

Tal: - Panhala, Dist.: - Kolhapur, Maharashtra, India, Pin 416 113

7.2. Best Practice

NIRF Ranking



National Institutional Ranking Framework Ministry of Education Government of India



CUI

Gallery 1

India Rankings 2021: Pharmacy (Rank-band: 76-100)

| Institution list in alphabetical order | | |
|--|-------------------|----------------|
| | Sity | State |
| AISSMS College of Pharmacy | Pune | Maharashtra |
| Arulmigu Kalasalingam College of Pharmacy | Srivilliputtur | Tamil Nadu |
| B. K. Mody Government Pharmacy College, Rajkot | Rajkot | Gujarat |
| CMR College of Pharmacy | Rangareddy | Telangana |
| College of Pharmacy, Madras Medical College | Chennai | Tamil Nadu |
| Dadasaheb Balpande College of Pharmacy | Nagpur | Maharashtra |
| Dr. B. C. Roy College of Pharmacy and Allied Health Sciences | Durgapur | West Bengal |
| Dr. Vishwanath Karad MIT World Peace University | Pune | Maharashtra |
| Galgotias University | Gautam Budh Nagar | Uttar Pradesh |
| Ganpat University | Ganpat Vidyanagar | Gujarat |
| Sirijananda Chowdhury Institute of Pharmaceutical Science | Guwahati | Assam |
| Sokaraju Rangaraju College of Pharmacy | Hyderabad | Telangana |
| ayoti Vidyapeeth Women's University | Jaipur | Rajasthan |
| KIET Group of Institutions | Ghaziabad | Uttar Pradesh |
| KLE College of Pharmacy | Bengaluru | Kamataka |
| KLE College of Pharmacy, Hubli | Hubballi | Karnataka |
| Maliba Pharmacy College | Tarsadi | Gujarat |
| Virmala College of Pharmacy, Mangalagiri | Mangalagiri | Andhra Pradesh |
| Principal K.M. Kundnani College of Pharmacy | Mumbai | Maharashtra |
| Sanjivani College of Pharmaceutical Education and Research | Kopargaon | Maharashtra |
| Shree Warana Vibhag Shikshan Mandal's Tatyasaheb Kore College of Pharmacy, Warananagar | Warananagar | Maharashtra |
| Shri Vishnu College of Pharmacy | Bhimavaram | Andhra Pradesh |
| Suresh Gyan Vihar University | Jaipur | Rajasthan |
| Fhe Rashtrasant Tukadoji Maharaj Nagpur University | Nagpur | Maharashtra |
| Vivekanand Education Society's College of Pharmacy | Mumbai | Maharashtra |

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Cell Culture Laboratory in the HEI



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Industrial grade cell culture laboratory equipped with air/ HEPA filter and full proof air-controlled system



Laminar Air Flow Unit



CO₂ Incubator

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Page | 5/113

Inverted Microscope

Cooling Centrifuge

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Common Facility Centre in the HEI





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HPLC







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Freeze Dryer



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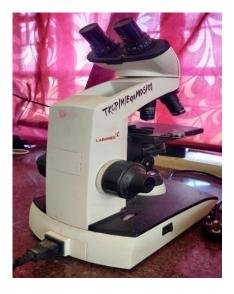
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Uv-Visible Spectrophotometer



Brookfield Viscometer



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FTIR

Inverted Microscope

Incubation Facility Training availed to staff and students



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Research grants

Academic Year 2021-22

| Sr. No. | Name of the research project/ endowment | Amount Sanctioned (INR in Lakhs) | Name of the Funding Agency | |
|---------|--|-------------------------------------|--------------------------------|--------------|
| 1. | Development and characterization of ribavirin-loaded nanoparticles for the treatment of cancer | 0.1 | Shivaji University Kolhapur | Page 9/113 |
| | Total | 0.1 | | |

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Ref. No. : BV/CPK / 614 /2021 - 2022

Date :01/02/2022

Page | 10/113

То

The Principals and Project guides, Pharmacy colleges under Lead College Research Sensitization Scheme, Shivaji University, Kolhapur.

Subject: Regarding research grant of maximum Rs. 10,000/- per project for 'Research Promotion Activity 2021-2022' under Lead College Research Sensitization Scheme.

Sir/Madam

With reference to subject cited above, all the participated colleges in research promotion activity under lead college research sensitization scheme of Shivaji University hereby informed that research projects submitted by your college have been sanctioned from Shivaji University, Kolhapur for the research grant of maximum Rs. 10,000/- to meet the expenditure of recurring nature towards the project work.

The grant should be utilized for the sanctioned project work only. List of sanctioned projects is attached herewith.

Regards,

Dr. H. N. More Principal Lead College

Bharati Vidyapeeth College Of Pharmacy, Kolhapur



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Web : http://copkolhapur.bharatividyapeeth.edu

E - mail : copkolhapur@bharatlvidyapeeth.edu



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| | T | | | SAACA-LOGANICOLINA CONCINCT | . | | | |
|-------------------|---|---|--|------------------------------|----------|--|--|--|
| J | Research proposals submitted to lead college (Year 2021-2022) | | | | | | | |
| Sr. <u>No.</u> | Name of College | Research Title | Names of Students | Name of Advisor | - | | | |
| 1 | B. V. C. P. Kolhapur | Development and characterization of anti- diabetic and meastruation regulation activity of Herbal formulation | / Priyanka Mane / Monika Sabale /Mogdha Kamblí | Mr. R.J. Jarag | | | | |
| 2 | A. B. C. P. Sangli | In-vitro Antiptoliferative and apoptotic inducing effect of plant extract on different celf line | Tejas Nirwane Sahif Bedmutha Subodh Patil Shashank Revankar | Mr. Sudhir Patil | - | | | |
| 3 | Shri santkrupa Gbogaon | Development of new quality control method for Gul/ Jaggery | / Rutuja Dhanawade / Arifa Naikawadi /Kashish Mulla /Tanuja Pawar / Tejal Shankar Veer | Dr. A.V. Belvotagi | _ | | | |
| 4 | Ashokrao Mane Pethyadagaon | Design, Development and in- Vitro Antioxidant potential of quercetin nanoparticles | / Sanjana Jadhav /Pratiksha Jadhav Akash Desai / Ankita Patil | Mrs. P. S. Sankpal | | | | |
| 5 | SGMCP, Mahagaon | Design and Characterization of solid self Nano-Emulsifying Drug delivery system of letrozole for Breasi Cancer | Shashikant Adsule Ashish Phutane / Samrudhi Kadam / Shruti Mandekar | Dr. R.B. Kumbhar | _ | | | |
| 6 | TKCP, Warnanagar | Development and Characterization of Ribavirin-loaded Nanoparticles for the Treatment of Cancer | / Bhagyashri Thorat / Priti Barawade Sushant Todka r Shivprasad Patil | Dr. J. I. Disouza | _ | | | |
| 7 | Vasentidevi Kodoli | Microwave assisted green synthesis antimicrobial activity of thiazolidine- 4-one derivatives | / Namira Nadaf | Miss. Lalita Dabiwade | _ | | | |
| £ 8 | Sarojani Kolhapur | In vitro Evaluation of Antitubercular Activity of Coccinia grandis | / Akanksha Gourkar / Utkarsha Ghatage / Sakshi Bhandari / Snehal Chavan | Ms. Preeti Patil- Vibhute | _ | | | |
| 9 | Rajara:nbapu Kasegaon | Biological Evolution of some synthesized N- substituted 1,3,4 thiadiazole derivatives by using invitro model | / Nutan Desai Anand Desai / Ashwarya Desahmukh Adesh Deshmukh | Dr. Sandcep Kane | _ | | | |

Secretary, Lead College Working Committee (Pharmacy)

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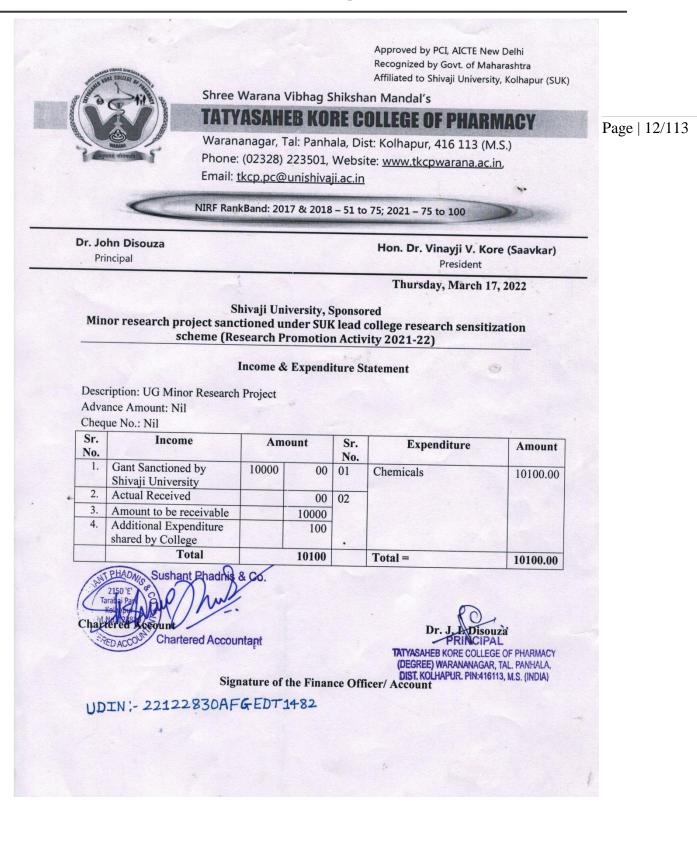
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Academic Year 2020-21

| Sr. No. | Name of the research project/ endowment | Amount Sanctioned (INR) | Name of the Funding Agency | 12/112 |
|---------|--|----------------------------|--|---------------|
| 1. | Induction of novice pharma academicians | 3.32933 | All India Council for Technical Education | Page 13/113 |
| 2. | Leveraging academic researchers on developing diagnostic kits, vaccines and drug product for improved therapy management against deadly viruses: Lesson learnt from COVID 19" | 0.93 | All India Council for Technical Education | |
| 3. | Fostering pedagogy, research administration: Vital domains for effective professional academic career | 2.79 | All India Council for Technical Education | |
| | Total | 7.04933 | | |

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| 40 | 2 | Annexure -I | L |
|---------------|--|---|----------|
| TE Separat | SHORT TERM TR | AINING PROGRAM | |
| ~5 | FEED B | ACK FORM | Page 1 |
| 1. | AICTE File No. & Date of Offer Letter | : 34-66/504/FDC/STTP/Policy-1/2019-20 | |
| 2. | Name of the Coordinator | : Dr. John I. Disouza | |
| 3. | Name and Address of the Institution | : Shree Warana Vibhag Shikshan Mandal's Tatyasaheb Kore College of Pharmacy, Warananagar, Tal- Panhala, Dist- Kolhapur, M.S., 416 113. | |
| 4. | Title of the Faculty Development Program | me: Induction of Novice Pharma Academicians | |
| 5. | Dates | : Phase I:- 22/11/2021 to 27/11/2021 | |
| | | Phase II:- 29/11/2021 to 04/12/2021 | |
| | | Phase III:- 06/12/2021 to 11/12/2021 | |
| 6. | . Venue | : By online mode at SWVSM's TKCP College Warananagar | |
| | Total No. of participants proposed and act Proposed 40 Attended [No. and date of the offer letter | 146 | |
| | Letter No. | Date | Í |
| | 34-66/504/FDC/STTP/Policy-1/2019- | -20 10/08/2020 | |
| | | | |
| 9. 1(| . Total amount sanctioned 0. No. and date of Sanction letter: | : Rs. 332933/- | I |
| | | : Rs. 332933/- Date Grant Released | |
| | 0. No. and date of Sanction letter: | Date Grant Released | |

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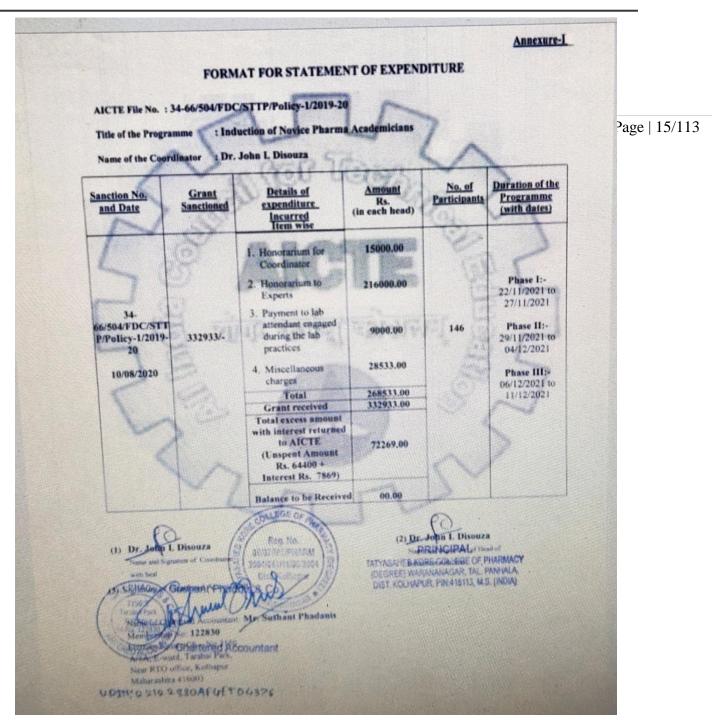
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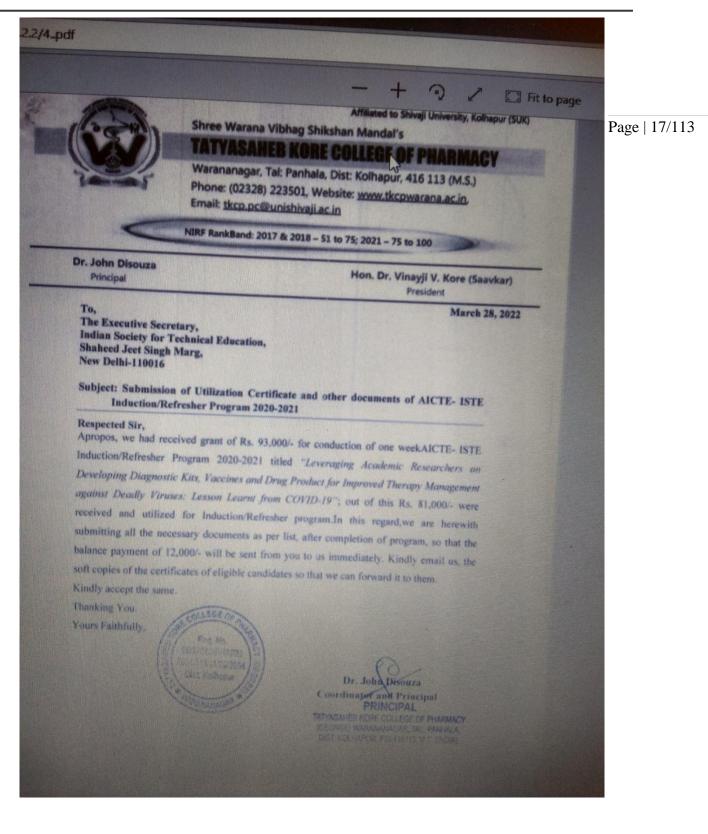
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| | | | TION CERTIFICATE |
|---|--|---------------------------------|---|
| File No | he Scheme under which (Address of Institute | : Shre Taty Dis : ISTI | action: AICTE-ISTE Induction/Refresher Program 2021-22 e Warana Vibhag Shikshan Mandal's asaheb Kore College of Pharmacy, Warananagar Tal: Panhala E: Kolhapur 416113 E/AICTE-ISTE Induction-Refresher Program/2021-22 Nov 5, 2021 obn 1. Disouza |
| Dates of the | e Programme e Programme | : Leve Drug | December to 18 th December 2021 raging Academic Researchers on Developing Diagnostic Kits, Vaccines and Product for Improved Therapy Management against Deadly Viruses: on Learnt from COVID-19 |
| | ISTE Sanction Order/Letter No. & Date under which grant was sanctioned | Amount (Rs.) | |
| | STE/AICTE-ISTE aduction-Refresher rogram/2021-22 Nov 5, 021 | 93000/- | Certified that out of the grant-in-aid of Rs. 93000/- (Ninety Three Thousands Only) sanctioned by the AICTE-ISTE during the financial year 2021-22 in favour of SHREE WARANA VIBHAG SHIKSHAN MANDAL'S TATYASAHEB KORE COLLEGE OF PHARMACY, WARANANAGAR as per letter mentioned in the margin. Rs.0.00/- on account of unspent balance of previous year. Rs. 0.00 on account of other income/receipts, a sum of Rs. 93010 has been utilized for the purpose for which it was sanctioned and the balance of Rs. 0.00 remained unutilized at the end ofthe year. |
| Kinds of che Stateme Stateme Stateme Stateme Nr. Sagar Varie & S Stateme Stateme Mensturship Eliornay Sup Eliornay Sup | cks exercised and of income and Expenditure and Payment account, bank a prochero/recopts_etc. | alemest etc. | which the grass-stead was sanctioned have been duly fulfilled and that I as actually utilized for the purpose for which it wassanctioned. |

