb Kore College of Pharmacy, Warananagar

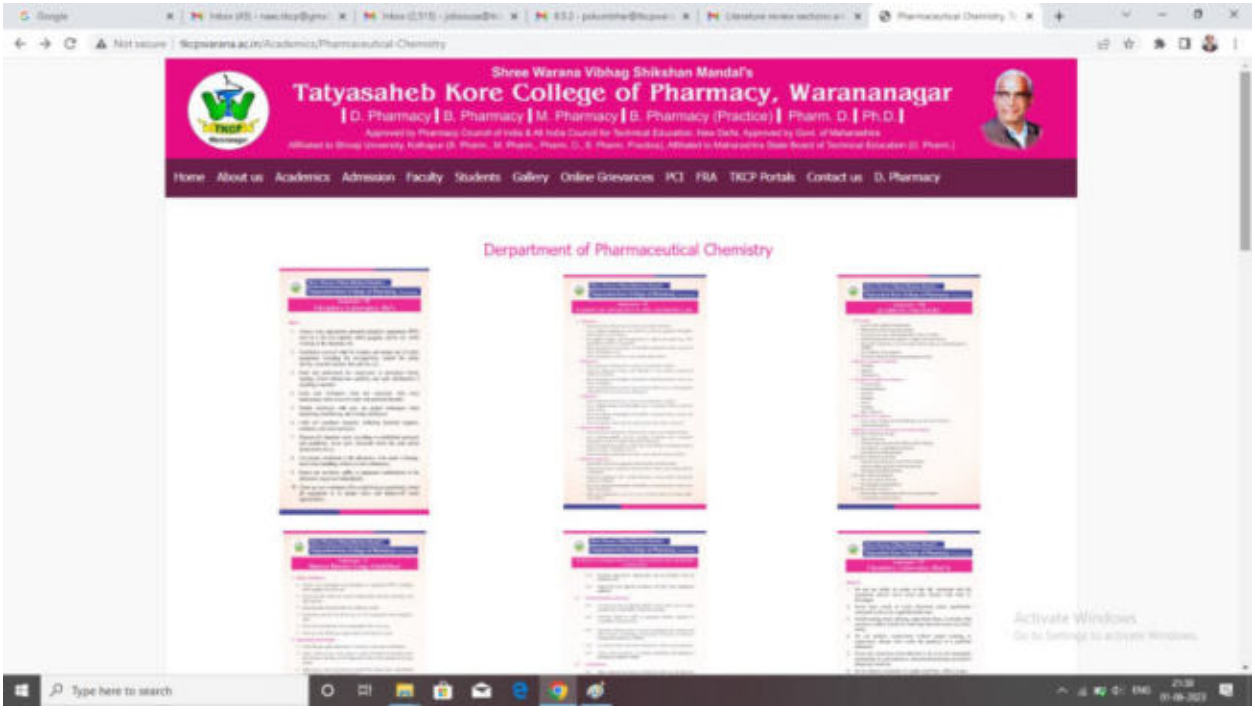
3.0 RESPONSIBILITY:

Designation	Responsibilities
Student(s)	• Should follow all the SOPs provided by the lab, including procedures for handling chemicals, operating equipment, and disposing of waste; • Should wear PPE, lab coats, gloves, safety goggles, and closed-toe shoes while working in the lab; • Should report any safety concerns or accidents to their supervisor immediately, this includes spills, breakage of glassware, chemical reactions that are not proceeding as expected, and any other unusual situations.
Teacher(s)	• To ensure the safety of all students and staff, this includes providing safety training, enforcing safety rules, and regulations, ensuring that students wear appropriate PPE, and responding quickly to any safety concerns or accidents; • Should provide guidance to students on the proper use of equipment, chemicals, and SOPs; • Should supervise all experiments that are conducted in the lab.
Lab assistant(s)	• Ensuring that experiments are done smoothly, SOPs are followed by the students strictly; • Ensuring that all equipment are properly maintained and calibrated, troubleshoot and repair equipment as needed or arrange for maintenance or repairs as immediately as possible; • Preparing the materials and equipment needed for experiments, that all necessary chemicals and materials are available; • Ensuring that the lab is kept clean and neat; • Maintaining all records updated; • To comply with all safety protocols and procedures, including wearing PPE, handling chemicals safely, and disposing of waste properly.

b.


GPS Map Camera
Kolhapur,MH,India
Panhala, Kolhapur, 416113, MH, India
Lat 16.858036, Long 74.200833
06/01/2023 02:24 PM GMT+05:30
Note : Captured by GPS Map Camera

c.


Shree Warana Vibhag Shikshan Mandal's
Tatyasaheb Kore College of Pharmacy, Warananagar
D. Pharmacy | B. Pharmacy | M. Pharmacy | B. Pharmacy (Practice) | Pharm. D | Ph.D |
Home About us Academics Admission Faculty Students Gallery Online Grievances PCI FRA TKCP Portals Contact us D. Pharmacy
Derpartment of Pharmaceutical Chemistry

Annexure VI

a.

b.

Annexure VII

a.

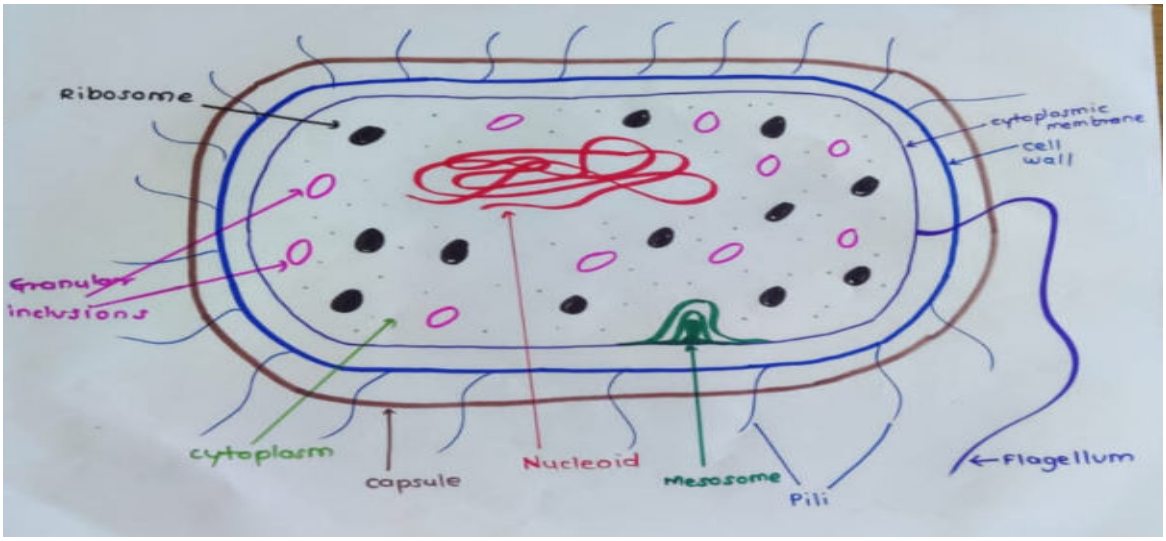
b.

c.


Diseases an
Pedagogy in
Teacher's Workshop on Pedagogy in
Molecular Pharmaceutics
Shree Warana Vibhag Shikshan Mandal's
TATYASAHEB KORE COLLEGE OF PHARMACY
Warananagar

Annexure VIII

a.

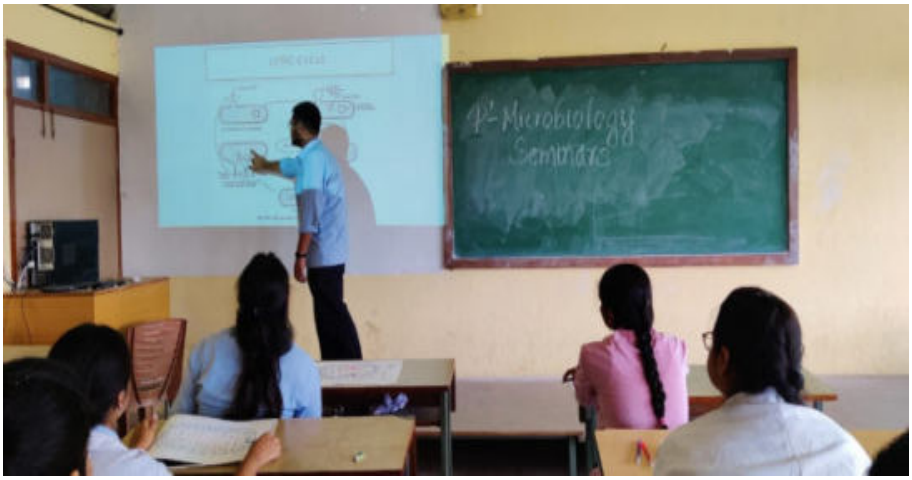


b.

c.

d.

