





### Research Internships: When, Where and How?







PhD

https://adhesionlab.wixsite.com/adhesionlab

@AdhesionLab

(Ideal for students and young researchers)

Join us for an online discussion

How to pitch an idea? How to write emails and make a CV? What to do when a lab doesn't have an opening? What to do when the lab does not respond?



Dr. Karishma S Kaushik MBBS, MD, PhD @KaushikLab

Snehal Kadam

BS-MS

our screen. Please keep your microphones on

Please make

sure you can

hear us and see

Please type your questions in the chat window.

mute.

We will pick Qs as we go along.



Omkar Joshi Undergraduate Student @OmkarJoshi I 4898



Date: May 15th 2020 (Friday)

Time: IIAM

To register scan the QR code or use this link: https://qrgo.page.link/H8Vtp

### Outline

- Choosing and Applying to Labs Nagaraj
- Writing your first email Snehal
- Responses to emails Omkar
- Making CVs / Resumes for internships Karishma





# Choosing and Applying to Labs





# What are you looking for? Why?

# Choosing the Right Lab

Does the **research focus** of the lab align with your interests?

- Read details of ongoing projects on the website (do your homework!)
- Check out recent publications and read them. (UG student authors?)
- Look at the composition of the lab (UG vs Grad vs Post Doc).
- Also look at the department and the institute also when you apply to a lab.
- THINK EARLY...PLAN SOON AFTER....APPLY LATER
- Ask yourself why you think this lab is right for you. Let your letter reflect that.

### DO NOT apply to a lab just because it is reputed

- There is a high chance that the PI will recognise a non-specific email!
- Dramatically reduces your chances to even get a response.

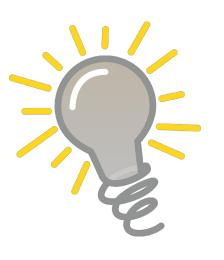




# Applying to the Lab

- Best chance of getting a (positive) response: Pitch an idea
  - Demonstrates that you are truly following their work :)
  - It may not be something you finally work on, but will reflect your commitment
- Even if you don't have a "novel" idea, get familiar with their work
  - Make sure you highlight your project of interest in the email

• Timing: Make sure you write well in advance (3 months prior) such that you have time to complete any prerequisites



# The Nitty-Gritty Details

• Where do I find internships, other than lab websites?

Common platforms? Portals? India-specific sites?

How many labs should I apply to?

Any success metrics to share? Conversion rates?

• Make sure you have discussed this with your current PI/faculty!

Any host institute/graduation specific requirements?



# Your first impression - Your first email!



# Before sending the Email

- Identified a Lab
- Read their work
- Identified potential projects/areas of interest



- Find the correct email address
- → Make a draft email first (add in the email ID as the last step)
- → Never write emails when you are not in the right headspace!

# Structure of the Email

- Part 1: Initiation
  - Introduce yourself who and where? Current course?
  - Scientific interests (broad) and research background



3-4 lines

- Part 2 : Main Body
  - Main research interest and reasons (focussed topic)
  - Skills you have for the project
  - Publications etc.
- Part 3: Termination
  - Formalities showing your 'keen interest'
  - Timelines, Forms, Application procedures etc.

10-12 lines

2-3 lines



### To | Correct Email Address

Cc Bcc

Subject Relevant to the position OR clearly indicating that your email is an application

Dear Prof. XYZ,

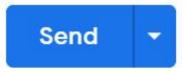
Introduce yourself and state in one line what this email is about. State your research interests in one line.

Give a brief background of your education and research experience (relevant), skills you have that are relevant to this application.

More about your research interests (how it ties into the work of this lab you are applying to).

Details about project/internship you are looking for, and TIMELINES! Attached CV

### Sign off





















### DON'Ts

- Begin your email as "Dear Sir/Madam"
- Emphasize on details that are already present in your CV
- Be too generic. It shows lack of focus and might dampen your chances
- Write lengthy emails. Most of them will be postponed to later and forgotten.
- Use fonts that are difficult to read. E.g. Cursive fonts, decorative fonts





WHEN YOU RECEIVE AN EMAIL WITH WEIRD FONTS

### DOs

- Give enough information and/or rationale about the reasons for your interest and idea
- Mention any publications (relevant)
- TIMING: Send the email at an appropriate time!
- · Right email to the right lab!
- Be concise and specific
- Follow up with a query a few days later
- Use GRAMMARLY emails with poor language/grammar almost never get responses!