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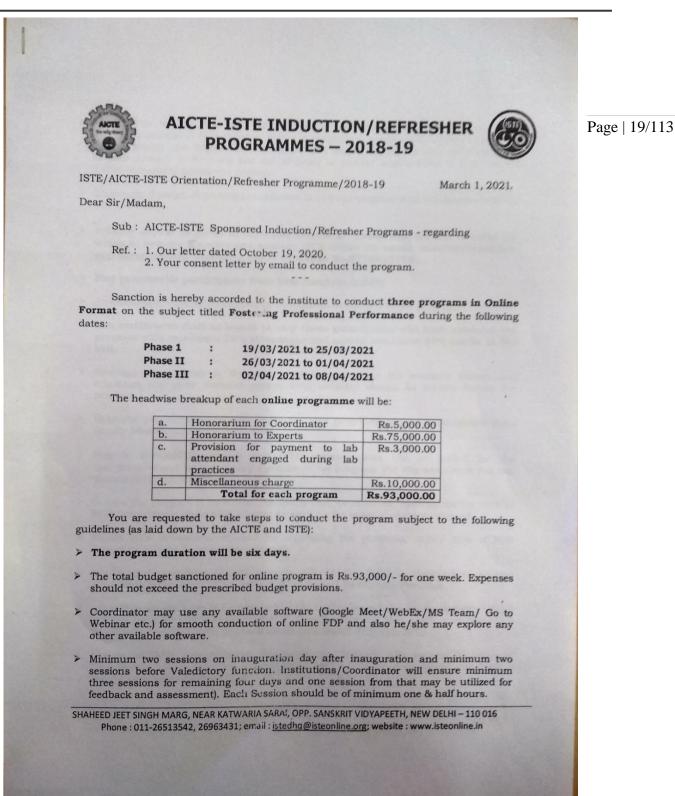
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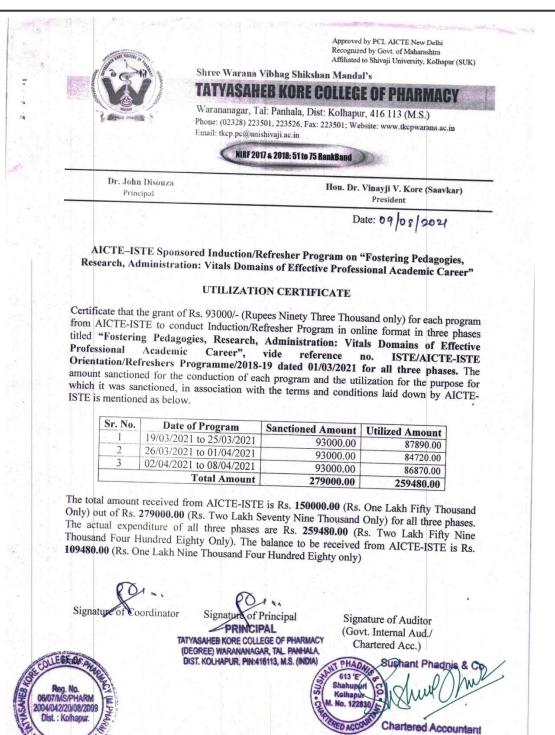
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Academic Year 2019-20

| Sr. No. | Name of the research project/ endowment | Amount Sanctioned (INR) | Name of the Funding Agency | |
|---------|---|----------------------------|--|---------------|
| 1. | Development of docetaxel nanoparticles: Effect of metabolism inhibition on its anticancer activity | 0.1 | Shivaji University Kolhapur | Page 21/113 |
| 2. | Modernization and development of microbiology and cell culture laboratory for advanced academic research | 14.885 | All India Council for Technical Education | |
| 3. | Supercritical fluid extraction of medicinal plants and screening of their extracts for pharmacological activity using BIOPAC | 14.985 | All India Council for Technical Education | |
| | Total | 29.97 | | |

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| | SH | IV. | AJI UNIVERSITY, KOLHAPUR |
|----|--|------|---|
| | RESEARCH SENS | ITI | ZATION SCHEME FOR COLLEGE STUDENTS |
| | Applicatio | n fo | or the financial support to research project |
| | (| То | be submitted to the lead college) |
| 1 | Name of the | : | Shree Warana Vibhag Shikshan Mandal's |
| | College/Institute | | Tatyasaheb Kore College of Pharmacy, Warananagar |
| | | | Tal: Panhala, Dist: Kolhapur 416 113 (M. S.), Phone: (O) +912328 223501, (R) +912328 224349 |
| 2 | Name of the Students | : | 1. Ms. Rasika Amne (Final Year B. Pharm) |
| | (Up to 4) | : | 2. Ms. Grishma Patil (Final Year B. Pharm) |
| | | | 3. Mr. Nachiket Banne (Final Year B. Pharm) |
| 3 | Title of Project | : | Development of Docetaxel Nanoparticles: Effect of Metabolism Inhibition of its Anticancer Activity |
| 4 | Area of Research Project/Subject | : | Pharmaceutical Sciences & Technology |
| 5 | Details of the Research Project | : | Annexure – 1 |
| 6. | Financial Requirements (Up to rupees 10000/-) | : | 11000/- |
| | Chemicals/ Consumables | : | 10,500/- |
| | Travelling | : | 500/- |

Dr. A. S. Manjappa

1. Ms. Rasika Amne RAmme

2. Ms. Grishma Patil Groishmag.

3. Mr. Nachiket Banne NBarme

TATYASAHEB KORE COLLEGE OF PHARMACY (DEGREE) WARANANGGAR, TAL PANHALA, DIST. KOLHAPUR, PIN:416113, M.S. (INDIA)

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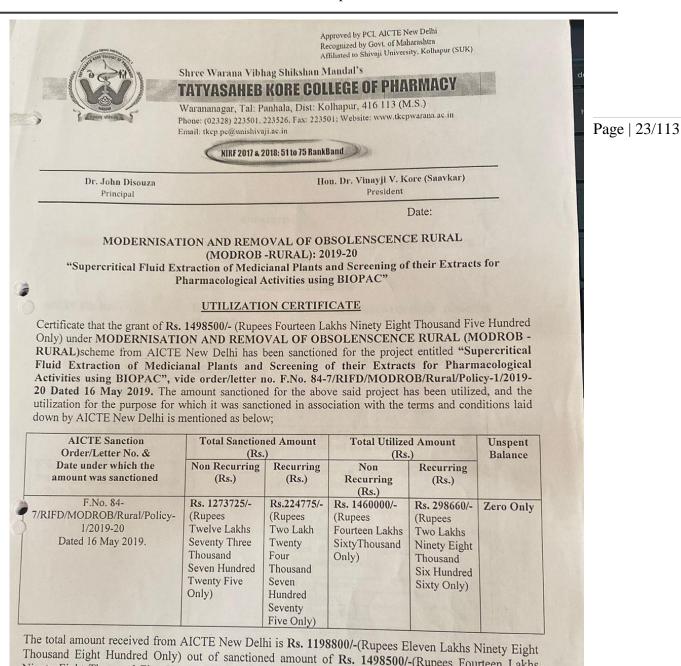
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Thousand Eight Hundred Only) out of sanctioned amount of **Rs. 1498500/-**(Rupees Eleven Lakhs Ninety Eight Ninety Eight Thousand Five Hundred Only). The actual expenditure incurred is **Rs. 1758660/-**(Rupees Seventeen Lakhs Fifty Eight Thousand Six Hundred Sixty Only). The balance amount to be received from AICTE is **Rs.299700/-** (Rs. Two Lakhs Ninety Nine Thousand Seven Hundred Only).

PHADN Susbant PhatInis 2150 'E RINCIPAL Tarabai Pa ATYASAHEB KORE COLLEGE OF PHARMAC Signature of Coordinator Signature Ko'hap (DEGREE) WARANANAGAR, TAL. PANHALA, M.No. 1228 Charter Baccountant RIN:419113, M.S. (NDIA) Dr. John I. Disouza (DEGREE) WARANANAGAR, TAL REDACCO DIGT. KOLHAPUR. PIR 416415 M.S



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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 Page | 24/113 NIRF 2017 & 2018: 51 to 75 RankBand Dr. John Disouza Hon. Dr. Vinayji V. Kore (Saavkar) Principal President Annexure-1 MODERNISATION AND REMOVAL OF OBSOLENSCENCE RURAL (MODROB -RURAL): 2019-20 STATEMENT OF EXPENDITURE AICTE File No. F.No. 84-7/RIFD/MODROB/Rural/Policy-1/2019-20 Dated 16 May 2019 **Title of Project** Supercritical Fluid Extraction of Medicianal Plants and Screening of their Extracts for Pharmacological Activities using BIOPAC Name of the Coordinator Dr. John I. Disouza Tatyasaheb Kore College of Pharmacy, Warananagar Sanction No. and Date **Details of Expenditure Total Grant** Amount Rs. Sanctioned **Incurred Item wise** (In each head) F.No. 84-Rs. 1498500/-CO2Extractor (Supercritical 1. 1460000/-7/RIFD/MODROB/Rural/Policy-Fluid Extractor) 1/2019-20 Make: Amar Equipments, Dated 16 May 2019. Mumbai 2. Recurring expenditure 298660/includes chemicals, Glasswares & other consumables. **Total Expenditure** 1758660/-Grant Released 1198800/-**Grant Remaining** 299700/-Funds utilized from Institute 260160/-Signature of Coordinator Signature of Principal Per Rep Dr. John I. Disouza PRINCIPAL 2150 TATYASAHEB KORE COLLEGE OF PHARM Taraba (DEGREE) WARANANAGAR, TAL. PANH Kol DIST. KOLHAPUR. PIN:416113, M.S. AND A.No. 12283 Sushant Phadnis EDACC **Chartered** Accountant UDIN: 21122830AAAATQ3927 2 SEP 2021

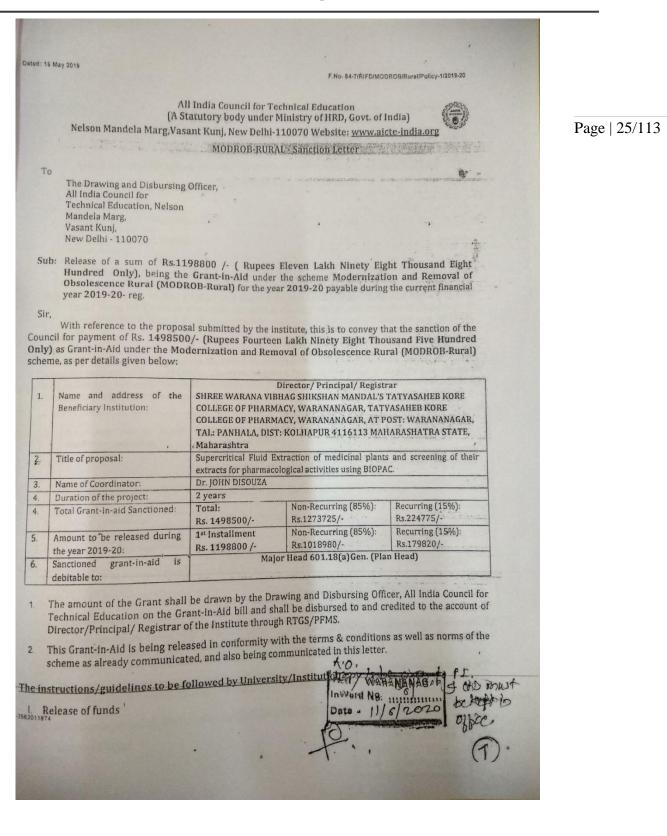
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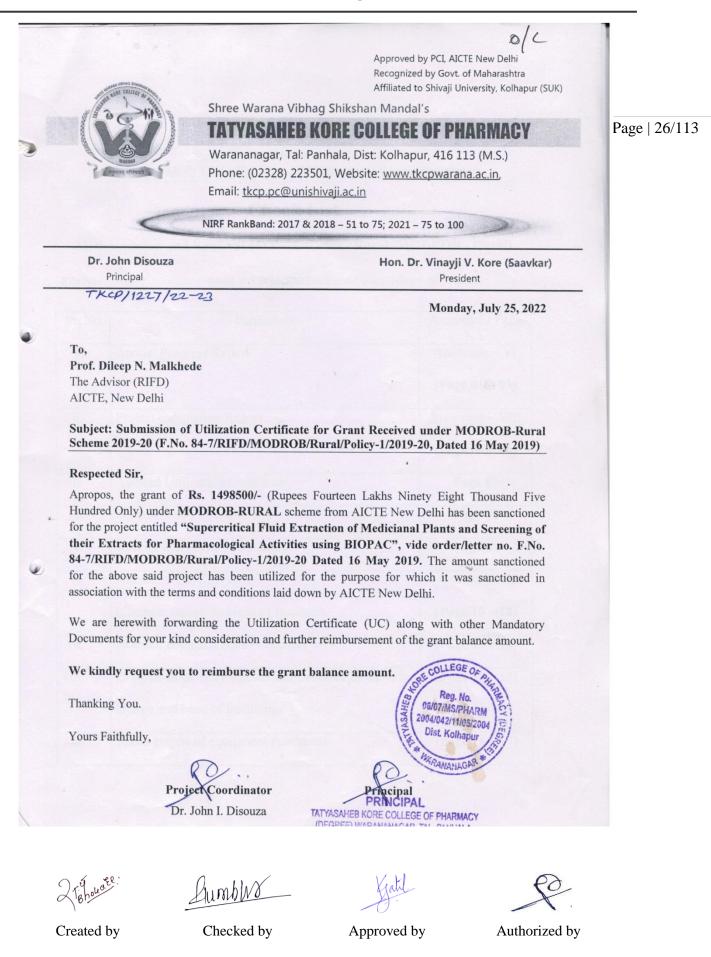
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Tal: - Panhala, Dist.: - Kolhapur, Maharashtra, India, Pin 416 113

Academic Year 2018-19

| Sr. No. | Name of the research project/ endowment | Amount Sanctioned (INR) | Name of the Funding Agency | |
|---------|--|----------------------------|--------------------------------|------|
| 1. | Development of multifunctional liposomal drug delivery system targeting multiple myeloma and associated bone damage | 0.25 | Shivaji University Kolhapur | Page |
| 2. | Development of nanoparticles co- loaded with docetaxel and ritonavir: role of ritonavir in enhancement of docetaxel anti- tumor efficacy | 0.175 | Shivaji University Kolhapur | |
| 3. | Two days workshop for teachers on fostering creativity and innovation in science education | 1.03 | Vigyan Prasar | |
| 4. | Self -assembled mixed micelles composed of drug-polymer conjugates: Improved docetaxel efficacy against cytochrome P-450 3A4 expressing tumors | 0.1 | Shivaji University Kolhapur | |
| | Total | 1.55 | | |

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SHIVAJI UNIVERSITY, KOLHAPUR-416 004 MAHARASHTRA Colleges and University Development Section auna PHONE :EPABX-2609000, 2609145 □ FAX :0091-231-2691533 & 0091-231-2692333 Website : www.unishivaji.ac.in E-mail: stats@unishivaji.ac.in शिवाजी विद्यापीठ, कोल्हापूर -४१६००४ महाराष्ट्र (महाविद्यालये व विद्यापीठ विकास विभाग) दुरथ्वनी: (ईपीएबीएक्स) २६०९०००, २६०९१४५ Estd: 1962 Page | 28/113 🗅 फॅक्स: ००९१-२३१-२६९१५३३,२६९२३३३,२६९३२९४ NAAC "A" Grade 20 FEB 2020 Date: Ref No.: SU/C&U.D.Section/54/857 To, Dr. Manjappa Arehalli S., Tatyasaheb Kore College of Pharmacy Waranngar, Dist: Kolhapur. Sub. :- Grants Release order under Research Grants to Collge Teachers 2017-2018. Sir/Madam, With reference to above mentioned subject, I am directed to inform you that, the University authorities have approved your research proposal entitled "Development of Multifuctional Liposomal Drug Delivery System : Targeting Multiple Myeloma and Associated Bone Damage" under Research Grants to Collge Teachers 2017-2018. As per project guidelines, total grants of ₹.25000/- has been sanctioned to your research project and out of grant ₹.12500/- sending herewith as a first installment vide cheque bearing number 143791, dt. 12-02-2020. The second installment of remaining grants will be released to you after compliance of the project. The total period of the project will be for two years and under no circumstances it will be extended further. The effective date of start of the project should be the date on which grant is issue of day to the Principal Investigator. Submit the workdone report/ project completion report within a prescribed period alongwith the bills duly completed viz. "Accession No.", "Rates are reasonable and paid by me" with P.I signature. Thanking you, ours faithfully, 26/2/2020 eputy Registrar, Shivaji University, Kolhapur. Encl. : As above. Copy to: The Principal, Tatyasaheb Kore College of Pharmacy Waranngar, Dist: Kolhapur

