



The Poona Gujarati Kelavani Mandal's
Haribhai. V. Desai College
(Arts, Science, and Commerce)
596, Behind Shanivar Wada, Budhwar Peth, Pune, Maharashtra
411002.



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Department of Microbiology

12.10.2022

NOTICE

All students of M.Sc. II Microbiology are hereby informed that, The Department of Microbiology (PG) has organized a guest lecture on “**Analysis of separated proteins by densitometry (by Image J Software)**” on 15/10/2022 at 3.00 pm to 4.00 pm.

Speaker: Dr. Suraj Joshi, Scientist, Serum Institute, Pune (SIPL)

Venue: Commerce Lab. (4th Floor)

Attendance is compulsory for all M.Sc II Microbiology Students.

Ms. Sudha M. Adya
Coordinator (PG)
Dept. of Microbiology

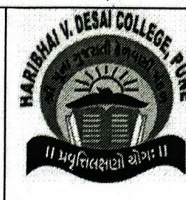
Dr. R. B. Patwardhan
Head Dept. of Microbiology
Vice- Principal

Dr. Shriprakash Soni
Vice- Principal

Dr. Ganesh D. Raut
Principal



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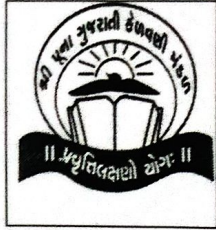
**Activity Report on Guest Lecture “Analysis of separated proteins by densitometry
(by Image J Software)” (2022-23)**

Department of Microbiology, Haribhai V. Desai Arts, Science and Commerce College, Pune had organized a guest lecture on “**Analysis of separated proteins by densitometry (by Image J Software)**” for **M.Sc. II Microbiology** students on **15th October 2022**. The lecture was delivered by Dr Suraj Joshi, Scientist, Serum Institute of India Pvt. Ltd. Duration of lecture was 1 hr (3.00pm-4.00pm). Mode of lecture was offline using LCD Projector. Venue of lecture was Commerce Lab, 4th floor.

Total 37 students and 3 college staff have participated in the lecture. Guest speaker was introduced by Ms. Mrunal Jawalekar, student of the course MSc II Microbiology. Dr. Rajashree Patwardhan; Head of the Department and Ms. Sudha Adya, Coordinator felicitated the guest. Student Ms. Neha Punmiya proposed the vote of thanks. The lecture was coordinated by Ms. Richa Raut, Asst. Professor, Department of Microbiology. Dr. Suraj Joshi explained techniques used for analysis of serum proteins and its applications. He also gave demonstration of the use of J software.

Insights of lecture were as follows:

- Hundreds of proteins are dissolved in the plasma. By measuring the concentration of these proteins, the clinician can obtain information regarding disease states in different organ systems. The measurement of protein is done on serum, which is the fluid that remains after plasma has clotted, thus removing fibrinogen and most of the clotting factors. Total protein content provides some information regarding a patient's general status; more clinically useful data are obtained from fractionating the total protein. The normal serum protein level is 6 to 8 g/dl. Albumin makes up 3.5 to 5.0 g/dl, and the remainder is the total globulins. These values may vary according to the individual laboratory.
- Proteins are complex bio-molecules with a wide range of physiological functions in all living organisms. Various techniques have been developed over the last few decades by many researchers to study the structure and functions of proteins. Two-dimensional gel electrophoresis (2DE) is one of the most widely used electrophoretic techniques for separation of complex mixtures of proteins. In 2DE, protein separation is carried out based on two different properties of proteins namely, isoelectric point and molecular weight.
- This technique allows the separation and detection of up to three different protein mixtures on a single 2DE gel. It enabled researchers to study the relative expression of samples with respect to varied biological conditions such as disease, treated, post/pre-treatment with high reproducibility. Application of the pooled internal standard having all the proteins from each experimental group minimizes any variability that may arise in the gel, thereby providing an efficient and accurate technique for protein profiling. Once the proteins are separated over 2DE, each spot on gel represents unique protein/proteins specific to pI and molecular weight. There are enormous numbers of protein spots over a gel and manual interpretation may lead into an erroneous result. Hence the gels can be analysed with the aid of commercially available software, which will enable user to compare the expression profiles of proteins within and across the gels. Software uses unique way of reading pixel intensities for implying the quantity of the proteins. Analysis gives a comprehensive output in statistical terms which are often easy to interpret and can be extended to a wider biological scenario.