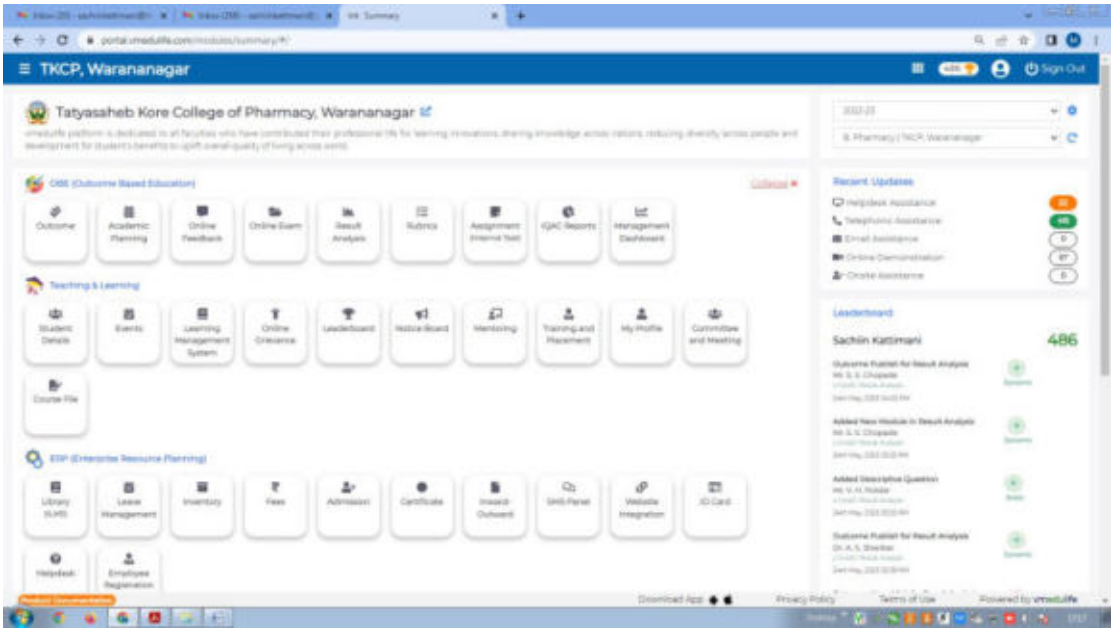
e.



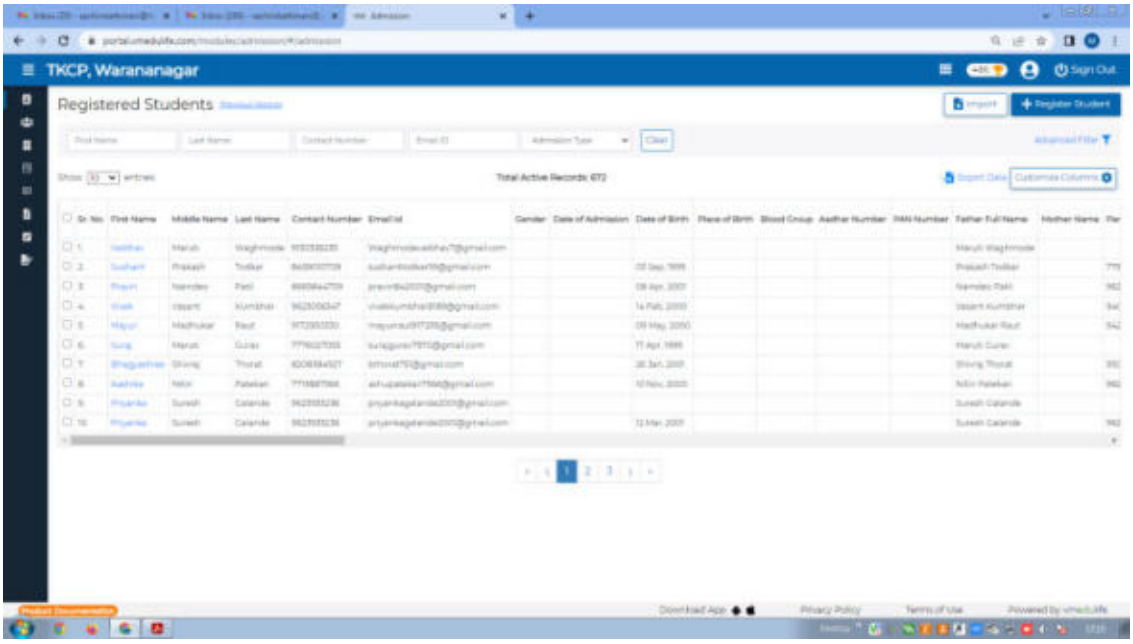
f.

Annexure IX

a.



b.



Annexure X


आकाशवाणी कोल्हापूर केंद्र
102.7 मेगा हर्ट्झ
विज्ञान जगत
औषध साक्षरता याविषयी प्राचार्य डॉ.
जॉन डिसूझा यांनी दिलेली माहिती
16 जून पासून दररोज सकाळी
8.40 वाजता

Annexure XI

Sr. No 003036

SHIVAJI UNIVERSITY, KOLHAPUR

CERTIFICATE

This is to certify that University approval is given to ***Tatyasaheb Kore College of Pharmacy, Warnanagar, Tal. Panhala, Dist.Kolhapur*** to conduct the following courses for the academic year 2022-23.

ENGINEERING FACULTY

B. Pharmacy (I To IV) **Intake Seats – 60**
B. Pharmacy - I **Semester I & Semester II**
B. Pharmacy -II **Semester III & Semester IV**
B. Pharmacy -III **Semester V & Semester VI**
B. Pharmacy -IV **Semester VII & Semester VIII**

Govt. Approval - शासन निर्णय क्र. टीईएम २००४/(२३५/०४) तांशि - १ दिनांक. ०१/०६/२००४.
AICTE Recent Approval - F. No. Western/1-3323490883/2017/EOA dt. 30/03/2017
University Recent Approval - संलग्नता/टी-२/KOP ६३/००६३९ दि. १७/०६/२०२२
Course - B. Pharm.

M. Pharmacy Part – I & II
Govt. Approval - शासन निर्णय क्र. टीईएम २०१२/प्र.क्र.९८(भाग-१) तांशि - ४ दिनांक. ३०/०६/२०१२.
AICTE Recent Approval - F. No. Western/1-3323490883/2017/EOA dt. 30/03/2017
University Recent Approval - संलग्नता/टी-२/KOP ६३/००६३९ दि. १७/०६/२०२२
Course - Pharmaceutics - 15
Quality Assurance - 15

Recognation of Laboratory-Ph.D Pharmacy (Pharmaceutical Science)
University Recent Approval - संलग्नता/टी-२/KOP ६३/००६३९ दि. १७/०६/२०२२

----- * * * -----

Place: KOLHAPUR
Date: 20 JUN 2022
No 0 0 7 0 4

Registrar,
Shivaji University,
Kolhapur

Annexure XII

a.

Journal of Controlled Release 353 (2023) 1150-1170

Contents lists available at ScienceDirect

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journal homepage: www.elsevier.com/locate/jconrel

Review article

Co-crystal nanoarchitectonics as an emerging strategy in attenuating cancer: Fundamentals and applications

Popat Kumbhar [a], Kaustubh Kolekar [a], Chinmayee Khot [a], Swati Dabhole [a], Ahmad Salawi [b], Fahad Y. Sabei [b], Akshay Mohite [a], Kapil Kole [a], Susmit Mhatre [c], Niraj Kumar Jha [d,e,f], Arehalli Manjappa [a], Sachin Kumar Singh [g,h], Kamal Dua [h,i,j], John Disouza [a,*], Vandana Patravale [k,*]

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ARTICLE INFO

Keywords:
Cancer
Co-crystals
Nano co-crystals
Nanocarriers
Localized delivery
Biopharmaceutical properties
Scale-up

ABSTRACT

Cancer ranks as the second foremost cause of death in various corners of the globe. The clinical uses of assorted anticancer therapeutics have been limited owing to the poor physicochemical attributes, pharmacokinetic performance, and lethal toxicities. Various sorts of co-crystals or nano co-crystals or co-crystals-laden nanocarriers have presented great promise in targeting cancer *via* improved physicochemical attributes, pharmacokinetic performance, and reduced toxicities. These systems have also demonstrated the controlled cargo release and passive targeting *via* enhanced permeation and retention (EPR) effect. In addition, regional delivery of co-crystals *via* inhalation and transdermal route displayed remarkable potential in targeting lung and skin cancer effectively. However, more research is required on the use of co-crystals in cancer and their commercialization. The present review mainly emphasizes co-crystals as emerging avenues in the treatment of various cancers by modulating the physicochemical and pharmacokinetic attributes of approved anticancer therapeutics. The worth of co-crystals in cancer treatment, computational paths in the co-crystals screening, diverse experimental techniques of co-crystals fabrication, and sorts of co-crystals and their noteworthy applications in targeting cancer are also discussed. Besides, the game changer approaches like nano co-crystals and co-crystals-laden nanocarriers, and co-crystals in regional delivery in cancer are also explained with reported case studies. Furthermore, regulatory directives for pharmaceutical co-crystals and their scale-up, and challenges are also highlighted with concluding remarks and future initiatives. In essence, co-crystals and nano co-crystals emerge to be a promising strategy in overwhelming cancers through improving anticancer efficacy, safety, patient compliance, and reducing the cost.

1. Introduction

Worldwide, cancer ranks as the second prime root of death. International Agency for Research on Cancer estimated around 10.0 million deaths from cancer in 2020 [1]. American cancer society projected around 609,360 people death (1700 deaths per day) in the United States in 2022. Notably, they proposed utmost deaths from lung, prostate, and colorectal type malignancies in the males and lung, breast, and colorectal type malignancies in the females [2].

Sorts of cancer treatment procedures like surgery, radiotherapy,

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b.

