

1. **About the Institute:** National Institute of Malaria research is one of Institutes of Indian Council of Medical Research, New Delhi with the mandate to support national malaria control programme through basic applied and operational research aiming to eliminate malaria from the country. The Institute also plays a key role in manpower resource development through training/workshops and transfer of technology. The major areas of research carried out over the years are on mosquito fauna surveys, development of genetic and molecular markers for important malaria vectors and parasites, cytotaxonomic studies identifying major vectors as species complexes and laboratory and field studies to examine the biological variations among sibling species, development of molecular identification techniques for sibling species, monitoring of insecticide resistance through space and time, preparation of action plans, etc. have yielded valuable information.

NIMR has a network of well-developed laboratories at Delhi carrying out research on most aspects of malaria along with 10 field units in malarious areas, which serve as a testing ground for new technologies and help in the transfer of technologies.

2. **Participants:** Under the suggested outreach program of India International Science Festival (IISF)-2019, a one-day workshop on "Empowering Women in Science" and lab visit were organized on 30th October 2019 in ICMR- National Institute of Malaria Research, New Delhi. Poster and invitations were sent to various schools, colleges and Universities in the vicinity of the institute. The program started with registration of participants at 8.30 am and formally it started with inaugural address by Director-In-Charge, Dr O. P Singh. A total of 30 female students of class 11 and 12 from Queens Valley School, Shiksha Bharti School and Sarvodaya Kanya Vidyalaya attended the program along with 3 female teachers from respective schools and 2 students of Shivaji College (Delhi University) and South Asian University, Delhi and NIMR staff and students.
3. **Activities:** Dr OP Singh introduced the participants with NIMR profile, its facilities, research work and program performed and its role in Malaria and vector-borne disease elimination. He further informed the participants about the vision and agenda of India International Science festival- 2019. He lauded the role of IISF in promotion of science in Nation Building Process. He explained the domain and programs which IISF-2019 is going to organise and encouraged the workshop participant to join IISF-2019. The program was further followed introductory address about the theme of workshop and contribution of women in science by organizing secretary Dr Abhinav Sinha (Scientist-E, ICMR-NIMR). He briefed about the program schedule and activities planned for the day. He has also given a presentation on the proportion of Women in Indian science with some global and Indian Data. He also raised some concern and need for more women scientist at the different scientific platform to add substantial progress in Science.

Various women scientists and students of ICMR-NIMR gave a glimpse of their achievements in science and most specifically their journey in science and challenges faced to reach to the current position. To involve participants into the discussion and to know their perspective on “Empowering women in science” a focus group discussion activity (group work) was organized in guidance of Dr Piyooash Kumar Singh, Scientist B (Social and Behaviour Scientist) as per themes mentioned in the agenda. After the discussion, one student from each group was invited to speak on the given theme and present the point discussed. Some of the key findings from the given themes include increasing science exposure among females, expanding knowledge about more job options in science specially for females, the need for career counselling, removing gender-specific social behavior which discourages women participation in science, changing the mindset of family, increasing science awareness in rural areas, particularly among girl children, and lack of women-specific seats in jobs.

The program was concluded with a visit to different labs and instrument facility; and Malaria clinic with a strong promise to meet again and again to enquire more about science and scientific research. Also, as a part of science outreach, a startup by the name of Witknot Pvt. Ltd (details attached) is established by the research scholars of the ICMR-National Institute of Malaria Research. The concept has bubbled out from the weekly meetings of an informal research activity group run by NIMR students.

**4. Conclusion:** The activities were well taken by the school children and we all concluded that: not much information was available to the schools about the IISF; the students were excited to see the achievements of women in science and were highly motivated; and many more and frequent open days for schools to be inbuilt into the institute’s calendar.

**5. Photos (attached)**

# WitKnot Private Limited

CIN: U73100DL2019PTC354601

Date: 31 Oct 2019

## Witknot: An outreach startup

Witknot Pvt. Ltd is a startup established by the research scholars of the ICMR-National Institute of Malaria Research. The concept was bubbled out from the weekly meetings of an informal research activity group run by students.

