

The Wellcome Trust/DBT India Alliance

Science & Communication Workshop Report 20-22 September 2010, Hyderabad

Dr Megha Saraswat Sharma

Background

Conceptualization: As a funding agency, we provide Fellowships to support researchers at the key stages of their career. These Fellowships are fiercely competitive and applicants need to go through a rigorous competition process in order to avail them. Our Early Career Fellowship scheme has been designed to support those who are in the nascent stage of their career. We want them to use the provisions of this scheme in order to

- **Gain intellectual independence**
- **Build their own network by setting up collaborations**
- **Start their independent research career**

It has been two years since we commenced our grants dispensing activity in India and have since handled almost two rounds of competition for this scheme. Following observations prompted us to organize this skill building workshop.

- **Ignorance about the importance of effective writing**
- **Poor presentation skills**
- **Inability to effectively communicate ideas**
- **Inhibition in approaching people for collaboration**

Lack of awareness in acquiring the correct communication skills often leads to disappointment in those researchers, who despite being competitive scientists fail to make a mark. Considering the difference these aspects can bring into the career of these budding scientists, we wanted to sensitize this generation of scientists about these issues, which are generally overlooked by them. Similar observations were made by our team during the outreach programme to different institutes.

Prof Anuradha Lohia, CEO of the Wellcome Trust/DBT India Alliance was keen to organize a skill building workshop since the time India Alliance got functional in Hyderabad. After one year of our establishment in India, this idea eventually materialized in 2010 and the workshop was scheduled to be held in September 2010. This responsibility was handed over to the Programme manager Dr Megha and Grants Adviser Dr Megha Saraswat Sharma.

Development of the programme: First and foremost the target was to make participants understand the message behind organizing the workshop, for which an elimination stage was included in the process of selecting the participants, by making it competitive. A pan India competition was launched in the last week of June 2010 for selecting the participants of the workshop. This competition was open to the final year PhD students and for those having not more than one year of post PhD research experience.

Being a maiden initiative, the biggest challenge was to reach out to people. An advert for this purpose was placed on the India Alliance website and the current science. In addition to this an email campaign was also used to inform potential candidates. 32 applicants were eventually invited to attend the workshop.

Focus of the workshop: The main objective of this workshop was to sensitize young researchers about those critical issues which can give new directions to their career as a scientist. Considering the important role that the communication plays in conducting, conveying and approaching scientific research, the workshop was designed to focus on the elements of Science & Communication individually and together.

In order to cover both the aspects, India Alliance invited a team of professional trainers (Accord consultants) to address communication skills in general, whereas scientists were invited to mentor the workshop. The detailed Information of the invited mentors is given in Annexure I.

A conscious effort was made to have an interactive workshop by making it residential and asking participants to come prepared with assignments.

Introduction:

The skill building workshop titled Science & Communication was conducted by The Wellcome Trust/DBT India Alliance at Golkonda Resorts, Hyderabad on 20, 21 & 22 September 2010. This workshop was envisaged to give some guiding principles to young upcoming scientists, to steer their actions towards the goal of self improvement. This workshop was aimed at skill as well as perspective building for the most aspiring young researchers. To enable this, the workshop brought young scientists and senior mentors together to provide a platform for discussion and learning.

To fulfill this objective, subjects most relevant to the participants were identified and addressed during this three day workshop in the following manner. An outline of the agenda is given in Annexure II. To make the workshop interesting and informative, an experimental learning method was adopted for the workshop. Pre-work format was used to ensure active participation of the candidates. Participants were asked to complete the following assignments for different sessions, before the workshop.

1. To submit a 1000 word scientific proposal
2. To submit a 2 min PowerPoint presentation
3. To improve the messy slides
4. Self Introduction “who am I” for Accord consultants

Proceedings of the workshop

Day 1

Monday, 21 September 2010

Theme of the day was Communication skills

The first day of the workshop commenced with the welcome remarks by Dr Megha Saraswat Sharma. It was followed by an introduction of the team of the Accord Consultants Private Limited from Bangalore. They are a management consulting firm, experienced in delivering training programmes on soft skills. These experts developed a programme focusing on the methods of enhancing the presentation and writing skills exclusively for the science & communication workshop. The team of the Accord consultant lead by Mr P Shivanand kept everyone involved through their interesting and innovative modules on communication skills throughout the day. Details of this session are available in the agenda.

Day 2

Tuesday, 22 September 2010

The second day started with a brief introduction of the workshop by Dr Megha. Prof Anuradha Lohia in her subsequent opening remarks talked about the India Alliance and its vision. She also gave a description of the background to the workshop and its objectives. On this day participants were joined by the mentors. The theme of the day was Science through presentations.

Session 1: Ethics in Research

The objective of this session was to provide participants better understanding of the ethical issues in scientific research. Prof Balasubramanian successfully managed to deliver an interesting presentation on this sensitive subject, by citing case studies and popular examples from day to day life.

