



SUBMISSION OF REPORT

**DST-STUTI SPONSORED SEVEN DAYS HANDS ON TRAINING
PROGRAMME**

ON

**“BASIC INSTRUMENTATION TECHNIQUES FOR QUALITATIVE AND
QUANTITATIVE ESTIMATION OF BIOACTIVES”**

“24TH TO 30TH SEPTEMBER 2022”

In Collaboration with

Jamia Hamdard, New Delhi

Submitted by

Dr. Ajazuddin

Co-ordinator

DST-STUTI Program

Organized by

Rungta College of Pharmaceutical Sciences and Research

Kohka, Kurud Road Bhilai, Chhattisgarh 490024

**A BRIEF REPORT ON DST-STUTI SPONSORED SEVEN DAYS HANDS ON
TRAINING PROGRAMME ON “BASIC INSTRUMENTATION TECHNIQUES FOR
QUALITATIVE AND QUANTITATIVE ESTIMATION OF BIOACTIVES” HELD
FROM 24TH TO 30TH SEPTEMBER 2022**

The Department of Science & Technology under the aegis of Synergistic Training Programme Utilizing the Scientific & Technological Infrastructure (DST-STUTI), sponsored one week Hands on training programme on **Basic Instrumentation Techniques for Qualitative and Quantitative Estimation of Bio actives**, which was organized from **24th to 30th September-2022**, by the Department of Biosciences (DST-FIST) and **Rungta College of Pharmaceutical Sciences and Research(RCPSR), Bhilai**, Chhattisgarh in collaboration with **Jamia Hamdard University, New Delhi** as a project management unit (PMU). The DST-STUTI Scheme is intended to provide training to human resource and its capacity building through open access to science and technology infrastructure across the country in departments funded under various DST schemes like DST-FIST. This event is aimed at providing hands-on training and sensitization of the state-of-the-art equipment and ensuring transparent access of science and technology facilities. Moreover, it will enable the budding researchers and professionals to develop better understanding and familiarization with the available resources/scientific equipment supported by the Govt. of India. The workshop was attended by all the graduate, post-graduate, research scholars and faculty members.

Honourable **Dr. Suhel Parvwz** was the Chief guest, **Mr. Santosh Rungta**, Chairman of SRGI, was the Patron of this workshop. Dr. D.K. Tripathi was chairman, **Dr. Ajazuddin** was convenor and coordinator, Dr. Mukesh Kumar Sharma and Mr. Kushagra Nagori were organising secretary of the workshop.

The primary objective of seven-day workshop was to impart both theoretical and practical knowledge of molecular techniques used for addressing research problems as well as their applications in bioanalytical, spectroscopic, chromatographic, and imaging techniques. Expert lectures on a certain method was followed by discussion and demonstration sessions as part of the experiential learning. The workshop was focused on the practises and applications of various spectroscopic techniques, chromatographic bioanalytical with supplemented by data analysis, interpretation, and inferences.

In order to prepare the participants for the hands-on practical sessions, the resource persons delivered a series of introductory lectures on Advanced Techniques in Molecular Biology. The topics covered in the lecture sessions were relevant to the needs of the participants and covered the fundamental principles and procedures required for molecular biology techniques. Fourteen invited speakers who are eminent scientists from prominent institutions in the country were invited to deliver talks covering myriad applications during these seven days.

The workshop started with the inaugural function at central auditorium of RCPSR on 24th September 2022. The inaugural function was attended by many distinguished dignitaries viz; **Dr. Suhel Parvez**, Professor, Jamia Hamdard University (PMU), New Delhi as the chief

guest; **Dr. Manju Singh**, UIOP, Pt. RSU as guest of honour; **Dr. Umesh Gupta**, Associate Professor, CUR as the keynote speaker and **Dr. Chanchaldeep Kaur**, Principal, RCPSR, Raipur as the keynote speaker. Inaugural function commenced with the welcome address by Dr. D.K. Tripathi, Director of Pharmacy Department, Bhilai-Raipur Dr. Tripathi welcomed the esteemed guests and the participants in the lush green campus of RCPSR and assured them of spending a productive week in the campus. **Dr. Ajazuddin**, Principal, RCPSR and Director, CRC. SRGI introduced the participants to the overarching role of RCPSR in research and development and gave a thorough overview of the research facilities available within the university.

Guest of Honour Dr. Manju Singh addressed the audience and explained the role of Jamia Hamdard as project management unit in attaining the objectives of DST-STUTI program. The inaugural address proceeded with the captivating words of our esteemed Chief Guest, Dr. Suhel Parvez, wherein he emphasized on the need of transformation in science and technology over the entire globe which ultimately can lead to good innovations and fruitful research.

The session was followed by release of souvenir and presenting mementos to all the dignitaries. **Dr. Ajazuddin** presented a vote of thanks and expressed her gratitude to the Chief Patron, Patrons, Chief Guest, dignitaries, participants and members of RCPSR Fraternity for making the event successful.