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Outcome Of Lecture- Students got knowledge of techniques related to Protein Biochemistry and also understood use of J software. They were well acquainted with various applications of it in health sector.

Mrs. Richa Raut
Activity Coordinator

Ms. Sudha M. Adya
PG Coordinator
Department of Microbiology

Dr. R. B. Patwardhan
Head Dept. of Microbiology
Vice- Principal

Dr. Ganesh D. Raut
Principal



H. V. DESAI COLLEGE OF ARTS, COMMERCE AND SCIENCE, PUNE- 2

Activity Report (Academic Year - 2022-23)

Basic Details:

Name of the Activity: <u>Guest Lecture</u>			
Date	Faculty	Department/ Committee	Coordinator Name & Phone Number
15/10/22	Science	Microbiology	Mrs. Richa Raut 9850995787
Time	Venue	Activity for Class /group Expected student number	Nature: Academic/ Co- curricular / Extracurricular/ Environmental / Social/ Other
3:00 - 4:00 pm	Commerce Lab.	MSc II Microbiology 49	Academical

Support/ Assistance:

Brief Information about the Activity (Criterion No. :-):

Topic/ Subject of the activity	Analysis of separated proteins by densitometry (Image J software).
Objective for conducting the activity	To give insight of techniques in protein biochemistry.
Methodology	Powerpoint presentation & ICT software and discussion.
Outcome	Students learnt how to use Image J software.

Proof attached: Letters/ Student list of Participation / Certificate / Document / Photos/ Any other

1. Invitation letter.	2. Thank you letter	3. Notice.
4. Attendance.	5. Photos	6.

IQAC Cell:

1. Activity no as per the Department Activity Schedule:
2. IQAC Cell Activity Number:

Seal and Signature IQAC Coordinator

P. G. K. Mandal's
Haribhai V. Desai College of Arts, Science and Commerce
Department of Microbiology

"Analysis of separated proteins by densitometry (by Image J Software)"

M.Sc. II Microbiology

Guest Speaker: Dr. Suraj Joshi

Date: 15.10.2022

Sr. No	Name of the Student	Class	Signature
1.	Srushti B. Tathawadkar.	MSC. II Micro	Srushti
2.	Yogita M. Raskar	- 11 -	Raskar
3	Gunjan S. chaursiya	- 11 -	Gunjansiya
4	Vishal Tarkare	- 11 -	Tarkare
5	Jaha khatawkar	- 11 -	Jaha
6	Januki Wagh	- 11 -	Wagh
7	Sneha Wagh	- 11 -	
8	Mounal Jawlekar	- 11 -	Jawlekar
9	Shaunak Bhosari	- 11 -	Bhosari
10	Neha Punmiya	- 11 -	Punmiya
11	Sneha Karrayal	- 11 -	Karrayal
12	Pranjali marathe	- 11 -	Marathe
13	Gaurav Shinde	- 11 -	Shinde
14	Namrani Takkar	- 11 -	Takkar
15	Ahiali Dumada	- 11 -	Dumada
16	Sayali Dhaule	- 11 -	Sayali
17	Hemakshi Bapte	- 11 -	Bapte
18	Kisti Jagtap	- 11 -	Jagtap
19	Gunjan Chaurachiya		Chaurachiya
20	Kalyani shelar	- 11 -	shelar
21	Shikshi pilane	- 11 -	Pilane
22	Shatakshi mulye	- 11 -	Mulye
23	Aditi Gunnel	- 11 -	Gunnel
24	Atul sneha	- 11 -	Sneha
25	Vaishnavi Shitole	- 11 -	Shitole
26	Revati Salunke	- 11 -	Salunke
27	Payal Uddhav Jare.	- 11 -	Payal
28	Radhika paldar	- 11 -	Paldar
29	Vishwaja dhengale	- 11 -	Dhengale
30	Sayali Nagtilak	- 11 -	Sayali
31	Ashwini Dhamole	- 11 -	Dhamole
32	Mayuri Pawar	- 11 -	Pawar
33	Mithul Bhojgare	- 11 -	Bhojgare
34	Snehal Wagh	- 11 -	Wagh
35	Shrikrushna Patil	- 11 -	Patil

