

1. Title of the Practise

Fostering a dynamic ecosystem for research and innovation

2. Objectives of the Practise

- To encourage faculty and students to identify existing pharmaceutical paradigms and seek novel solutions through research and innovation.
- To facilitate interdisciplinary collaboration and knowledge exchange and to break down departmental barriers to encourage collaboration thus fostering a holistic approach to research that incorporates diverse perspectives.
- To provide resources and support for experimentation and prototyping: To equip researchers with state-of-the-art laboratories and mentorship to conduct experiments and prototype innovative pharmaceutical solutions, facilitating hands-on learning and discovery.
- To facilitate provision of platforms for showcasing and celebrating innovative ideas: Providing avenues for researchers to present and celebrate their research, promoting a culture that values and recognizes innovation within the academic community.
- To collaborate with pharmaceutical industry partners and other academic institutions to enhance research capabilities, share knowledge, and leverage combined resources for more impactful pharmaceutical advancements.
- To support continuous learning and professional development by offering and encouraging participation in professional development programs to ensure that faculty and students stay updated on the latest advancements and methodologies in pharmaceutical research and development.
- To create an environment that values and rewards creativity and innovation: To establish systems and policies to incentivise, celebrate and reward innovative contributions, fostering a culture where creativity in pharmaceutical research is not only encouraged but also acknowledged and valued.
- To contribute to societal progress and economic growth through research and innovative solutions thus aligning with the institution's vision with broader societal and economic objectives, emphasizing the importance of translating academic discoveries into practical solutions that benefit both healthcare and the society.

3. The Content

Vivekanand Education Society's College of Pharmacy (VESCOP) was established in 2007 with the goal to be at the forefront of research, idea creation and innovations in healthcare. Over the years, this goal has been carried forward with an intent to "create an atmosphere where research and innovation flourish and is translated to products for societal benefits". The vision, mission and program outcomes of the institute clearly imply the institute's distinctive approach to provide a framework for the conduct of basic and applied research and promote entrepreneurial culture through innovation. The institute strives hard to set up the culture of entrepreneurship by encouraging students to think 'out of the box'. Research projects are underway in significant areas of synthetic medicinal chemistry, molecular docking, formulation development, nano-formulation, basic and clinical pharmacology, translational medicine, isolation of phytopharmaceuticals and application of principles of analytical chemistry in the development of drug substances and products.

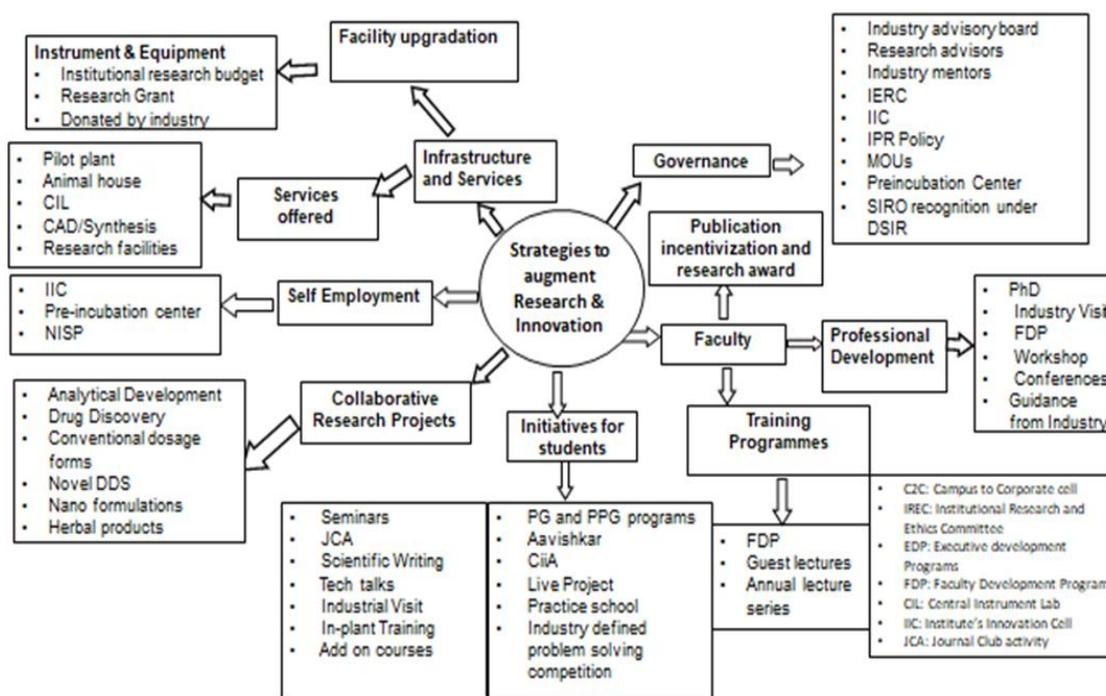
VES College of Pharmacy has constituted the following committees to foster the culture of Research and Innovation:

- a. Research & Development Cell
- b. Institute Innovation Council
- c. Institute Ethics & Research Committee

Through these committees, the institute has taken several initiatives like **creating awareness on research and innovation through seminars/workshops/webinars**, encouraging students and faculties to work on innovative solutions to cater to industry relevant problems in research and encourage students and faculties to participate in internal and external **competitions like Aavishkar, CiiA** to showcase their innovation. In addition, VESCOP has set up a pre-incubation centre to encourage and promote budding entrepreneurs from the institute.