The vast arrays of topics covered by the different invited speakers from the Day 1 to the Day 7 of the workshop include:

- “Exploring Drug Repurposing in Neurodegenerative Diseases with Sophisticated Techniques” by Dr. Suhel Parvez, Professor, Jamia Hamdard (PMU), New Delhi on the Day 1 of the workshop.
- “Experimental Design in Research Methodology” by Dr. Manju Singh, UIOP, Pt. RSU, Raipur and “Research Methodology: Scientific Writing and Publication Ethics” by Dr. Umesh Gupta, Associate Professor, CUR, Rajasthan.
- “Intracerebral Cannulation in Rodents: Method and Applications” by Dr. Kartik Nakhate, Associate Professor, Department of Pharmacology and Toxicology, SVKM’s Institute of Pharmacy, Dhule Maharashtra.
- “Drug Development Process: Emphasis on Molecular Docking” by Dr. Nidhi, Assistant Professor, Jamia Hamdard (PMU) New Delhi and “Influence of Animal Model Handling on Pharmacological Research” by Dr. Rajesh Choudhary, Associate Professor, SSIPS, Junwani, Bhilai, Chhattisgarh.
- “Special Interpretation of some important compounds of Pharmaceutical Domain” by Dr. Pushpendra Kumar, Associate Professor, Bhilai & “Hands on Training on Computer Aided Drug Discovery” by Dr. Chandrakant Bonde, Associate Professor, NMIMS, Shirpur.

- On 4th of day STUTI, all the participants along with some faculties of RCPSR, visited ABIS Group of Industries located in Rajnandgaon, Chhattisgarh.
- “Role of HPLC in qualitative and quantitative estimation of estimation of plant bio actives” by Dr. Hemant Badwaik, Associate Professor, SSIPSR, Junwani, Bhilai, Chhattisgarh and “Hands- on training on UV Visible Spectroscopy” by Mr. Kushagra Nagori, Associate Professor, RCPSR, Bhilai, Chhattisgarh.
- “UV Visible Spectroscopy: A conventional yet dependable tool for an Analyst” by Dr. Sukhwant Singh, Professor, SIRT, Bhopal.
- “Concept of compartmental modelling “hands- on training” by Dr. Amit Alexander, Associate Professor, NIPER, Guwahati and “Hands- on Training on DLS Zeta Potential Analyzer model- Litesizer 500” by Dr. Kapil Joshi, Application Scientist, Anton Par Pvt. Ltd.

The workshop was attended by 30 participants which included Assistant professors and research scholars from different institutions namely Pandit Ravi Shankar Shukla University, Raipur, Chhattisgarh, Sagar University, Madhya Pradesh, Shri Shankaracharya Institute of Pharmaceutical Sciences and Research, St. Thomas College, Bhilai, Chhattisgarh, SPTM NMIMS, Hyderabad etc.

The valedictory of the 7 days training program was conducted on 30th September, 2022 in the presence of distinguished Chief Guest, Mr. Santosh Rungta, Director of Rungta College of Pharmaceutical Sciences and Research, Bhilai and Guest of Honour, **Dr. Deependra Singh**, Chairman ERC Pharmacy Council of India & Asso. Professor at Pt. RSU, Raipur. Dr. Ajazuddin, Principal, RCPSR, provided a brief report of the activities during the seven days of the training. He welcomed and thanked the invited guests for gracing the programme and concluded by wishing the participants good luck for their future endeavours. Dr. Mukesh Kumar Sharma congratulated RCPSR and the organising committee members for successful completion of the workshop. Dr. Ajaz appreciated the workshop for giving researchers a platform to raise their queries related to research. The participants were asked to provide feedback about the training program and given certificate of participation. The valedictory ended with the vote of thanks delivered by the organising secretary, Dr. Mukesh Kumar Sharma.

At the end of the workshop, questionnaires were distributed to the participants to get their feedback of the training methodology, training materials and to get views on how to improve workshop in future. Overall, the participants were positive in their feedback and considered the workshop to have met its objectives. The participants considered the schedule of the workshop and technical arrangement of the practical sessions to be well organized. Their enthusiasm and interest were apparent from their 100% attendance on all days, presence throughout the long working hours, constant interactions and zeal to know more. Even the refreshment breaks and Lunch provided on all days was enjoyed by them. In fact, they

expressed the desire to attend more workshops on several topics to master the skills for becoming good researchers.