Session 2: Avoiding PowerPointlessness

This session was exclusively designed by Prof Shubha Tole. The whole idea was to put emphasis on the practise of using the "PowerPoint as a tool" for making concise yet informative presentations. The pre-workshop assignment was circulated to all the participants for the following modules.

Module 1: What makes a good slide?

Participants were asked to improve a set of messy slides. Prof Tole, took them through all the version of the slides submitted by the participants. It was interesting to follow the entire gamut of presentations and the way everyone perceived it differently. This session suggested methods for improving the presentation of data/information.

Module 2: **Making the best of 2 minutes**

Every participant made a 2 minute presentation of the 3 slides they had submitted as part of the pre-workshop assignment. 2 minute talk session underlined the importance of time management during the presentation.

Session 3: **Trends, Opportunities and Paradigm Shifts – Drug R&D Industry**

This session included a presentation from Mr Taher Abbasi, CEO and founder of Cellworks group. He talked about the challenges of managing a research industry; this presentation brought an entirely different dimension to the workshop.

Session 4: **Learning from choices**

In this session participants had the opportunity to sit through powerful deliberations from successful scientists like Professor Subhash Lakhotia from BHU, Dr Vidita vaidya from TIFR and Dr Purnanand Guptasarma from IMTECH. Mentors shared their experiences with the upcoming scientists. The importance of having a good mentor and making right choices in the early career stage was highlighted during the talks. Discussion on the opportunities and challenges of a research career was very informative.

Session 5: **Panel discussion: How to make the most of opportunities**

Panelists at the session included: Prof Subhash Lakhotia, Prof D Balasubramaniam, Prof Shubha Tole, Dr Vidita Vaidya and Dr Purnananda Guptasarma and Vice Chancellor Professor Dhrubajyoti Chattopadhyay, who was visiting Hyderabad, briefly also participated in this discussion. The discussion was moderated by Prof Anuradha Lohia. Panel discussion was organized to allow participants of diverse backgrounds to share their perspective on important issues pertinent to their research career. Panelists responded well to all the questions raised by the participants, and tried to allay their concerns by making valuable suggestions.

Session 6: **Scientific Anthropology: learning from doing**

Dr Kausik Sunderrajan is an Associate Professor of Anthropology and of Social Sciences in the University of Chicago. He works on the anthropology of science, technology and medicine. He was invited to follow the proceedings of the workshop as an observer. A report from him is expected. This observation would help inform the success of the workshop and changes needed for the future.

Day 3

Wednesday, 22 September 2010

Session 1: Multidisciplinary approach to the science

Prof Shasidhara has closely followed the development of IISER Pune, which is established to promote multidisciplinary research. He shared his experiences and highlighted the importance of keeping an open mind to different disciplines while answering scientific questions.

Session 2: Elements of Grantsmanship

This session had two modules: instructions on writing a Grant proposal and feedback on practical exercise (proposal they had already submitted before the workshop) to take them step-by-step through all the stages of a grant proposal.

Module 1: Prof Anuradha Lohia focused on essential grant writing skills, whereas Dr Megha tried to familiarize them with the format of an IA Grant application.

Module 2: Group work: feedback on practical exercise.

As a part of our pre-workshop assignments, participants were asked to submit a 1000 word proposal before the workshop. These proposals were then evaluated by the mentors. In this session, participants were grouped into the six groups; each group was assigned to one mentor. The strengths and weaknesses of the proposals were discussed with the participants.

Session 3: Concluding session

The closing remark was addressed by Prof Anuradha Lohia. She expressed her gratitude to the mentors for their invaluable contribution to the workshop and for their cooperation and support in making the workshop a success. Similarly, she appreciated the participants for having showed great interest in learning and recognized the enthusiasm shown by the participants throughout the workshop. Further, she recognized and acknowledged the office for successfully organizing the workshop. Finally, certificates were presented to the participants and mentors in recognition of their participation in the Science & Communication workshop.

Feedback on the workshop:

The Science & Communication workshop received an overwhelming response from the participants as well as from the mentors. The letters of appreciation were also received by the office. However, our goal was to get a critical feedback on the concept and structure of the workshop, which might help us identify the areas of betterment. Therefore, an online feedback form was circulated to all the participants for this purpose. The office analyzed the responses and the details are attached in Annexure II.

Recommendations of the workshop:

- An important factor, which the workshop recognised, was the importance of guidance and mentorship. It was acknowledged that such an event has the ability to bring a significant change in the thought process. This may provide motivation for leading an independent career. It was agreed that such workshop help participants identify their strengths and weaknesses.
- India Alliance has now developed a template, which can be used in organizing a future event of this nature. After the success of this workshop, institutes are coming forward to organize such workshops in association with India Alliance. We envision doing this biannually rather than annually.
- In order to encourage clinicians to undertake research as career and to promote public health research as one of the options, India Alliance is planning to include sessions for clinicians and public health researchers.
- We are hoping to conduct such workshops at regular intervals.