Principal :

Dr. Ganesh D. Raut

M.A., M.Phil., Ph.D., D.C.J.



THE POONA GUJARATI KELAVANI MANDAL'S
HARIBHAI V. DESAI COLLEGE

Arts, Science & Commerce

Affiliated to Savitribai Phule Pune University

(Linguistic Minority Institution)

ID No. PU / PN / ASC / 057 / (1984)

AISHE Code C-41829

Email : principal@hvdesaicollege.org

Date : 12/10/2022

Ref. No. : HVD/^{MSc}1477/2022

To,

Dr. Suraj Joshi

Scientist,

Serum Institute of India Pvt. Ltd.

Pune: 411028.

Subject: Invitation as a Guest Speaker for M.Sc. II Microbiology students

Dear Sir,

We have started M.Sc. Microbiology in the academic year 2016-17. We emphasize to give the students' knowledge about the recent advances in Microbiology. We take immense pleasure in inviting you to deliver the lecture on "Analysis of separated proteins by densitometry (by Image J Software)" for M.Sc. II Microbiology students on 15th October 2022. The lecture will give an insight in recent advances in the field of proteomics. It will also enhance practical skills of students. Mrs. Richa Raut (Contact No.9850995787) will coordinate with you. The details of the lecture are as follows.

Day and Date: Saturday 15th October 2022

Time: 3.00 pm -4.00 pm

Thank you.

Regards,

Ms. Sudha M. Adya
Coordinator (PG)
Dept. of Microbiology

Received
S. R. Joshi
15/10/22

Dr. R. B. Patwardhan
Head Dept. of Microbiology
Vice- Principal

Dr. Shriprakash Soni
Vice- Principal

Dr. Ganesh D. Raut
Principal

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Principal :

Dr. Ganesh D. Raut

M.A., M.Phil., Ph.D., D.C.J.



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Arts, Science & Commerce

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ID No. PU / PN / ASC / 057 / (1984)

AISHE Code C-41829

Email : principal@hvdesaicollege.org

Ref. No. : HVD/MS/484/2022

Date : 15/10/2022

To,

Dr. Suraj Joshi

Scientist,

Serum Institute of India Pvt. Ltd.

Pune: 411028.

Dear Sir,

We express our sincere thanks and gratitude for your valuable lecture and guidance given on the topic "Analysis of separated proteins by densitometry (by Image J Software)" for M.Sc. II Microbiology students on 15th October 2022. We are thankful to you for having accepted our invitation and interacted with the students. The lecture was beneficial for the students. We look forward to your cooperation and our association in future endeavors too.

Thank you.

Regards,

Ms. Sudha M. Adya
Coordinator (PG)
Dept. of Microbiology

Received
S. R. Joshi
15/10/22

Dr. R. B. Patwardhan
Head Dept. of Microbiology
Vice-Principal

Dr. Shriprakash Soni
Vice-Principal

Dr. Ganesh D. Raut
Principal



Felicitation of Guest speaker Dr Suraj Joshi



Presentation by Guest speaker, Dr. Suraj Joshi during guest lecture organised on 15 th October 2022