A DST- FIST Sponsored Hands-on Training Program on

Basic Instrumentation Techniques For Qualitative and Quantitative Estimation of Bioactives

Organised by
Rungta College of Pharmaceutical Sciences & Research, Bhilai C.G.
in Collaboration with
Jamia Hamdard (Deemed to be University), New Delhi



24th to 30th
September 2022

REGISTRATION DEADLINE
Sep. 10th, 2022

Under the scheme of
Synergistic Training program Utilizing the Scientific and Technological infrastructure (STUTI)

Objectives
To provide an overview of advance qualitative and quantitative analysis techniques and their application in biological science

An initiative by
Department of Science and Technology, India

Eligibility :
Post Graduate (Sciences)
Early Career Faculty
Member/Scientists/
Post-Doc Fellows/ Ph.D. Students

Participants
30
Accommodation, if required, and food will be provided

Patron's
Shri Santosh Rungta
Dr. Soorabh Rungta
Shri Sonal Rungta

Chairman
Dr. D. K. Tripathi

Convenor & Coordinator
Dr. Ajazuddin

Organising Secretary
Mr. Mukesh Sharma
Mr. Kushagra Nagori

PMU Coordinator
Prof. (Dr.) Suhel Parvez
Incharge Centre for Translational and Clinical Research
Jamia Hamdard, New Delhi

Local Organising Committee
All Teaching Staff

Registration Link and Code
<https://forms.gle/djdtCjgVsVby3kbS6>



DST-STUTI@RCPSR QR Code

Contact : Dr. Ajazuddin (Principal) Mob.: 9827199441, 9200055507

Different sessions from Day 1 to Day 7 of the workshop have been summed up in the following report:

Day 1,

INAUGURAL FUNCTION:

The workshop started with the inaugural function at central auditorium of on 24th September 2022. The inaugural function was attended by many distinguished dignitaries viz; Dr. Suhel Parvez, Professor, Jamia Hamdard (PMU), New Delhi as the chief guest; Dr. Manju Singh, UIOP, Pt. RSU, Raipur, Chhattisgarh as guest of honour; Dr. Umesh Gupta, Associate Professor, CUR, Rajasthan as a keynote speaker. Inaugural function commenced with the welcome address by Dr. D.K. Tripathi, Director of Pharmacy Department, RCPSR, Bhilai . Dr. Tripathi emphasized on the importance of DST-STUTI as a Government of India sponsored flagship program in capacity building and dissemination of knowledge among the researchers residing in different regions within the country. He urged the delegates to forge networks and build long lasting collaborations by interacting with resource persons during the entire workshop. Dr. Tripathi welcomed the esteemed guests and the participants in the lush green campus of RCPSR and assured them of spending a productive week in the campus.

Dr. Ajazuddin, Principal, RCPSR introduced the participants to the overarching role of RCPSR in research and development and gave a thorough overview of the research facilities available within the university.

Guest of Honour **Dr. Manju Singh**, addressed the audience and explained the role of Jamia Hamdard as project management unit in attaining the objectives of DST-STUTI program. The inaugural address proceeded with the captivating words of our esteemed **Chief Guest, Dr. Suhel Parvez**, wherein he emphasized on the need of transformation in science and technology over the entire globe which ultimately can lead to good innovations and fruitful research.

The session was followed by release of souvenir and presenting mementos to all the dignitaries. **Dr. Ajazuddin, Principal** presented a vote of thanks and expressed her gratitude to the Chief Patron, Patrons, Chief Guest, dignitaries, participants and members of RCPSR Fraternity for making the event successful.

Technical Session

The inaugural function was followed by the worthy presentations of three invited speakers viz. **Dr. Suhel Parvez**, Professor, Jamia Hamdard (PMU), New Delhi, **Dr. Manju Singh**, Assistant Professor, Pt. RSU, Raipur and **Dr. Umesh Gupta**, Associate Professor, CUR, Rajasthan.

Dr. Suhel Parvez delivered a talk on the topic **“Exploring Drug Repurposing in Neurodegenerative Diseases with Sophisticated Techniques**. In the 1 hour talk he covered history and vision of Jamia Hamdard, spoke about Unani medicine at Jamia Hamdard i.e., cupping therapy. He has discussed about research trends in biological sciences, tools in

neuroscience and usage of different types of animal species (Rodent, Zebrafish, Drosophila) in research. Then he explained about electrical signal in mitochondria (In-vitro model), stroke which is also known as “brain attack”, animal models of stroke. In animal model he briefly explained about Koizumi and Longa method and also demonstrate a short video on induction of ischemia in rat M-CAO Model. Described about drugs (Ropinirole, Pramipexole) having neuroprotective effect in Parkinson patients and also explained about patch clamp technique. The session also included topics about Infrastructure grants, funding agencies, and outcomes of Scientific success.

Second speaker, **Dr. Manju Singh**, presented a very informative lecture on “**Experimental design in Research methodology**”. She described in detail about the different approaches to experimentation, design of experiments (DOE) conducted in randomized order, importance of designing of experiments. Then she talked about different terminologies for example-controlled experiment, response variable, effect and treatment. After that she briefly discussed about basic principle and application of experimental design. She then provided the participants an overview of Design Expert software for optimizing pharmaceutical experiment.



