

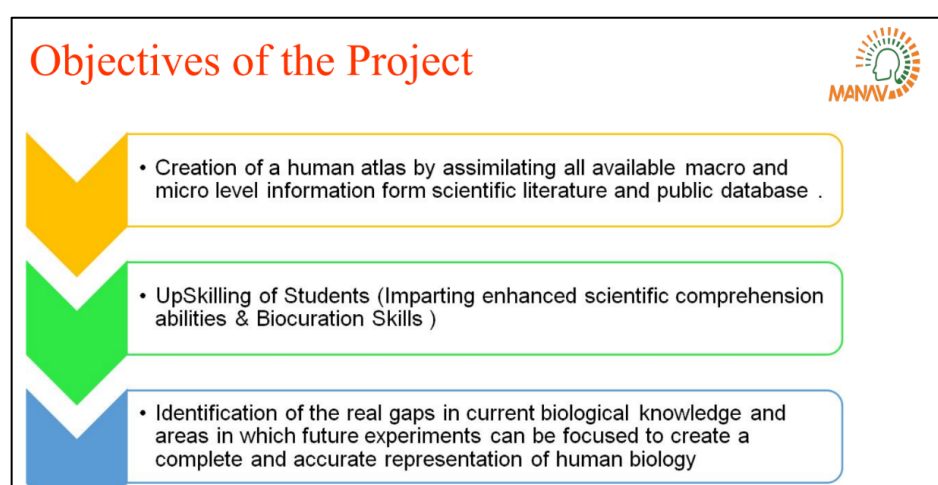
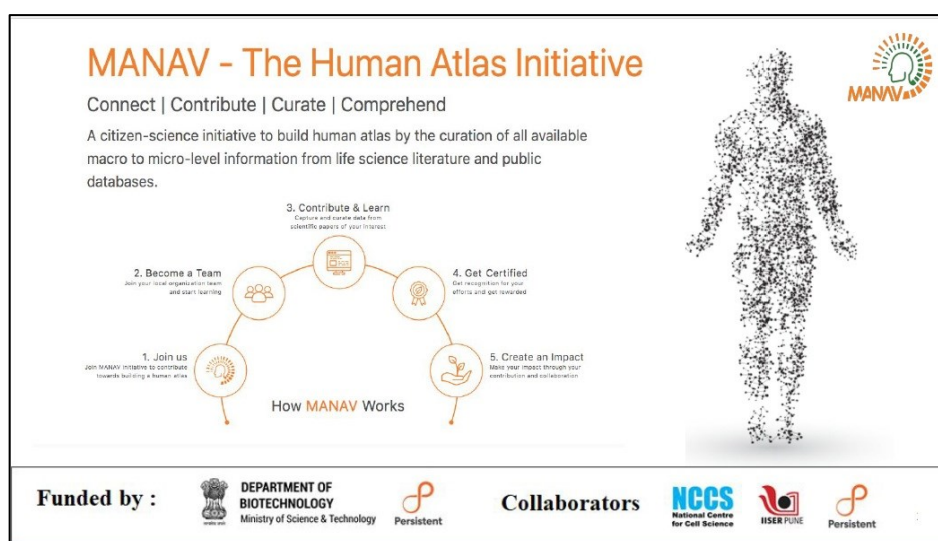
MANAV

Project **MANAV** is a citizen science project by the Department of Biotechnology (DBT), Government of India. Co-funded by Persistent Systems Limited (PSL) and implemented through National Centre of Cell Science (NCCS), Indian Institute of Science, Education and Research (IISER) and PSL, Pune. This initiative aims to develop a proof-of-concept for constructing a biological map of the human body, by capturing and collating macro to micro-level data and knowledge available in the scientific literature and other domains. Further insights to the project are available on Manav website at <https://manav.gov.in/>.

E-mail: manav.iiserpune@gmail.com

MANAV: PHASE 1

As faculty coordinator, Dr. Arunima Biswas of Raidighi College successfully participated in "**MANAV Scientific Reading and Comprehension Self-Assessment Module** (for students)", in Microbiology, conducted by the Project MANAV – The Human Atlas Initiative [DBT, NCCS, IISER Pune, Persistent], with 11 students from the Dept.