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Journal of Controlled Release

journal homepage: www.elsevier.com/locate/jconrel

Review article

Nanoparticulate drugs and vaccines: Breakthroughs and bottlenecks of repurposing in breast cancer

Popat Kumbhar [a], Kapil Kole [a], Varsha Khadake [a], Pradnya Marale [a,b], Arehalli Manjappa [a], Sameer Nadaf [c], Rajendra Jadhav [d], Ajit Patil [a], Sachin Kumar Singh [e,f], Kamal Dua [f,g,h], Niraj Kumar Jha [i,j,k], John Disouza [a,*], Vandana Patravale [l,*]

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ARTICLE INFO

Keywords:
Breast cancer
Drug repurposing
Vaccines
Nanocarriers
Nano-vaccines
Clinical trials

ABSTRACT

Breast cancer (BC) is a highly diagnosed and topmost cause of death in females worldwide. Drug repurposing (DR) has shown great potential against BC by overcoming major shortcomings of approved anticancer therapeutics. However, poor physicochemical properties, pharmacokinetic performance, stability, non-selectivity to tumors, and side effects are severe hurdles in repurposed drug delivery against BC. The variety of nanocarriers (NCs) has shown great promise in delivering repurposed therapeutics for effective treatment of BC *via* improving solubility, stability, tumor selectivity and reducing toxicity. Besides, delivering repurposed cargos *via* theranostic NCs can be helpful in the quick diagnosis and treatment of BC. Localized delivery of repurposed candidates through apt NCs can diminish the systemic side effects and improve anti-tumor effectiveness. However, breast tumor variability and tumor microenvironment have created several challenges to nanoparticulate delivery of repurposed cargos. This review focuses on DR as an ingenious strategy to treat BC and circumvent the drawbacks of approved anticancer therapeutics. Various nanoparticulate avenues delivering repurposed therapeutics, including non-oncology cargos and vaccines to target BC effectively, are discussed along with case studies. Moreover, clinical trial information on repurposed medications and vaccines for the treatment of BC is covered along with various obstacles in nanoparticulate drug delivery against cancer that have been so far identified. In a nutshell, DR and drug delivery of repurposed drugs *via* NCs appears to be a propitious approach in devastating BC.

1. Introduction

Cancer is the second largest motive of mortality across the globe. In 2020, around 10.0 million cancer-related deaths were observed, according to the International Agency for Research on Cancer. Among the various cancers, female breast cancer (BC) is noticed to be a high prevalence cancer (11.7%; around 2.3 million new cases and 6.9% death) in various parts of the globe, including low and middle-income countries (LMIC) and high-income countries [1]. BC is categorized into four types, among which triple-negative BC is a highly metastasized cancer with a poor patient survival rate [2]. Consequently, the impact of many malignancies, including BC, on the world is a grievous matter, and

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c.

Journal of Controlled Release 341 (2022) 1–15

Contents lists available at ScienceDirect

Journal of Controlled Release

journal homepage: www.elsevier.com/locate/jconrel

Review article

Inhalation delivery of repurposed drugs for lung cancer: Approaches, benefits and challenges

Popat Kumbhar [a], Arehalli Manjappa [a], Rohit Shah [b], Niraj Kumar Jha [c], Sachin Kumar Singh [d], Kamal Dua [e,f,*], John Disouza [a,*], Vandana Patravale [g]

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ARTICLE INFO

Keywords:
Lung cancer
Drug repurposing
Inhalable drug delivery
Nanocarriers
Clinical trials
Inhalation devices

ABSTRACT

Lung cancer (LC) is one of the leading causes of mortality accounting for almost 25% of cancer deaths throughout the world. The shortfall of affordable and effective first-line chemotherapeutics, the existence of resistant tumors, and the non-optimal route of administration contribute to poor prognosis and high mortality in LC. Administration of repurposed non-oncology drugs (RNODs) loaded in nanocarriers (NCs) *via* inhalation may prove as an effective alternative strategy to treat LC. Furthermore, their site-specific release through inhalation route using an appropriate inhalation device would offer improved therapeutic efficacy, thereby reducing mortality and improving patients' quality of life.

The current manuscript offers a comprehensive overview on use of RNODs in LC treatment with an emphasis on their inhalation delivery and the associated challenges. The role of NCs to improve lung deposition and targeting of RNODs *via* inhalation are also elaborated. In addition, information about various RNODs in clinical trials for the treatment of LC, possibility for repurposing phytoceuticals against LC *via* inhalation and the bottlenecks associated with repurposing RNODs against cancer are also highlighted. Based on the reported studies covered in this manuscript, it was understood that delivery of RNODs *via* inhalation has emerged as a propitious approach. Hence, it is anticipated to provide effective first-line treatment at an affordable cost in debilitating LC from low and middle-income countries (LMIC).

1. Introduction

Drug repurposing (DR), also known as drug repositioning or re-profiling, is an approach to identify new therapeutic indications (other than original indications) of an already approved drug. DR is an alternative approach to classical pharmacology which offers various benefits such as proven pharmacology, track-record of safety, less investment, and a shorter time frame [1]. The exploration of various approved drugs that are being used as non-oncology medicines as their chief purpose with excellent preclinical and clinical safety, could be promising in the effective treatment of cancer.

Cancer is a serious health concern and the second foremost cause of mortality worldwide. In 2020, International Agency for Research on Cancer estimated around 19.3 million new cancer cases and almost 10.0 million cancer deaths globally. Female breast cancer (around 2.3 million new cases; 11.7%), is the most diagnosed cancer followed by lung (11.4%), and colorectal (10.0%) cancers [2]. Among these cancers, lung cancer (LC) is observed to be the foremost cause of mortality, with an estimated 1.8 million deaths (18%), followed by colorectal (9.4%), liver (8.3%), and stomach (7.7%) cancers in both low and middle-income countries (LMIC) and higher-income countries [2]. LC is extremely heterogeneous and classified into two main types small cell LC (SCLC) and non-small cell LC (NSCLC) [3]. Among them, NSCLC is constituted of a large number of cancer cases (85%) while SCLC comprises 10–15%

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https://doi.org/10.1016/j.jconrel.2021.11.015
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Available online 13 November 2021

d.

Chemico-Biological Interactions 368 (2022) 110238

Contents lists available at ScienceDirect

Chemico-Biological Interactions

journal homepage: www.elsevier.com/locate/chembioint

Review Article

Harnessing the dual role of polysaccharides in treating gastrointestinal diseases: As therapeutics and polymers for drug delivery

Leander Corrie [a], Monica Gulati [a,b], Ankit Awasthi [a], Sukriti Vishwas [a], Jaskiran Kaur [a], Rubiya Khursheed [a], Omji Porwal [c], Aftab Alam [d], Shaik Rahana Parveen [a], Hardeep Singh [a], Dinesh Kumar Chellappan [e], Gaurav Gupta [f,g,h], Popat Kumbhar [i], John Disouza [i], Vandana Patravale [j], Jon Adams [b], Kamal Dua [b,k], Sachin Kumar Singh [a,b,*]

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ARTICLE INFO

Keywords:
Colorectal diseases
Colon targeted delivery
Nanoparticles
Microspheres

ABSTRACT

Polysaccharides (PS) represent a broad class of polymer-based compounds that have been extensively researched as therapeutics and excipients for drug delivery. As pharmaceutical carriers, PS have mostly found their use as adsorbents, suspending agents, as well as cross-linking agents for various formulations such as liposomes, nanoparticles, nanoemulsions, nano lipid carriers, microspheres etc. This is due to inherent properties of PS such as porosity, steric stability and swellability, insolubility in pH. There have been emerging reports on the use of PS as therapeutic agent due to its anti-inflammatory and anti-oxidative properties for various diseases. In particular, for Crohn's disease, ulcerative colitis and inflammatory bowel disease. However, determining the dosage, treatment duration and effective technology transfer of these therapeutic moieties have not occurred. This is due to the fact that PS are still at a nascent stage of development to a full proof therapy for a particular disease. Recently, a combination of polysaccharide which act as a prebiotic and a probiotic have been used as a combination to treat various intestinal and colorectal (CRC) related diseases. This has proven to be beneficial, has shown good *in vivo* correlation and is well reported. The present review entails a detailed description on the role of PS used as a therapeutic agent and as a formulation pertaining to gastrointestinal diseases.

1. Introduction

A broad category of polymeric substances with natural (animal, plant, and algal) origins called polysaccharides (PS) are produced by the glycosidic interaction of monosaccharides. The monosaccharide units are mainly composed of D-galactose, L-galactose, D-fructose, D-glucose, D-xylose, D-mannose, and L-arabinose subunits [1]. PS may have a linear or branching architecture, depending on the type of monosaccharide unit. PS contain a variety of reactive groups, such as hydroxyl, amino, and carboxylic acid groups, which further suggests the potential for chemical modification [2]. The diversity of PS is further increased by the fact that their molecular weight can range from hundreds to thousands of daltons. Moreover, PS possess many other properties such as biocompatibility, biodegradability, easy alteration in their solubility and modification of their branch chain [3]. Furthermore, PS have been extensively researched upon for drug delivery due to their ability to get triggered by change in pH, alteration in gut microflora, aid in pressure and time dependent release of the drug, which could help in the development of pulsatile release drug delivery systems [4]. Among all the PS, the most

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Available online 25 October 2022
0009-2797/

e.