Third speaker, Dr. Umesh Gupta, presented a very informative lecture on “**Research Methodology: Scientific Writing and Publication Ethics**”. Dr. Gupta explained the entire process that is involved in writing a research article. It begins from formulating research problem, then literature survey is required, afterwards hypothesis is developed, data collection and after a few more steps a report is prepared which ultimately leads to paper publish. The research process mainly begins with literature survey. There are various tools for it such as from books, journals, other research and review articles. He mentioned the different types of referencing that are used such as Harvard style, Vancouver style, Royal Society of Chemistry style, American Psychological Association (APA) style.

Day 1. Inaugural Ceremony and interactive sessions by invited guests, Dr. Suhel Parvez, Dr. Manju Gupta and Dr. Umesh Gupta

Day 2,

The invited speakers for the Day 2 were **Dr. Kartik Nakhate**, Associate Professor, Department of Pharmacology and Toxicology, SVKM's Institute of Pharmacy, Dhule Maharashtra, **Dr. Nidhi**, Assistant Professor, Jamia Hamdard (PMU) New Delhi and **Dr. Rajesh Choudhary**, Associate Professor, SSIPS, Junwani, Bhilai, Chhattisgarh.

Dr. Kartik Nakhate conducted a lecture on the topic “**Intracerebral Cannulation in Rodents: Method and Applications**”. The participants had an opportunity to learn about Intracerebroventricular (i.c.v.) drug administration, Intracerebral Cannulation and Stereotaxic Brain Atlas. He detailed the various surgical techniques including principle, steps and applications of stereotaxic surgery techniques. Also described about how to anaesthetise rat and mice using different doses of drug & how to measure co-ordinates using atlas. He also demonstrated about drug loading & intracerebroventricular drug administration in rats using stereotaxic apparatus. Then he elaborated different stages of cannulation, importance of cementation post-surgical care, procedure for verification of cannula placement. He also emphasized about various brain coordinates used in the stereotaxic surgery and its applications.

Dr. Nidhi delivered a talk on “**Drug Development Process : Emphasis on Molecular Docking**”. In earlier times, the active ingredients were discovered from traditional remedies or it used to be a serendipitous discovery. But now, it depends on molecular and physiological conditions. It is a timeline where it shows how drug discovery starts with over 10,000 compounds and after going through a lot of processes, ultimately the active constituent is discovered. It takes over 15 years for an invention of a drug. Drug discovery has some methodologies where selection of a particular target is the initial step as there are

many targets like GPCRs, enzymes, hormones, ion channels, nuclear receptors. Afterwards, the lead compound is discovered which is then isolated and synthesised.

Third Speaker, **Dr. Rajesh Chaudhary**, delivered a talk on **“Influence of Animal Model Handling on Pharmacological Research”**. Dr. Rajesh Chaudhary began his lecture by telling the objectives for animal handling. He said that it is important to learn basics of animal model handling, and influence of various conditions on Pharmacological research. He described what “animal handling” actually means is to control the conditions of experimental protocol in a proper manner. Dr. Chaudhary included that the highest efficacy is obtained in in- silico studies and the least is in in- vivo studies.

Day 3,

The invited speakers for the Day 3 were Dr. Pushpendra Kumar, Associate Professor and Dr. Chandrakant Bonde, Professor, NMIMS, Shirpur.

Dr . Pushpendra Kumar delivered a talk on “Special Interpretation of some important compounds of Pharmaceutical Domain”. He explained all the elements of instrumental analysis of compounds that are UV – Visible spectroscopy, IR spectroscopy, NMR spectroscopy and Mass spectrometry. He initiated his lecture with explaining the principle of UV Spectroscopy, Woodward Fieser Rule and application of UV Spectroscopy. Next topic covered by Dr . Pushpendra was IR (Infra-Red) Spectroscopy. He described its principle and also said that this technique is used for determination of functional groups of a sample. Afterwards, NMR (Nuclear Magnetic Resonance) Spectroscopy was elaborated by Dr . Kumar. He told that the principle of NMR is based on Spinning Nucleus and Processional Force. Chemical Shift also comes under NMR. It plays an important role in identifying number of signals and position of signals in NMR. Last was Mass Spectrometry which is used to determine molecular weight of the compounds and that’s why it is called “spectrometry”.

Dr. Chandrakant Bonde gave presentation on **Computational Tools for Prediction of Physiochemical, Pharmacokinetics and Toxicity Properties**. In his Lecture, **Dr. Chandrakant Bonde** covered topics related to process of drug discovery, testing, and eventually gaining approval for selling a drug. He discussed in detail about different stages of drug discovery & the approximately length of time that each stage takes, to eventually arrive at an approved drug that can be given to patients. He briefly explained about different stages i.e., research development (target identification, compound screening, lead identification), preclinical studies (In-vitro & In-vivo studies), clinical trials (phases of clinical trials), review and approval (evaluation, approval manufacture and post-release monitoring). He elaborated method of identification of new chemical entity (NCE) with the help of CADD (Computer aided drug discovery), ligand screening (Pharmacophore and Molecular Docking) & several ways to create pharmacophore hypotheses.