4. The Practise

VESCOP is a centre of excellence in research/Hub for multidisciplinary research services/Conducive environment for inducing temperament for innovation. The various systems and initiatives taken by the institute are depicted below in **Figure 7.1 a**



5. Evidence of success

a. Awards & Accolades:

- **AICTE-CII survey:** The Institute has been awarded as Best Industry Linked Pharmacy Institute in 2022 in the AICTE-CII survey and has received a platinum ranking in 2019. VESCOP was one of the top 3 Pharmacy Institutes at the National level to receive this recognition.
- **NIRF Ranking:** The Institute has been ranked consistently in the band of 101-150 for Pharmacy Institution by NIRF in the year 2023.
- **Avishkar Research Convention:** The Institute has been conferred with the **Overall Championship** at the "17th Inter-Collegiate/Institute/Department Avishkar Research Convention 2022, University of Mumbai" in the Medicine and Pharmacy

category. VESCOP has been participating in this event since 2014 and has won 8 Gold medals and 1 silver medal in categories like UG, PG, PhD. and Teachers pursuing PhD. Two of the projects were selected for presentation at the **National research convention – Anveshan**. The success at Avishkar is a reflection of the inventive thinking and research aptitude of the faculty and students at VESCOP.

- **Institute Innovation Cell (IIC) Ranking:** VESCOP IIC has received 3.5-star rating in the year 2021-22 and 2022-23. We are amongst the top 5 Pharmacy Institutes in Maharashtra state to receive a 4-star rating in the year 2021..
- **NIRF Innovation:** VES College of Pharmacy has participated in NIRF Innovation in the year 2022 and 2023.
- **Rx TechFest:** The Institute has been consistently bagging awards every year at Rx TechFest for oral & poster presentations, an intercollegiate event, organised by the Indian Pharmaceutical Association, Maharashtra State Branch.

b. Recognitions:

The staff and students of VESCOP work enthusiastically and meticulously to accomplish their research goals and that is reflected in the recognition received by the college as summarized below:

- **SIRO status:** The Institute is recognized as Scientific and Industrial Research Organization (SIRO) by the Department of Science & Industrial Research (DSIR, Government of India).
- **MOUs with Industry:** To strengthen Industry-Institute linkages, the Institute has signed MOUs with companies like Cerelia Nutritech, Super Vet Clinics & Diagnostics Elisynt, Cleanchem, Chemicia, etc.
- **Joint collaborative research centre:** The Institute has a joint collaborative research centre with Procter & Gamble Ltd. since 2014.
- **Research Grants:** In the year 2022-23, the institute has received a total of 9 grants for industry sponsored projects

Date	Faculty coordinator - Title - Funding Amount - Period - PI / Co-PI - Govt/Non-Govt Agency details - PICS or a screenshot
3.09.2022	Mrs Sonali Munj - To find the feasibility of some nitration reactions on lab scale 4000/- (Consumables) - 5 months - SMM - PAONA CHEMPRO PVT LTD.
9/11/2022	Dr. Anita Ayre- 'To perform assay and percent purity by HPLC for some organic compounds', Funding amount: Rs. 10,000, 2 months, PI: Dr. Anita Ayre; Non-govt. Agency: Industry- Paona Chempro Pvt. Ltd.
2021-22 2022-23	Dr. Supriya Shidhaye, Dr. Mangal Nagarsenker, Dr. Anita Ayre, Mrs. Pradnya Torlekar, Ms. Shivali Tank, Ms. Bhagyashree Parab Ms. Palak Karia , Novel Drug Delivery Development Programme for a lifestyle disease, 4237 USD, Isha Therapeutics, New Jersey, USA
2021-22 2022-23	Anita Ayre, Ashwini Wani & Dr. Supriya Shidhaye, In vitro permeation studies of a topical formulation, 4,20,000/-, Teledyne Hanson Research
2021-22 2022-23	Dr. Supriya Shidhaye Ms. Shivali Tank, Simplified Liposome Manufacturing, 10000 Euros, Janssen Pharmaceutical, Belgium
2022-23 2023-24	Dr. Mushtaque Shaikh, Mrs. Rashmi Wani, Novel GABA _A Inhibitors for PCOS Management, Received 1,00,000/-, Fellowship at 15th Maharashtra State Inter-University Research Convention Aavishkar 2023 held at SPPU from 12th - 15th Jan 2023.
2022-23	Dr. Anita Ayre & Dr. Rajan Kalamkar, Shin Etsu , Industry project grant of Rs. 1,00,000

2022-23	Dr. Supriya Shidhaye, Dr. Anita Ayre, Ms. Palak karia (Student), Teledyne hanson, Industrial project grant of Rs. 1,60,000
2022-23	Dr. Harsha Kathpalia, Mr. Rohan Choudhary, Received Rs. 35,000/- Fellowship 17th Maharashtra State Inter-University Research Convention avishkar 2023 held at SPPU from 12th - 15th Jan 2023.