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journal homepage: www.elsevier.com/locate/jddst

Formulation of chrysin loaded nanostructured lipid carriers using Box Behnken design, its characterization and antibacterial evaluation alone and in presence of probiotics co-loaded in gel

Shaik Rahana Parveen [a], Sheetu Wadhwa [a,**], Molakpogu Ravindra Babu [a], Sukriti Vishwas [a], Leander Corrie [a], Ankit Awasthi [a], Farhan R. Khan [b], Maha M. Al-Bazi [c,d], Nahed S. Alharthi [e], Faisal Alotaibi [f], Gaurav Gupta [g,h], Narendra Kumar Pandey [a], Bimlesh Kumar [a], Popat Kumbhar [i], John Disouza [i], Monica Gulati [a,j], Jayanthi Neelamraju [k], Ratna Sudha Madempudi [k], Kamal Dua [j,l,m], Sachin Kumar Singh [a,j,*]

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[k] Unique Biotech, Plot no 677, Road no 34, Jubilee Hills, Hyderabad, Telangana, 500033, India
[l] Discipline of Pharmacy, Graduate School of Health, University of Technology Sydney, Ultimo, NSW, 2007, Australia
[m] Uttaranchal Institute of Pharmaceutical Sciences, Uttaranchal University, Dehradun, India

ARTICLE INFO

Keywords:
Chrysin
Probiotic
Nanostructured lipid carriers
Antibacterial activity

ABSTRACT

The present study deciphers formulation, optimization and characterization of chrysin nanostructured lipid carriers with probiotics (PB) loaded gel (*Chrysin* (CS)- Nanostructured lipid carriers (NLCs) + PB loaded gel) for topical application. Hot homogenization-probe sonication method was used to formulate NLCs. Formulation parameters were optimized using Box Behnken Design. The optimized formulation was characterized for particle size (PS), zeta potential (ZP), % entrapment efficiency (%EE), % drug loading (%DL). The optimized values were found to be 199.99 mg, 33.92 mg, 700 mg and 376.86 mg of solid lipid, liquid lipid, surfactant and co-surfactant respectively. The PS, ZP, % EE and % DL of optimized CS-NLCs + PB loaded gel were found to be 66.45 ± 5.62 nm, −22 ± 5.21 mV, 97.25 ± 0.15 and 82.3 ± 0.104, respectively. Transmission electron microscopic images revealed that NLCs loaded with CS were spherical in shape. The *in vitro* diffusion studies revealed that 98 ± 0.06% of CS got released from CS-NLCs + PB loaded gel at the end of 48 h. For initial 8h, release of CS was about 6-fold higher in case of CS-NLCs + PB loaded gel than that of naive CS gel and thereafter the release got reduced, which indicated the sustained release of CS from NLCs. The zone of inhibition of CS-NLCs + PB loaded gel was 0.5-fold, 0.2-fold and 0.54-fold higher than naive PB gel alone, naive CS gel alone and CS-PB gel combination, respectively. It indicated significantly higher antibacterial activity of CS–NLCs + PB loaded gel as that of any other treatment group.

* Corresponding author. School of Pharmaceutical Sciences, Lovely Professional University, Phagwara, Punjab, 144411, India.
** Corresponding author. School of Pharmaceutical Sciences, Lovely Professional University, Phagwara, Punjab, 144411, India.
E-mail addresses: sheetupharma@gmail.com (S. Wadhwa), singhsachin23@gmail.com, sachin.16030@lpu.co.in (S.K. Singh).

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Available online 6 April 2023
1773-2247/

f.

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Contents lists available at ScienceDirect

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journal homepage: www.elsevier.com/locate/microc

QbD and Six Sigma quality approach for chromatographic estimation of repurposed simvastatin from nanostructured lipid carriers

Popat Kumbhar [a], Pramod Waghmare [a], Sameer Nadaf [b], Arehalli Manjappa [a], Rohit Shah [c], John Disouza [a,*]

[a] Tatyasaheb Kore College of Pharmacy, Warananagar, Panhala, Kolhapur, Maharashtra 416113, India
[b] Sant Gajanan Maharaj College of Pharmacy, Mahagaon, Gadhinglaj, Maharashtra, India
[c] Appasaheb Birnale College of Pharmacy, Sangli, Maharashtra 416416, India

ARTICLE INFO

Keywords:
Simvastatin
Nanostructured lipid carriers
Drug repurposing
Quality control
Validation
Statistical analysis

ABSTRACT

The present research aimed to develop a simple, rapid, and sensitive RP-HPLC method for the estimation of repurposed simvastatin (SMV) from nanostructured lipid carriers (NLCs) using the quality by design (QbD) and Six Sigma approach. The method was optimized *via* Box-Behnken design using acetonitrile (ACN) concentration, flow rate, and injection volume as independent factors. Further, the developed method was validated pursuant to the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH; Q2R1) guidelines. The successful chromatographic separation of SMV was achieved by an isocratic technique employing ACN: Water (70:30 v/v) mobile phase, Intersil ODS-C18 column (150 × 4.6 mm, 3.5 μm, Agilent), and flow rate of 1.0 mL/min at 238 nm. The developed method was linear over the SMV concentration range of 20–100 μg/mL. The method displayed accuracy in the range of 99.41–101.01 % and % recovery in a precision study in the range of 99.02–100.52 %. Besides, the limit of detection (LOD) and limit of quantification (LOQ) were observed to be 10.18 and 30.87 μg/mL, respectively. Shapiro-Wilk test ($P = 0.5357$) and Kolmogorov-Smirnov test ($P > 0.10$) accept the ordinariness of data. Bland-Altman plot divulged an agreeable repeatability coefficient (0.5239). Additionally, control charts like the Levey-Jennings, X-Individual, and MR charts demonstrated that the method is statistically controlled, while the CUSUM chart proved the targetability of the method. The value of process capability (Cp) was 2.23 and process capability index (Cpk) was 2.23, as shown by capability analysis, indicates the method's capacity to assess the samples precisely and consistently with the least amount of variance The developed and validated method was finally applied to ascertain the entrapment efficiency and *in vitro* release behaviour of SMV from NLCs. Thus, a RP-HPLC method for rapid assessment of SMV from NLCs was developed to understand influencing variables for improving the method performance. Further, the study's results manifested the worth of utilizing the response surface analysis avenue in choosing optimum critical method parameters to achieve Six Sigma quality.

1. Introduction

Statins like simvastatin (SMV) are cholesterol-lowering agents usually employed in treating hyperlipidemia and coronary heart diseases. SMV blocks the production of mevalonate, a key step in cholesterol biosynthesis *via* inhibition of 3-hydroxy-3-methylglutaryl-coenzyme A (HMG-CoA) reductase [1]. Several studies reported a substantial increase in the level of mevalonate in different tumors like breast, prostate, leukaemia, lymphoma, *etc* [2]. Consequently, SMV has stolen the limelight as a repurposed candidate to treat these sorts of cancers by reducing mevalonate synthesis *via* inhibition of HMG-CoA reductase [2–4].

Drug repurposing is an avenue wherein cargo approved for one indication can be employed for other signs different from their approved indications. Nowadays, drug repurposing has gained the attention of all formulation scientists and oncologists owing to its proven pharmacology, safety, and efficacy [3]. Many repurposed therapeutics have been reported to reduce the multi-drug resistance towards malignant cells, thereby ameliorating anti-tumor effectiveness. In addition, the repurposed therapeutics can diminish cancer-related mortality in low

* Corresponding author.
E-mail address: jdisouza@tkcpwarana.ac.in (J. Disouza).

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Available online 12 December 2022

Annexure XIII

a.

Approved by PCI, AICTE New Delhi
Recognized by Govt. of Maharashtra
Affiliated to Shivaji University, Kolhapur (SUK)

Shree Warana Vibhag Shikshan Mandal's

TATYASAHEB KORE COLLEGE OF PHARMACY

Warananagar, Tal: Panhala, Dist: Kolhapur, 416 113 (M.S.)
Phone: (02328) 223501, 223526, Fax: 223501; Website: www.tkcpwarana.ac.in
Email: tkcp.pc@unishivaji.ac.in

NIRF 2017 & 2018: 51 to 75 RankBand

Dr. John Disouza
Principal

Hon. Dr. Vinayji V. Kore (Saavkar)
President

MEMORANDUM OF UNDERSTANDING

Memorandum of Understanding to be jointly signed between

Dr. Kamal Dua's, Laboratory, Department of Pharmaceutical Sciences (Partner 2), University of Technology Sydney, Australia, E-mail: Kamal.Dua@uts.edu.au

and

Shree Warana Vibhag Shikshan Mandal's Tatyasaheb Kore College of Pharmacy, Warananagar (Partner 2), Tal.: Panhala, Dist.: Kolhapur, Telephone: 02328-223501, E-mail: tkcp.pc@unishivaji.ac.in

Signed mutually on Monday, 11 January, 2021

This Memorandum of Understanding (MoU) sets upon the terms and understanding between the **Kamal Dua's, Laboratory, Department of Pharmaceutical Sciences, University of Technology Sydney, Australia** (Partner 1) and the **SWVSM's Tatyasaheb Kore College of Pharmacy (TKCP), Warananagar** (Partner 2) for facilitating research projects of both parties by mutually agreeing terms and conditions.

b.

Approved by PCI, AICTE New Delhi
Recognized by Govt. of Maharashtra
Affiliated to Shivaji University, Kolhapur (SUK)

Shree Warana Vibhag Shikshan Mandal's

TATYASAHEB KORE COLLEGE OF PHARMACY

Warananagar, Tal: Panhala, Dist: Kolhapur, 416 113 (M.S.)
Phone: (02328) 223501, 223526, Fax: 223501; Website: www.tkcpwarana.ac.in
Email: tkcp.pc@unishivaji.ac.in

NIRF 2017 & 2018: 51 to 75 RankBand

Dr. John Disouza
Principal

Hon. Dr. Vinayji V. Kore (Saavkar)
President

MOU SIGNED IN PRESENCE OF:

Partner 1: Kamal Dua's, Laboratory, Department of Pharmaceutical Sciences, University of Technology Sydney, Australia

Partner representative:

1.	**Dr. Kamal Dua**, Senior Lecturer, Discipline of Pharmacy, Graduate School of Health, UTS, Sydney, Australia	
2.	**Dr. Keshav Raj Paudel**, Faculty of Science, School of Life Sciences, Sydney, Australia	

Partner 2: SWVSM's Tatyasaheb Kore College of Pharmacy, Warananagar

Partner representative:

1.	**Dr. John Disouza,** Principal, SWVSM's Tatyasaheb Kore College of Pharmacy, Warananagar	
2.	**Mr. Popat Kumbhar,** Research Coordinator, SWVSM's Tatyasaheb Kore College of Pharmacy, Warananagar	

c.

