

**One Day Webinar on
How to Scientific Literature and An Introduction to Project MANAV**

8th July, 2020

Resource Person

Dr. Anupma Harshal Wadavlikar

Cosultant, Science Communication and Public
Engagement, MANAV, Human Atlas Initiatives
IISER, Pune

Organised by



Department of Chemistry, Botany and Zoology

In collaboration with

Internal Quality Assurance Cell (IQAC)

Lakhimpur Girls' College
North Lakhimpur, Assam

Venue : Zoom Online Meeting Platform

Time : 11:00 AM

Lecture Coordinator: Dr. Mridul Buragohain, Ms. Malobika Chaliha
& Dr. Ranjan Kumar

In the surge of the First Phase Covid-19, when everyone was hopeless and disoriented with life's journey, a One Day Webinar on "How to Scientific Literature and an introduction to project MANAV" was organised by the Internal Quality Assurance Cell (IQAC) in association with Department of Chemistry, Botany and Zoology, Lakhimpur Girls' College on 8th July, 2020 at 11:00 AM. Dr. Surajit Bhuyan, Principal, Lakhimpur Girls' College welcomed the Resource Person and all the participants, and he also showered his blessing on the Webinar. Dr. Mridul Buragohain, Lecture Coordinator introduced the Resource person of the day, Dr. Anupma Harshal Wadavlikar, Cosultant, Science Communication and Public Engagement, MANAV, Human Atlas Initiatives, IISER, Pune. All total 335 participants from across the Nation joined in the webinar.

Resource person of the day, Dr. Anupma Harshal Wadavlikar explained with example about the reading techniques of scientific papers. To write a critical literature review in a brand new field in about 4 months, citing over 150 papers we have to follow the following tips:-

1. Briefly read the Abstract

The abstract is the most condensed look at the paper. Read it quickly and highlight any claims or phrases that we want more details on. We have like to copy the entire abstract text or screenshot into the journal article notes template for later reference. It also helps to copy the keyword text into the template or your citation manager tags so you can search for them later. Things to read for:

- Is the research applicable to what you need right now?
- Are the findings significant enough to help you with your goal?
- What is the most interesting aspect of this paper?

2. Carefully read the Conclusion

Reading the conclusion gives you an instant look at the quality of the paper. Do the authors seem to make claims bigger than appropriate for the scope of the paper? Do they use hyperbole to inflate the importance of the work? Are the results not clearly stated? These could be red flags identifying a poor quality paper.

Highlight and copy a few of the most important phrases or sentences out of the conclusion into the journal article template in the first bulleted section or into the notes section of your reference manager. Look for:

- What the authors think they accomplished in this work.
- The reasoning behind their results. Any useful insights?
- Ideas for future experiments.

3. Identify the most important figures and dig through the Results & Discussion for more detail

If you're still interested after the first two steps, start digging into the results and discussion for more details. Before making the deep dive, write down the specific questions you need to answer in your notes section. Search the paper for those answers, writing down new questions as they come to mind.

One favorite strategy here is to look at each figure, read the caption and then dig through the text for supporting information (use Ctrl+F for "Fig. 3", for example). The figures should tell the story as well as (and more quickly than) the text.

Copy and paste specific claims you may want to quote or paraphrase later. Isolate *what the authors think they did* from your own commentary and summarize it in your own words.

4. Search the Methods section to answer questions if necessary

The Methods section is usually the most tedious and tiring to read. That's why we don't do it first. Only go through it when necessary or you'll never get to the 100 other papers you just downloaded.

Then Dr. Wadavlikar introduced the participants about the project "MANAV". She explained as:-

What is MANAV : Human Atlas Initiative?

- It is a project funded by DBT.

- aims at creating a database network of all tissues in the human body from the available scientific literature.
- It is a project that involves scientific skill development for annotation, science outreach along with handling big data.
- The programme will involve gaining better biological insights through physiological and molecular mapping, develop disease models through predictive computing and have a wholistic analysis and finally drug discovery.

Who can participate in this project?

- The project can be signed up by students who are in their final year graduation and above. Students from the fields of biochemistry, biotechnology,
- microbiology, botany, zoology, bioinformatics, health sciences, systems biologists, pharmacologists and data sciences can associate with this project. Even participants having a science background but not necessarily involved in active scientific research can be part of this network.

Why is MANAV important?

So far, researchers and students have had little or no expertise in reading scientific literature and develop or build further information on the same. This platform will impart key skills to the student community to read classified scientific literature, in this case, on individual tissue-basis, and perform annotation and curation.

Since all the information generated will pass through multiple levels of reviews, it will be an Atlas or a reliable collection on human body tissues. This collated data can be useful for both future researchers and parallelly, to the clinicians and drug developers, who finally handle human bodies in disease conditions.

What are the applications of information generated through MANAV?

The aim of the project remains to understand and capture the human physiology in two stages – in a normal stage and while in a disease stage. Such a database on individual tissues, once ready, can come handy in tracing the causes of a disease, understanding specific pathways and ultimately decode the body's disease stage linked to tissues and cells. The teams will also study

any potent elements or molecules that have never been used in the form of drugs, to target the specific cells or tissues.



At last, the resource person, Dr. Anupma Harshal Wadavlikar encouraged the participants to enrolled himself/herself into the project “MANAV”.

Dr. Bhupen Chutia, the IQAC Coordinator delivered the vote of thanks to the Resource person and all the participants present.

The Webinar has received lots of positive feedback for which the Department of Chemistry, Botany and Zoology will always indebted to.

Certificates were also issued to all those who have submitted their feedback form during the stipulated time.

Thank you

Dr. Mridul Buragohain, Ms. Malobika Chaliha & Dr. Ranjan Kumar

Joint Lecture Coordinators



WEBINAR SERIES

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Lecture 11

How to read Scientific Literature and
an introduction to project "MANAV"

Dr. Anupma Harshal Wadavlikar
Consultant, Science Communication
and Public Engagement, MANAV
Human Atlas Initiative
IISER, Pune

Registration link :

https://docs.google.com/forms/d/e/1FAIpQLSd dxzhZzdyEQbykCOgGB8Xc93QlnFwR3hOsUtRPR WToO71iqA/viewform?usp=pp_url

Date : 8th July, 2020
Time : 11 am

Lecture Co-ordinators

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Webinar's Brochure