Acknowledgements:

I want to express my immense gratitude to Anuradha for being the guiding force behind the workshop. Being a coordinator of the workshop I am grateful to the mentors for having spared their valuable time to be with us. At the same time I want to acknowledge all the participants for making the pre-workshop assignments format a success. They have given us a confidence for implementing it in our future events. I am thankful to my colleague Dr Megha for sharing various responsibilities and for her constant guidance throughout the workshop. Also, I would like to extend my sincere thanks to Mr Ramaknath Reddy and Ms Saritha Vincent for managing the logistics of the workshop. I am thankful to Mr Bollum Nataraj and Mr Muthyam Reddy for handling the financial matters of the workshop. My heartfelt thanks go to the members of the Grants team Dr Vid Nukala, Dr Naresh Sharma, Dr Sanjiv Sonkaria for their timely support and encouragement.

Annexure I

Prof Subhash Chandra Lakhotia

Department of Zoology

Banaras Hindu University

Prof Lakhotia's work is focused on developmental roles of the non-coding hsr-omega, heat shock and a few other novel genes in *Drosophila* using genetic, cell biological, molecular and recombinant DNA approaches. Roles of these genes in modulating apoptosis and neurodegeneration in *Drosophila* models of human diseases and cellular effects of certain Ayurvedic formulations using fly model are also being studied.

http://www.bhu.ac.in/zoology/employeedisplay1.php?action=recorddisplay&emp_no=12393

Dr Purnananda Guptasarma

Protein Science & Engineering Group

Institute of Microbial Technology, Chandigarh

Dr Guptasarma's work is focused on engineering of protein function, Understanding kinetic structural stability of hyperthermophile proteins, Role of molecular recognition in protein aggregation and Protein folding and the sequence-structure relationship.

http://www.imtech.res.in/index.php?option=com_chronocontact&chronoforname=scientists&task=detail&cf_id=28&filter=2

Prof Shubha Tole

Neurobiology

Tata Institute of Fundamental Research, Mumbai

Cerebral cortex and the amygdala are the two most complex brain structures. The cortex is responsible for higher brain functions- perception, language, learning, memory; the amygdala is the "emotion center" of the brain. The broad interests of her group are in the genetic mechanisms that control the formation of these highly specialized structures.

http://www.tifr.res.in/~dbs/web/S_Tole.html

Dr Vidita Vaidya

Neurobiology

Tata Institute of Fundamental Research, Mumbai

Dr Vidita's work is focused on understanding the neurocircuitry of emotion, its modulation by experience and the alterations in emotional neurocircuitry that underlie complex psychiatric disorders like depression. http://www.tifr.res.in/~dbs/web/V_Vaidya.html

Prof L S Shashidhara

Indian institute of Science Education and research Pune, Pune

Prof shashidhara's research is focused on evolution of appendage forms, mechanism of homeotic selector (Hox) gene function, functional genomics using *Drosophila* as a genetic system to study human genes and development of fly models of human diseases and the application of the same in drug discovery. <http://www.ccmb.res.in/staff/shashi/droso.html>

Prof D Balasubramaniam

Director of Research,

L V Prasad Eye Institute, Hyderabad

Prof Balasubramanian joined LVPEI's Prof Brien Holden Eye Research Centre after an illustrious scientific career, which included positions such as Director, Centre for Cellular and Molecular Biology, and Professor and Dean, University of Hyderabad. His research is focused on the biology of eye diseases. <http://patientcare.lvpei.org/eye-hospital/doctordetails.php?doctor=dbala>

Mr Taher Abbasi

CEO, Cellworks Group INC.

Mr Taher has over 15 years of management experience in the semiconductor and professional services industries. Prior to starting Cellworks Group Inc., he held senior management positions in Cadence Design Systems, Inc., Get2Chip Inc., Vitalect Inc. and Synopsys Inc. where he was involved in digital semiconductor design EDA software engineering and deployment in Asia Pacific region. He serves on the Board of Cellworks Group Inc. He is the co-author of the books "Logic Synthesis Using Synopsys" edition 1,2 (Kluwer publication) and "It's the Methodology, Stupid!" (ByteK publication).

Prof Kaushik Sunder Rajan

Department of Anthropology

University of Chicago

Prof Kaushik Sunder Rajan works on the anthropology of science, technology and medicine. His work has focused on a number of interrelated events and emergences: firstly, the increased corporatization of life science research; secondly, the emergence of new technologies and epistemologies within the life sciences, such as, significantly, genomics; and thirdly, the fact that these technoscientific and market emergences were not simply occurring in the United States, but rather globally. His book, *Biocapital: The Constitution of Post-Genomic Life*, tries to capture a flavor of these emergences.

Annexure II

Feedback on Science & Communication workshop

A survey questionnaire containing a set of ten questions was circulated to the participants. Feedback on the workshop can be summarized from their response to the question pertaining to the structure of the workshop.

How would you rate different sessions of the workshop?