Importance of Reading Scientific Literature



Scientific reading is important for students as it:



- Helps the students understand the process of science
- Improves critical thinking abilities and knowledge about scientific facts.
- It enables students to design experiments, find solutions for a particular problem and learn/apply new methods/techniques/analysis in research projects
- Inspires student to pursue research as a career option

Manav aims to initiate students to Scientific Reading through -
Manav Scientific Reading & Comprehension Self-assessment Module

MANAV: Scientific Reading & Comprehension Self-assessment Module

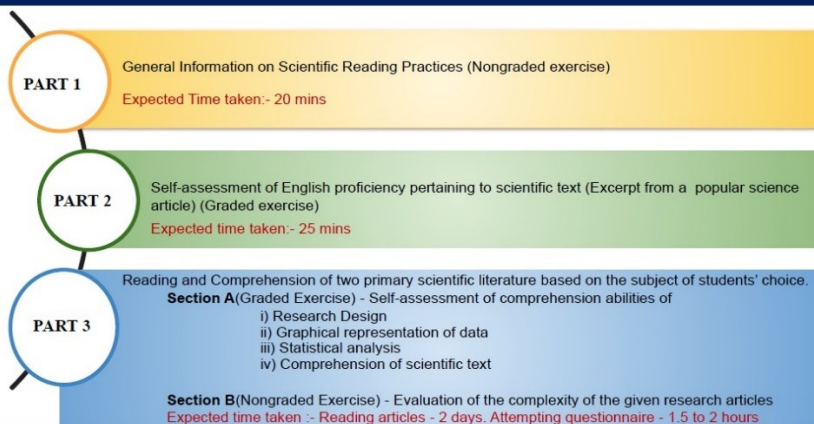
Purpose of this module

- It will help students to self evaluate their ability to approach as well as comprehend scientific literature and identify areas that need improvement.
- It aims to train students towards an efficient reading of scientific research papers and hence enhances their preparedness to contribute towards the building of Manav - The Human Atlas Platform.
- The MANAV Human Atlas Initiative will pool this information that is received from thousands of contributors to develop, evaluate and validate the Manav platform.
- This module aims to collect general information on scientific reading practices and challenges faced by Indian Students



6

Module Structure



Role of the Faculty Coordinator

- The faculty has to administer the Module to her/his students
- Manav team will provide you
 - Links to two research papers in the subject categories – **Biochemistry, Microbiology and Pharmacy**
 - Link to the module
 - Link to recorded instructions for students
- The students are allowed to pick any subject module as per their liking. The Faculty can however recommend the students to pick the subject that could be more relevant to the student's subject specialization
- The Faculty can circulate the email to all the students in the class and let them complete the module as per their convenience within a week
- Part 1 and 2 can be completed on the same day. Since Part 3 requires reading of two research articles, we recommend that you give students a gap of at least 4 days to let them go through the papers thoroughly.
- Please note that the student can have the research articles open in front of them to answer questions in part 3 .
There is no memorization required to answer any part of the module.

Assigned research articles:

Research Article 1

Analysis of Complete Genomes of *Propionibacterium acnes* Reveals a Novel Plasmid and Increased Pseudogenes in an Acne Associated Strain

Hindawi Publishing Corporation

BioMed Research International, Volume 2013, Article ID 918320, 11 pages.

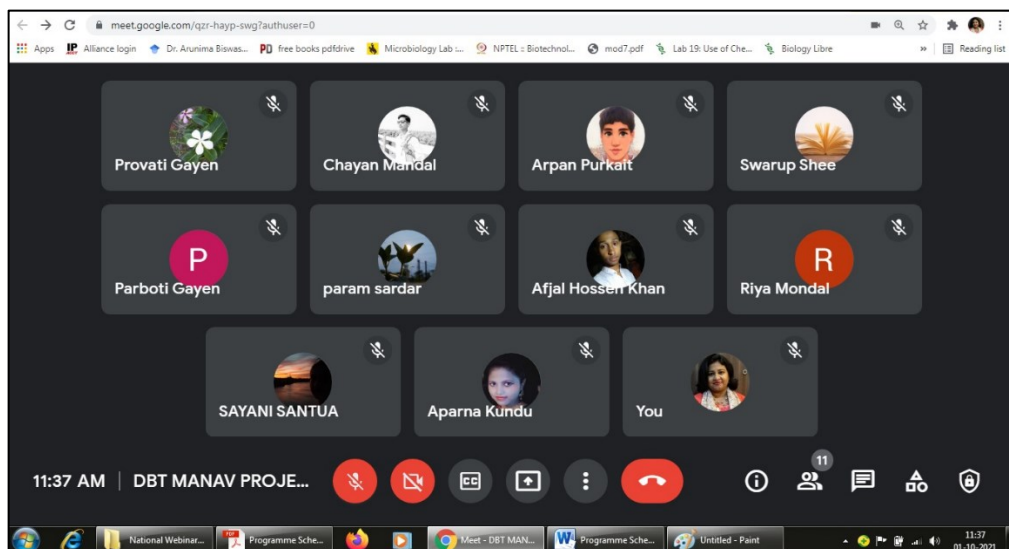
<http://dx.doi.org/10.1155/2013/918320>

Research Article 2

TLR-2 Recognizes *Propionibacterium acnes* CAMP Factor 1 from Highly Inflammatory Strains