Approved by PCI, AICTE New Delhi
Recognized by Govt. of Maharashtra
Affiliated to Shivaji University, Kolhapur (SUK)

Shree Warana Vibhag Shikshan Mandal's

TATYASAHEB KORE COLLEGE OF PHARMACY

Warananagar, Tal: Panhala, Dist: Kolhapur, 416 113 (M.S.)
Phone: (02328) 223501, 223526. Fax: 223501; Website: www.tkcpwarana.ac.in
Email: tkcp.pc@unishivaji.ac.in

NIRF 2017 & 2018: 51 to 75 RankBand

Dr. John Disouza
Principal

Hon. Dr. Vinayji V. Kore (Saavkar)
President

MEMORANDUM OF UNDERSTANDING

Memorandum of Understanding to be jointly signed between

VBP Research Group, (Partner 1), Institute of Chemical Technology, Mumbai, E-mail: vbpatravale@vbpgroup-ict.in

and

Dr. John Disouza's Research Group,

Shree Warana Vibhag Shikshan Mandal's Tatyasaheb Kore College of Pharmacy, Warananagar (Partner 2), Tal.: Panhala, Dist.: Kolhapur, Telephone: 02328-223501, E-mail: tkcp.pc@unishivaji.ac.in

Signed mutually on Monday, 04 June, 2018

This Memorandum of Understanding (MoU) sets upon the terms and understanding between the **VBP Research Group** (Partner 1), Institute of Chemical Technology, Mumbai and **Dr John Disouza's Research Group ,SWVSM's Tatyasaheb Kore College of Pharmacy (TKCP), Warananagar** (Partner 2) for facilitating research projects of both parties by mutually agreeing terms and conditions.

d.

Approved by PCI, AICTE New Delhi
Recognized by Govt. of Maharashtra
Affiliated to Shivaji University, Kolhapur (SUK)

Shree Warana Vibhag Shikshan Mandal's

TATYASAHEB KORE COLLEGE OF PHARMACY

Warananagar, Tal: Panhala, Dist: Kolhapur, 416 113 (M.S.)
Phone: (02328) 223501, 223526, Fax: 223501; Website: www.tkcpwarana.ac.in
Email: tkcp.pc@unishivaji.ac.in

NIRF 2017 & 2018: 51 to 75 Rank Band

Dr. John Disouza
Principal

Hon. Dr. Vinayji V. Kore (Saavkar)
President

MOU SIGNED IN PRESENCE OF:

Partner 1: VBP Research Group, Institute of Chemical Technology, Mumbai, India

Partner representative:

1.	**Prof. Dr. Vandana B. Patravale,** Professor of Pharmaceutics, Department of Pharmaceutical Sciences Technology, Institute of Chemical Technology, Mumbai	**Sign with seal**
2.	**Prof. Dr. Prashant Kharkar,** Professor and Associate Dean, Academic, Institute of Chemical Technology, Mumbai	**Sign with seal**

Dr (Mrs.) Vandana B. Patravale PROFESSOR OF PHARMA...

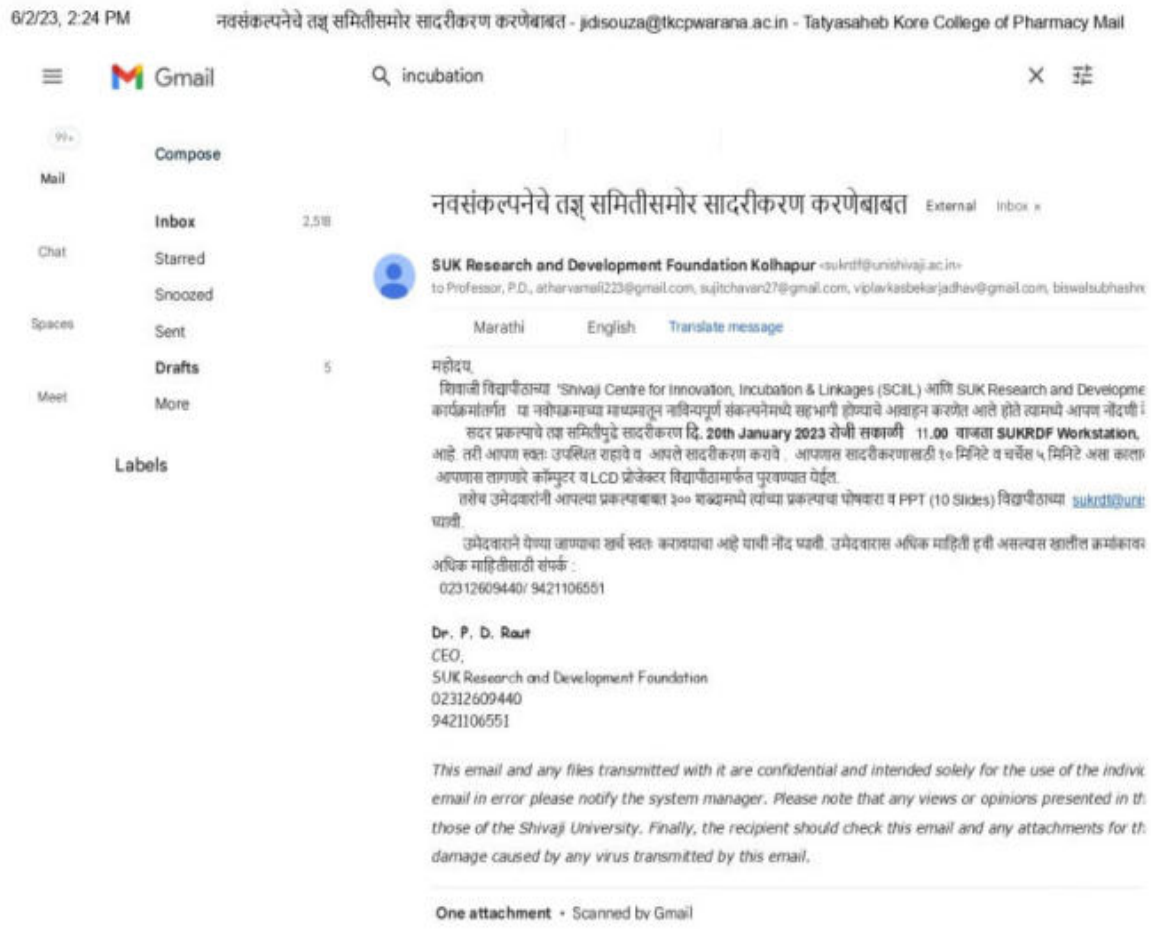
Prof. (Dr.) Prashant S. Kharkar Department of Pharmaceutical Technology

Partner 2: SWVSM's Tatyasaheb Kore College of Pharmacy, Warananagar

Partner representative:

1.	**Dr. John Disouza,** Principal, SWVSM's Tatyasaheb Kore College of Pharmacy, Warananagar	Sign with seal
2.	**Mr. Popat Kumbhar,** Research Coordinator, SWVSM's Tatyasaheb Kore College of Pharmacy, Warananagar	Sign with seal

Annexure IVX



6/2/23, 2:24 PM नवसंकल्पनेचे तज्ञ् समितीसमोर सादरीकरण करणेबाबत - jdisouza@tkcpwarana.ac.in - Tatyasaheb Kore College of Pharmacy Mail

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Spaces

Sent

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Meet

More

Labels

नवसंकल्पनेचे तज्ञ् समितीसमोर सादरीकरण करणेबाबत External Inbox ×

SUK Research and Development Foundation Kolhapur <sukrdf@unishivaji.ac.in>
to Professor, P.D., atharvamali223@gmail.com, sujitchavan27@gmail.com, viplavkasbekarjadhav@gmail.com, biswalsubhashr

Marathi English Translate message

महोदय,

शिवाजी विद्यापीठाच्या 'Shivaji Centre for Innovation, Incubation & Linkages (SCIIL) आणि SUK Research and Developme कार्यक्रमांतर्गत या नवोपक्रमाच्या माध्यमातून नाविन्यपूर्ण संकल्पनेमधे सहभागी होण्याचे आवाहन करणेत आले होते त्यामधे आपण नोंदणी

सदर प्रकल्पाचे तज्ञ समितीपुढे सादरीकरण **दि. 20th January 2023 रोजी सकाळी 11.00 वाजता SUKRDF Workstation,** आहे. तरी आपण स्वतः उपस्थित राहावे व आपले सादरीकरण करावे . आपणास सादरीकरणासाठी १० मिनिटे व चर्चेस ५ मिनिटे असा कालाव आपणास लागणारे कॉम्प्युटर व LCD प्रोजेक्टर विद्यापीठामार्फत पुरवण्यात येईल.

तसेच उमेदवारांनी आपल्या प्रकल्पाबाबत ३०० शब्दमध्ये त्यांच्या प्रकल्पाचा पोषवारा व PPT (10 Slides) विद्यापीठाच्या sukrdf@uni घ्यावी.

