

Coimbatore,
31/7/2023

From,

T. Malavika,
M. Pharm II sem,
Department of Pharmaceutical Analysis,
PSG College of Pharmacy,
Coimbatore - 641004.

To,

The Principal,
PSG College of Pharmacy,
Coimbatore - 641004.

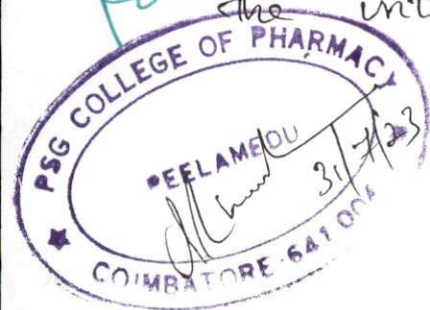
Respected Sir,

Sub: Regarding NDTL Internship.

As I have been selected for the National Dope Testing Laboratory (NDTL) Internship 2023, I have to submit my confirmation regarding the duration of the internship (3 months or 6 months) to the concerned authority of NDTL by today. So, I kindly request you to grant me permission for the internship. [Duration: September 14 to Dec 20].

Kindly Thanking you,
T. Malavika
31/7/23

Yours faithfully,
T. Malavika.





राष्ट्रीय डोप परीक्षण प्रयोगशाला NATIONAL DOPE TESTING LABORATORY



वाडा मान्यता प्राप्त प्रयोगशाला / WADA Accredited Lab

आईएसओ/आईईसी / ISO/ IEC 17025 : 2017 – एनएबीएल द्वारा मान्यता प्राप्त / NABL Accredited Lab

संदर्भ / Ref No. A/15/2023-Admin/207

तारीख / Date 28.07.2023

To
Ms. Malavika. T
No. 17, Johan Bosco Nagar,
Periya Thottam Pirivu,
Vadamadurai, CBE-17.

Email ID: tmalavikakumar231@gmail.com

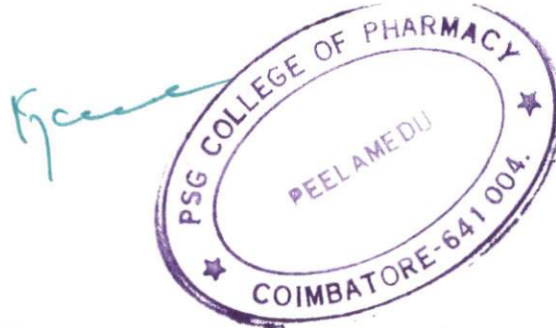
Subject: Regarding Training / Internship summer (July-December, 2023) session in National Dope Testing Laboratory, New Delhi.

Dear Malavika. T,

We are very happy to inform you that you have been selected for the position of Training / Internship with NDTL. The duration of Training / Internship will be for a period of 3 months to 6 months. During the training / internship period, you will be expected to fulfill all the duties and responsibilities assigned to you by the Laboratory Scientist, who will also be your reporting officer.

2. As a Trainee, you will have to pay a nominal fee of Rs 3000/- (for training upto 3 months) and Rs. 5000/- (for 6 months) at the time of joining. We would also like to inform you that during this period, you will not be entitled for any other kind of monetary benefits other than one casual leave a month. In case you plan to leave the Laboratory during the period of training, you will be required to intimate two weeks prior.

3. You will need to express your acceptance to the appointment for summer (July-December, 2023) session as trainee with our Laboratory by signing the copy of this document and sharing with us by email asst-admn@ndtlindia.com.