PLOS ONE | November 30, 2016

DOI:10.1371/journal.pone.0167237



Orientation of students

DBT MANAV PROJECT MENTORING & ORIENTATION SESSION

Save More actions

Oct 1, 2021 11:30am to 12:50pm Oct 1, 2021 (GMT+05:30) India Standard Time - Kolkata Time zone

All day Does not repeat

RSVP: Yes Add note / guests

Event Details Find a Time

Guests

Join with Google Meet

meet.google.com/qzr-hayp-ewg · Up to 100 guest connections

Add location

Email 10 minutes

Notification 30 minutes

Add notification

Dr. Arunima Biswas

Busy Default visibility

Rich text editor toolbar

Mentoring & Orientation for the "MANAV Scientific Reading and Comprehension Self-Assessment Module (for students)", conducted by Project MANAV- The Human Atlas Initiative.

Mentor: Dr. A. Biswas

Objective of mentoring session 2: As faculty coordinator, my aim was to mentor selected students to read and critically evaluate two assigned scientific papers from peer reviewed journals from the field of Microbiology so that they could self assess their skills in scientific comprehension of

1. Research Design
2. Pictorial/Graphical Representation of Data
3. Statistical Analyses
4. Scientific text- Inference and Conclusion.

All 10 selected student participants were present. Principal Sir Dr. Sasabindu Jana also joined the session for a short while to motivate the students.

Add guests

12 guests

1 yes, 11 awaiting

- Dr. Arunima Biswas Organizer
- Afjal Hossen Khan *
- Aparna Kundu *
- Arpan Purkait *
- Chayan Mandal *
- param sardar *
- Parboti Gayen *
- Provati Gayen *
- Riya Mondal *
- SASABINDU JANA *
- SAYANI SANTUA *
- swarupshee20@gmail.com *

* Calendar cannot be shown

SUGGESTED TIMES

Guest permissions

- Modify event
- Invite others
- See guest list

Google Meet IP Alliance TN Agarose Gel Electro... Sci-Hub | Role of ki... https://aishe.gov.in...

Mentoring: MCBA SEM5_ DR. A. BISWAS

Sep 27, 2021 3:00pm to 4:00pm Sep 27, 2021 (GMT+05:30) India Standard Time - Kolkata Time zone

All day Does not repeat

RSVP: Yes Add note / guests

Event Details Find a Time

Join with Google Meet

meet.google.com/mig-tjhb-qqn · Up to 100 guest connections

Add location

Email 10 minutes

Notification 30 minutes

Add notification

Dr. Arunima Biswas

Busy Default visibility

Mentoring session of MCBA SEM5 Batch to encourage academically strong students to take a step ahead towards honing their scientific temper, critical thinking skills and overall academic excellence.

Mentor: Dr. A. Biswas

Students were mentored for or participating in the "MANAV Scientific Reading and Comprehension Self-Assessment Module (for students)", conducted by Project MANAV – The Human Atlas Initiative in September to October 2021.

All 4 students were present and enthusiastically consented to participate in the project as an opportunity of higher learning.

Save More actions

Guests

Add guests

6 guests
1 yes, 5 awaiting

- Dr. Arunima Biswas Organizer
- Parboti Gayen *
- Afjal Hossen Khan *
- param sardar *
- Provati Gayen *
- sasabindujana63 *

* Calendar cannot be shown

SUGGESTED TIMES

Guest permissions

- Modify event
- Invite others
- See guest list

Mentoring session

Google Meet IP Alliance TN Agarose Gel Electro... Sci-Hub | Role of ki... https://aishe.gov.in...

× MENTORING: MCBA SEM3_DR. A. BISWAS Save More actions

Sep 27, 2021 12:00pm to 1:00pm Sep 27, 2021 (GMT+05:30) India Standard Time - Kolkata Time zone

All day Does not repeat RSVP: Yes Add note / guests

[Event Details](#) [Find a Time](#)

[Join with Google Meet](#) meet.google.com/wpo-jgsr-nhn - Up to 100 guest connections

10 minutes

30 minutes

Add notification

Mentoring session to encourage academically strong students to take a step ahead towards honing their scientific temper, critical thinking skills and overall academic excellence.

Mentor: Dr. A. Biswas

Students were mentored for or participating in the "MANAV Scientific Reading and Comprehension Self-Assessment Module (for students)", conducted by Project MANAV – The Human Atlas Initiative in September to October 2021.

All students (except [Jenish Laskar](#)) were present and enthusiastically consented to participate in the project as an opportunity of higher learning.