He made the participants familiar with some software which helps in getting complete information about a particular NCE and also told the importance of software to produce high quality scientific results. The participants were then trained for computational calculation/Prediction of simple molecular and physiochemical properties that was freely available computational tools on the internet. He gave 3 exercises that were Molinspiration Property calculation Module, Swiss ADME module, ProTox-II module respectively.

The participants solve the exercises and the session ended successfully.

Day 4,

The participants, along with some faculties of RCPSR, went on an industrial visit at ABIS Group of Industries located at Rajnandgaon, Chhattisgarh.

All the participants along with some faculty members started from college premises for the visit to ABIS Industry, Rajnandgaon. Around 11:30, all the participants and faculties reached the industry where they were given a brief introduction about the IB Groups of Industries. The HR told, in 1985, Mr. Bahadur Ali, the Managing Director of the company, along with his brother Mr. Sultan Ali thought of starting a small business which would sell protein rich products and hence, they started it by selling eggs. With time, they expanded the business with a lot of hard work, and today they sell eggs in bulk across the country. They also manufacture dairy products such as milk, cottage cheese, clarified butter which are sold in the markets of central India including Chhattisgarh & M.P. . They own an entire unit which manufactures refined rice bran oil. Soyabean oil is obtained as a by-product from the manufacturing unit which produces food for shrimp and fishes. The obtained soyabean oil is then refined and sold as another product of the company. They also make food for dogs and cats sold under the brand name of 'Drools'. The current value of the company is US\$ 650 million and they've 52% stakes in the global market of poultry business.





Picture: Day 4. Industrial visit to ABIS Group of Industries

Day 5,

- The invited speakers for the Day 5 were **Dr. Hemant Badwaik, Associate Professor, SSIPSR, Junwani, Bhilai, Chhattisgarh, Mr. Kushagra Nagori, Associate Professor, RCPSR, Bhilai, Chhattisgarh and Dr. Sukhwant Singh, Professor, SIRT, Bhopal.**

Dr. Hemant Badwaik and Mr. Kushagra Nagori gave a presentation on “ **Hands- on training on UV Visible Spectroscopy and HPLC**”. In this lecture, the participants were explained about importance & working of UV Spectroscopy and HPLC. Dr . Hemant, Associate professor trained the participants on the use of HPLC and Mr. Nagori trained them for the use of UV Spectroscopy in the quantitative analysis of paracetamol and related substances. The training was provided by dividing the participants in batches. The participants were trained on the use of HPLC instrument for the analysis of related substances in paracetamol as per Indian Pharmacopoeia. Firstly, they were demonstrated on the various components of HPLC instrument, preparation of mobile phase, standard and sample solutions for analysis and then they were asked to inject the samples and record the chromatograms using the HPLC

instruments. The recorded chromatograms were further provided to the participants for reporting the results. They were also trained in calculating the system suitability parameters for the qualification of the analytical method as per the IP.

Dr. Sukhwant singh delivered a lecture on **HPTLC: A versatile tool for Rapid Analysis of Bioactives** to the participants. In his lecture he briefly discussed about types, principles of chromatography & also explained the advantages of HPTLC over other chromatography techniques. He also discussed about the procedures, instrumentation of HPTLC, use of automatic applicators for application of sample, factors influencing separation of spots. Importance of documentation and application of HPTLC.

The session ended with solving the quiz in Kahoot app.

Day 6,

The invited speakers for the Day 6 were **Dr. Amit Alexander, Associate Professor, NIPER, Guwahati** and **Dr. Kapil Joshi, Application Scientist, Anton Par Pvt. Ltd.**

Dr. Amit Alexander delivered a lecture on title “**Concept of compartmental modelling “hands- on training”**”. Dr . Amit began the lecture by giving brief introduction about Alzheimer’s Disease and compartments of the brain. In his lecture, he explained how to calculate various pharmacokinetic parameters such as $t_{1/2}$, t_{max} , concentration of the drug in blood sample and many others. He also described principles of first order kinetics. Most importantly, Dr . Amit taught the participants how to plot a semi- logarithmic graph with the help of few examples. At last, he told the one and two compartment models and also gave formulas for calculating other variables. It was an interactive and informative session for all.

Dr. Kapil Joshi Hands on training on **DLS Zeta Potential Analyzer model- Litesizer 500**. This lecture delivered by Dr. Kapil Joshi consisted of theoretical portion of working, construction and applications of size analysers. Measurement of zeta potential and fundamentals of Dynamic light scattering, analysis models, molecular mass measurement & litesizer accessories were also described in this session. After describing the theoretical portion, the participants were divided into 3 groups each consisting of 10, and they were given hands on demonstration of Antoon Paar litesizer, for particle size analysis and zeta potential. The participants were briefed about the handling, sampling technique and different type of cuvettes that are used in the determination of particle size and zeta potential. Then they were given hands on training on operation of the software and the data retrieval process along with the interpretation of graph and terms like hydrodynamic diameter, Polydispersity index, etc.