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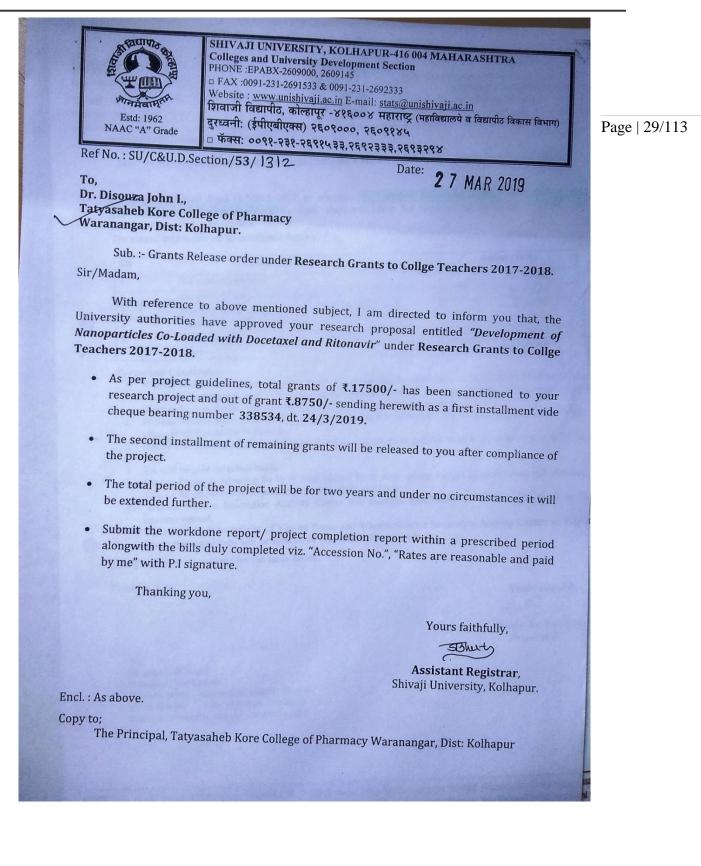
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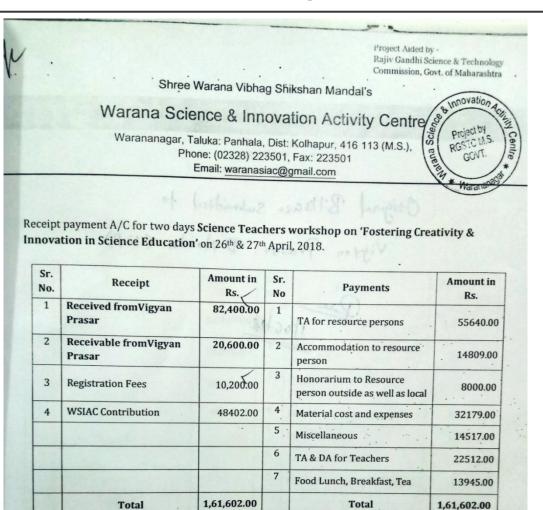
Warananagar

Tal: - Panhala, Dist.: - Kolhapur, Maharashtra, India, Pin 416 113

| Sub: Tw Dear Sir, As per you been sance innovation The expend SN 1. 2. 3. 4 5. 5. 7 Terms and 1. Waran will in wherea 2. Warana after cc 3. Attenda UCS. 4. TA will 5. Vigyan 20% jie | ience Hands on activity/2018 // 8 vo days workshop for teachers on Foster r proposal dated 14 March 2018, an amou ioned from Vigyan Prasar for Two da in science education. iture heads are as mentioned below:- Particulars TA to resource person Accommodation to resource persons Honorarium to Resource persons outside a Material cost for the experiments Miscellaneous Total Conditions:- a Science Innovation Activity Center will vite participants and will do all logistic a s Vigyan Prasar will provide resource persons a Science Innovation Activity Center is re- ompletion of the workshop. ance sheet of all Resource Persons and Co be paid on actual basis. Prasar is releasing 80 % of total budget Rs 20,600/-will be paid after receipt of SI | ant of Rs. 1,03,000 (One lakh ys workshop for teachers of s well as local organised the workshop on 20 arrangements for both particip sons for different sessions. quested to submit SE and UCs pordinators in original need to | Amount in Rs Rs .50,000 Rs .10,000 Rs .30,000 Rs .5,000 Rs .5,000 Rs .5,000 Rs .5,000 Rs .1,03,000 Solution Rs .5,000 Rs .1,03,000 Rs .1,03,000 Solution Rs .1,03,000 Solu | Page 3 |
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Utilization Certificate

Certified that (Workshop Expenditure) of Rs. 161602.00 (Rs. One Lack Sixty One Thousand Six Hundred Two Only) (Sanctioned by Vigyan Prasar & Warana Science and Innovation Activity Centre) for the conduction of Science Teachers workshop organized on 26th & 27th April, 2018 has been incurred by observing scrupulously all the rules of Vigyan Prasar & Warana Science and Innovation Activity Centre.

Certified that, from total expenditure Rs. 161602.00 (Rs. One Lack Sixty One Thousand Six Hundred Two Only) amount Rs. 20600 (Rs. Twenty Thousand Six Hundred Only) is receivable from Vigyan Prasar.

Place: Warananagar

Date: Thursday, May 24, 2018

Sushant PHAN **Chartered Accountant**

Principal Coordinator 028 1050 20190 416113

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| Year | 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
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| Number | 8 | 13 | 9 | 11 | 4 |

| Sr. No. | Name of Journal | Impact Factor |
|---------|---|---------------|
| 1. | Journal of Controlled Release | 11.46 |
| 2. | Drug Disccovert Todr | 8.36 |
| 3. | International Journal of Pharmaceutics | 6.5 |
| 4. | Microchemical Journal | 5.304 |
| 5. | Chemico-Biological Interactions | 5.168 |
| 6. | European Journal of Pharmacology | 5.195 |
| 7. | Journal of Drug Delivery Science and Technology | 5.062 |
| 8. | AAPS PharmSciTech | 4.026 |
| 9. | Drug Development and Industrial Pharmacy | 3.7 |
| 10. | Journal of Pharmaceutical Innovation | 2.53 |
| 11. | Current Nanoscience | 1.53 |
| 12. | Brazilian Journal of Pharmaceutical Sciences | 1.24 |
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| | alleviating skin cancer | <u>31</u> | 2/1 |
| 2. | D-a-tocopheryl polyethylene glycol succinate: | Page 33 https://doi.org/10.1016/j.onano.2022.1000 | 5/1 |
| | A review of multifarious applications in | <u>36</u> | |
| | nanomedicines | | |
| 3. | Carbohydrate anchored lipid nanoparticles | https://doi.org/10.1016/j.ijpharm.2022.121 | |
| | | <u>681</u> | |
| 4. | Emulgel for improved topical delivery of | https://doi.org/10.1016/j.pharma.2021.05. | |
| | tretinoin: Formulation design and | <u>004</u> | |
| | cOharacterization | | |
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| 7. | Inhalation delivery of repurposed drugs for lung | https://doi.org/10.1016/j.jconrel.2021.11.0 | |
| | cancer: Approaches, benefits and challenges | <u>15</u> | |
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| | characterization of docetaxel-loaded | <u>5</u> | |
| | TPGS/Pluronic F 108 mixed micelles for | | |
| | improved cancer treatment | | |
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Drug repurposing: An emerging strategy in alleviating skin cancer

Popat Kumbhar ¹, Kapil Kole ¹, Tejashree Yadav ¹, Ashwini Bhavar ¹, Pramod Waghmare ¹, Rajdeep Bhokare ¹, Arehalli Manjappa ¹, Niraj Kumar Jha ², Dinesh Kumar Chellappan ³, Sunita Shinde ¹, Sachin Kumar Singh ⁴, Kamal Dua ⁵, Ahmad Salawi ⁶, John Disouza ⁷, Vandana Patravale ⁸

Affiliations – collapse

Affiliations

- Tatyasaheb Kore College of Pharmacy, Warananagar, Tal: Panhala, Dist: Kolhapur Maharashtra, 416113, India.
- ² Department of Biotechnology, School of Engineering & Technology (SET), Sharda University, Greater Noida, 201310, Uttar Pradesh, India; Department of Biotechnology, School of Applied and Life Sciences (SALS), Uttaranchal University, Dehradun 248007, India.
- ³ Department of Life Sciences, School of Pharmacy, International Medical University, Bukit Jalil, 57000, Kuala Lumpur, Malaysia.
- ⁴ School of Pharmaceutical Sciences, Lovely Professional University, Phagwara, Punjab, 144411, India; Faculty of Health, Australian Research Centre in Complementary and Integrative Medicine, University of Technology Sydney, Ultimo, NSW, 2007, Australia.
- ⁵ Faculty of Health, Australian Research Centre in Complementary and Integrative Medicine, University of Technology Sydney, Ultimo, NSW, 2007, Australia; Discipline of Pharmacy, Graduate School of Health, University of Technology Sydney, NSW, 2007, Australia; Uttaranchal Institute of Pharmaceutical Sciences, Uttaranchal University, Dehradun, 248007, India.
- ⁶ Department of Pharmaceutics, College of Pharmacy, Jazan University, Jazan, 45142, Saudi Arabia.
- 7 Tatyasaheb Kore College of Pharmacy, Warananagar, Tal: Panhala, Dist: Kolhapur Maharashtra, 416113, India. Electronic address: jidisouza@tkcpwarana.ac.in.
- 8 Department of Pharmaceutical Sciences and Technology, Institute of Chemical Technology,

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Shree Warana Vibhag Shikshan Mandal's Tatyasaheb Kore College of Pharmacy, Warananagar Tali Banhala Dist : Kolhapur Maharashtra India Din 416

Tal: - Panhala, Dist.: - Kolhapur, Maharashtra, India, Pin 416 113



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D-a-tocopheryl polyethylene glycol succinate: A review of multifarious applications in nanomedicines

Page | 40/113

<u>Popat S. Kumbhar</u>^a A ⊠, <u>Sameer Nadaf</u>^b, <u>Arehalli S. Manjappa</u>^a A ⊠, <u>Niraj Kumar Jha</u>^c, <u>Sunita S. Shinde</u>^a, <u>Swapnil S. Chopade</u>^a, <u>Amol S. Shete</u>^d, <u>John I. Disouza</u>^a, <u>Unnam Sambamoorthy</u>^e, <u>Sanapala A. Kumar</u>^f

- ^a Department of Pharmaceutics, Tatyasaheb Kore College of Pharmacy, Warananagar, Tal: Panhala, Kolhapur, Maharashtra 416113, India
- ^b Sant Gajanan Maharaj College of Pharmacy, Mahagaon, Gadhinglaj, Maharashtra, India
- ^c Department of Biotechnology, School of Engineering & Technology (SET), Sharda University, Greater Noida, Uttar Pradesh 201310, India
- ^d Department of Pharmaceutics, Krishna Institute of Pharmacy Medical Sciences Deemed to Be University, Karad 415539, India
- Department of Pharmaceutics, NRI College of Pharmacy, NRI Group of Institutions,
 Pothavarappadu (V), Via Nunna, Agiripalli (M), Vijayawada Rural, Krishna, Andhra Pradesh
 522212, India
- f

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Recent advances in developing polymeric micelles for treating cancer: Breakthroughs and bottlenecks in their clinical translation

Jaskiran Kaur ¹, Monica Gulati ¹, Niraj Kumar Jha ², John Disouza ³, Vandana Patravale ⁴, Kamal Dua ⁵, Sachin Kumar Singh ⁶

'age | 41/113

Affiliations - collapse

Affiliations

- ¹ School of Pharmaceutical Sciences, Lovely Professional University, Jalandhar-Delhi G.T Road, Phagwara 144411, Punjab, India.
- ² Department of Biotechnology, School of Engineering & Technology (SET), Sharda University, Greater Noida, 201310 Uttar Pradesh, India.
- ³ Tatyasaheb Kore College of Pharmacy, Warananagar, Panhala, Kolhapur, Maharashtra 416113, India.
- ⁴ Department of Pharmaceutical Sciences and Technology, Institute of Chemical Technology, Matunga, Mumbai, Maharashtra 400019, India.
- ⁵ Discipline of Pharmacy, Graduate School of Health, University of Technology Sydney, NSW 2007, Australia; Faculty of Health, Australian Research Centre in Complementary and Integrative Medicine, University of Technology Sydney, Ultimo, NSW 2007, Australia.
- ⁶ School of Pharmaceutical Sciences, Lovely Professional University, Jalandhar-Delhi G.T Road, Phagwara 144411, Punjab, India. Electronic address: singhsachin23@gmail.com.

PMID: 35158056 DOI: 10.1016/j.drudis.2022.02.005

Abstract

Polymeric micelles (PMs) have been explored pre-clinically for the delivery of chemotherapeutics to

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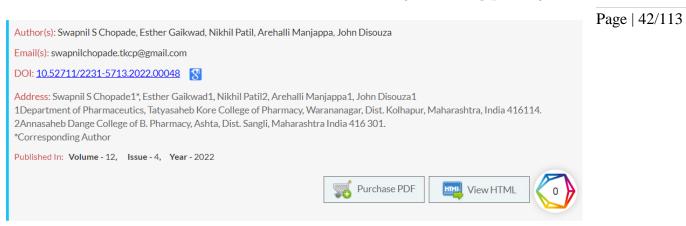
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Development of Topical Nanogel as a Promising Delivery of NSAID's Tenoxicam using Natural Permeation Enhancer Essential Oil (Euckolyptus) 🛚



ABSTRACT:

Tenoxicam (TNX) is an effective non-steroidal anti-inflammatory drug (NSAIDs) used to treat rheumatoid arthritis. Like other NSAIDs, tenoxicam has the disadvantage of being linked to gastrointestinal side effects. Furthermore, this drug is having weak transdermal penetration, preventing transdermal administration. The goal of this study was to develop a TNX nanogel with a smaller particle size to improve the anti-inflammatory drug's bioavailability and assess its potential in rheumatoid arthritis. The modified emulsification-diffusion method is used to develop nanosized dispersion of TNX using noveon polycarbophil AA-1 as a gelling agent. Moreover, essential oils increase skin penetration by interacting with the stratum corneum (SC). They were found to be successful in increasing skin penetration of both lipophilic and hydrophilic drugs. The rheology, particle size, drug content, % drug release, and in-vitro diffusion study of prepared TNX nanogel were performed. Based on the rheological features of the formulations it was found to be substantial, with the particle size of 125.05nm and zeta potential -8.47mV, drug content of 97.05%, % drug release 97.40% drug diffusion of 97.42%, and pH of 6.2. Tenoxicam nanogel was prepared by using noveon

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Journal of Controlled Release Volume 341, January 2022, Pages 1-15

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Review article

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

<u>Popat Kumbhar</u>^a, <u>Arehalli Manjappa</u>^a, <u>Rohit Shah^b</u>, <u>Niraj Kumar Jha</u>^c, <u>Sachin Kumar Singh</u>^d, <u>Kamal Dua</u>^{e f} ♀ ⊠ , John Disouza^a ♀ ⊠ , Vandana Patravale^g

- ^a Tatyasaheb Kore College of Pharmacy, Warananagar, Tal: Panhala, Dist: Kolhapur Maharashtra 416113, India
- ^b Appasaheb Birnale College of Pharmacy, Sangli, Maharashtra 416416, India
- ^c Department of Biotechnology, School of Engineering & Technology (SET), Sharda University, Greater Noida, 201310, Uttar Pradesh, India
- ^d School of Pharmaceutical Sciences, Lovely Professional University, Phagwara, Punjab 144411, India
- ^e Discipline of Pharmacy, Graduate School of Health, University of Technology Sydney, NSW 2007, Australia
- ^f Faculty of Health, Australian Research Centre in Complementary and Integrative Medicine,

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Page | 44/113

Design, development, *in silico* and *in vitro* characterization of Docetaxel-loaded TPGS/ Pluronic F 108 mixed micelles for improved cancer treatment

Kiran S. Patil a 🖾 , Ashok A. Hajare a \land \boxtimes , Arehalli S. Manjappa b \boxtimes , Harinath N. More c \boxtimes ,John I. Disouza b \boxtimes

- ^a Department of Pharmaceutics, Bharati Vidyapeeth College of Pharmacy, Near Chitranagari, Kolhapur, 416103, Maharashtra, India
- ^b Department of Pharmaceutics, Tatyasaheb Kore College of Pharmacy, Warananagar, 416113, Maharashtra, India
- ^c Department of Pharmaceutical Chemistry, Bharati Vidyapeeth College of Pharmacy, Near Chitranagari, Kolhapur, 416103, Maharashtra, India

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Carbohydrate Polymer Technologies and Applications 2 (2021) 100052



Carbohydrates-based diagnosis, prophylaxis and treatment of infectious diseases: Special emphasis on COVID-19



Popat S. Kumbhar^a, Anjali K. Pandya^b, Arehalli S. Manjappa^a, John I. Disouza^a, Vandana B. Patravale^{b,*}

^a Tatyasaheb Kore College of Pharmacy, Warananagar, Tal: Panhala, Kolhapur, Maharashtra, India, 416113
^b Department of Pharmaceutical Sciences and Technology, Institute of Chemical Technology, Nathalal Parekh Marg, Matunga, Mumbai, Maharashtra 400 019, India

ARTICLE INFO

Keywords: fectious diseases COVID-19 SARS-CoV-2 Carbohydrates Diagnosis Nanomedicines

ABSTRACT

COVID-19 pandemic is taking a dangerous turn due to unavailability of approved and effective vaccines and therapy. Currently available diagnostic techniques are time-consuming, expensive, and maybe impacted by the mutations produced in the virus. Therefore, investigation of novel, rapid, and economic diagnosis techniques, prophylactic vaccines and targeted efficacious drug delivery systems as treatment strategy is imperative. Carbo hydrates are essential biomolecules which also act as markers in the realization of immune systems. Moreover, they exhibit antiviral, antimicrobial, and antifungal properties. Carbohydrate-based vaccines and therapeutics including stimuli sensitive systems can be developed successfully and used effectively to fight COVID-19. Thus, carbohydrate-based diagnostic, prophylactic and therapeutic alternatives could be promising to defeat COVID-19 propitiously. Morphology of SARS-CoV-2 and its relevance in devising combat strategies has been discussed. Carbohydrate-based approaches for tackling infectious diseases and their importance in the design of various diagnostic and treatment modalities have been reviewed.