(Dr. Tarun Handa)
Scientist 'D'

Coimbatore,
31/7/2023

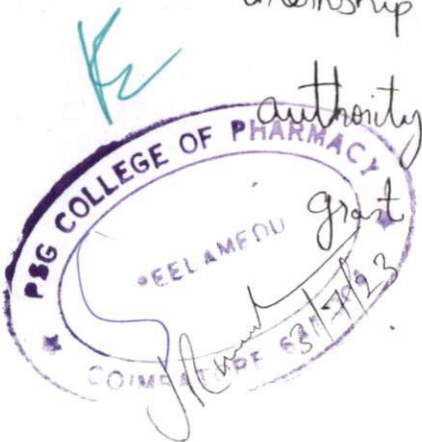
From,
P. Naveen Jesuraj,
M. Pharm IInd Sem,
Department of Pharmaceutical Analysis,
PSG College of Pharmacy,
Coimbatore - 641004.

To,
The principal,
PSG College of Pharmacy,
Coimbatore - 641004.

Respected Sir,

Sub: Regarding NDTL Internship. Duration: Sep 14 to Dec 30

As I have been selected for the National Dope Testing Laboratory (NDTL) Internship 2023, I have to submit my confirmation regarding the duration of the internship [3 months (or) 6 months] to the Concerned authority of NDTL by today. So I kindly request you to



grant me permission for the internship.
Thanking You
P. Naveen Jesuraj
31/7

Yours faithfully,
P. Naveen Jesuraj



राष्ट्रीय डोप परीक्षण प्रयोगशाला NATIONAL DOPE TESTING LABORATORY



वाडा मान्यता प्राप्त प्रयोगशाला / WADA Accredited Lab

आईएसओ/आईईसी / ISO/ IEC 17025 : 2017 – एनएबीएल द्वारा मान्यता प्राप्त / NABL Accredited Lab

संदर्भ / Ref No. A/15/2023-Admin / 206

तारीख / Date 28.07.2023

To
Sh. Naveen Jesuraj. P
14, Sakthi Nagar,
2nd Street, Masakalipalayam
Majnroad, Sowripalayam Post,
Coimbatore-641028.

Email ID: naveenj2398@gmail.com

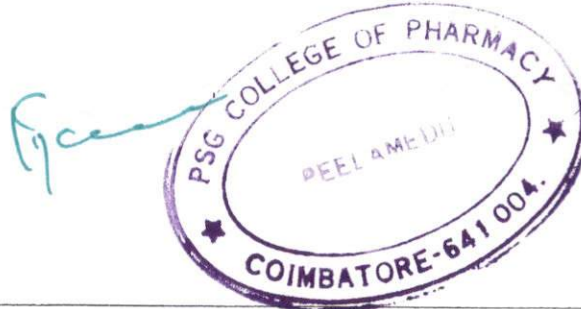
Subject: Regarding Training / Internship summer (July-December, 2023) session in National Dope Testing Laboratory, New Delhi.

Dear Naveen Jesuraj. P,

We are very happy to inform you that you have been selected for the position of Training / Internship with NDTL. The duration of Training / Internship will be for a period of 3 months to 6 months. During the training / internship period, you will be expected to fulfill all the duties and responsibilities assigned to you by the Laboratory Scientist, who will also be your reporting officer.

2. As a Trainee, you will have to pay a nominal fee of Rs 3000/- (for training upto 3 months) and Rs. 5000/- (for 6 months) at the time of joining. We would also like to inform you that during this period, you will not be entitled for any other kind of monetary benefits other than one casual leave a month. In case you plan to leave the Laboratory during the period of training, you will be required to intimate two weeks prior.

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(Dr. Tarun Handa)
Scientist 'D'

राष्ट्रीय डोप परीक्षण प्रयोगशाला, भारत सरकार,
जवाहरलाल नेहरू स्टेडियम परिसर, पूर्व गेट संख्या 10, एमटीएनएल बिल्डिंग के निकट, लोधी रोड, नई दिल्ली - 110003 भारत।
National Dope Testing Laboratory, Government of India,

Jawaharlal Nehru Stadium Complex, East Gate No. 10, Near MTNL Building, Lodhi Road, New Delhi - 110003, India.

