



VAC 2556 –PART I

Rational Drug Discovery: Target Identification & Hit Identification

January 21st – 23rd 2026

Organized by

Department of Chemistry, School of Advanced Sciences



About VIT

Dr. APJ Abdul Kalam was right in stating, "Dreams transform into thoughts, and thoughts lead to action." This is exemplified by the Vellore Institute of Technology (VIT), which is the realization of Chancellor Dr. G. Viswanathan's vision. Established in 1984 as Vellore Engineering College, VIT has experienced tremendous growth and has become one of the premier institutions in India. Over 67, 000 students from across India and 54 different countries worldwide. More than 1,900 fully qualified and highly experienced faculty members, along with 230 adjunct professors from foreign universities. Over 280 Memoranda of Understanding (MoUs) with academic and research institutions in India and abroad with 1,000 industry partners. The highest number of research publications in India, according to the Scopus Database (2016-2022)

About the School

School of Advanced Sciences (SAS), consists of the Departments of Mathematics, Physics, and Chemistry. The school's vision is to provide high-quality teaching and research that exerts a significant impact on a global scale. Currently, SAS comprises a faculty of 283 experienced and dedicated professionals, including 145 in Mathematics, 64 in Physics, and 74 in Chemistry. Most of the faculty members possess high expertise in their research fields, demonstrated by extensive publications and successful research funding applications. Many have gained valuable experience at esteemed institutions both in India and internationally. The departments have also been recognized by the Department of Science and Technology (DST) under the Fund for Improvement of S & T Infrastructure in Higher Educational Institutions (FIST) for establishing sophisticated instrumental facilities. **SAS** offers Master's programs in various disciplines, including Data Science, Computational Statistics, Data Analytics, Physics and Chemistry (with Analytical/Inorganic/Organic/General Chemistry/Pharmaceutical Chemistry as a specialization). Our MSc Chemistry program is accredited by the Royal Society of Chemistry (RSC) and includes a full-time, six-month research-based capstone project in the fourth semester. In addition to traditional classroom and laboratory instruction, students are engaged in experiential learning through research participation. The Curriculum for Applied Learning (CAL) fosters the practical application of knowledge. The Semester Abroad Program (SAP) provides valuable international exposure, effectively preparing students for professional careers or advanced research degrees in both basic and applied science.

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SAS offers Ph.D. programs in cutting-edge research areas across all three disciplines. Candidates are selected through a national-level examination followed by a comprehensive interview process, after which they engage in extensive coursework. Presently, there are 750 Ph.D. scholars (both full-time and part-time). Faculty members have been awarded national and international projects to the tune of 38.54 crores (5.166 million US Dollars) and they regularly publish their findings in internationally recognized SCOPUS-indexed journals while securing patents. SAS publishes over 500 SCOPUS-indexed publications annually, and the departments are equipped with multiple teaching and research laboratories with essential instruments for research activities. The School also offers valuable services to other institutions and regularly conducts extension programs, including conferences, workshops, seminars, and symposia on pertinent topics.

The subject of Chemistry in VIT is ranked within the top 10 in India and top 401-450 in the world as per QS World University Rankings by Subject 2024 and 14th place at National level with 4 STAR rating in QS World Ranking. In India, VIT has been ranked 15th among the top universities for Subject of Chemistry in Best Global Universities ranking by U.S. News & World Report. The subjects of Physics and Mathematics are also recognized, ranking between 201-250 globally according to the QS Subject Rankings and are placed within the top 7-8 & 7-9 in India respectively. Graduates of the program secure placements within reputable organizations both domestically and internationally and are successful in gaining admission for further studies in India and abroad.

About the Workshop

Rational drug discovery is a methodical approach to developing new medicines that goes beyond traditional trial-and-error techniques. It relies on a deep understanding of biological targets to design molecules that can effectively bind to modulate their functions. This approach saves time and resources by predicting interactions using computational modelling and structural biology. At the core of rational drug discovery is medicinal chemistry, which incorporates principles from physical, analytical, biological, and organic chemistry. To educate others about the discovery process of medicines, the Department of Chemistry at the School of Advanced Sciences, Vellore Institute of Technology, is hosting a two-day workshop titled "Fundamentals of Rational Drug Discovery". (Participants have to bring their own laptops)

Eligibility: Research scholars, M.Sc/M.Tech , 3rd & 4th year B.Sc / B.Tech. students with a basic understanding of Chemistry and Biological Sciences at the college level are eligible.

RESOURCE PERSON

Dr. R. Aldrin Denny, CEO, Medizen Inc., USA; Adjunct Professor, Department Chemistry, SAS, VIT-Vellore

CONVENORS

Dr. V. Vijayakumar, Professor, Department of Chemistry, SAS, VIT-Vellore
Dr. S. Sarveswari, Professor, Department of Chemistry, SAS, VIT-Vellore

Registration

Registration fee per participant is Rs. 500 + GST

Registration and payment details can be found in the link:
<https://events.vit.ac.in/>

Only registered participants are allowed to participate in the event

Late date for the registration: 21st January, 2026

Venue: Smart Class Room SMV110 Time: 9.30 AM- 5.00 PM

We look forward to your participation! Accommodation facilities for out station students will be available in hostels and will be provided on a payment basis. Contact details: 9443916746: Dr. V. Vijayakumar (vvijayakumar@vit.ac.in)