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Journal of the Egyptian National Cancer Institute

Open Access

REVIEW

Drug delivery nanocarriers and recent advances ventured to improve therapeutic efficacy against osteosarcoma: an overview

Page | 46/113

Sujit Arun Desai^{1,2*}, Arehalli Manjappa³ and Preeti Khulbe¹

Abstract

Background: Osteosarcoma (OS) is one of the key cancers affecting the bone tissues, primarily occurred in children and adolescence. Recently, chemotherapy followed by surgery and then post-operative adjuvant chemotherapy is widely used for the treatment of OS. However, the lack of selectivity and sensitivity to tumor cells, the development of multi-drug resistance (MDR), and dangerous side effects have restricted the use of chemotherapeutics. Main body: There is an unmet need for novel drug delivery strategies for effective treatment and management of

OS. Advances in nanotechnology have led to momentous progress in the design of tumor-targeted drug delivery nanocarriers (NCS) as well as functionalized smart NCS to achieve targeting and to treat OS effectively. The present review summarizes the drug delivery challenges in OS, and how organic nanoparticulate approaches are useful in overcoming barriers will be explained. The present review describes the various organic nanoparticulate approaches such as conventional nanocarriers, stimuli-responsive NCs, and ligand-based active targeting strategies tested against OS. The drug conjugates prepared with copolymer and ligand having bone affinity, and advanced promising approaches such as gene therapy, gene-directed enzyme prodrug therapy, and T cell therapy tested against OS along with their reported limitations are also briefed in this review.

Conclusion: The nanoparticulate drugs, drug conjugates, and advanced therapies such as gene therapy, and T cell therapy have promising and potential application in the effective treatment of OS. However, many of the above approaches are still at the preclinical stage, and there is a long transitional period before their clinical application. Keywords: Osteosarcoma, Nanocarriers, Stimuli-responsive nanocarriers, Active targeting, Gene therapy, T cell therapy

Background

Of the many bone cancers, osteosarcoma (OS) is the most general prime malignant bone tumor accounting for 60% [1]. Both children and adults between 10 and 20 years of age are affected by OS. OS is a complex unbalanced karyotype tumor having some chromosomal aberrations. Although a variety of genetic factors has been

Correspondence: sujitdesai3/@gmail.com ¹School of Pharmacy, Suresh Gyan Vihar University, Mahal Rd, Mahal, Jagatpura, Jajura, Rajusthan 30017, India ²Annasheb Dange College of D Pharmacy, Ashta, Tak Walwa, Dist, Sangli, Maharashtat 416301, India Full list of author information is available at the end of the article



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correlated with OS, the specific cause of the OS is not

conventional strategies for OS treatment. However, the

clinical applications of most of the chemotherapeutics have been limited due to lack of selectivity and sensitiv-

ity to tumor cells, toxicity towards normal cells, multidrug resistance (MDR), poor pharmacokinetic perform-

ance and, etc. [2, 3]. Furthermore, lower blood flow to the bone also acts as a barrier (blood-bone marrow barrier) in the delivery of anti-tumor therapeutics to the bone [4]. Therefore, there is an unmet need to develop

known. Pain is one of the frequent symptoms of OS. Recently, chemotherapy followed by surgery and then post-operative adjuvant chemotherapy is the widely used

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Antidiabetic and antihyperlipidemic effects of Argyreia pierreana and Matelea denticulata: Higher activity of the micellar nanoformulation over the crude extract



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Page | 47/113

Venkataiah Gudise ^{a, *}, Bimalendu Chowdhury ^b, Arehalli S. Manjappa ^c

^a Department of Pharmacology, SSJ College of Pharmacy, Vattinagulapally, Gandipet, Hyderabad-500075, Telangana State, India

^b Department of Pharmacology, Roland Institute of Pharmaceutical Sciences, Khodasingi, Berhampur-760010, Odisha, India ^c Department of Pharmaceutics, Tatyasaheb Kore College of Pharmacy, Warananagar-416113, Maharashtra, India

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Keywords: HFD-STZ Type 2 diabetes Argyreia pierreana Matelea denticulata Ethanolic extracts Nanotechnology

ABSTRACT

Background and gim: Herbal medicine combined with nanotechnology is widely proposed to improve the oral bioavailability, reduce the required dose and side effects, and improve the pharmacological efficacy of extracts. Thus, this study evaluated the in vivo antidiabetic and antihyperlipidemic activities of ethanolic leaf extracts of Argyreia pierreana (AP) and Matelea denticulata (MP) plants in comparison with their micellar nanoformulations.

Materials and methods: The mixed micelles (MMs) loaded with crude extracts (CEs) of AP and MD (AP-MMs and MD-MMs) were prepared using a film dispersion technique. Type 2 diabetes was induced in rats using high-fat diet (HFD) and low-dose (35 mg/kg) streptozotocin (STZ) injection. The pharmacological actions of CEs, AP-MMs and MD-MMs were determined in type 2 diabetic Sprague-Dawley rats. Results: Oral treatments with low-dose AP-MMs and MD-MMs having a mean particle size of 163 \pm 10 nm and 145 \pm 8 nm respectively, resulted in significantly decreased fasting blood glucose level and increased serum insulin, glucokinase levels, and normalized the elevated levels of hemoglobin A1C and glucose-6-phosphatase. Both extracts significantly decreased serum total cholesterol, triglycerides, and low-density lipoprotein, as well as elevated high-density lipoprotein levels. Additionally, improvements in antioxidant enzymes (superoxide dismutase, catalase, glutathione peroxidase) and malondialdehyde levels were evidenced clearly in tested vital organs (brain, heart, liver).

Conclusion: This is the first report of the antidiabetic and antihyperlipidemic activities of ethanolic leaf extracts of AP and MP plants. Our findings indicate the potential utility of nanotechnology in improving the oral therapeutic efficacy of herbal extracts.

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Formulation, Evaluation and Optimization of Sustain Release Matrix Tablet of Page | 48/113 Diltiazem HCL by Using Hydrophilic Natural Polymers

Sharad Kamble^{*1}, Sunita Shinde²

¹Department of Pharmaceutics, Nootan College of Pharmacy, Kavathe Mahankal, Sangli, Maharashtra, India ²Department of Pharmaceutics, Tatayasaheb Kore College of Pharmacy Warnanagar, Kolhapur, Maharashtra, India

ABSTRACT

Diltiazem HCl is a Calcium channel blocker which is used as anti-anginal and Article Info Class IV anti-arrhythmic drug. It is a drug of choice for stable and unstable Volume 6, Issue 1 angina pectoris, myocardial infarction, coronary artery spasm, cardiac Page Number: 16-29 arrhythmia, PSVT and hypertension. In this study, sustained release matrix tablets of Diltiazem HCl were prepared by wet granulation method. The formulation of each Diltiazem HCl sustained release matrix tablets is composed of two selected polymers i.e. chitosan and xanthan gum in alone or in combination. The other excipients used were lactose monohydrate for its diluent property, PVP K-30 as a binder and magnesium stearate and talc for lubrication. The weight of tablet was adjusted to 200 mg and each tablet contained 90 mg Diltiazem HCl. Total 9 batches (F1-F9) were prepared.Batch F1, F2 and F3 containing a single polymer i.e. xanthan gum in concentration of Publication Issue : 15, 20 and 25% of total weight of the tablet. Batch F4, F5 and F6 containing a January-February-2021 single polymer i.e. chitosan in concentration of 20, 30 and 40% of total weight of the tablet Batch F7, F8 and F9 containing combination of both polymers i.e.

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Sharad Kamble

Assistant Professor, Department of Pharmaceutics, Nootan College of Pharmacy, Kavathe Mahankal, Sangli, Maharashtra, India

Amol Patil

Head of Department, Nootan College of Pharmacy, Kavathe Mahankal, Sangli, Maharashtra, India

Sunita Shinde

Assistant Professor, Tatyasaheb Kore College of Pharmacy, Warananagar,

A review on current nutraceuticals in the management of osteoarthritis

Sharad Kamble, Amol Patil, Sunita Shinde and Hrithik Ankush

Abstract

Osteoarthritis (OA) is a progressive degenerative joint syndrome that has a major impact on joint function and quality of life. Nutraceuticals and nutritional supplement derived from herbs have long been used in traditional remedy and there is considerable evidence that nutraceuticals may play an important role in irritation and joint demolition in OA. We review the biological effects of some medicinal fruits and herbs like pomegranate, green tea, cat's claw, devil's claw, ginger, Indian olibaum, turmeric and ananas. So in an attempt to understand the essential molecular targets involved in irritation and the joint destruction process and to summarize their toxicities and efficacy for OA management. So far there is insufficient reliable evidence on the effectiveness of ginger, turmeric and ananas. Pomegranate and green tea only have preclinical evidence of efficacy due to the bee deficient in of clinical data. In vivo and clinical studies are required to understand their targets and efficacy in OA. There is strong clinical evidence of the efficacy of devil's claw in relieving pain. However, high-

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> Drug Deliv Transl Res. 2020 Aug;10(4):1122-1135. doi: 10.1007/s13346-020-00752-1.

A remarkable in vitro cytotoxic, cell cycle arresting and proapoptotic characteristics of low-dose mixed micellar simvastatin combined with alendronate sodium

Page | 50/113

Sandip A Bandgar ¹², Namdeo R Jadhav ³, Arehalli S Manjappa ⁴

Affiliations – collapse

Affiliations

- ¹ Department of Pharmaceutics, Ashokrao Mane College of Pharmacy, Peth Vadgaon, Maharashtra, 416112, India.
- ² Department of Pharmaceutics, Bharati Vidyapeeth College of Pharmacy, Kolhapur, Maharashtra, 416013, India.
- ³ Department of Pharmaceutics, Bharati Vidyapeeth College of Pharmacy, Kolhapur, Maharashtra, 416013, India. nrjadhav18@rediffmail.com.
- ⁴ Department of Pharmaceutics, Tatyasaheb Kore College of Pharmacy, Warananagar, Maharashtra, 416113, India.

PMID: 32221848 DOI: 10.1007/s13346-020-00752-1

Abstract

The objective of the present study was to screen the effect of increased simvastatin (SVS) solubility, through mixed micelles as a model approach, on in vitro anticancer efficacy in combination with

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Research Article

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Design and Development of Nifedipine Extended Release Tablet Double Rotary Bi- Layered Compression Machine

Sunita S Shinde^{1*}, Sharad K Kamble² and Manohar D Kengar²

- 1 Department of Pharmaceutics, TKCP Warnanagar, Maharashtra, India
- 2 Department of Pharmaceutics, Nootan College of Pharmacy Kavathemahankal, Maharashtra, India

*Corresponding author: Sunita S Shinde

sharadkamble5@gmail.com

Department of Pharmaceutics, TKCP Warnanagar, Maharashtra, India.

Citation: Shinde SS, Kamble SK, Kengar MD (2020) Design and Development of Nifedipine Extended Release Tablet Double Rotary Bi- Layered Compression Machine. Int J Drug Dev & Res. Vol.12 No.4:154

Abstract

The aim of the present work was to Design and development of Nifedipine extended release tablet 90 mg by double rotary bi layered compression machine that can provide continuous drug release for period of 24 hours. The granules prepared using polymers such as polyethylene glycol 4000, HPMC and cellulose acetate etc. the osmotic pump mechanism was used, after that mechanical drilling machine was used for drilling with respect in size. Prior to compression, the prepared granules were evaluated for flow and compression characteristics. The principle shows two compartments was present such as the drug layer and push layer, after some time push layer goes contact with aqueous medium then swelling of push layer and suspend drug particle and flow through the delivery orifice. Prepared Nifedipine extended release tablet was evaluated for in vitro drug release study. The prepared Nifedipine extended release tablet 90 mg showed good mechanical properties (hardness and friability) as well as good $\ensuremath{\text{in}}$ vitro dissolution profile showing the release of constant drug for 24 hours. The increase in binder has retarding effect leading to the decrease in the dissolution. The Change in granulation time with respect to increase in parameters

Keywords: Nifedine; Extended release tablet; Infrared Spectroscopy; Push pull layer

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Development of Lipid-Drug Conjugate Nanoparticles for Hydrophilic and Lipophilic Drug: A Comparative Ex vivo Gut and Caco-2 Cell Permeability Study



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Authors: Kumbhar, Popat S.; Manjappa, Arehalli Sidramappa; Shete, Abhijeet Dilip; Disouza, John Intru Source: Current Nanoscience, Volume 16, Number 6, 2020, pp. 870-879(10) Publisher: Bentham Science Publishers DOI: https://doi.org/10.2174/1573413716666200319130830



Background: The lipid-drug conjugate nanoparticles (LDC NPs), amongst other lipidbased nanoparticles, are the most accepted ones for the oral delivery of both hydrophilic and hydrophobic drugs with poor bioavailability. Besides, the LDC NPs show altered physicochemical properties of the drug and have the potential applications in targeting the drug to a specific organ.

Objective: To synthesize hydrophilic Valacyclovir (VACV)-stearic acid (SA) and lipophilic Acyclovir (ACV)-stearic acid conjugates (VACV-SAC and ACV-SAC), and develop their nanoparticles (VACV-LDC-NPs and ACV-LDC-NPs) for improved intestinal permeability.

Methods: Both VACV-SAC and ACV-SAC were synthesized and confirmed using FTIR, NMR, and DSC techniques and characterized for assay. The lipid drug conjugate nanoparticles (LDC NPs) were prepared using cold high-pressure homogenization technique and characterized for drug content, mean particle size, zeta potential, ex vivo gut permeability using rat gut sac model, and Caco-2 cell permeability.

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against multidrug-resistant breast cancer Popat S. Kumbhar, Asmita M. Sakate, Onkar B. Patil, Arehalli S. Manjappa and John I. Disouza

Podophyllotoxin-polyacrylic acid conjugate micelles: improved anticancer efficacy

Abstract

RESEARCH

Background: Podophyllotoxin (PPT) is a naturally occurring compound obtained from the roots of Podophyllum species, indicated for a variety of malignant tumors such as breast, lung, and liver tumors. This toxic polyphenol (PPT) exhibited significant activity against P-glycoprotein (P-gp) mediated multidrug-resistant (MDR) cancer cells. However, extremely poor water solubility, a narrow therapeutic window, and high toxicity have greatly restricted the clinical uses of PPT. Therefore, the present research was aimed to synthesize the water-soluble ester prodrug of PPT with polyacrylic acid (PAA), a water-soluble polymer by Steglich esterification reaction, and to screen it for assay, solubility, in vitro hemolysis, in vitro release, and in vitro anticancer activity.

assay, solubility, in Vitro hermolysis, in Vitro herease, and in Vitro anticancer activity. **Results:** The Fourier transform infrared (FTIR) and nuclear magnetic resonance (NMR) spectroscopy results revealed the successful synthesis of podophyllotoxin-polyacrylic acid conjugate (PPC). The assay and saturation solubility of the prodrug is found to be 64.01 \pm 4.5% and 1.39 \pm 0.05 mg/mL (PPT equivalent) respectively. The PPC showed CMC (critical micelle concentration) of 0.430 mg/mL in distilled water at room temperature. The PPC micelles showed a mean particle size of 215 \pm 11 nm with polydispersity index (PDI) of 0.193 \pm 0.006. Further, the transmission electron microscope (TEM) results confirmed the self-assembling character of PPC into micelles. The PPC caused significantly less hemolysis (18.6 \pm 2.9%) than plain PPT solution. Also, it demonstrated significantly (φ < 0.01) higher in vitro cytotoxicity against both sensitive as well as resistance human breast cancer cells (MCF-7 and MDA MB-231) after 48 h of treatment.

Conclusion: The obtained study results clearly revealed the notable in vitro anticancer activity of PPT following its esterification with PAA. However, further in vivo studies are needed to ascertain its efficacy against a variety of cancers.

Keywords: Podophyllotoxin prodrug, PAA, Hemolysis, In vitro release, Cytotoxicity

Background

Cancer or malignancy is a heterogeneous disease characterized by abnormal cell mitosis, and is a serious health concern around the world. Cancer predominance and mortality are expanding year by year and creating a heavier burden globally [1].

Chemotherapy is the most preferred among the available treatment strategies and has been proven to be

* Correspondence: johnsir4u@gmail.com Department of Pharmaceutics, Tatyasaheb Kore College of Pharmacy, Warananagar, Panhala, Kolhapur, Maharashtra 416113, India is one of the challenges in the efficient treatment of cancers. A toxic polyphenol podophyllotoxin (PPT) was obtained from the roots of plants from the genus Podophyllum [2] and can be used to treat cancers like breast, lung, and liver cancer and it acts by blocking cell division [3, 4]. In earlier research papers, it is reported that PPT is capable to kill effectively the MDR (P-gp mediated) cancer cells and therefore used to treat a variety of MDR tumors efficiently [5–8]. However, the clinical applications of PPT are significantly restricted due to its

effective in clinics. But, the multidrug resistance (MDR)

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Annales Pharmaceutiques Françaises Volume 78, Issue 5, September 2020, Pages 398-407



Original article

Development and validation of RP-HPLC method for simultaneous estimation of docetaxel and ritonavir in PLGA nanoparticles Développement et validation de la méthode RP-HPLC pour la détermination simultanée du docétaxel et du ritonavir dans des nanoparticules polymériques

P.S. Kumbhar^ª, Sonali K. Diwate^{ª b}, U.G. Mali^ª, T.U. Shinde^ª, J.I. Disouza^ª ♀ ⊠, A.S. Manjappa^ª ♀ ⊠

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Academic year 2019-20

NANOPARTICULATE COMBINATION OF DRUGS FOR THE TREATMENT OF OSTEOSARCOMA: A REVIEW

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SGVU JOURNAL OF PHARMACEUTICAL RESEARCH & EDUCATION, VOLUME 5 ISSUE 1, 2020

Mr. Sujit Desai*², Dr. Preeti Khulbe¹, Dr. Arehalli Manjappa³

- 1. Gyan Vihar School of Pharmacy, Suresh Gyan Vihar University, Jaipur, Rajasthan, India,
- 2. Annasaheb Dange College of D Pharmacy, Ashta, Maharashtra, India.
- 3. Tatyasaheb Kore College of Pharmacy, Warananagar, Maharashtra, India

ABSTRACT

Malignancy speaks to a gathering of heterogeneous ailments described by uncontrolled development and spread of abnormal cells, at last leading to death. Nanomedicine assumes a huge job in the advancement of nanodrugs, nanodevices, drug delivery systems as well as nanocarriers. A portion of the significant issues in the treatment of cancer are multidrug resistance (MDR), restricted helpful window and undesired symptoms of accessible anticancer drug and the constraints of anticancer drugs. A few nano systems being used for recognition, determination and treatment, for example, theranostic bearers, liposomes, carbon nanotubes, quantum spots, polymeric micelles, dendrimers and metallic nanoparticles. Nonetheless, non-biodegradable nanoparticles cause high tissue aggregation and prompts harmfulness. MDR is viewed as a significant obstruction to disease treatment because of metastatic tumors that create protection from chemotherapy. MDR adds to the disappointment of chemotherapies in different diseases, including bosom, ovarian, lung,

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ABSTRACT

Lactobacillus plantarum strain JDARSH, a potential probiotic with a wide range of functions, was isolated from sheep milk. Here, we report the whole-genome sequence of this bacterium. The draft genome yielded a 3.20-Mb genome and 2,980 protein-coding sequences.