टेलीफैक्स / Telefax :- +91 11 24368850, 24365530, 24368536, 24367667 ई-मेल / E-mail :- ndtlindia@nic.in

वेबसाइट / Website: www.ndtlindia.com, www.facebook.com/ndtlindia



National Dope Testing Laboratory

Government of India

JawaharLal Nehru Stadium Complex, East Gate No. 10, Near MTNL Building
New Delhi - 110003. India.

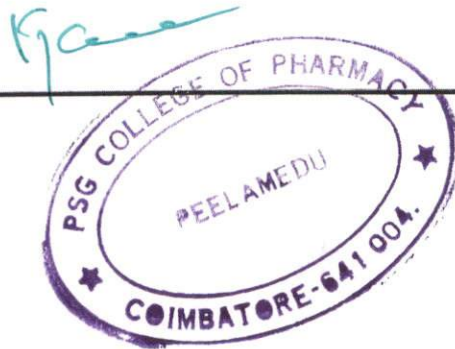
Training Certificate

This is to certify that Miss Malavika T, student of Master's degree in Pharmacy (M.Pharm.) from PSG College of Pharmacy, Coimbatore has undergone 03 months 15 days internship from 18th Sep 2023 to 05th Jan 2024. During this internship she has learned sample preparation and Liquid Chromatography-Tandem Mass Spectrometry techniques used by NDTL in this area.

She possesses remarkable enthusiasm, meticulousness, and an unquenchable thirst for knowledge in the field of analytical chemistry is commendable, making her an exceptional and invaluable asset in the pursuit of expertise and advancements in this subject.

(Dr. P. L. SAHU)
Director

National Dope Testing Laboratory
New Delhi - 110003. India





National Dope Testing Laboratory

Government of India

JawaharLal Nehru Stadium Complex, East Gate No. 10, Near MTNL Building
New Delhi - 110003. India.

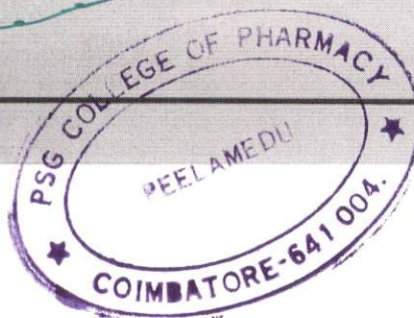
Training Certificate

This is to certify that Mast. Naveen Jesuraj P., student of Master's degree in Pharmacy (M.Pharm.) from PSG College of Pharmacy, Coimbatore has undergone 03 months 15 days internship from 18th Sep 2023 to 05th Jan 2024. During this internship he has learned sample preparation and Liquid Chromatography-Tandem Mass Spectrometry techniques used by NDTL in this area.

He possesses remarkable enthusiasm, meticulousness, and an unquenchable thirst for knowledge in the field of analytical chemistry is commendable, making his an exceptional and invaluable asset in the pursuit of expertise and advancements in this subject.

(Dr. P. L. SAHU)
Director

National Dope Testing Laboratory
New Delhi - 110003. India



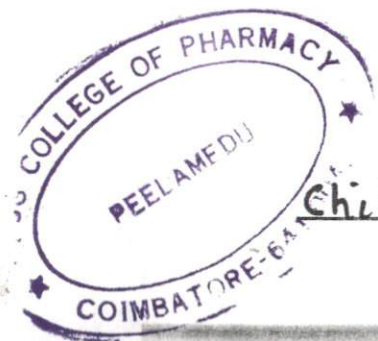
S. No: DW1596

Date: 26th July, 2023

Certificate of Internship

This is to certify that *Ms. Rincy Roy* has carried out her Internship work as part of M.Pharm (Pharmaceutics) course at CSIR-IICT, Hyderabad under the supervision of *Dr. Chittaranjan Patra*, Department of *Applied Biology* during the period 29th May 2023 to 26th July 2023.