Day 7,

Valedictory Programme: The valedictory of the 7 days training program was conducted on 30th September 2022 in the presence of distinguished Chief Guest, Dr. Deependra Singh, chairman ERC Pharmacy Council of India & Asso. Professor at Pt. RSU, Raipur. Mr. Santosh Rungta, Chairman SRGI, , Dr. Ajazuddin, Principal, RCPSR, provided a brief report of the activities during the seven days of the training. He welcomed and thanked the invited guests for gracing the programme and concluded by wishing the participants good luck for their future endeavours. Dr. Mukesh Kumar Sharma congratulated RCPSR and the organising committee members for successful completion of the workshop. Dr. Ajaz appreciated the workshop for giving researchers a platform to raise their queries related to research. The

participants were asked to provide feedback about the training program and given certificate of participation. The valedictory ended with the vote of thanks delivered by the organising secretary, Dr. Ajazuddin. At the end of the workshop, questionnaires were distributed to the participants to get their feedback of the training methodology, training materials and to get views on how to improve workshop in future. Overall, the participants were positive in their feedback and considered the workshop to have met its objectives. The participants considered the schedule of the workshop and technical arrangement of the practical sessions to be well organized. Their enthusiasm and interest were apparent from their 100% attendance on all days, presence throughout the long working hours, constant interactions and zeal to know more. Even the refreshment breaks, and Lunch provided on all days was enjoyed by them. In fact, they expressed the desire to attend more workshops on several topics to master the skills for becoming good researchers.



Picture: Certificates Distribution

बिजनेस साइट

रूंगटा फार्मास्यूटिकल कॉलेज में डीएसटी स्तुति प्रोग्राम का समापन

भिलाई। प्रैक्टिकल नॉलेज आपको कामयाब बनाता है। अब हर फील्ड में स्किलड प्रोफेशनल की डिमांड है। फार्मेसी भी इसी ट्रेंड का हिस्सा है। ऐसे में फार्मेसी के आधुनिक उपकरणों का प्रैक्टिकल ज्ञान रोजगार के अवसर को दो सौ फीसदी तक बढ़ा देता है। ये बातें पीसीआई एजुकेशन रेक्यूलेशन कमेटी चेयरमैन डॉ. दीपेंद्र सिंह ने कहीं। वे शुक्रवार को संतोष रूंगटा कॉलेज ऑफ फार्मास्यूटिकल साइंस एंड रिसर्च में डीएसटी स्तुति हैंड्सऑन ट्रेनिंग प्रोग्राम के समापन समारोह में बोल रहे थे। यह कार्यक्रम जामिया हमदर्द (डीमंड यूनिवर्सिटी) के सहयोग से हुआ। इसके कोऑर्डिनेट प्रो. सोहेल परवेज भी शामिल हुए। कार्यक्रम की अध्यक्षता करते हुए रूंगटा ग्रुप के चेयरमैन संतोष रूंगटा ने कहा कि फार्मेसी की फील्ड आपको मानवाता की सेवा के साथ-साथ शानदार करियर का मौका देती है। इसमें सबसे ज्यादा जरूरी रिसर्च है। रिसर्च ही जो आपको कुछ नया करने और समाज को समर्पित करने प्रेरित करती है। इसे लगातार जारी रखिए।



फार्मेसी का यह भव्य कार्यक्रम भारत सरकार के साइंस एंड टेक्नोलॉजी मंत्रालय के सहयोग से हुआ। इसके लिए रूंगटा फार्मा को विशेष वांट दी गई है। इसमें शामिल होने वाले सभी प्रतिभागियों को एक्सपर्ट से दवाइयों के क्वालिटेटिव एंड क्वांटिटेटिव आंकलन पर चर्चा हुई। शामिल हो रहे प्रतिभागियों को आधुनिक मशीनों के साथ उनको उपयोग करने के तरीके समझाए गए। कार्यक्रम का समन्वयन रूंगटा ग्रुप के डायरेक्टर आरएंडडी डॉ. एजाजुद्दीन ने किया।