उमेदवाराने येण्या जाण्याचा खर्च स्वतः करावयाचा आहे याची नोंद घ्यावी. उमेदवारास अधिक माहिती हवी असल्यास खालील क्रमांकावर अधिक माहितीसाठी संपर्क :

02312609440/ 9421106551

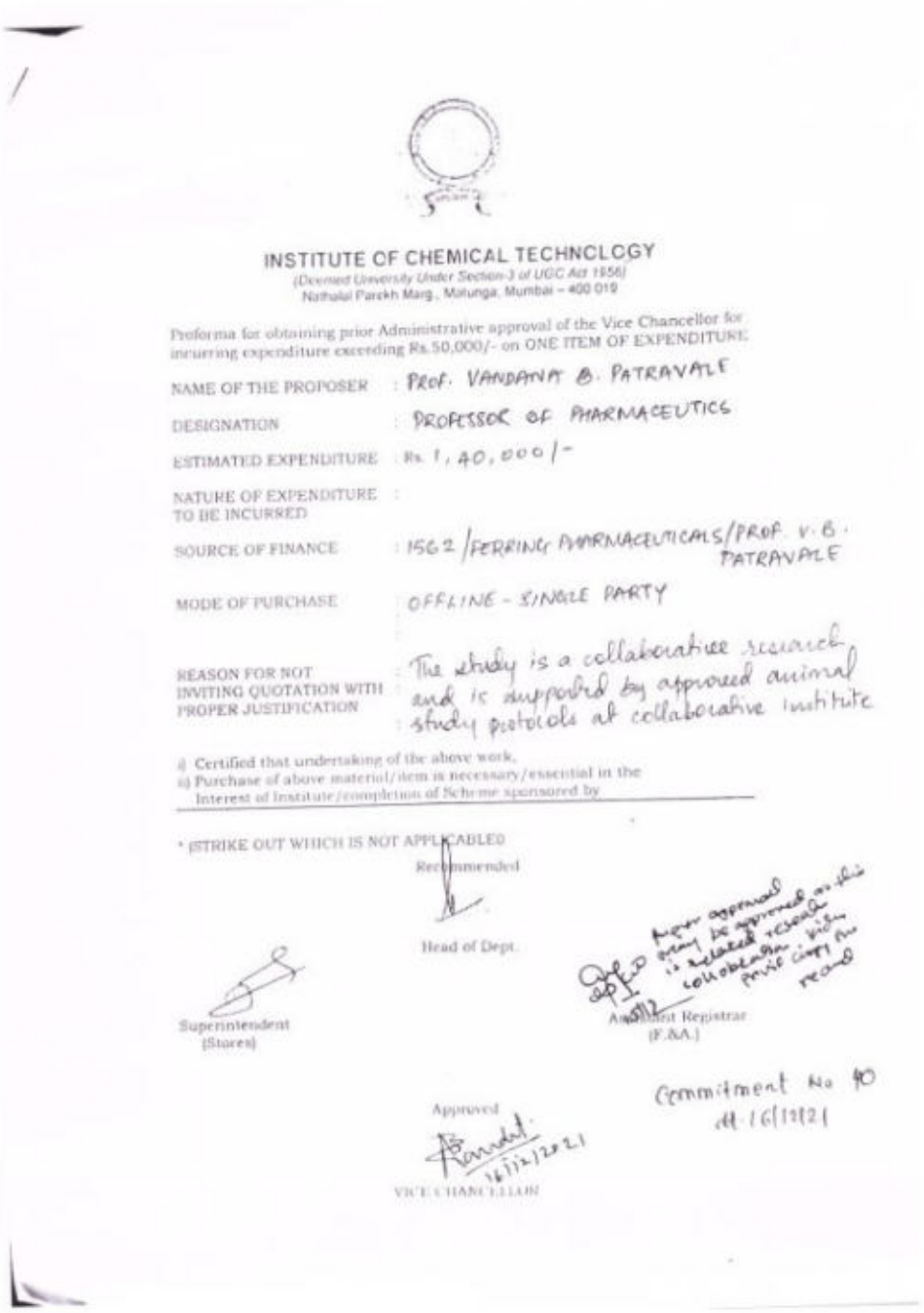
Dr. P. D. Raut
CEO,
SUK Research and Development Foundation
02312609440
9421106551

This email and any files transmitted with it are confidential and intended solely for the use of the indivi email in error please notify the system manager. Please note that any views or opinions presented in th those of the Shivaji University. Finally, the recipient should check this email and any attachments for th damage caused by any virus transmitted by this email.

One attachment • Scanned by Gmail

Annexure XV

a.



INSTITUTE OF CHEMICAL TECHNOLOGY
(Deemed University Under Section-3 of UGC Act 1956)
Nathalal Parekh Marg., Matunga, Mumbai – 400 019

Proforma for obtaining prior Administrative approval of the Vice Chancellor for incurring expenditure exceeding Rs.50,000/- on ONE ITEM OF EXPENDITURE

NAME OF THE PROPOSER : PROF. VANDANA B. PATRAVALE

DESIGNATION : PROFESSOR OF PHARMACEUTICS

ESTIMATED EXPENDITURE : Rs. 1,40,000/-

NATURE OF EXPENDITURE TO BE INCURRED :

SOURCE OF FINANCE : 1562 / FERRING PHARMACEUTICALS / PROF. V.B. PATRAVALE

MODE OF PURCHASE : OFFLINE - SINGLE PARTY

REASON FOR NOT INVITING QUOTATION WITH PROPER JUSTIFICATION : The study is a collaborative research and is supported by approved animal study protocols at collaborative institute

i) Certified that undertaking of the above work.
ii) Purchase of above material/item is necessary/essential in the Interest of Institute/completion of Scheme sponsored by

* (STRIKE OUT WHICH IS NOT APPLICABLE)

Recommended

Head of Dept.

Superintendent (Stores)

Proper approval may be approved as this is related research collaboration with private firm as read

Assistant Registrar (F.&A.)

Approved
16/12/2021
VICE CHANCELLOR

Commitment No 90
dt. 16/12/21

b.

Date: 8th December, 2021

To,
The Vice Chancellor,
Institute of Chemical Technology,
Mumbai

Subject: Payment to Tatyasaheb Kore College of Pharmacy, Warnanagar, Kolhapur for conducting collaborative animal studies

Dear Sir,

We, at VBP Research Group, Department of Pharmaceutical Sciences and Technology, have planned *in vivo* evaluation of novel drug delivery systems developed in our laboratory at ICT, Mumbai. We are performing the animal studies in collaboration with Tatyasaheb Kore College of Pharmacy, Warnanagar; at the collaborative institute. Prior permission of the same has been taken (letter enclosed). For their services regarding the said study, they have provided a Pro-forma invoice of **Rs. 1,40,000/- (One Lakh Forty Thousand Rupees Only).** The breakup of total fees is mentioned in the Pro-forma invoice attached with this letter.

We request you to kindly grant us permission to complete the payment and process the same from our account head **1562/ Ferring Pharmaceuticals / Prof. V. B. Patravale**.

Sincerely,

Dr. (Mrs) Vandana Patravale
Professor of Pharmaceutics,
Department of Pharmaceutical Sciences and Technology

Forwarded through,

HOD,
Department of Pharmaceutical Sciences and Technology

Approved
10/12/2021

Enclosed:
1) Permission letter for procurement of animals.
2) Pro-forma invoice received from Tatyasaheb Kore College of Pharmacy, Warnanagar.

c.

Sant Gajanan Maharaj Rural Hospital & Research Centre's
SANT GAJANAN MAHARAJ COLLEGE OF PHARMACY, MAHAGAON.

Email : sgmbpharm@rediffmail.com
Website : www.sgmcp.edu.in

Shi Chinchewadi, Gadhinglaj-Halkarni Road,
Tal.Gadhinglaj,Dist.Kolhapur 416502 (M.S.) India
Mob. 7888801278, 7888801277

- Chairman : Adv. Anirudhsinh D. Chavan-Ajgaonkar
- Principal : Dr. S. G. Killedar

Ref. No.: sgmbpharm/ 2022-23 /15

Date: 27 APR 2022

To,
Principal,
Tatyasaheb Kore College of Pharmacy,
Warananagar,

Subject- Regarding Permission for Utilization of High pressure homogenizer.

Respected Sir,

We are Sant Gajanan Maharaj College of Pharmacy, Mahagoan. Our PG Research Scholar Miss.Pradnya Patil, working on **"Design and characterization of tablet for obesity management using natural herbs having leptin stimulant effect"**. For the same he required to utilize High pressure homogenizer to develop her formulation. So, we kindly requesting for your kind permission, hoping for your kind gesture towards our request.

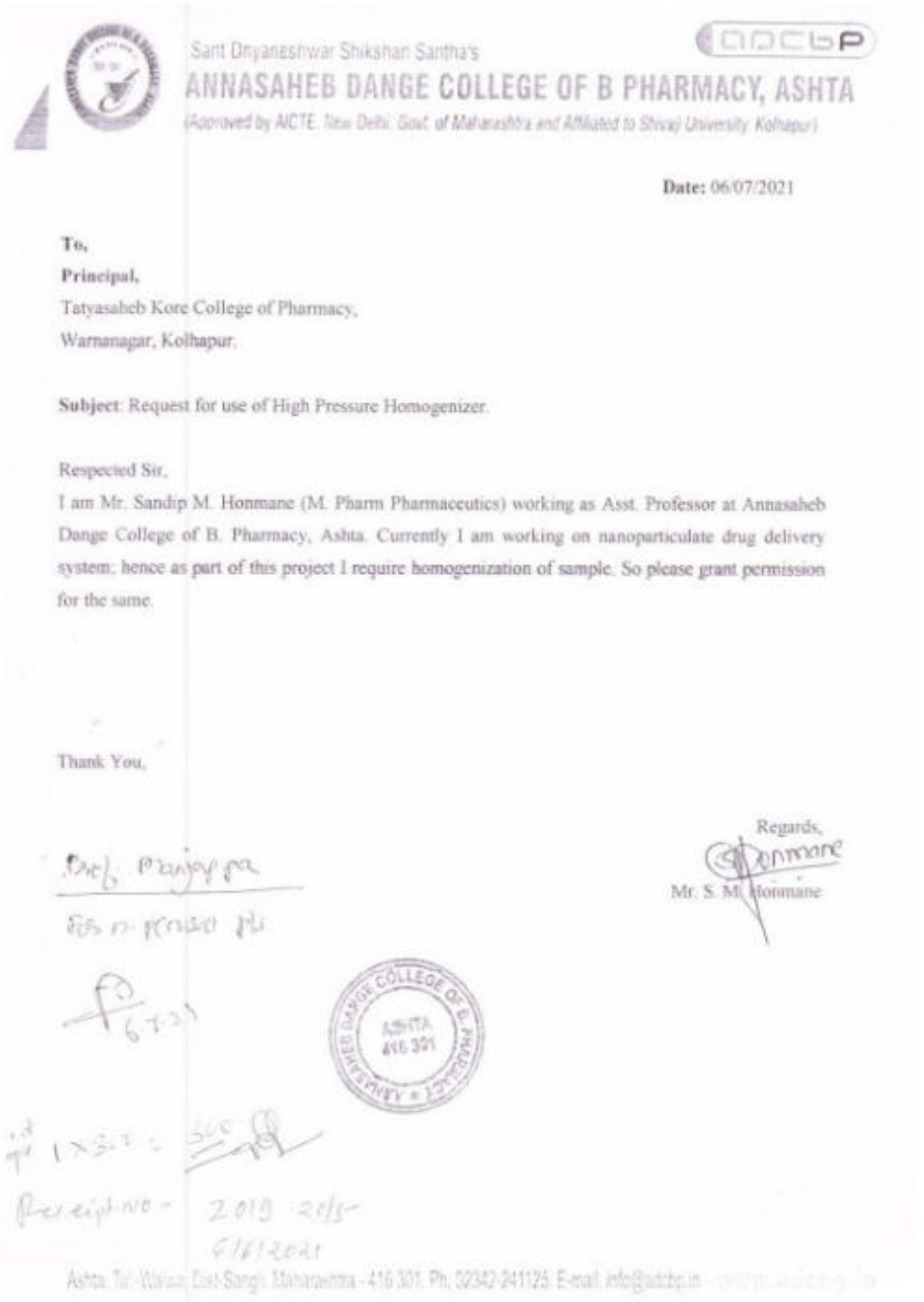
We will be highly pleased if you could Manage and give us permission to work between 28/04/22 to 06/05/22.