Project Title: "Synthesis, Characterization and Biological Activity of Cobalt Nitroprusside Nanoparticles (CoNNPs)"



Chitta Ranjan Patra

Dr. Chittaranjan Patra
Sr. Principal Scientist



L. L. Rao

Chairman
Academic Affairs Unit (AAU)

PSG College of Pharmacy
Coimbatore-641 004.



Summer Research Internship Report

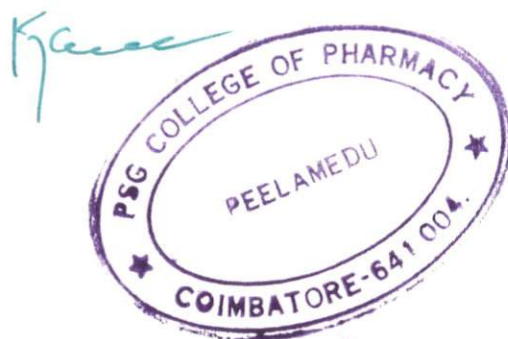
Trends in technology

Internship Report:1

- **Interns:** Miss. T. Malavika (I M.pharm Pharmaceutical analysis)
Mr.P.NaveenJesuraj(I M.pharm Pharmaceutical analysis)
- **Organization:** National Dope Testing Laboratory, New Delhi
- **Tenure:** July-December 2023

Internship report :2

- **Intern:** Ms. Rincy Roy, M.Pharm (Pharmaceutics)
- **Organization:** CSIR-Indian Institute of Chemical Technology (IICT), Hyderabad
- **Tenure:** May 29, 2023 - July 26, 2023.
- **Supervisor:** Dr. Chittaranjan Patra.
- **Department:** Department of Applied Biology.
- **Project Title:** Synthesis, Characterization, and Biological Activity of Cobalt Nitroprusside Nanoparticles (CoNNPs)



Summary:

This report encapsulates the participation of postgraduate students from PSG College of Pharmacy, Coimbatore-04, in two internship programs. These internships provided valuable practical experience and learning opportunities for the students, enhancing their professional development and academic growth.

1. Internship Report:

- Interns: Miss. T. Malavika (I M.pharm Pharmaceutical analysis) and Mr.P.Naveen Jesuraj(I M.pharm Pharmaceutical analysis)
- Organization: National Dope Testing Laboratory, New Delhi
- Tenure: July-December 2023

T. Malavika and Naveen Jesuraj of M.pharm(Pharmaceutical Analysis) department undertook an internship at the National Dope Testing Laboratory (NDTL) in New Delhi during the period of July to December 2023,. Their internship focused on gaining practical experience and enhancing their understanding of sample processing and analysis techniques relevant to sports doping detection.

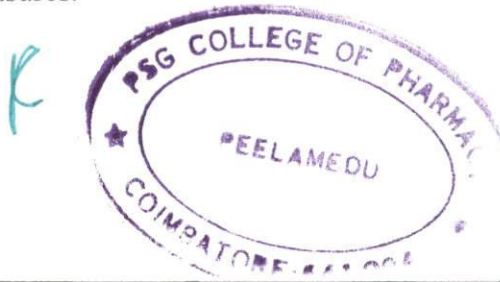
Learning Objectives:

1. Gain understanding of sample processing procedures for sports doping analysis.
2. Learn various sample extraction techniques, including liquid-liquid extraction, solid phase extraction, and solid phase micro-extraction.
3. Acquire skills in preparing stock solutions and mobile phases for analysis.
4. Familiarize with auxiliary laboratory equipment used in doping analysis.
5. Develop proficiency in handling and injecting samples into LC-MS/MS systems.