भिलाई भास्कर 03-10-2022

रिसर्च ओरिएण्टेड फार्मेसी बढ़ाता है रोजगार के अवसर: डॉ. दीपेंद्र

एजुकेशन रिपोर्टर | भिलाई

प्रैक्टिकल नॉलेज आपको कामयाब बनाता है। अब हर फील्ड में स्किलड प्रोफेशनल की डिमांड है। फार्मेसी भी इसी ट्रेंड का हिस्सा है। ऐसे में फार्मेसी के आधुनिक उपकरणों का प्रैक्टिकल ज्ञान रोजगार के अवसर को दो सौ फीसदी तक बढ़ा देता है। यह बातें रूंगटा फार्मास्यूटिकल कॉलेज में डीएसटी स्तुति प्रोग्राम में पीसीआई ईआरसी के चेयरमैन डॉ. दीपेंद्र सिंह ने कहीं। वह संतोष रूंगटा कॉलेज ऑफ फार्मास्यूटिकल साइंस एंड रिसर्च में डीएसटी स्तुति हैंड्सऑन ट्रेनिंग प्रोग्राम के आखिरी दिन संबोधित कर रहे थे। इसमें केंद्र सरकार के साइंस एंड टेक्नोलॉजी मंत्रालय और जामिया हमदर्द (डीमंड यूनिवर्सिटी) के सहयोग से हुआ। इसके कोऑर्डिनेट प्रो. सोहेल परवेज भी शामिल हुए। अतिथियों ने फार्मेसी को करियर के लिए काफी महत्वपूर्ण भी बताया। इसमें रोजगार की अपार संभावनाएं हैं।



रूंगटा फार्मास्यूटिकल कॉलेज में डीएसटी स्तुति प्रोग्राम हुआ।

मानवता की सेवा के साथ शानदार करियर भी रिसर्च कुछ करने का मौका देता है: रूंगटा

कार्यक्रम के अध्यक्ष रूंगटा ग्रुप के चेयरमैन संतोष रूंगटा ने कहा कि फार्मेसी मानवता की सेवा के साथ-साथ शानदार करियर का मौका देती है। इसमें सबसे ज्यादा जरूरी रिसर्च है। रिसर्च कुछ नया करने और समाज को समर्पित करने प्रेरित करता है। इसमें शामिल होने वाले सभी प्रतिभागियों की विशेषज्ञों के साथ दवाइयों के क्वालिटेटिव एंड क्वांटिटेटिव आंकलन पर चर्चा हुई। प्रतिभागियों को आधुनिक मशीनों के साथ इसके उपयोग करने के तरीके समझाए गए। कार्यक्रम का संयोजन डायरेक्टर आरएंडडी डॉ. एजाजुद्दीन ने किया। इसमें प्रोफेसर डॉ. मुकेश शर्मा और कुशाग्र नागोरी का सहयोग रहा।

A DST- FIST Sponsored Hands-on Training Program on

Basic Instrumentation Techniques For Qualitative and Quantitative Estimation of Bioactives

PROGRAM SCHEDULE

| Time | Activity (24.09.2022) |
|-----------------|---|
| 9:00-10:00 AM | BREAKFAST (Venue: Divya Mess) |
| 10:00-10:30 AM | REGISTRATION (Venue: B Block Porch) |
| 10:30-11:15 AM | INAUGURAL CEREMONY (Venue: B-Block Auditorium) |
| 11:15-12:15 PM | Keynote Speaker: Dr. Suhel Parvez, Professor, Jamia Hamdard, New Delhi Title: Exploring Drug Repurposing in Neurodegenerative Diseases with Sophisticated Techniques (Venue: B-Block Auditorium) |
| 12:15-1:15 PM | Keynote Speaker: Dr. Manju Singh, UIOP, Pt. RSU, Raipur, Chhattisgarh Title: Experimental design in Research Methodology (Venue: B-Block Auditorium) |
| 1:15-2:00 PM | LUNCH (DIVYA MESS) |
| 2:00 PM-3:30 PM | Keynote Speaker: Dr. Umesh Gupta, Associate Professor, CUR Title: Research Methodology: Scientific Writing and Publication Ethics (Venue: B-Block Auditorium) |
| Time | Activity (25.09.2022) |
| 9:00-10:00 AM | BREAKFAST (Venue: Divya Mess) |
| 10:00-11:30 AM | Keynote Speaker: Dr. Chandrakant Bonde, Professor, NMIMS, Shirpur Title: Hand on Training on Computer aided drug discovery (Venue: Conference Hall T&P, B-Block) |