Your generous help in this regard will be deeply appreciated and will be acknowledged in thesis & all other scientific publications.

Thanking You,

Prof. Nanjappa
For n. person

d.



Sant Dnyaneshwar Shikshan Santha's

ANNASAHEB DANGE COLLEGE OF B PHARMACY, ASHTA

(Approved by AICTE, New Delhi, Govt. of Maharashtra and Affiliated to Shivaji University, Kolhapur)

Date: 06/07/2021

To,
Principal,
Tatyasaheb Kore College of Pharmacy,
Warnanagar, Kolhapur.

Subject: Request for use of High Pressure Homogenizer.

Respected Sir,

I am Mr. Sandip M. Honmane (M. Pharm Pharmaceutics) working as Asst. Professor at Annasaheb Dange College of B. Pharmacy, Ashta. Currently I am working on nanoparticulate drug delivery system; hence as part of this project I require homogenization of sample. So please grant permission for the same.

Thank You,

Regards,

Mr. S. M. Honmane

ANNASAHEB DANGE COLLEGE OF B. PHARMACY ASHTA 416 301

Receipt no - 2019-20/5-6/6/2021

Ashta, Tal.-Walwa, Dist-Sangli, Maharashtra - 416 301. Ph. 02342-241125. E-mail: info@adcbp.in

Annexure XVI

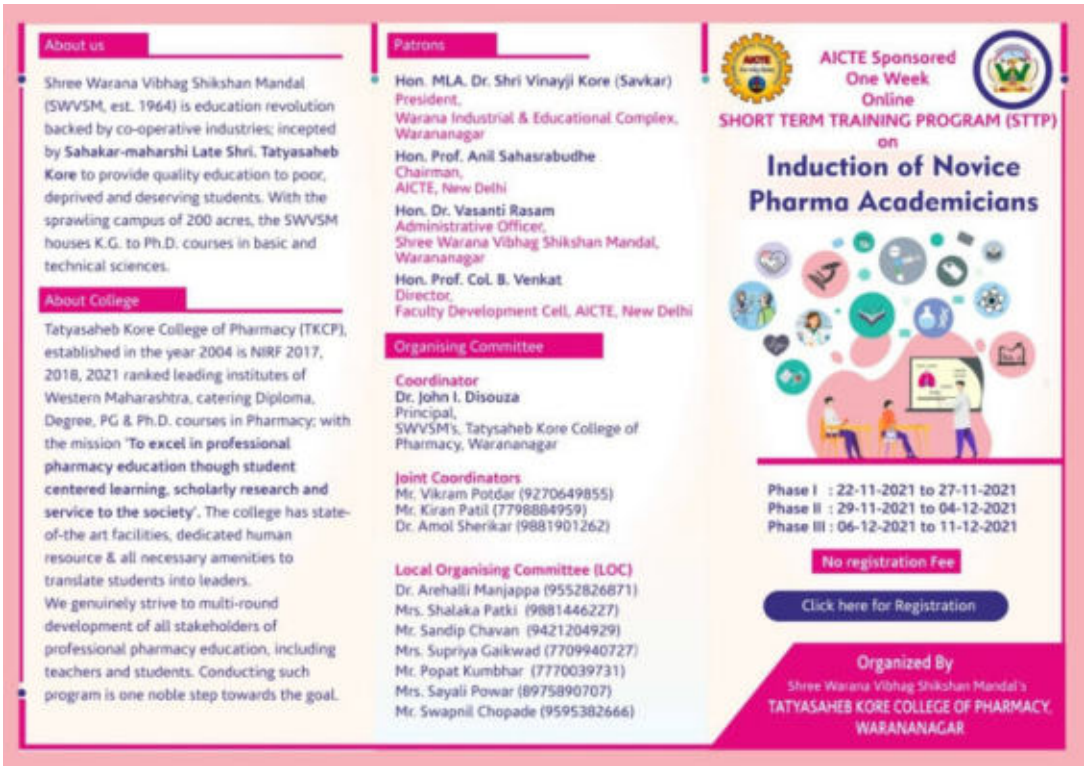
a.

b.

Annexure XVII

Annexure XVIII

a.

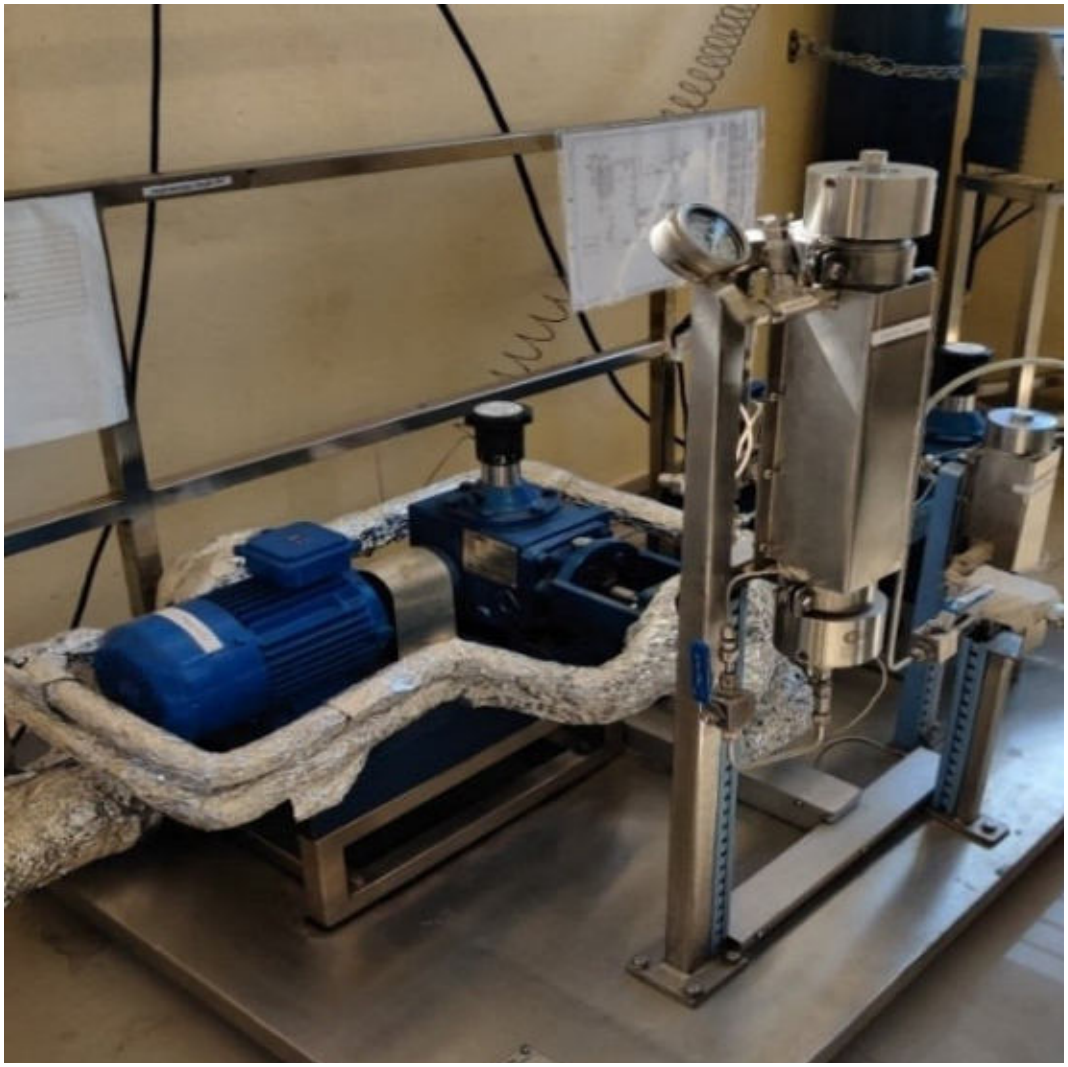


b.