Guests

Add guests

9 guests 1 yes, 8 awaiting

- Dr. Arunima Biswas Organizer
- Chayan Mandal *
- Jenish Rahaman Laskar *
- Aparna Kundu *
- Arpan Purkait *
- Riya Mondal *
- sasabindujana63 *
- SAYANI SANTUA *
- swarupshee20@gmail.com *

* Calendar cannot be shown

SUGGESTED TIMES

Guest permissions

- Modify event
- Invite others
- See guest list

Mentoring session



Certificate of Appreciation

Is presented to

Dr. Arunima Biswas

Raidighi College

For participating as a Faculty Coordinator for the "MANAV Scientific Reading and Comprehension Self-Assessment Module (for students)", conducted by Project MANAV– The Human Atlas Initiative in September to October 2021.

The students under your mentorship, read and critically evaluated two scientific papers from peer reviewed journals from the field of *Microbiology/ Biochemistry / Pharmacy*.

They were able to self assess their skills in scientific comprehension of

1. Research Design
2. Pictorial/Graphical Representation of Data
3. Statistical Analyses
4. Scientific text- Inference and Conclusion

Your mentorship helped students take a step ahead towards the honing their scientific temper, critical thinking skills and overall academic excellence .

We appreciate your efforts towards facilitation of this program and look forward to your continued engagement with Project MANAV.

Best wishes,

A handwritten signature in blue ink, appearing to read "M. V. Krishna Sastry".

Prof M. V. Krishna Sastry
Project Co-Ordinator &
Principal Investigator,
Scientist G, NCCS, Pune

A handwritten signature in blue ink, appearing to read "Nagaraj Balasubramanian".

Dr. Nagaraj Balasubramanian
Principal Investigator,
Associate Professor,
IISER, Pune

A handwritten signature in blue ink, appearing to read "Anamika".

Dr. Anamika Krishanpal
Principal Investigator,
Senior Domain Specialist,
Persistent LABS, Pune





Certificate of Appreciation

Is presented to

Raidighi College

For participating in the "MANAV Scientific Reading and Comprehension Self-Assessment Module (for students)", conducted by Project MANAV – The Human Atlas Initiative in September to October 2021.

The students from your College read and critically evaluated two scientific papers from peer reviewed journals from the field of *Microbiology/ Biochemistry / Pharmacy*.

They were able to self assess their skills in scientific comprehension of

1. Research Design
2. Pictorial/Graphical Representation of Data
3. Statistical Analyses
4. Scientific text- Inference and Conclusion

This activity helped students take a step ahead towards honing their scientific temper, critical thinking skills and overall academic excellence .

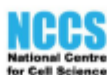
We appreciate your efforts towards the facilitation of this program and look forward to your continued engagement with Project MANAV.

Best wishes,

Prof M. V. Krishna Sastry
Project Co-Ordinator &
Principal Investigator,
Scientist G, NCCS, Pune

Dr. Nagaraj Balasubramanian
Principal Investigator,
Associate Professor,
IISER, Pune

Dr. Anamika Krishanpal
Principal Investigator,
Senior Domain Specialist,
Persistent LABS, Pune



Sample certificate given to students



MANAV: PHASE 2

MANAV - Faculty Level Survey

What is it about?

It aims to collate teacher's general opinions on students' reading habits, capabilities, and challenges pertaining to reading scientific literature. We would also like to know about the challenges that teachers faced and the strategies they adopted for teaching science in an online mode during the pandemic.

The survey has following sections:

SECTION I - Personal Details

SECTION II – Teacher's evaluation of students' scientific reading habits and the infrastructure available at their institution to facilitate the same

Section III - Teaching Science in an online mode

MANAV Human Atlas Initiative will use your evaluations with those received from thousands of other participants to further develop the evaluation and annotation systems being created for the MANAV Human Atlas Platform.

PS: The Manav Platform 1.0 is being opened via "Invitation to access" to a set of chosen users in a sequential manner.

Your participation will be greatly appreciated.



**HOLISTIC
REPRESENTATION OF
HUMAN BODY**



Certificate of Participation

Dr. Arunima Biswas

Participated in 'Manav Faculty Level Survey on scientific reading practices, capabilities and challenges of undergraduate and postgraduate students' conducted by Project Manav.

Date of Issue: 21st Feb 2022

A handwritten signature in blue ink, appearing to read "M. V. Krishna Sastry".

Prof M. V. Krishna Sastry
Project Co-Ordinator & Principal Investigator, Scientist G
NCCS, Pune

A handwritten signature in blue ink, appearing to read "Nagaraj Balasubramanian".

Dr. Nagaraj Balasubramanian
Principal Investigator,
Associate Professor,
IISER, Pune

A handwritten signature in blue ink, appearing to read "Anamika".

Dr. Anamika Krishanpal
Principal Investigator,
Senior Domain Specialist,
Persistent LABS, Pune