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|----------------|---|
| 11:30-12:30 PM | <p>Keynote Speaker: Dr. Nidhi, Assistant Professor, Jamia Hamdard, New Delhi</p> <p>Title: Drug Development Process: Emphasis On Molecular Docking</p> <p>(Venue: Conference Hall, T&P, B-Block)</p> |
| 12:30-1:30 PM | LUNCH (DIVYA MESS) |
| 1:30-2:30 PM | <p>Keynote Speaker: Dr. Kartik Nakhate, Associate Professor, Department of Pharmacology, SVKM's Institute of Pharmacy, Dhule, Maharashtra</p> <p>Title: Intracerebral Cannulation in Rodents: Method and Applications</p> <p>(Venue: Conference Hall, T&P, B-Block)</p> |
| 2:30-4:30 PM | <p>Keynote Speaker: Dr. Rajesh Choudhary, Associate Professor, SSIPS, Junwani Bhilai, Chhattisgarh</p> <p>Title: Influence of Animal Model Handling on Pharmacological Research</p> <p>(Venue: Conference Hall, T&P, B-Block)</p> |
| Time | Activity (26.09.2022) |
| 9:00-10:00 AM | <p>BREAKFAST</p> <p>(Venue: Divya Mess)</p> |
| 10:00-11:30 AM | <p>Keynote Speaker: Dr. Pushpendra Kumar, Associate Professor</p> <p>Title: Spectral Interpretation of some important compounds of Pharmaceutical Domain</p> <p>(Venue: Conference Hall T&P, B-Block)</p> |
| 11:30-12:30 PM | <p>Keynote Speaker: Dr. Pushpendra Kumar, Associate Professor</p> <p>Title: Spectral Interpretation of some important compounds of Pharmaceutical Domain</p> <p>(Venue: Conference Hall, T&P, B-Block)</p> |
| 12:30-1:30 PM | LUNCH (DIVYA MESS) |
| 1:30-2:30 PM | <p>Keynote Speaker: Dr. Ajazuddin, Professor & Principal, RCPSR, Bhilai, Chhattisgarh</p> <p>Title: Basics of IR Spectroscopy and Spectral Interpretation</p> <p>(Venue: Conference Hall, T&P, B-Block)</p> |
| 2:30-4:30 PM | <p>Keynote Speaker: Dr. Ajazuddin, Professor & Principal, RCPSR, Bhilai, Chhattisgarh</p> <p>Title: Basics of IR Spectroscopy and Spectral Interpretation</p> <p>(Venue: Conference Hall, T&P, B-Block)</p> |

| Time | Activity (27.09.2022) |
|----------------|---|
| 10:00-4:00 PM | Visit to ABIS group of Industries, Rajnandgaon, Chhattisgarh |
| Time | Activity (28.09.2022) |
| 9:00-10:00 AM | BREAKFAST (Venue: Divya Mess) |
| 10:00-11:30 AM | Keynote Speaker: Dr. Hemant Badwaik, Associate Professor, SSIPSR, Junwani, Bhilai, Chhattisgarh Title: Role of HPLC in qualitative and quantitative estimation of plant bioactives (Venue: Central Instrument Room, RCPSR) |
| 11:30-12:30 PM | Keynote Speaker: Mr. Kushagra Nagori, Associate Professor, RCPSR, Bhilai, Chhattisgarh Title: Hands on training on UV-Visible Spectroscopy (Venue: Central Instrument Room, RCPSR) |
| 12:30-1:30 PM | LUNCH (DIVYA MESS) |
| 1:30-2:30 PM | Keynote Speaker: Dr. Sukhwant Singh, Professor, SIRT, Bhopal Title: UV - Visible Spectroscopy: A Conventional yet Dependable Tool for an Analyst (Venue: Conference Hall, T&P, B-Block) |
| 2:30-4:30 PM | Keynote Speaker: Dr. Sukhwant Singh, Professor, SIRT, Bhopal Title: UV - Visible Spectroscopy: A Conventional yet Dependable Tool for an Analyst (Venue: Conference Hall, T&P, B-Block) |
| Time | Activity (29.09.2022) |
| 9:00-10:00 AM | BREAKFAST (Venue: Divya Mess) |
| 10:00-11:30 AM | Keynote Speaker: Dr. Amit Alexander, Associate Professor, NIPER, Guwahati Title: Concept of compartmental modelling "hands on training" (Venue: Conference Hall, T&P, B-Block) |
| 11:30-12:30 PM | Keynote Speaker: Dr. Amit Alexander, Associate Professor, NIPER, Guwahati Title: Concept of compartmental modelling "hands on training" (Venue: Conference Hall T&P, B-Block) |
| 12:30-1:30 PM | LUNCH (DIVYA MESS) |

| 1:30-2:30 PM | Keynote Speaker: Dr. Kapil Joshi, Application Scientist, Anton Par Pvt. Ltd Title: Hands on training on DLS Zeta Potential Analyzer model-Litesizer 500 (Venue: Central Instrument Room, RCPSR) |
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| 2:30-4:30 PM | Keynote Speaker: Dr. Kapil Joshi, Application Scientist, Anton Par Pvt. Ltd Title: Hands on training on DLS Zeta Potential Analyzer model-Litesizer 500 (Venue: Central Instrument Room, RCPSR) |
| Time | Activity (30.09.2022) |
| 9:00-10:00 AM | BREAKFAST (Venue: Divya Mess) |
| 10:00-12:00 noon | VALEDICTORY FUNCTION |

Name and Signature of Coordinator
Dr. Ajazuddin
 Coordinator
 Principal
 Rungta College of Pharmaceutical
 Sciences and Research