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ACCELERATED STABILITY STUDY OF ARSENAZO III USED FOR DETECTION OF CALCIUM FROM BIOLOGICAL SYSTEM THROUGH UV-SPECTROPHOTOMETER, BIOCHEMISTRY ANALYZER, PH METER, HPLC AND HPTLC

J. R. Kamble, A. S. Sherikar and J. I. Disouza

Department of Quality Assurance, Tatyasaheb Kore College of Pharmacy, Warananagar, Panhala, Kolhapur - 416113, Maharashtra, India.

Keywords:

In-vitro, linearity, Arsenazo III, Biochemistry analyzer, Shelf life and retention time

Correspondence to Author: A. S. Sherikar

Department of Quality Assurance, Tatyasaheb Kore College of Pharmacy, Warananagar, Panhala, Kolhapur - 416113, Maharashtra, India.

E-mail: amol.sherikar@gmail.com

ABSTRACT: Objective: Stability of In-vitro Diagnostics (IVDs) reagents was performed to check its quality standards, performance, and linearity. IVDs like Calcium reagent containing Arsenazo III were studied by Accelerated stability studies by considering temperature, pH, and light parameters. Materials and Methods: Stability data were obtained by using different instruments like UV spectrophotometer, Biochemistry analyzer, pH meter, HPLC, and HPTLC. This gives information about the degradation that occurred during storage, transportation, etc. Results: Calcium reagent containing Arsenazo III degrade 90.81% when placed at 42 °C by UV spectrophotometer analysis. The stability conditions' effect on actual serum concentration was measured by taking reagent performance on a biochemistry analyzer. The linearity of reagents decreases at 42 °C and at normal temperature, linearity does not change. HPLC spectra gave degradation of reagent, which was analyzed by its retention time, peak height, and % area. Arsenazo III produces 91.25% remains undecomposed in 3 months when exposed to light. The shelf life of the calcium reagent was found to be 85.36. HPTLC spectra gave degradation of Arsenazo III, which was analyzed by its retention time, peak height. The reagent, during its stability studies, shows a slight change in its pH. Conclusion: From HPLC and HPTLC analysis, it is confirmed that the degradation occurred in Arsenazo III after exposed to an accelerated stability study

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Design, Development and Assessment of Herbal Lipstick from Natural Pigments

*Mahanthesh M.C., Manjappa A.S., Shinde M.V., Sherikar A.S., Disouza J.I., Namrata B.U, Kranti K.R., Ajija W.C. Tatyasaheb Kore College of Pharmacy, Warananagar-416113, Maharashtra, India. *Corresponding author's E-mail: mc_mahanthesh@rediffmail.com

Received: 08-01-2020; Revised: 24-02-2020; Accepted: 02-03-2020.

ABSTRACT

The natural pigment or colorant in the cosmetics, are inconceivable in demand since, historical time till day. The colors that add to the shade of the lipstick, are unsafe to people on utilization can bring about sensitivity, sickness, dermatitis, and drying of the lips. The usage of natural dyes and pigments, increase more importance in food and textile industries because of their non toxic and eco friendly characteristics. Coloring pigments is obtained from petals of *Rosa rubiginosa*, flower of *Bougainvillea spectabilis. Beta vulgaris* (Beetroot) and flower of *Crocus sativus*.(F1 to F4) and were evaluated on the parameters such as melting point, breaking point, force of application, surface anomalies, aging stability, solubility, pH, skin irritation and perfume stability etc... The results are shown in tab.4 and prepared lipstick in fig.2 F1 to F4. The prepared lipstick formulations F1, F2 and F4 showed ideal properties like shining, spreading and smoothness of lips after application. Further studies through a detailed clinical trial may be suggested to ensure safety of these formulations. Hence from present investigation it was concluded that, formulated herbal lipstick having minimal and no side effects and thus showing maximum local effect on lips.

Keywords: Herbal cosmetics, lipstick, natural pigments, formulation evaluation

INTRODUCTION

which the beginning of the civilization, Herbal cosmetic also known as "natural cosmetics"., peoples (men and women) had the magnetic dip towards impressing others with their looks was reported¹ and there area number of wide range of herbal cosmetics products to satisfy your beauty regime, is very safe for the skin. The human beings have been using herbs for different purpose like food, medicine, beatifying with the advancement of science & technology was studied².

The phenomenon of herbals, nowadays becoming a full fledged, encircling both health and beauty care. The lips perhaps constitute the most sensitive part of our body and it is also very close to the nose and mouth. The great demand in both developing and developed countries⁴, the demand of herbal medicines is increasing rapidly due to their lack of side effects was reported⁵.

In another study, Natural pigment or color in biological system is one, that is synthesized and accumulated in, or extracted from living cells and natural dyes may be defined as chemicals which are obtained from vegetable and animal sources without chemical processing. The applied colour should be fast to sunlight, water washing and to action of mild acid and alkali. The different natural colorants are obtained from following categories is shown in the table 1⁶⁻⁹.

The taking into consideration the importance of natural products, the present work was aimed at formulating and evaluating lipsticks containing only natural ingredients. The ingredients included in the study, extracts of the

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Manjappa et al. Future Journal of Pharmaceutical Sciences (2019) 5:10 https://doi.org/10.1186/s43094-019-0013-x Future Journal of Pharmaceutical Sciences

RESEARCH



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Ameliorated in vitro anticancer efficacy of methotrexate D-a-Tocopheryl polyethylene glycol 1000 succinate ester against breast cancer cells

Arehalli S. Manjappa^{*}, Popat S. Kumbhar, Rohini Kasabe, Sonali K. Diwate and John I. Disouza

Abstract

Background: Methotrexate (MTX), a folate anti-metabolite, has been used widely in the treatment of plenty of malignancies. However, the clinical use is limited because of its poor water solubility (BCS class II drug), nonspecific distribution, drug resistance, short circulation half-life, and toxicity. The objective of the present research was to synthesize the ester prodrug of MTX with D-α-Tocopheryl polyethylene glycol 1000 succinate (TPGS) and characterize for in vitro anticancer efficacy.

Results: The FTIR and NMR results revealed the successful synthesis of the prodrug. The assay and saturation solubility of the prodrug is found to be $23 \pm 2.5\%$ and 6.7 ± 1.3 mg/mL (MTX equivalent) respectively. The CMC of the prodrug in distilled water at room temperature is found to be $36.9 \pm 2.6 \,\mu$ g/mL. The prepared prodrug micelles showed a mean particle size of 166 ± 10 nm (PDI, 0.325 ± 0.09). Further, the TEM results confirmed the self-assembling character of the prodrug into micelles with a nearly spherical shape. The prodrug caused the significantly (p < 0.01) less hemolysis ($16.8 \pm 1.5\%$) when compared to plain MTX solution and significantly higher (p < 0.01) in vitro cytotoxicity, cell cycle arresting, and apoptosis against human breast cancer cells (MCF-7 and MDA-MB-231).

Conclusion: Our study results revealed the remarkable in vitro anticancer activity of MTX following its esterification with TPGS. However, further, in vivo studies are needed to prove its efficacy against different cancers.

Keywords: Methotrexate prodrug, TPGS, Cytotoxicity, Cell cycle analysis and apoptosis



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WORLD JOURNAL OF PHARMACEUTICAL RESEARCH

Volume 8, Issue 9, 400-417.

Review Article

SJIF Impact Factor 8.074 ISSN 2277-7105

BIOLOGICAL ACTIVITIES OF CASSIA OCCIDENTALIS LINN: A SYSTEMATIC REVIEW

Page | 60/113

Mahanthesh M. C.*¹, Manjappa A. S.², Sherikar A. S.³, Disouza J. I.⁴ and Shinde M. V.⁵

Department of Pharmacognosy¹, Department of Pharmaceutics^{2,4}, Department of Pharmaceutical Chemistry^{3,5}

Tatyasaheb Kore College of Pharmacy, Warananagar, 416 113, Maharashtra, India.

Article Received on 07 June 2019, Revised on 27 June 2019, Accepted on 17 July 2019,

*Corresponding Author

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Dr. Mahanthesh M. C. Department of Pharmacognosy, Tatyasaheb Kore College of Pharmacy, Warananagar, 416 113,

ABSTRACT

Cassia occidentalis L. (Kasamardah), Negro coffee, Family leguminose, is an erect, perennial plant and have traditional practice, as well as wide Phytochemicals and having diverse biological activities, known to possess antiallergic, antibacterial, antidote for poison, blood purifier, antifungal, antidiabetic, anti-inflammatory, antimutagenic, psoriasis, melanoblast cell line leprosy and hepatoprotective activity. Chemicals including achrosin, aloeemodin, cassia occidentanol I, cassia occidentanol II, emodin, anthraquinones, anthrones, apigenin, aurantiobtusin, campesterol, cassiollin, chryso-obtusin, chrysophanic acid. chrysarobin. chrysophanol. chrysoeriol. The presented review

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ejpmr, 2019,6(10), 373-384 Sunita et al. EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL EXPresen Journal of Pharmaceutical and Medical www.ejpmr.com T

COMPARATIVE STUDIES OF VARIOUS ADSORBENT CARRIERS FOR ENHANCING DISSOLUTION PROFILE OF KETOPROFEN

Page | 61/113

Shinde Sunita S.¹ and Kamble Sharad K.²

¹Department of Pharmaceutics, Tatayasaheb Kore College of Pharmacy Warnanagar, Kolhapur Maharashtra, India.
²Department of Pharmaceutics Nootan College of Pharmacy Kavathe Mahankal, Sangli Maharashtra, India.

*Corresponding Author: Dr. Shinde Sunita S.

Department of Pharmaceutics, Tatayasaheb Kore College of Pharmacy Warnanagar, Kolhapur Maharashtra, India.

Article Received on 24/07/2019 Article Revised on 13/08/2019

Article Accepted on 04/09/2019

ABSTRACT

In recent times, a large number of studies concerning the improvement of the dissolution rate of poorly watersoluble drugs is focused on the application of various porous materials as the drug carriers. These materials have attracted the attention of researchers owing to their outstanding properties such as large surface area, high pore volumes, microporosity and possibility of surface functionalization. In the present study, the biopharmaceutical performance of porous adsorbents as a carrier for the poorly water soluble drug Ketoprofen was investigated. Ketoprofen loaded different adsorbents with high specific surface area were used like Neusilin, Sylysia, Fujicalin and Aerosil, and it was done by solvent evaporation method. It was noticed that porous structure is responsible for an amorphous state of the drug and thus the improvement of its dissolution rate. From this research work it can be concluded that although the porous carrier particles help to enhance dissolution rate, including stability studies.

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RESEARCH PAPERS

STUDIES ON SOLUBILITY ENHANCEMENT OF TELMISARTAN BY ADSORPTION METHOD

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SHARA D KAMBLE *

SUNITA SHINDE **

* Department of Pharmaceutics, Nootan College of Pharmacy, Kavathe Mahankal, Sangli, Maharashtra, India. ** Department of Pharmaceutics, Tatayasaheb Kore College of Pharmacy Warnanagar, Kolhapur, Maharashtra, India.

By

Date Received: 15/07/2019

Date Revised: 29/09/2019 ABSTRACT

Date Accepted: 26/11/2019

In this study precipitated form of Telmisartan was prepared by using Solvent evaporation technique and Spray drying technique. For this the author used adsorbents like Sylysia, Neusilin, and diluents like Lactose Monohydrate and Avice I. All these prepared batch es were screen ed by performing Drug content, saturation solubility and dissolution study of the prepared batches. This obtained opt imized batch, was further characterized by using the dissolution test, Differential Scanning Calorimetry (DSC), X-Ray powder Diffractome ter (XRD), and USP Dissolution test apparatus.

Keywords: Telmisartan, Solvent Evaporation Method, Spray Drying Technique, Adsorbent Carrier like Neusilin, and Sylysia, Diluents Like Lactose Monohydrate and Avicel, Dissolution Rate.

INTRODUCTION

Low aqueous solubility is the major problem encountered with formulation development of new chemical entities as well as for the generic development. More than 40% of NCEs (new chemical entities) developed in pharmaceutical industries are practically insoluble in water. Solubility is a major challenge for formulation scientist. Solubility occurs under dynamic equilibrium, which means drug is considered highly soluble, when the highest dose Saturated solutions of ionic compounds of relatively low strength is soluble in 250mL or less of aqueous media over the pH range of 1 to 7.5. Solubility is sometimes described by solubility constants. This is a case of equilibrium process. It describes the balance between dissolved ions from salt and undissolved salt. Similar to other equilibrium constants, temperature affects the numerical value of solubility

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Academic Year 2018-19

| Journal Article | |
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Evaluation of Lactobacillus plantarum growth in milk of Indian buffalo breeds based on its physico-chemical content [2019]

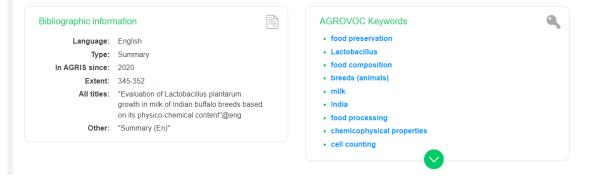
Abhinandan Patil(D.Y. Patil University, Centre for Interdisciplinary Research, Kolhapur (India)) Email:shpawar1946@gmail.com;abhisir5@gmail.com; John Disouza(D.Y. Patil University, Centre for Interdisciplinary Research, Kolhapur (India)); Shivaji Pawar(Sinhgad Institutes, Solapur (India). Centre for Research and Technology Development);

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The study reports the physicochemical content of raw and pasteurization milk from Bhadawari, Mehsana and Nagpuri Indian buffalo breeds. The study demonstrated the protein, fat, lactose, total solid content, and percentage of casein of the raw milk for Nagpuri, Mehsana and Bhadawari as 4.5+-0.51, 5.4+-0.62, 4.8+-0.61, 7.2+-0.32, 6.1+-0.66, 7.0+-0.84, 5.4+-0.65, 6.2+-0.65, 5.1+-0.54, 17.2+-1.21, 18.8+-1.54, 18.1+-1.22, 10.8+-1.20, 11.4+-1.02 and 11.5+-0.98 respectively. The study further extended to determine the growth profile of Lactobacillus plantarum (LAB) isolated from sheep milk, in the milk of different buffalo Indian breeds. The isolate was identified as a LAB by 16S rRNA sequencing technique. These LAB thrived in the different milk were characterized by colony forming unit (CFU). The study finally revealed that CFU count was found significantly higher (P LT 0.05) in Mehsana milk as comparative to other milk treated samples of Nagpuri and Bhadawari buffalos.

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International Journal of Applied Pharmaceutics

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Original Article

DESIGN AND EVALUATION OF GUANFACINE EXTENDED RELEASE FORMULATION *SANJEEVANI DESAI¹, DURGACHARAN BHAGWAT², SUNITA SHINDE¹, JOHN DISOUZA¹

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¹Tatyasaheb Kore College of Pharmacy, Warananagar, 416113, Maharashtra, India.²Bharati Vidyapeeth College of Pharmacy, Kolhapur, Maharashtra, India.

Email: srdesai.tkcp@gmail.com

Received: 31 Oct 2018, Revised and Accepted: 30 Jan 2019

ABSTRACT

Objective: The present study was aimed to develop of the Guanfacine Hydrochloride Extended-release tablets for the treatment of Attention Deficit Hyperactivity Disorder (ADHD). The dosage regimen of Guanfacine Hydrochloride is 4 mg at every 6 h. The concentration of Guanfacine in plasma is fluctuating. Hence, to control the plasma fluctuation and to avoid toxicity problem, Guanfacine Hydrochloride was chosen as a drug with an aim to develop an extended release system for 20 to 24 h.

Methods: The design of the system was based on the use of pH-dependent polymer (Hydroxypropy) Methyl Cellulose), pH-independent polymer (Eudragit L 100-55), along with microenvironment modifiers such as organic acid (Pumaric acid) were used in the formulation. Drug-exclpient compatibility was studied by FTIR. Before compression, the granules were evaluated for precompression parameters such as bulk density, tapped density, an agle of repose, compressibility index and Hausner's ratio. After compression, evaluation tests of tablets such as general appearance, hardness, thickness, weight variation, friability, content uniformity, *in vitro* release studies and stability studies were performed.

