



JSS Academy of Higher Education & Research (Deemed to be University)

JSS College of Pharmacy

Sri Shivarathreeswara Nagar, Mysuru-570015, Karnataka.

Date: 10th October 2020, Saturday

A Report on Visit to STEERLife India Pvt. Ltd.

One day Industrial visit was accomplished to SteerLife India Pvt, LTD, #290, 4th Main, 4th Phase, Peenya, Industrial Area, Bengaluru, Karnataka 560058; on **07/10/2020**.

Brief Introduction:

STEERLife— A STEER GROUP COMPANY

STEERLife is a part of the STEER Group. Founded in 1993 by Dr. Babu Padmanabhan, the STEER Group is committed to the design, creation and implementation of advanced materials platform technologies that effectively transform and functionalise materials in the field of pharmaceuticals, plastics, food & nutraceuticals, biomaterials and biorefining. Operating 5 global offices, 10 satellite offices, 3 Application Development Centers and supported by a talented workforce of over 500 engineers, scientists and technicians, STEER Group serves over 39 countries across the globe. STEER is driven by innovation and holds several patents along the length, breadth and depth of its proprietary platforms. With a vision to 'STEER A NEW WORLD', the group remains focused on the development of advanced platform technologies and processes to improve the quality of life and change the way people live, eat and stay healthy.

Objectives of the visit:

- Omicron P10 HME Instrument procurement/ Purchase
- Collaboration
 - Satellite/ Resource center for Pilot Studies
 - Internship
 - Sample preparation at their facility (HME, Films/ Patches, conventional granules, effervescent granules, Herbal Granules)
 - Publication policy
 - Funded Project Assistance
 - Hands on experience on instrument
- MoU with JSS AHER
- Placements

Activities on site:

The college was represented by Dr. D. V. Gowda, HoD Pharmaceutics Department, Dr. Amit B. Patil, Asst Professor Dept. of Pharmaceutics, and Mr. Suraj, M.Pharm Industrial Pharmacy 3rd Semester student.

On reaching the destination at 09:45am, we received a warm welcome by Dr. Vijay Kulkarni, Manager - Business Development Pharmaceutical STEER Life and Mr. Prasad (M.Pharm Industrial Pharmacy 3rd Sem), who is an intern in the company.

Dr. Amit B Patil, Asst. Professor, and Coordinator - Training and Placement Cell, delivered an introductory presentation on JSS Academy of Higher Education & Research and JSS College of Pharmacy, Mysuru to brief them with the institution's feats, accreditations, and various facilities available. Dr. D. V. Gowda explained the facilities and the feasibilities to carry-out research at the JSS College of Pharmacy, Mysuru.

The next presentation was delivered by Dr. Vijay Kulkarni, who gave us an insight into the history of the company, their operations, and their areas of expertise. Dr. Kulkarni also briefed us about their Holt Melt Extrusion Systems and innovative granulating system INTEGRAAL™ which are STEERLife's novel batch to continuous (B2C) processes. Then we had a visit to the production facilities of STEERlife and STEER Engineering, where Dr. Vijay Kulkarni and Mr. Prasad Rao, gave a deeper understanding of the instrumentation, and their working. Later we broke for lunch where Dr. Kulkarni accompanied us.



In presentation and discussion with STEERLife Team: Dr. D V Gowda, HOD (Dept. of Pharmaceutics); Mr. Indu Bhushan, CEO and Director, STEERLife India Pvt. Ltd; Dr. Vijay Kulkarni, Manager - Business Development & Collaborations; Dr. Amit B Patil, Asst. Professor, and Coordinator - Training and Placement Cell; and Mr. Suraj, II M.Pharm (Industrial Pharmacy)

Discussion details with Mr. Indu Bhushan and Dr. Vijay Kulkarni:

- Certificate course on Continuous Manufacturing Process
 - Mutual commitments for the betterment of pharmacy education and the pharmacy graduates, which included initiating a certificate program.
- Purchase and installation of Holt Melt Extrusion Systems
 - The Approximate Price of **Steer HMES Omicron P10 mini** is Rs. 25,00,000/- (**Negotiable**)
- Internships at STEERlife for B.Pharm and M.Pharm candidates.
- MoU
 - Memorandum of Understanding (MoU) between the company and JSS AHER for exploring new avenues in pharmaceutical R&D & collaboration for the future decades.
- PhD
 - Funding the Ph.D scholars working in collaboration with Steerlife
- Outsourcing JSS College of Pharmacy, Mysuru Research facilities

Conclusion of the visit:

Finally, the concluding remarks were spoken by Dr. Amit Patil by expressing kind gratitude for the company to allow us to have a glimpse of Holt Melt Extrusion and Granulation systems. Along the same lines, Dr. Kulkarni and Mr. Bhushan also concluded their remarks by adding a thoughtful message to the institution taking up such interests for the betterment of the budding pharmacy graduates and we had a small photo session with them in the afternoon around 2 p.m. As we left the facility, we headed back to Mysuru and reached the campus at 5 p.m.



From the Right: Dr. D V Gowda, HOD (Dept. of Pharmaceutics); Mr. Indu Bhushan, CEO and Director, STEERLife India Pvt. Ltd; Dr. Vijay Kulkarni, Manager - Business Development & Collaborations; Dr. Amit B Patil, Asst. Professor, and Coordinator - Training and Placement Cell; and Mr. Suraj, II M.Pharm (Industrial Pharmacy)

Future Road Map:

- Establish a **HME Special Interest Group** who will pen-down the above objectives in the form of MoU between JSSAHER, Mysuru and Steerlife, Bangalore.
- Submitting a proposal for Collaboration and MoU to the JSS AHER, Mysuru
- Organizing webinar, certificate program and Internship for PG and Ph.D. students for next 5 years.
- Conducting series of virtual meeting with the Steerlife officials to
 - Purchase of the instrument under discussion,
 - Establish and GMP facility at JSS College of Pharmacy, Mysuru to carry out pilot plant studies for Industries and also outsource its facilities.

Acknowledgement:

We are grateful to our University – **JSS Academy of Higher Education and Research**, and our respected Principal, Dr. Pramod Kumar T M (JSS College of Pharmacy) for constant motivation and providing the facilities to successfully complete the industrial visit. We also

thank Mr. Indu Bhushan and Dr. Vijay Kulkarni of STEERLife India Pvt. Ltd. For providing us the opportunity to visit the facility and have a look at the instruments and the processes. We indeed also thank Mr. Prasad Rao, II M. Pharm (Industrial Pharmacy) for arranging us a visit to the facility. Finally, we also thank Mr. Gaveesh B. N., who joined us as the driver and ensured our journey to Bengaluru in college vehicle was safe, clean and well relaxing. Thank you one and all.

Dr. Amit B Patil
Coordinator
Pharm Industrial Pharmacy Program
Training & Placement Cell

Enclosed:

1. Photograph of Steer **HMES Omicron P10 mini**
2. Invitation mail from Steerlife India Pvt. Ltd, Bangalore

Steer HMES Omicron P10 mini:



STEER
HMES


Pharmaceutical Research & Development

STEER HMES **omicron10**
FOR PHARMACEUTICAL R&D LAB (MINI)



R & D LAB

STEER HMES OMICRON 10 (MINI) offers the best platform for Universities and Pharmaceutical Companies doing hard core research on hot melt extrusion on NCE and/or applications requiring high potent API. OMICRON 10 is designed to handle very low volumes. The option of changing process section with four different D_2/D_1 (1.27, 1.42, 1.55, 1.71) ratios to vary the shear rate makes OMICRON 10 the best extruder platform for pharmaceutical research.



FOR HIGHER INTAKE
STEER SFV ELEMENTS

FOR HIGHER INTAKE (SPECIAL)
STEER RFV ELEMENTS

FOR ENHANCED MIXING
STEER FKB ELEMENTS

FOR EFFICIENT MELTING
STEER FME ELEMENTS