Members of Witknot believes that is in the era of advanced technologies where men have reached Moon, Mars and gathering information of distant celestial bodies are still not aware of their surroundings and health-related issues such as diseases causing infectious agents, malnutrition, maternal and child health, water harvesting, environmental pollution, and education. The reason behind these challenges are the lack of awareness, poor management, and surveillance. Witknot team includes social experts, and biological scientists focused on educating and aware the public about the essentiality of awareness that can prevent the vector diseases, spread of pathogens, and the importance of education. The team will educate about the management of the illness and strategies for precaution and advanced treatment to escape from the breakout.

At present, Witknot is focused on the following themes:

- (i) To spread awareness for vector-borne diseases such as malaria, dengue, chikungunya, etc. For awareness, a **comical series as an innovative tool on Mosquito** has been developed and is ready to launch on Children's day 14<sup>th</sup> November 2019. As school going young minds are the most curious elements of society, they have the power to spread knowledge through comical stories in their families, neighbors, and friends.
- (ii) It is developing scientific temperament in school children's through **Witknot Scientific Journal**. It has been observed many times that in school students lack interest in research. They are not aware of research or Ph.D. That is all because they do not get involved in any scientific research activity and small research projects at school laboratory level. Here, we are attempting to develop classroom-based research projects that can be published in a peer-reviewed journal.
- (iii) Witknot has designed a model **Academic Training and Research on Wheels (ATROW)**, in which the team will approach colleges/university students and discuss their interests/ needs. During these sessions, we will share the available options with us to the students that can significantly expand their understanding or knowledge towards the subject of their interest. Knowledge at your Door is our theme; this attempt may rule out heavy fees, mobility, accommodation expenses and loss of working days. As per demand, Witknot team will reach to the student (s) in their premises as per their requested time. In the first phase of this project, Witknot will be offering the *in-silico* or bioinformatics training, with the interactive sessions.

Witknot has just started the journey; many milestones are waiting to be discovered in the due course of time.

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ICMR – NATIONAL INSTITUTE OF MALARIA RESEARCH

## **WORKSHOP ON EMPOWERING WOMEN IN SCIENCE**

UNDER OUTREACH ACTIVITY OF INDIAN INTERNATIONAL SCIENCE FESTIVAL

30 OCTOBER 2019



### **PROGRAM**

0830: Registration

0900: Welcome by Director; brief about ICMR-NIMR's contribution in science and IISF

0910: Theme of the Workshop and contribution of women in Science (Dr Abhinav Sinha)

0925: Challenges and issues (Dr Neelima Mishra)

0940: Government of India promotional schemes (Dr Jyoti Das)

0955: Possible solutions (Dr Neelima Mishra)

1010: Showcasing WomenInScience ICMR-NIMR (5 minutes each)

(Dr Rekha Saxena, Dr Neelima Mishra, Dr Jyoti Das, Dr Shweta Pasi, Mrs Beena Shrivastava,  
Dr Sneh Shalini, Mrs Sangeeta Arora, Dr Sanju Kumari, Dr Tanwee Das De, Ms Bhumika, Ms  
Meenu Kalkal)

1105: Brunch

1135: Workshop pattern and groups (Dr P K Atul)

1145: Group Work

1230: Group Work presentation and discussions

1345: Conclude and Group Photo (Dr Shweta Pasi)

**Showcasing WomenInScienc (3 slides / 5 minutes extempore in mixed language)**

Slide 1: Introduce yourself and mention your journey in Science

Slide 2: Your achievements and future

Slide 3: Challenges, issues and solutions

**Group Work: Challenges / issues / solutions**

**Composition: 5 students + 1 parent + 1 faculty + 1 NIMR scientist + 1-2 PhD students)**

Group 1: Challenges in School age (Dr Shweta Pasi +

Group 2: Challenges in choosing science as a career (Dr Jyoti Das +

Group 3: How to identify and prepare for the challenges ahead (Dr P K Atul +

Group 4: How to be 'empowered' for your choices in science as a career (Dr Piyush +

Group 5: Why lesser and lesser women at the top in Science (Dr Neelima Mishra +