Results: Out of 9 formulations, the drug release was found to be within the innovator formulation F9. The stability study of formulation F9 revealed there was no significant change in physical and chemical properties of drug stored at 40 °C/75 % RH, 30 °C/65 % RH, 25 °C/60 % RH for 2 mo.

Conclusion: Optimized formulation batch F9 showed highest F2 value which indicates similarity with innovator product. The study indicates that Guanfacine Hydrochloride Extended-release tablet was successfully developed.

Keywords: Extended-release, Solubility, pH-dependent polymer, In vitro study

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SIMVASTATIN LOADED NANO MIXED MICELLES: AN APPROACH TO TREAT HORMONE DEPENDENT CARCINOMAS

P. S. Kumbhar^{*1}, N. J. Patil¹, A. B. Patil¹, U. Sambamoorthy², J. I. Disouza¹ and A. S. Manjappa¹

Department of Pharmaceutics, Tatyasaheb Kore College of Pharmacy¹, Warananagar, Panhala, Kolhapur -416113, Maharashtra, India.

NRI College of Pharmacy², Pothavarappadu, Agiripalli, Krishna - 522212, Andhra Pradesh, India.

Keywords:

Simvastatin, Single copolymer micelles, Mixed micelles, In-vitro hemolysis, MTT assay **Correspondence to Author:**

Mr. Popat S. Kumbhar

Assistant Professor, Department of Pharmaceutics, Tatyasaheb Kore College of Pharmacy, Warananagar, Panhala, Kolhapur -416113, Maharashtra, India.

E-mail: pskumbhar1.tkcp@gmail.com

ABSTRACT: The main objective of the present research was to develop mixed micelles using two biocompatible copolymers, D-a-tocopheryl polyethyleneglycol 1000 succinate (TPGS) and poloxamer 188 (P188) to improve the aqueous solubility and targeting efficacy of Simvastatin (SMV) against a variety of hormone-dependent cancers. A solvent evaporation technique prepared the plain/single copolymer micelles (SCMs) and mixed micelles (MMs). The prepared SCMs and MMs were characterized for critical micelle concentration (CMC), SMV content, particle size by dynamic light scattering (DLS), surface morphology by transmission electron microscopy (TEM), in-vitro SMV release and hemolysis. The SCMs and MMs showed mean particle size of 98 ± 5 nm and 129 ± 6 nm, respectively. SCMs showed SMV loading of $79.7 \pm 5.6\%$ while MMs exhibited improved SMV loading of 94.5 ± 6.5. The developed MMs system showed significantly lower CMC (3.5 fold less) than SCMs revealing their higher in-vivo stability. Moreover, SCMs and MMs exhibited zero order release profile, lower hemolytic behavior (<5% of hemolysis), when compared to plain SMV solution. The in-vitro cytotoxicity assay was conducted on MCF-7 (human breast cancer) cell line. Cytotoxicity studies revealed significantly improved antitumor activity of MMs when compared to SCMs and plain SMV after both incubation time points (24 and 48 h). In conclusion, the developed

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Polymeric Mixed Micelles: Improving the Anticancer Efficacy of Single-Copolymer Micelles

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Arehalli S. Manjappa,^{a,*} Popat S. Kumbhar,^a Ajit B. Patil,^a John I. Disouza,^a & Vandana B. Patravale^b

^aTatyasaheb Kore College of Pharmacy, Warananagar, Tal: Panhala, Dist: Kolhapur, Maharashtra, India; ^bDepartment of Pharmaceutical Sciences and Technology, Institute of Chemical Technology, Nathalal Parekh Marg, Matunga, Mumbai, Maharashtra, India

*Address all correspondence to: Dr. Arehalli S. Manjappa, Assistant Professor, Department of Pharmaceutics, Tatyasaheb Kore College of Pharmacy, Warananagar, Tal: Panhala, Dist: Kolhapur, Maharashtra, India, 416113; Tel.: (02328) 223526; Fax: (02328) 223501, E-mail: manju_as82@yahoo.co.in

ABSTRACT: Mixed micelles self-assembled from two or more dissimilar block copolymers provide a direct and convenient approach to improved drug delivery. The present review is focused on mixed micelles (prepared from block copolymers only) for various drug delivery applications along with their merits over single-copolymer micelles. Presented are the physi-

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Small Ruminant Research Volume 170, January 2019, Pages 19-25



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Shelf life stability of encapsulated lactic acid bacteria isolated from sheep milk thrived in different milk as natural media

Abhinandan Patil ª, John Disouza ª, Shivaji Pawar ª b 🝳 🖂

- ^a Centre for Interdisciplinary Research, D. Y. Patil University, Kolhapur, MS, India
- ^b Centre for Research and Technology Development, Sinhgad Institutes, Solapur, MS, India

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Future Journal of Pharmaceutical Sciences

RESEARCH

In vitro free radical scavenging and antidiabetic activity of aqueous and ethanolic leaf extracts: a comparative evaluation of Argyreia pierreana and Matelea denticulata



Page | 69/113

Venkataiah Gudise^{1*}⁽⁰⁾, Bimalendu Chowdhury² and Arehalli S. Manjappa³

Abstract

Background: Oxidation is believed to play a vital role in the pathogenesis of diabetes mellitus by lipid peroxidation; DNA and protein damage leads to the development of vascular complications like coronary heart disease, stroke, neuropathy, retinopathy, and nephropathy. The herbal preparations are complementary and alternative medicines to allopathic drugs which are believed to cause adverse events. Therefore, the current study was aimed to identify the novel plants, which belong to the genera Argyreia (Argyreia pierreana (AP)) and Matelea (Matelea denticulata (MD)), and assess the aqueous and ethanolic leaf extracts for in vitro antioxidant and antidiabetic potential by DPPH, OH*, superoxide, and glucose uptake and gene expression (GLUT-4 and PPARy) studies using the L-6 cell line respectively.

Results: The preliminary scrutiny revealed the presence of polyphenols, flavonoids, terpenoids, steroids, tannins, alkaloids, and glycosides. The total phenolic and flavonoid contents of ethanolic extracts were found higher than those of aqueous extracts. The ethanolic extracts exhibited the superior antioxidant capacity when compared with aqueous extracts. However, the ethanolic extract of MD was shown superlative glucose uptake activity (72.54%) over control (0.037%) and GLUT-4 and PPARy gene expressions (1.17 and 1.20) in term of folds respectively over cell control (1.00).

Conclusion: The ethanolic leaf extracts of both plants showed significant in vitro antioxidant and antidiabetic activities compare to aqueous extracts. The Matelea denticulata ethanolic leaf extract exhibited superior activity. This superior activity might be due to their higher phenolic and flavonoid content. However, further approaches are needed to define these activities.

Keywords: Argyreia pierreana, Matelea denticulata, Antiradical activity, Antidiabetic activity, GLUT-4 and PPARy expression study

Background

Traditional herbal medicines have shaped the basis of human health care, and further research will improve global health [1, 2]. Presently, about 80% of the world population (according to WHO) uses herbal drugs for some aspects of primary health care. Globally, the use of medicinal plants predates antibiotics and other

*Correspondence: verikalpharma22@gmail.com Department of Pharmacology, SSJ College of Pharmacy, Vattinagulapally, sandpet, Hydreabad, Telangana State 500075, India -ull list of author information is available at the end of the article Full list of author infr



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chronic diseases [5, 6]

contemporary drugs [3, 4]. In addition, many culinary

herbs and spices were tested for their biological activ-

ities in Alzheimer's disease management and other

The natural antioxidant defence mechanism, in all human and other aerobic organisms, prevents the oxidative

damage. Since the natural antioxidant defence mechanism is inadequate on its own, the nutritional consumption of antioxidants is suggested [7, 8]. Currently, synthetic antioxi-

dants are replaced by natural antioxidants as the former are reported to have carcinogenic properties. Plants are the

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> Drug Dev Ind Pharm. 2019 Mar;45(3):474-484. doi: 10.1080/03639045.2018.1562461.
 Epub 2019 Jan 1.

Unravelling the anticancer efficacy of 10-oxo-7epidocetaxel: in vitro and in vivo results

Page | 70/113

Arehalli S Manjappa ¹ ² ³, Rayasa S Ramachandra Murthy ²

Affiliations - collapse

Affiliations

- 1 a Department of Pharmaceutcs , Tatyasaheb Kore College of Pharmacy , Kolhapur , India.
- 2 b TIFAC Centre of Relevance and Excellence in New Drug Delivery Systems, G.H. Patel Pharmacy Building, Pharmacy Department, The Maharaja Sayajirao University of Baroda, Vadodara, India.
- ³ c Advanced Centre for Treatment Research and Education in Cancer, Tata Memorial Centre , Kharghar , India.

PMID: 30599774 DOI: 10.1080/03639045.2018.1562461

Abstract

10 0 750

Purpose: To prepare 7-epidocetaxel (7ED) and 10-oxo-7-epidocetaxel (10-O-7ED) formulations as like marketed Taxotere ® (TXT) injection and to screen them for in vitro and in vivo anticancer efficacy including their in vivo toxicity behavior.

Methods: The 7ED and 10-O-7ED formulations were screened for in vitro anti-proliferative, antimetastatic and cell cycle arresting behaviors. Further, in vivo acute toxicity of TXT injection containing 10% of 7ED and 10-O-7ED separately and the therapeutic study of 10-O-7ED alone were studied in B16F10 experimental metastasis mouse model.



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Current Pharma Research ISSN-2230-7842 CODEN-CPRUE6 www.jcpronline.in/

Research Article

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Design and development of aliphatic amino acid-cholesterol biomolecular scaffold as anticancer conjugates.

Mayuresh Shinde^{1*}, Shitalkumar Patil², Manish Bhatia³, Dhanashri Patil⁴, Sanjay Mishra⁴

¹Department of Pharmaceutical Chemistry, Tatyasaheb Kore College of Pharmacy, Warananagar, 416113, Maharashtra, India.

²Ashokrao Mane College of Pharmacy, Peth Vadgaon, 416112, Maharashtra, India.

³Department of Pharmaceutical Chemistry, Bharati Vidyapeeth College of Pharmacy, Kolhapur, 416013, Maharashtra, India.

⁴KAHER's Dr. Prabhakar Kore Basic Science and Research Center, Belagavi, 590010, Karnataka, India.

Received 22 March 2019; received in revised form 18 June 2019; accepted 20 June 2019

*Corresponding author E-mail address: mvshinde.tkcp@gmail.com

ABSTRACT

We have developed lipoprotein macromolecular motif to target multiple type of cancerous cells. These scaffold moieties linked with anticancer agents for targeting release at specific site. Biomolecular network increases cellular penetration, specificity and efficacy. Molecular motifs containing these agents are readily degradable by enzymatic cleavage. Structural functionalities of these modified molecules generate response against cancerous cells. Lipids and protein conjugates improve drug delivery towards target tissues. Bioactive lipoprotein exerts inhibitory effect for progressing tumor tissues. Lipid-protein bioconjugates interact with tumor tissue proteins selectively for reducing toxicity of antitumor agents. Complexation of cholesterol with bioactive aliphatic amino acid yields complex scaffold possessing anticancer activity. Reaction was conducted using dicyclohexyl carbodiimide (DCC) and 4-dimethylamino pyridine (DMAP) in pyridine solvent. Developed conjugates were characterized by using TLC, IR, NMR and HRMS studies. Conjugates were screened for anticancer activity by using MTT assay for human lung cancer (A549), liver hepatocellular carcinoma (HepG2), Human colon cancer (HT-29), Breast carcinoma (MCF-7), Glioblastoma cell lines (U87 MG).All molecular motifs exhibited remarkable antitumor activity against specified cell lines. Non-toxicity towards normal mouse fibroblast (L-929) is the promising feature of synthetic biomolecular scaffold which indicates

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Original Contribution | Published: 03 November 2018

D-Gluconic acid–based methotrexate prodrug–loaded mixed micelles composed of MDR reversing copolymer: in vitro and in vivo results

Popat S. Kumbhar, Swapnil Birange, Mahesh Atavale, John I. Disouza & Arehalli S. Manjappa 🖂

Colloid and Polymer Science 296, 1971–1981 (2018) Cite this article

364 Accesses 11 Citations Metrics

Abstract

The main aim of the present research was to synthesize carbohydrate (D-gluconic acid, DGA) prodrug of methotrexate (MTX) to improve the aqueous solubility and to develop mixed micelles (MMs) composed of D-α-tocopheryl poly (ethylene glycol) 1000 succinate (TPGS) as an MDR reversing copolymer and poloxamer 407 (P-407) to deliver the MTX prodrug to tumor tissue via enhanced permeability and retention (EPR) mechanism. MTX-DGA conjugate (MDGAC) was synthesized using Steglich esterification reaction. The MDGAC-loaded TPGS and P-407 MMs (MDGAC-TP MMs) were prepared by solvent evaporation technique. MDGAC-TP MMs showed low critical micelle concentration, high drug loading, sustained release profile, lower hemolytic behavior, higher in vitro cytotoxicity against the human carcinoma cell lines KB and MDR KBv, and significantly reduced in vivo toxicity. Therefore, the developed MDGAC-TP MMs could be a promising and effective approach for

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CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research Vol. 9, Issue, 12(C), pp. 29951-29957, December, 2018 International Journal of Recent Scientific Re/earch DOI: 10.24327/IJRSR

age | 73/113

Research Article

FORMULATION DEVELOPMENT AND EVALUATION OF ANTI-INFLAMMATORY POTENTIAL OF TOPICAL TENOXICAM NANOGEL ON ANIMAL MODEL

Chopade Swapnil¹., Khabade Sheeba¹., Patil Ajit³ and Powar Sayali²

¹Department of Pharmaceutics, Tatyasaheb Kore College of Pharmacy, Warananagar, Tal- Panhala, Dist- Kolhapur, 416113, M.S., INDIA ²Department of Pharmaceutical Chemistry, Tatyasaheb Kore College of Pharmacy, Warananagar, Tal- Panhala, Dist- Kolhapur, 416113, M.S., INDIA ³Department of Pharmacology, Tatyasaheb Kore College of Pharmacy, Warananagar, Tal- Panhala, Dist- Kolhapur, 416113, M.S., INDIA

DOI: http://dx.doi.org/10.24327/ijrsr.2018.0912.2967

| ARTICLE INFO | ABSTRACT |
|--|---|
| Article History: Received 6 th September, 2018 | Background : The present study is to increase the transport of tenoxicam through transdermal route, and also to present it as a possible replacement for the oral NSAID therapy for rheumatoid arthritis. Objective : The present investigation was to develop a tenoxicam nanogel with reduced particle size |



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age | 74/113

Research Article

DEVELOPMENT AND VALIDATION OF A SIMPLE UV SPECTROPHOTOMETRIC AND FLUOROMETRIC METHOD FOR THE DETERMINATION OF VALACYCLOVIR HYDROCHLORIDE BOTH IN BULK AND MARKETED DOSAGE FORM

 PS. Kumbhar*, AC. Rukade, PS. Sawant, AT. Gaikwad, AA. Patil, CM. Jamkhandi, MV. Shinde, AS. Manjappa and JI. Disouza
 Tatyasaheb Kore College of Pharmacy, Warananagar, Dist: Kolhapur, Maharashtra, India.

ABSTRACT

Introduction: Several analytical methods such as high performance liquid chromatography (HPLC), Uvspectrophotometry and colorimetry have been reported for quantitative estimation of Valacyclovir hydrochloride in bulk and pharmaceutical formulations. The aim of this study was to develop simple, easily accessible and economic UV spectrophotometric and newer fluorometric methods. **Methods:** A simple, rapid, specific and cost effective spectrophotometric method using different solvents like methanol (Method A), ethanol (Method B), water (Method C) and phosphate buffer of pH 7.4 (Method D) and fluorometric method using solvents such as methanol (Method A), water (Method B) and 0.1N HCl (Method C) has been developed to determine the Valacyclovir hydrochloride content in bulk and pharmaceutical dosage formulations. **Results:** The calibration graph are linear and obeys beer's law in the concentration range of 2-20 μ g/mL for all four spectrophotometric methods with a correlation coefficient (r²) of 0.998, 0.996, 0.999 and 0.997, respectively while the calibration graph are linear in the concentration range of 1-10 μ g/mL for all three fluorometric methods with a correlation coefficient (r²) of 0.998, 0.999 and 0.999, respectively. The accuracy and precision of the methods were evaluated based on the intra-day and inter-day variations. The accuracy of the methods was further confirmed by standard addition procedure. The other characteristics such as limit of detection (LOD) and limit of quantification (LOQ) values are also reported. **Conclusion:** The obtained results proved that the developed methods can be employed for the routine analysis of

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Academic Year 2017-18

Home / Archives / Vol. 12 No. 01 (2018): ASIAN JOURNAL OF PHARMACEUTICS SUPPLEMENTARY ISSUE / ORIGINAL ARTICLES

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Quality by Design-based Formulation and Evaluation of Fast Dissolving Tablet of Aspirin

| PDF | |
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| FDF | |

Dr. S. R. Desai

Published: May 13, 2018

DOI: https://doi.org/10.22377/aj p.v12i01.2046 Abstract

Aim: The focus of the current study was to develop fast dissolving tablet (FDT) of aspirin using quality by design (QbD) approach. QbD was applied for better understanding the process and to enhance design space, using quality target product profile, critical quality attributes, and risk assessment. The aim of the project is to achieve early onset of aspirin by FDT. Materials and Methods: FDT of aspirin was developed by 32 factorial using Box–Behnken design. In factorial design we have selected two variables povidone and crospovidone at three levels. The response surface plots were generated. Ultraviolet (UV), Fourier-transform infrared, differential scanning calorimeter (DSC), and X-ray diffraction (XRD) analysis have been done for pre-formulation and post-formulation evaluations. The tablets were prepared by direct compression method. Results and Discussions: The λmax was confirmed at 275 nm by UV spectroscopy. In compatibility study IR, it was observed that the drug was in pure form and there were no major

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Article

Mixed Micelles as Nano Polymer Therapeutics of Docetaxel: Increased In vitro Cytotoxicity and Decreased In vivo Toxicity

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June 2017 · <u>Current Drug Delivery</u> 15(4) DOI:<u>10.2174/1567201814666170621113637</u>

Authors:



Arehalli S Manjappa Shree Yashwant Shikshan Prasarak Man...