Achievements and Learning:

1. T. Malavika and Naveen Jesuraj successfully acquired a comprehensive understanding of sample processing techniques, including cleaning and substance extraction.
2. They demonstrated proficiency in various sample extraction procedures within the LC-MS/MS segment, including liquid-liquid extraction, solid phase extraction, and solid phase micro-extraction.
3. Both interns learned to prepare different concentrations and ratios of stock solutions and mobile phases, essential for accurate analysis.
4. They received thorough training in using auxiliary equipment such as nitrogen evaporators, micro-pipettes, centrifuges, and vortex shakers.
5. T. Malavika and Naveen Jesuraj became adept at handling and injecting samples into LC-MS/MS systems from different manufacturers, ensuring precise analysis.

T. Malavika and Naveen Jesuraj's internship at the National Dope Testing Laboratory proved to be a valuable learning experience. They successfully achieved their learning objectives and made significant contributions to the laboratory's endeavors in maintaining the integrity of sports through effective doping detection measures.



2. Internship Report:

- Intern: Ms. Rincy Roy, M.Pharm (Pharmaceutics)
Organization: CSIR-Indian Institute of Chemical Technology (IICT), Hyderabad
- Duration: May 29, 2023 - July 26, 2023.
- Supervisor: Dr. Chittaranjan Patra.
- Department: Department of Applied Biology.
- Project Title: Synthesis, Characterization, and Biological Activity of Cobalt Nitroprusside Nanoparticles (CoNNPs)

Ms. Rincy Roy, a student pursuing M.Pharm in Pharmaceutics, undertook an internship at the CSIR-Indian Institute of Chemical Technology (IICT) in Hyderabad under the supervision of Dr. Chittaranjan Patra. The internship spanned from May 29, 2023, to July 26, 2023, focusing on the project titled "Synthesis, Characterization, and Biological Activity of Cobalt Nitroprusside Nanoparticles (CoNNPs)" in the Biology department.


Objectives:

1. Synthesize Cobalt Nitroprusside Nanoparticles (CoNNPs).
2. Characterize the synthesized nanoparticles using various techniques.
3. Evaluate the biological activity of CoNNPs.
4. Analyze the potential applications of CoNNPs in pharmaceuticals.

Internship Activities and Achievements:

1. Synthesis of CoNNPs: Ms. Rincy Roy actively participated in the synthesis of Cobalt Nitroprusside Nanoparticles using the established protocols under the guidance of Dr. Chittaranjan Patra.
2. Characterization Techniques: She gained hands-on experience in various characterization techniques such as X-ray Diffraction (XRD), Transmission Electron Microscopy (TEM), Scanning Electron Microscopy (SEM), and Fourier Transform Infrared Spectroscopy (FTIR) to analyze the structural and morphological properties of CoNNPs.
3. Biological Activity Assessment: Ms. Rincy Roy contributed to the biological activity evaluation of CoNNPs through assays such as cytotoxicity studies, antimicrobial assays, and evaluation of antioxidant properties.
4. Data Analysis and Reporting: She meticulously analyzed the experimental data and contributed to the preparation of reports and presentations summarizing the findings of the project.

Ms. Rincy Roy's internship at CSIR-IICT, Hyderabad, under the guidance of Dr. Chittaranjan Patra, provided her with valuable insights into nanoparticle synthesis, characterization techniques, and biological activity assessment. Her contributions to the project on Cobalt Nitroprusside Nanoparticles demonstrate her dedication and potential in the field of pharmaceuticals.


Dr. M. Ramanathan
Principal

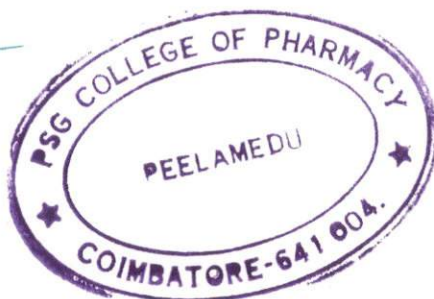




Fig 1: Students attending the inauguration session



Fig 2: Students receiving the intership completion certificate



Fig 3 : Students mentored by tranine analysyt intership