- **International collaborations:** The Institute has to its credit five international collaborations with University of Pittsburgh, Pennsylvania, University of Lancashire, UK & University of Strathclyde, UK, Isha Therapeutics, USA and Teledyne Hanson Research, USA for projects on nanotechnology.
- **Research advisors:** To augment our research activities and take them to the next level, VESOP appointed the following research advisors - Dr Mangal Nagarsenkar, Former Prof. Bombay College of Pharmacy, Dr. Meeena Kanyalkar, Ex-Professor, K. M. Kundanani College of Pharmacy. The institute also has an **Industrial Advisory Board** to give suggestions and recommendations on curriculum delivery and creating awareness about innovation.
- The Institute has been granted a **Permanent Affiliation for the B. Pharm. Course** by the University of Mumbai. The Institute has received recognition from **UGC under 2f/12b.**
- **Publications:** In the year 2022-23, 20 papers have been published by the faculty members in various National & International Journals with a good impact factor
- **Patents:** 9 patents have been filed by the college to date of which 4 have been published and granted.
- Many PG students are working in **R & D departments** of companies like Rubicon Research, Encube, Micro labs, Cipla, Glenmark, Sun Pharma, Cadila Pharmaceuticals etc.

6. Problem encountered and Resources required

Problems Encountered:

- Limited Physical Infrastructure: Expansion may strain existing space, hindering the institution's ability to accommodate growing student and faculty numbers.
- Financial Constraints: Expansion entails significant financial investment in infrastructure, faculty hiring, and research equipment, potentially straining the institution's budget.
- Curriculum Development: Developing and updating curricula to meet evolving needs requires collaboration among faculty members and industry partners.
- Quality Assurance: Maintaining high academic standards amidst growth necessitates robust quality assurance mechanisms.

Resources Required:

- Physical Infrastructure: Adequate space for classrooms, laboratories, research centers, and administrative offices to accommodate growing needs.
- Human Resources: Qualified faculty, administrative staff, and support personnel to handle increased workload and responsibilities.
- Financial Resources: Sufficient funding for infrastructure development, faculty salaries, research grants, scholarships, and operational expenses.
- Information Resources: Access to academic journals, online libraries, and databases to support research and teaching.
- Community Engagement: Engaging with alumni, industry stakeholders, and the local community for support and partnerships.

7. Notes:

Case study

Double Trophy Triumph: Back-to-Back Max Exhibitors Winners at CiiA- Creative ideas & Innovations

Vivekanand Education Society's College of Pharmacy (VESCOP) secured the esteemed "MAX-EXHIBITORS" Trophy at Creative Ideas & Innovations in Actions (CiiA 2.0), a groundbreaking initiative by the Baldev Sharma Marshalls Foundation and Rotary Club of

Bombay, Worli. Out of a pool of exceptional projects, only 14 were chosen for exhibition, and were proud to say that VESCOP claimed a significant portion of this prestigious spotlight. *This honor is a testament to our unwavering commitment to "Developing an Ecosystem for Students to Undertake Research & Innovation," a vision we've tirelessly pursued.* The CiiA platform not only showcases the brilliance of young researchers but also connects them with key players in the innovation landscape and potential investors, propelling their ideas from conception to reality. This triumph marks yet another milestone in our journey of innovation and sets the stage for even greater accomplishments.





Continuing our legacy of excellence, VESCOP soared to new heights in the academic year 2022-23. Out of a staggering 695 submissions to the Confederation of Indian Industry Awards (CIIA), VESCOP's ingenuity shone brightly, with six exceptional projects earning a coveted spot in the exhibition lineup. Led by visionary innovators Dr. Anita Ayre, Dr. Rajashree Hirlekar, Mrs. Pradnya, Mrs. Rashmi Wani, Dr. Neha Chhabra, and Ms. Asrin Khan, under the guidance of Dr. Anita Ayre, VESCOP presented groundbreaking research in the dynamic fields of Pharmacy and Biotechnology. This extraordinary achievement culminated in the prestigious recognition of the Max Exhibitor Trophy for the second consecutive year, underscoring VESCOP's stature as a paragon of scientific excellence and pioneering creativity in the academic landscape.



CIIA

A Project by
MARSHALLS
FOUNDATION

marshalls
BY APPOINTMENT

A Project by
Rotary
Club of Greater Noida
District 3141

**THE ANIL PRABHAKAR
MAX-INNOVATIONS TROPHY
VES COLLEGE OF PHARMACY**
for its Research & Innovations Ecosystem, enabling 6 Projects to
participate in the CIIA-3 Innovations Exhibition.

3rd CIIA EXHIBITION & INNOVATION AWARDS, 2nd Feb, 2024