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International Journal of Current Pharmaceutical Research

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Int J Curr Pharm Res, Vol 10, Issue 1, 13-19

Original Article

Page | 77/113

DEVELOPMENT OF SPECTROPHOTOMETRIC AND FLUOROMETRIC METHODS FOR ESTIMATION OF DARUNAVIR USING QBD APPROACH

R. D. GODAMBE, J. I. DISOUZA, C. M. JAMKHANDI^{*}, P. S. KUMBHAR

Tatyasaheb Kore College of Pharmacy Warananagar, Dist: Kolhapur (MS) India Email: cmjamakhandi@gmail.com

Received: 22 Oct 2017, Revised and Accepted: 12 Dec 2017

ABSTRACT

Objective: The main objective of the present study is to develop newer simple, precise spectrophotometric and fluorometric methods of estimation for Darunavir using coupling agent O-pthaladehyde.

Methods: The experimental work was designed for both spectroscopic and fluorometric method development and validation. The method is based on formation complex of Darunavir with 0-pthaladehyde. QbD approach was applied by varying different parameters. These parameters were designed into Ishikawa diagram.

Results: The complex Darunavir-Phthalaldehyde in methanol with 0.1 N HCI showed linearity for both spectrophotometric and fluorometric methods. The calibration curve by spectrophotometry is linear in concentration range of 2-22 µg/ml with regression coefficient (R²) = 0.998 at 355 mm and for fluorometry it is linear in concentration range of 0.5-50 ng/ml with regression coefficient (R²) = 0.999. This method was found to be rugged and robust in different testing criteria with % RSD less than 2. The limit of detection and limit of quantification was found to be 0.2 µg/ml and 0.8 µg/ml for a spectrophotometric method and 1.2 µg/ml and 0.43 µg/ml for more than the drespectively.

Conclusion: Both methods were found to be precise with % RSD of less than 2. The % recovery of the spectrophotometric and fluorometric methods was found to be 101.04 %, 98.15 % respectively. In this way, the results of all validation parameter were within the limits as per International Conference on Harmonization guideline.

Keywords: Spectrophotometry, Fluorometry, Darunavir, Condensation reaction

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Patil et al., IJPSR, 2018; Vol. 9(4): 1594-1599.

E-ISSN: 0975-8232; P-ISSN: 2320-5148



Received on 21 June, 2017; received in revised form, 05 September, 2017; accepted, 17 September, 2017; published 01 April, 2018

GRANULES OF UNISTRAIN *LACTOBACILLUS* AS NUTRACEUTICAL ANTIOXIDANT AGENT

Abhinandan Patil^{*1}, Shivaji Pawar^{1,2} and John Disouza¹

D. Y. Patil University ¹, Centre for Interdisciplinary Research, Kolhapur - 416006, Maharashtra India. Centre for Research and Technology Development ², Sinhgad Institutes, Solapur - 413255, Maharashtra, India.

Keywords:

Probiotics, Lactobacillus acidophilus, Antioxidant

Correspondence to Author: Abhinandan Patil

Ph.D. Student,Department of "Centre for Interdisciplinary Research"D. Y. Patil University, Kolhapur416006, Maharashtra India.

E-mail: abhisir5@gmail.com

ABSTRACT: The present study was conducted with the aim to prepare probiotics Lactobacillus acidophilus (L. acidophilus) granules which are stable at room temperature. Lactobacillus acidophilus 2285 probiotics was obtained from the N.C.I.M (National Collection of Industrial Microorganism), Pune. The formation of the semi-solid mass occurred after the further incubation at 34 °C from range (33 °C to 37 °C) in an incubator kept for the less than 24 hour time duration. This mass was homogenized and converted into granule formulation. The viability of the granule formulation was achieved with a maximum viable cell count after 24 hours of incubation in de Man, Rogosa, and Sharpe (M.R.S) agar media. Spray dried and tray dried powder of the probiotics is used for granulation, these drying methods served as a cheap alternative to the expensive freeze-drying procedure. The selected strain of L. acidophilus NCIM 2285 assessed for antioxidant activity. The antioxidant activity of L. acidophilus was demonstrated by invitro test using 2, 2--diphenyl-1-picrylhydrazyl free radical scavenging assay. The results showed that intact cells and cell-free extract of two formulations exhibited obviously higher antioxidative activity in scavenging DPPH radical than standard L. rhamnose GG, which was shown to have an

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Books

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| | Eock PHARMACCLULAL MARKING UNIVERSITY CALIFORNIA | | Page 79/113 |
| Pharmaceu | tical Product Development | | |
| Insights Into Ph | armaceutical Processes, Management and Regulatory Affairs | | |
| Edited By Vandana | B. Patravale, John I. Disouza, Maharukh Rustomjee | | |
| Edition | 1st Edition | | |
| First Published | 2016 | | |
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| Pub. Location | Boca Raton | | |
| Imprint | CRC Press | | |
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| Pages | 447 | | |
| eBook ISBN | 9780429188817 | | |
| Subjects | Bioscience, Engineering & Technology | | |
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POLYMERS FOR PHARMACEUTICAL AND BIOMEDICAL APPLICATIONS

FUNDAMENTALS, SELECTION, AND PREPARATION

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Number of workshops/seminars/conference including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship during the last five years

| Year | 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 | |
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| Number | 06 | 04 | 01 | | 01 | Page 81/11 |

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Academic Year 2021-22

"Nanotechnology in Healthcare: Opportunities and Challenges



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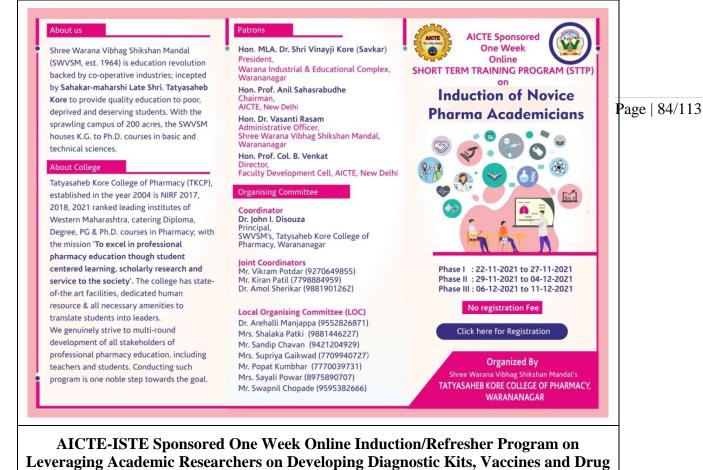
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About us

Shree Warana Vibhag Shikshan Mandal (SWVSM, est. 1964) is education revolution backed by co-operative industries; incepted by Sahakar-maharshi Late Shri. Tatyasaheb Kore to provide quality education to poor, deprived and deserving students. With the sprawling campus of 200 acres, the SWVSM houses K.G. to Ph.D. courses in basic and technical sciences.

About College

Tatyasaheb Kore College of Pharmacy (TKCP), established in the year 2004 is NIRF 2017, 2018, 2021 ranked leading institutes of Western Maharashtra, catering Diploma, Degree, PG & Ph.D. courses in Pharmacy; with the mission 'To excel in professional pharmacy education though student centered learning, scholarly research and service to the society'. The college has stateof-the art facilities, dedicated human resource & all necessary amenities to translate students into leaders. We genuinely strive to multi-round development of all stakeholders of professional pharmacy education, including teachers and students. Conducting such program is one noble step towards the goal.

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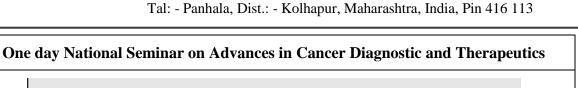
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Academic Year 2020-21

Oral Delivery of Biologics



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Manufacturing, Characterization, and Applications of Monoclonal Antibodies

Greetings from Controlled Release Society-Indian Chapter (CRS-IC).

The mission of CRS-IC is to promote education, create awareness and to encourage scientific research towards the creation of intellectual wealth in the area of drug delivery systems in India. In an attempt to fulfil our mission, we have planned A National Level Workshop on "Manufacturing, Characterization and Applications of Monoclonal Antibodies" on Saturday, 10th October, 2020.

The recent years have seen phenomenal growth in the field of research and commercialization of monoclonal antibody based therapeutics. With the right confluence of Pharmacy and Biotechnology, this field is set to progress by leaps and bounds. The workshop is hence designed to provide insight into the development, manufacturing, and applications of monoclonal antibody based formulations.

Please find attached the flyer of the workshop and the link for registration.

https://docs.google.com/forms/d/e/1FAlpQLSe1UEQG_iutNm9KCYI9oteZoEGW4hBPRfo-aoqLxukdTWAbg/viewform?usp=pp_url

E-certificates shall be provided to the participants upon successful completion of the workshop.



CONTROLLED RELEASE SOCIETY INDIAN CHAPTER

ORGANIZES A NATIONAL LEVEL WORKSHOP ON

Manufacturing, Characterization & Applications of Monoclonal Antibodies

On Saturday, 10th October 2020 between 6.30 PM- 9.30 PM

| Time | Speaker Details | Торіс |
|----------------------|--|---|
| 6.30 PM- 7.30 PM | Dr. K. Rajeshwari Founder & Managing Director, Bioklone Biotech Pvt. Ltd., Chennai, India | Making of Human Monoclonal Antibodies |
| 7.30 PM – 8.30 PM | Dr. Suneet Shukla Senior Pharmacologist US FDA | Basics of Monoclonal Antibodies Drug Development |
| 8.30 PM- 9.30 PM | Dr. Sachin Dubey Deputy Director- Formulation & Analytical Development, Ichnos Sciences SA, Switzerland | Role of Antibodies Based Therapeutics in the Modern Healthcare System |

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Advances in Technology and Business Potential of New Drug Delivery Systems



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AICTE-ISTE Sponsored One Week Online Induction/Refresher Programmes on Fostering Pedagogy, Research Administration: Vital Domains for Effective Professional Academic Career



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Academic Year 2019-20

Industrial Pharmacy-III



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Academic Year 2017-18

Pharma Entrepreneurs Conclave 2017



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One Day International Conference

on

Pharmaceutical Research: Fundamentals and Advanced Trends

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Participation and Research Awards of Students in Conferences, Workshops, etc

| Sr. No. | Name | Class | Level | Year | Award | Rank | |
|------------|----------------------|------------------------|---|------|----------------|-----------------------|------|
| 1. | Onkar Patil | M. Pharmacy | National Level | 2020 | Best Poster | 1 st Prize | Page |
| 2. | Onkar Patil | Poster Presentation | International Level | 2020 | Best Poster | 1 st Prize | uge |
| 3. | Rajeshwari Patil | Poster Presentation | International Level | 2020 | Best Poster | 1 st Prize | |
| ŀ. | Tejaswini Jadhav | Poster Presentation | National Level | 2020 | Best Poster | 1 st Prize | |
| 5. | Dipika Gaikwad | Poster Presentation | International Level | 2020 | Best Poster | Consolation Prize | |
| 5. | Apurva Chougule | Poster Presentation | International Level | 2020 | Best Poster | Consolation Prize | |
| 7. | Amruta Mhatugade | National Level | Plan of Ideal Community Pharmacy | 2020 | | 2 nd Prize | |
| 8. | Deepali Patil | National Level | Techno Pharma Model Presentation | 2020 | | 2 nd Prize | |
| 9. | Pradyumana Magdum | National Level | Techno Pharma Model Presentation | 2020 | | 2 nd Prize | |
| 10. | Rohini Kulkarni | National Level | Techno Pharma Model Presentation | 2020 | | 2 nd Prize | |
| 11. | Somesh Waghmode | State Level | Intercollegiate Competition in Microbiology | 2020 | | 1 st Prize | |
| 12. | Girish Parle | State Level | Intercollegiate Competition in Microbiology | 2020 | | 1 st Prize | |
| 3. | RutujaRhatwal | District Level | Avishkar | 2020 | | 1 st Prize | |
| 14. | Rajnandini Patil | District Level | Avishkar | 2020 | | 3 nd Prize | |

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Participation and Research Awards of Faculty in Conferences, Workshops, etc

| Sr. No | Name of Faculty | Type of Event | Title | Yea r | Award | Rank | |
|-----------|--------------------------|--|--|----------|----------------------------------|-----------------------------|---------------|
| 1. | John Disouza | Internationa l Level | AD Scientific Index | 2018 | Involved in Scientist List | | Page 97/113 |
| 1. | Mrs. S. S. Shinde | Conference | Nyctanthus Arbor- Tristis: As a Natural Colorant in Drug Products | 2018 | Best Poster | 1 st Prize | |
| 2. | Mr. P. P. Maske | Conference | Synthesis & Antimicrobial Activities of Some Novel Mercaptobenzimidazol e Derivatives. | 2018 | Best Poster | 1 st Prize | |
| 3. | Mrs. S. D. Gaikwad | Conference | Rational Design & Development of Novel Cadherin Inhibitors as Anticancer Agents. | 2018 | Best Poster | 2 nd Prize | |
| 4. | Miss. M. S. Shete | Conference | Design, Development & Characterization of Curcumin Loaded Nanoemulsion. | 2018 | Best Paper | 2 nd Prize | |
| 5. | Mr. K. S. Patil | Conference | A study of Imapact of Medical Advertisment on Public Health | 2018 | Best Poster | 2 nd Prize | |
| 6. | Mr. P. S. Kumbha r | Conference | TPGS Prodrug of Methotrexate: Improved In-vitro Anticancer Efficacy against MDA-MB 231 MDR Breast Cancer Cells | 2018 | Best Poster | 2 nd Prize | |
| 7. | Mr. K. S. Patil | National Level e- Poster Competitio | "Development of Pharma Educational App in COVID-19 Pandemic" | 2019 | Special Appreciatio n | Special Appreciatio n | |

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| | | n on "COVID- 19 Pandemic" | | | | | |
|-----|--------------------------------|------------------------------------|---|------|----------------------------------|----------------------------------|------|
| 8. | Mr. K. S. Patil | National Conference | Design, development, and characterization of Docetaxel-loaded TPGS/ Pluronic F 108 mixed micelles for improved cancer treatment | 2019 | Best Poster | 3 rd Prize | Page |
| 9. | Dr. John Disouza | Internationa l Level | AD Scientific Index | 2020 | Involved in Scientist List | Involved in Scientist List | |
| 10. | Mr. Kiran S. Patil | Avishkar | Design, Development and Characterization of Stable Vacuum Foam Dried Docetaxel-Loaded Mixed Micelles for Improved Cancer Treatment | 2021 | Best Poster | First Prize | |
| 11. | Mr. Popat S. Kumbha r | Avishkar | Fabrication and Characterization of ribavirin-loaded liposomes for cancer treatment | 2021 | Best Poster | First Prize | |

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(No: MMC/Accre.cert/MED-0207/2013 CPD Code: MMC/MAC/2020/F-014575) ficate rtt International Conference on 'Cancer Biology: Basic Science to Translational Research' (CBTR-2020) held on 17th-18th January 2020. Kolhapur Cancer Centre Organized by Department of Stem Cell and Regenerative Medicine and D. Y. Patil Medical College **Constituent Units Of** D. Y. Patil Education Society (Deemed to be University), Kolhapur Re-accredited by NAAC with "A" grade 0 This is to certify that Krsnad Mr. 1 Hs. 14rs. / Prof. Onkar Patil UNIQUE has awarded First / Second / Third prize in Oral / Poster presentation in CBTR 2020. (The Maharashtra Medical Council (MMC) has granted 04 (FOUR) CPD Credit Points for the Delegates). HShafma Q Prof. Dr. Rakesh K. Sharma Prof. Dr. S. Mohan Karuppayil Dr. Suraj Pawar Dr. Manish Khanna Presider ISCSG alles R Dr. Ashwini Jadhav Organizing Secretory Saiprasad Kavathekar Dr. Arpita Pandey-Tiwari Observer 0-01302/2017 SHREE SANTKRUPA COLLEGE OF PHARMACY, GHOGAON Thermo Fisher Certificate of Participation We appreciate the efforts of Dr./Mr./Ms. Onkar Bajirao Pali for participating in the national conference on **BIOTECH AND BIOPHARM SECTOR : TRENDS AND OUTLOOK** jointly organized by Shree Santkrupa College of Pharmacy, Ghogaon and Thermo Fisher Scientific, Pune on 11th and 12th February 2020. We cherish your services/ participation as a Resource Person / Delegate / TS Prize (Research) Poster Presenter / Member - Organizing Committee. O Durmant DR. VIJAYANAND R. ARALELIMATH SHRI. PRASUN JOHARI Principal Secretary