Annexure XIX

a.

b.



Annexure XX

Rajiv Gandhi Science & Technology Commission
Government of Maharashtra

Dr. N. G. Shah
Member Secretary

RGSTC/File-2022/SIAC/CR-02/24/557
Apeejay House, 3rd floor,
Dinshaw Vacha Road, Near K.C. College,
Churchgate, Mumbai – 400 020
Tel No. 022-22024711
E-mail: rgstcmaha@rediffmail.com
Date:- 30th December, 2022.

Sub: Establishment of Technology Lab in Science and Innovation Activity Centre

Ref: Our letter No. RGSTC/File-2022/SIAC/CR-02/24 dated 25th January, 2022

Dear Dr. D'souza,

On the basis of your previous consent with reference to our letter mentioned above, Government of Maharashtra has approved in-principle the proposal to establish technology lab in existing SIAC's under the supervision of RGSTC. In order to take further steps please confirm your preparedness along with the following points:-

1. A space of approximate 6000 to 8000 sq.ft. and other services like provision of electrical components, maintenance of softwares, necessary furniture, Air conditioning units etc. at SIAC for setting up the Technology Lab.
2. The Government is likely to provide support for the capital cost of the equipment and teachers training programme as mentioned in the proposal
3. The recurring expenditure of operating the facilities in future is expected to be met by the institution, hosting SIAC.
4. Your preparedness of completing the infrastructure work of Technology Lab and commence it before the end of the current financial year 2022-2023.

Expecting your early response on the above mentioned issues.

With regards,

Yours sincerely,

(N.G. Shah)

Dr. John D'souza,
SIAC Warananager, Shree Warana Vibhag,
Shikshan Mandal, Warananagar Tal.
Panhala, Dist. Kolhapur – 416 113.

Annexure XXI

a.

b.

Annexure XXII

Late. Tatyasaheb Kore
Founder President,
Shree Warana Complex

**Hon. MLA.
Dr. Vinayraoji Kore**
President,
Shree Warana Complex

VISION
— 2025 —

PERSPECTIVE PLAN
of TKCP Year 2020 to 2025

Shree Warana Vibhag Shikshan Mandal's

TATYASAHEB KORE COLLEGE OF PHARMACY
WARANANAGAR

www.tkcpwarana.ac.in | tkcp.pc@unishivaji.ac.in

PREAMBLE

The perspective plan is designed after honestly doing the SWOC of the HEI and having brain-storming sessions with the stakeholders of TKCP. NEP-2020, UNESCO's Sustainable Development Goals and changing panorama of global and national educational sector aligned with motto, mission and vision of TKCP are the major inputs in framing this perspective plan.

The aim is to achieve the goals set and bench marks identified.

CURRICULAR ASPECTS

- To start the pharmacy courses which involves the scope of clinical career of graduates been passed i.e. Pharm. D., B. Pharmacy (Practice) courses;
- To appeal and contribute in the syllabus updating periodically done by PCI, New Delhi, to keep updated with changing technologies;
- To start PG programmes – in the remaining branches than already existing i.e. for example M. Pharm. in Pharmacology, Regulatory Affairs, Pharmacognosy etc. to mitigate demand of the market;
- NEP-2020 demands multidisciplinary HEIs, makes us introduce certificate/ diploma courses in allied sciences including nutrition and dietetics, music therapy, yoga, bachelor of law in medico-legal cases, analytical method development, animal experimentation, herbal drug product development etc.;
- To introduce PG Diploma courses such as medical lab technology, clinical research, biostatistics, hospital administration, retail and wholesale pharmacy management, etc.;
- To introduce value added short term programmes for B. Pharm./ B.Sc. graduates in pharmaceutical marketing, identification of medicinal plants, ayurvedic formulation developments etc.;
- To introduce skill-oriented programme like pharmacist assistant, animal care and handling, biostatistics in research etc.

TEACHING-LEARNING AND EVALUATION

- To take measures to develop educated person and not just graduated;
- To take a step towards bringing quality culture in academia by introducing quality assurance tools in teaching-learning process including SOPs, QbD, Risk Management etc.;
- To take special efforts to avoid developing of mind-set of graduates leading to data-integrity issues in industry;
- To take special efforts to transform teachers into subject matter expert (SME) delivering his/ her knowledge using effective teaching techniques (ETT);
- To make leaning experience more and more experiential and activity based by introducing activities in day-to-day learning;
- To make learning experience more of knowledge application oriented than just reproducing information in the examinations by 'problem solving approach';
- To strengthen ICT based blended teaching-learning methods by availing training to faculty on modern tools of teaching;
- To introduce and strengthen ERP/ LMS system for enhanced e-learning;
- To enhance the hybrid learning experience by increasing component of distance learning opportunities including video-conferencing and webinars;
- To make learning more inclusive by generating subject contents in local language i.e. in Marathi;
- To develop institutional learning repository;
- To start campus FM radio for making campus life more-and-more entertaining while educating;
- To make continuous assessment more and more formative;
- To introduce open-book-exam and other examination formats to assess understanding and not just remembering.

RESEARCH CONSULTANCY AND COLLABORATION

- To start Ph.D. programme by getting research lab recognition from SUK;
- To grow in Ph.D. and PG research both quantitatively and qualitatively;
- To grow in collaboration qualitatively and quantitively initially by establishing repo of exchange of HR, research facilities and then establishing MoUs with institutions of importance and impact in India and abroad;
- To create research culture that leads to outcomes with high technology readiness level (TRL) increasing patents awarded;
- To develop into Centre of Excellence in academic pharmaceutical research;
- To have our own journal of repute publishing quality pharmaceutical research, indexed in SCOPUS in near future;
- To excel in Ph.D. research making it more impactful not only by publishing and patenting but commercializing the products;
- To promote research by giving financial supports to faculty and students doing excellent research recognized by its outcomes;
- To identify 3-5 teachers every year for sabbatical leave and higher studies;
- To undertake and excel in consultancies etc.

INFRASTRUCTURE AND LEARNING RESOURCES

Library

- To add valued reference books every year in library as true knowledge resource;
- To take exclusive efforts to increase foot-falls of teachers and students in the library;
- To set small library in boys and girls hostels;
- To enhance e-library facilities and resources;
- To develop linkages with premier institutions of India and abroad for online lectures and demonstrations;
- To strengthen and decentralize the library, making it more-and-more utilizable by students and staff;
- To keep the library browsing and e-library open round the clock etc.

IT Facilities

- To introduce biometry for staff;
- To introduce biometry for students;
- To make processes paperless by using LMS, ERP;
- To establish language laboratories and improvise every year as communication is key attribute of success;
- To establish recording theatre to design and develop e-resources of high quality;
- To improvise in e-experience by conducting more-and-more webinars, video-conferencing etc.

Physical Infrastructure

- To set small canteen close to the college;
- To establish 500 plus capacity amphitheatre, in proximity of college; for conducting events like conferences, seminars, cultural feasts etc.;
- To make all basic facilities provided more-and-more sophisticated every year;
- To upgrade auditorium to state-of-the-art facility provided with air-conditioning, and all ICT and AV facilities;
- To remove the obsolescence and to upgrade as per as high-end instrumentation facilities are concerned;
- To get GLP accreditation to CPCSEA approved animal house facility (AHF).

INSTITUTIONAL SOCIAL RESPONSIBILITIES

- To enhance the contribution of leadership, faculty and students in safe use of medicines, and other health related issues;
- To take more efforts on the village we adopt for NSS camp, to improvise the village in health and hygiene related conducts;
- To carry out health awareness camps more-and-more extensively, bringing true revolution in the health of the society;
- To identify the disasters and recruit TKCP's human resources to help the society and the nation;
- To participate in national health mission projects like polio vaccination, BCG vaccination, prevention of TB, malaria, AIDS, dengue, swine flu, cancer, life style disorders;
- To establish an augmented reality/ virtual reality lab;
- To create awareness about millets and wild vegetables to contribute in conserving health of the society;
- To adopt rural schools and support children to understand science concepts by 'learning-by-doing';
- To improvise herbal garden using ICT tools etc.

GOVERNANCE AND LEADERSHIP

- To introduce and improvise quality assurance of academic/ administrative/ co- and extra-curricular/ research/ extension activities by using various tools;
- To improvise in NIRF ranking by improving particularly in quality research publications;
- To improvise in e-governance by introducing ERP/ LMS in all activities in the HEI;
- To get NABL accreditation to cell culture laboratory and GLP certification to animal house facility (AHF);
- To implement performance-based appraisal system to extend incentives;
- To promote research by giving incentives, awards to impactful research(s);
- To undertake projects to improvise employability and entrepreneurship skills and competencies like,
  - Making EDC more-and-more vibrant;
  - Setting incubation centre to imbibe skills and abilities;
  - Starting 'Section-8' company to provide hands-on-experiences about providing technological solutions to industry's problems.

INNOVATIONS AND BEST PRACTICES

- To establish a model solar power grid for power generation;
- To collect rain-water in well and recycle; as well as to collect the waste water from campus including mess and recycle the same using water body;
- To develop "TKCP faculty student club" to create awareness in the society about global warming, emerging infectious diseases and their prevention/ control;
- To improvise pharmacists' share in health conservation of society by actively involving in national health plans/ programmes;
- To update all SOPs, internal audits on regular basis and hence bringing good overall practice (GXP);
- To work extensively for adopted village(s) through NSS programmes for bringing total health care;
- To work jointly with WSIAC in making society plastic free;
- To take project related to treating solid waste and converting it into organic manure in collaboration with WSIAC.

Shree Warana Vibhag Shikshan Mandal's

TATYASAHEB KORE COLLEGE OF PHARMACY

WARANANAGAR

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