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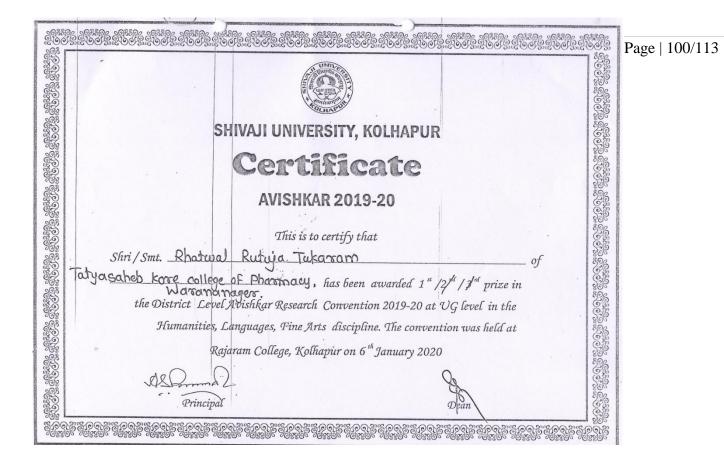
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| (| nternational Conference CBTR-2020) held on 17 ^d Organized by | e on 'Cancer Biology: Basi '-18 th January 2020. | ic Science to Translational | Research' | Nerturing Hayes Saving Lives Kolhapur | |
|----------------------------|---|---|--|---|--|-----------|
| C a C | Department of Stem Cell ar nd D. Y. Patil Medical College | nd Regenerative Medicine | | | Cancer Centre | Page 10 |
| 0 | Constituent Units Of | ciety (Deemed to be Ur grade | niversity), Kolhapur | | P (Jacob) | |
| | his is to certify that | t | | | Krsnad | |
| | Ir./ Ms./Mrs./Dr./Prof. | Apurva R. Ch | lougule | | UNIQUE | |
| h | as Participated in Oral/ F | Poster presentation in CB | TR-2020. | | BIOLOGICAL & CHEMICALS | |
| (1 | he Maharashtra Medical Counci | il (MMC) has granted 04 (FOUR) C | PD Credit Points for the Delegates |). | : | |
| | Dehasma | Co hu | Stelland ?? | Man | | |
| P | rof. Dr. Rakesh K. Sharma (Convener) Dean, D. Y. Patil Medical College | Prof. Dr. S. Mohan Karuppayil (Convener) Head and Professor, Dept. of SCRM and MBT | Dr. Suraj Pawar Managing Director Kolhapur Cancer Center | Dr. Manish Khanna President ISCSG | | |
| | Pala | ~ tomate | | | 1-41 | |
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| Mr. / Ms | Deepali | Eknath Datil | | |
| This certificate is in re | cognition of your Parti | | 2nd Rank | |
| at the National Level S held during 29 th Febru | Students' Symposium, V. Pary & I st March, 2020. | brant 2020 in the Event | Jechno pharma | model Presenta |
| | Congratula | tion for your accom | plishment ! | |
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| Mr. Gurunath. Machhale (Conventr, Vibrant 2020) | Dr. V.V. Kulkarni (Director, SGI) | Dr. B.M. Hirdekar (Registrar, SGU) | Dr. V.A. Raikar (Vice-Chancellor, SGU) | Mr. Vinayak Bhosale (Trustee, SGU) |

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| Certificate |
| AVISHKAR 2019-20 |
| This is to certify that |
| Shi Smt. Patil Rejnandini N. of |
| Tatyasaheb kore college of has been awarded f th / J th / J th prize in Pharmacy, wornangar, Kolhapur the District Level Avishkar Research Convention 2019-20 at UG level in the |
| Agruculture and Animal Husbandary discipline. The convention was held at |
| Rajaram College, Kolhapur on 6 th January 2020 |
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| Sanjay Ghodawat University, Kolhapur Empowerling Lives Globally 1 |
| Technology - Architecture - Science - Management - Commerce - Liberal Aris - Pharmacy |
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| Mr. 1 Mr. Pradyumna Abhay Magdum |
| Mr. / Ms. Pradyumna Abhay Magdum This certificate is in recognition of your Participation / Achieving 2 nd Rank. at the National Level Students' Symposium, Vibrant 2020 in the Event Jechno pharma model Presentation |
| Mr. / Ms. Pradyumna Abhay Magdum This certificate is in recognition of your Participation / Achieving 2 nd Rank. at the National Level Students' Symposium, Vibrant 2020 in the Event Jechno pharma model Presentation held during 29 th February & 1 st March, 2020. |
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| Mr. / Ms. <u>Pradyumna</u> <u>Abhay Magdum</u> This certificate is in recognition of your Participation / Achieving <u>2nd Rank</u> . at the National Level Students' Symposium, Vibrant 2020 in the Event <u>Jechno pharma</u> <u>model</u> Presentation held during 29 th February & 1 st March, 2020. Congratulation for your accomplishment ! |

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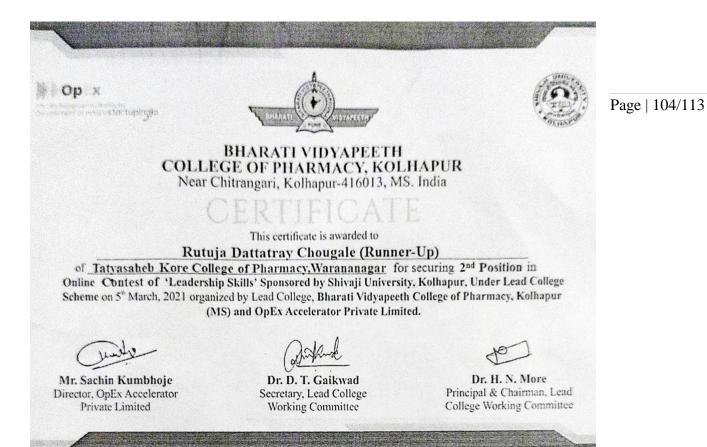
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| CERTIFICATE | |
| This is to certify that, Shri. Sepat S. Kumbhar | |
| of Tate Saheb Kore Cellege of Pharmacylege/Dept. has participated and Awarded First/Second/Third in Varang "Avishkar 2018-2019" Research Project Competition at University level (Central) held at Yashwantrao Chavan School of | |
| Rural Development, Shivaji University, Kolhapur in the Pure Science (Teacher) | |
| category during December 2018-January, 2019 | |
| Date : 28/12/2018 | |
| Place: Kolhapur Boys Aum | |
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Intellectual Property Rights

Patents

| Patent Application No. | Status of Patent (Published/ Granted) | Inventor/s Name | Title of the Patent | Applicant/s Name | Patent Published Date / Granted Date Page 108/ (DD/MM/YYY) |
|---------------------------|--|-------------------------------|---|-------------------------------|---|
| 202221024815A | Published | Dr. A. S. Manjappa | Combination drug therapy | Dr. A. S. Manjappa | 13/05/2022 |
| 202121023742 | Published | Mr. Kiran Shivaji Patil | Transdermal ethosome composition of ranozaline | Mr. Kiran Shivaji Patil | |
| 202021038512 | Published | Mr. P. S. Kumbhar | A novel bike friendly bright helmet with different safety features | Mr. P. S. Kumbhar | 18/09/2020 |
| 201921009581 A | Published | Dr. A. S. Manjappa | Microparticles containing montelukast for inhalation therapy | Dr. A. S.Manjappa | 19/04/2019 |
| 1943/MUM/2015 | Published | Dr. J. I. Disouza | A novel herbal extract with anticancer activity | Dr. J. I. Disouza | 28/04/2017 |
| 2021/MUM/2008A | Published | Dr. A, S. Sherikar | Synthesis of phenyl nitrate derivatives of free carboxylic acid group containing NSAIDS as cyclooxygenase inhibitor for anti- flammatory, analgesic and smooth muscle relaxant | Dr. A. S. Sherikar | 02/04/2010 |

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| (12) PATENT APPLI (19) INDIA | ICATION PUBLICATION | (21) Application No.202221024815 A | |
|-----------------------------------|---|---|----------------|
| | Application :27/04/2022 | (43) Publication Date : 13/05/2022 | |
| (22) Date of filing of | ntion : COMBINATION DRUG THERAPY : :A61K0031145000, A61K0031496000, A61K0045060000, A61K0031337000, A61K0031498500 :NA :NA :NA :NA | FOR ANTICANCER (71)Name of Applicant : 1)Mr.Rameshwar Madhukar Ardad Address of Applicant :Dr. Shivajirao Kadam College of pharmacy Kasabe Digraj,Sangli 416305 MS India. Email id- ramardad@rediffmail.com Mob no.9503756634 2)Dr.Shashikant C. Dhawale 3)Dr. Arehalli Sidramappa Manjappa Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Mr.Rameshwar Madhukar Ardad Address of Applicant :Dr. Shivajirao Kadam College of pharmacy Kasabe Digraj,Sangli 416305 MS India. Email id- ramardad@rediffmail.com Mob no.9503756634 2)Dr.Shashikant C. Dhawale Address of Applicant :Dr. Shivajirao Kadam College of pharmacy Kasabe Digraj,Sangli 416305 MS India. Email id- ramardad@rediffmail.com Mob no.9503756634 2)Dr.Shashikant C. Dhawale Address of Applicant :Dr. Shashikant C. Dhawale ,58, Veer | Page 109/113 |
| Application Number Filing Date | :NA :NA | Sawarkar Nagar, Wadi Bk, Purna Road Nanded. 431605 MS India. Email id-shashiprathmesh@gmail.com Mob no 9970700030 | |

(57) Abstract :

COMBINATION DRUG THERAPY FOR ANTICANCER Abstract The present invention states that the combination therapy useful for treatment of oncological disorders. Further invention relates to Ketoconazole; Disulfiram; and Tadalafil having 1:1:1 molar ratio respectively. Further embodiment of present invention relates to Ketoconazole: Disulfiram: Tadalafil cocktail in combination with

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 Department of Industrial Policy & Promotion,
 Ministry of Commerce & Industry,
 Government of India

Page | 110/113

| Application Details | | | | | |
|-------------------------------------|--|--|--|--|--|
| APPLICATION NUMBER | 202121023742 | | | | |
| APPLICATION TYPE | ORDINARY APPLICATION | | | | |
| DATE OF FILING | 28/05/2021 | | | | |
| APPLICANT NAME | 1 . Ms. Hemalata Suhasrao Dol 2 . Dr. Ashok Ananda Hajare 3 . Dr. Trupti Ashok Powar 4 . Mr. Kiran Shivaji Patil | | | | |
| FITLE OF INVENTION | TRANSDERMAL ETHOSOME COMPOSITION OF RANOLAZINE | | | | |
| FIELD OF INVENTION | CHEMICAL | | | | |
| E-MAIL (As Per Record) | hemalatadol@gmail.com | | | | |
| ADDITIONAL-EMAIL (As Per Record) | hemalatadol@gmail.com | | | | |
| E-MAIL (UPDATED Online) | | | | | |
| PRIORITY DATE | | | | | |

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| Applicat | tion Details | |
|---------------------------------|---|--|
| APPLICATION NUMBER | 202021038512 | |
| APPLICATION TYPE | ORDINARY APPLICATION | |
| DATE OF FILING | 07/09/2020 | |
| APPLICANT NAME | 1. BHOJILING EKNATH KUMBHAR 2. POPAT SONAPPA KUMBHAR | |
| | 3. SUHAS SANJAY KUMBHAR 4. NILESH ARUN KUMBHAR 5. RAVINDRA SOPAN KUMBHAR | |
| TITLE OF INVENTION | A NOVEL BIKE FRIENDLY BRIGHT HELMET WITH DIFFERENT SAFETY FEATURES. | |
| FIELD OF INVENTION | TEXTILE | |
| E-MAIL (As Per Record) | | |
| Record) | pskumbhar1.tkcp@gmail.com | |
| E-MAIL (UPDATED Online) | | |
| PR ORITY DATE | | |
| REQUEST FOR EXAMINATION DATE | 07/09/2020 | |
| PUBLICATION DATE (U/S | 18/09/2020 | |

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| (12) PATENT APPLICATION PUBLICATION | | |
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| | | |
| (22) Date of filing of Application :12/03/2019 | | |
| INING N | MONTELUKAST FOR INHALATION THERAPY. | _ |
| | Maharashtra India 2)BANSODE HEMANT BALU 3)DR. JOSHI SUMIT ASHOK 4)DR. DAMA GANESH YOGIRAJ 5)DR. AREHALLI S. MANJAPPA 6)GURAV Prashant B. 7)JADHAV Sachin Manik (72)Name of Inventor : 1)PANCHAL CHANDRAWADAN VISHWAMBHAR 2)BANSODE HEMANT BALU 3)DR. JOSHI SUMIT ASHOK 4)DR. DAMA GANESH YOGIRAJ 5)DR. AREHALLI S. MANJAPPA 6)GURAV Prashant B | - Page 112/113 |
|] | :A61K 9/00 :NA :NA :NA :NA :NA :NA :NA | 1)PANCHAL CHANDRAWADAN VISHWAMBHAR Address of Applicant :MAHARASHTRA COLLEGE OF PHARMACY, NILANGA, TALUKA-NILANGA, DIST.: :A61K LATUR, MAHARASHTRA, INDIA,PIN CODE:413521. 9/00 Maharashtra India :NA 2)BANSODE HEMANT BALU :NA 3)DR. JOSHI SUMIT ASHOK :NA 4)DR. DAMA GANESH YOGIRAJ :NA 5)DR. AREHALLI S. MANJAPPA :NA 6)GURAV Prashant B. :NA 7)JADHAV Sachin Manik :NA 1)PANCHAL CHANDRAWADAN VISHWAMBHAR :NA 2)BANSODE HEMANT BALU :NA 6)GURAV Prashant B. :NA 7)JADHAV Sachin Manik :NA 1)PANCHAL CHANDRAWADAN VISHWAMBHAR :NA 2)BANSODE HEMANT BALU :NA 3)DR. JOSHI SUMIT ASHOK 4)DR. DAMA GANESH YOGIRAJ 5)DR. AREHALLI S. MANJAPPA |

(57) Abstract :

ABSTRACT The present invention relates to microparticles containing Montelukast for inhalation therapy, specifically microparticles containing Montelukast sodium loaded chitosan and sodium alginate and a process for preparation thereof.

No. of Pages : 17 No. of Claims : 10

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12:22 PM 2 A ipindiaservices.gov.in/F (4) : $\mathbf{\Omega}$ **Application Details** APPLICATION 1943/MUM/2015 NUMBER ORDINARY APPLICATION APPLICATION TYPE DATE OF FILING 18/05/2015 1. DISOUZA; JOHN INTRU APPLICANT NAME 2. PATIL; GANPATRAO DNYANDEV 3 . PATIL; AJIT BABURAO 4. PATIL; ABHINANDAN RAVSAHEB A NOVEL HERBAL EXTRACT TITLE OF INVENTION WITH ANTICANCER ACTIVITY FIELD OF INVENTION PHARMACEUTICALS E-MAIL (As Per Record) poonamdhake@gmail.com ADDITIONAL-EMAIL (As Per Record) E-MAIL (UPDATED Online) PRIORITY DATE 30/06/2017 **REQUEST FOR** EXAMINATION DATE PUBLICATION DATE 28/04/2017 (U/S 11A)

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(12) PATENT APPLICATION PUBLICATION (21) Application No.2021/MUM/2008 A (19) INDIA (22) Date of filing of Application :22/09/2008 (43) Publication Date : 02/04/2010 (54) Title of the invention : SYNTHESIS OF PHENYL NITRATE DERIVATIVES OF FREE CARBOX YLIC ACID GROUP CONTAINING NSAIDS AS CYCLOOX YGENZISE INHIBITOR FOR ANTI-FLAMMATORY, ANALGESIC AND SMOOTH MUSCLE RELAXANT ACTIVITY (71)Name of Applicant : 1)BHATIA MANISH SUDESH :C07C215/68 Address of Applicant :65, CHAVREKAR COLONY, (51) International classification C07C223/06; RADHANAGRI ROAD KOLHAPUR-416012, Maharashtra India C07C225/22 2)SHREIKAR AMOL SHANTINATH (31) Priority Document No :NA 3)BHATIA NEELA MANISH 4)INGALE KUNDAN BHANUDAS (32) Priority Date :NA (33) Name of priority country :NA 5) CHOUDAHRI PRAFULLA BALKRISHNA :NA (86) International Application No 6)SANGLE DEEPAK BHASKARRAO :NA Filing Date 72)Name of Inventor : (87) International Publication No : NA 1) BHATIA MANISH SUDESH (61) Patent of Addition to Application Number :NA 2)SHREIKAR AMOL SHANTINATH :NA Filing Date 3)BHATIA NEELA MANISH (62) Divisional to Application Number :NA 4) INGALE KUNDAN BHANUDAS Filing Date :NA 5) CHOUDAHRI PRAFULLA BALKRISHNA 6)SANGLE DEEPAK BHASKARRAO

(57) Abstract :

The present invention describes the synthesis of phenyl nitrate derivatives of free carboxylic acid group containing NSAIDs as cyclooxygenase inhibitor and nitric oxide donors (CINOD) for anti-inflammatory, analgesic and smooth muscle relaxant activity, novel cyclooxygenase 2 (COX-2) selective inhibitors and novel compositions comprising at least one cyclooxygenase 2 (COX-2) inhibitor, and, at least one compound that donates, transfers, releases nitric oxide and/or stimulates endogenous synthesis of nitric oxide and/or elevates endogenous levels of endothelium-derived relaxing factor or is a substrate for nitric oxide synthase, and/or at least one therapeutic agent. The invention also provides methods for treating inflammation, pain and fever; for treating and/or improving the gastrointestinal properties of COX-2 selective inhibitors; for facilitating wound healing; for treating and/or preventing renal and/or respiratory toxicity; for treating and/or preventing other disorders resulting from elevated levels of cyclooxygenase-2; and for improving the cardiovascular profile of COX-2 selective inhibitors.

No. of Pages : 56 No. of Claims : 8

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