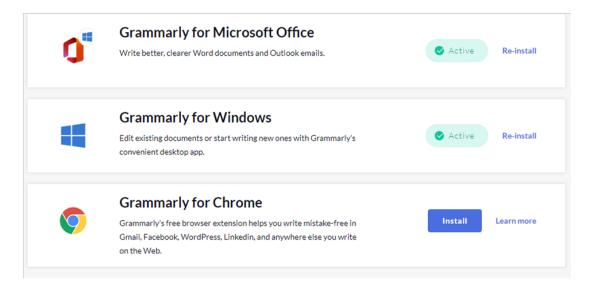


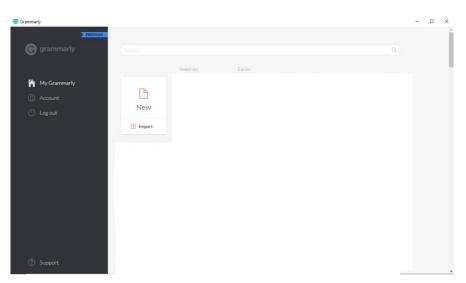


ALWAYS READ YOUR EMAIL BEFORE CLICKING SEND!

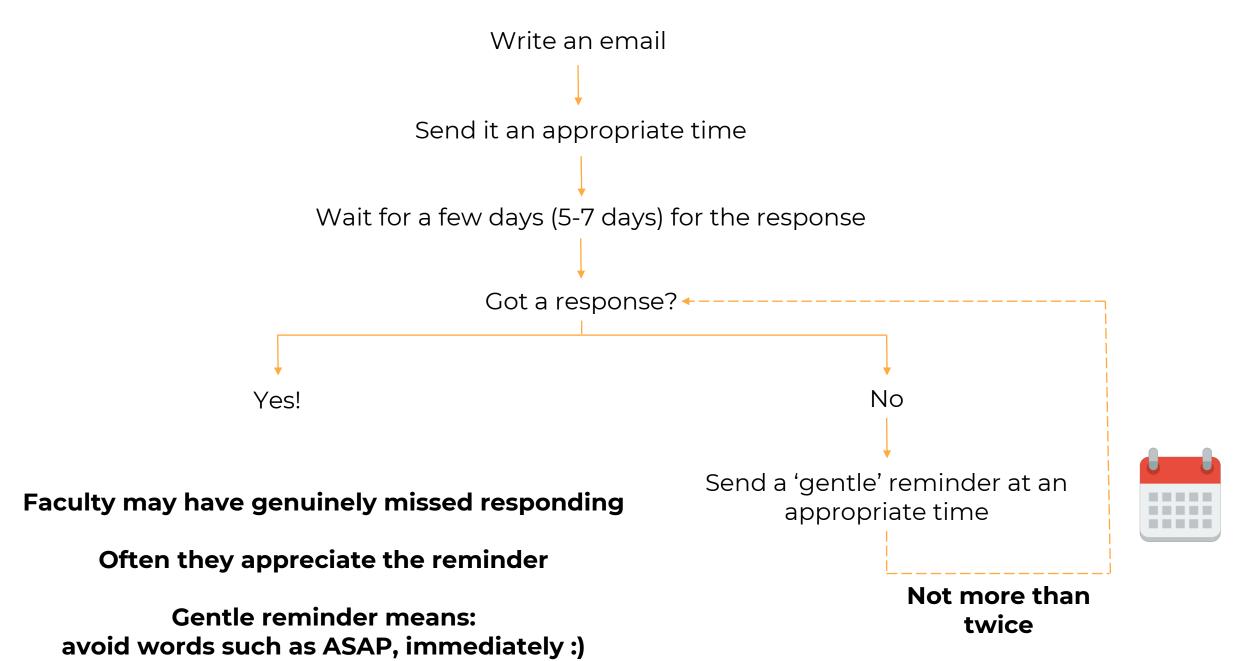
# Grammarly

- Wonderful tool for Grammar and spell check
- Has a free and premium version
  - Check if your Institute has taken a Premium subscription!
- Accessibility: Online, App for PC, Plugins for Chrome/Word, Keyboard
- Tip: The plugin can be distracting for some people





# Responses to Emails?



Yes! You got a response.

### **Application accepted**

Congratulations!

Make good use of the opportunity:-

- Complete all prerequisites
- Get a head-start by reading papers
- If needed, ask for reading relevant reading material
  - Set a timeline to join them
- Ask if you can get to know other lab members
  - Accomodation/visa?

Found a better place/fit: Please email and inform that you will not be joining!

### **Application declined**

Don't lose hope. An opening might come-up soon. Every day is a new day!

Keep yourself in the loop by showing interest in joining if an opening comes up!

### What is the reason?

**No opening:** Ask if you can keep in touch, any idea when an opening might come up? Remote work?

Not the right fit: Better to let it go

# Some Examples of Emails

Respected Sir/ Ma'am

I wish to apply for the research project that advertise on ----- group by ------ Ma'am I thoroughly Interested in working on this topic for my internship because prior to getting information on this project I had read few papers on this topic "-----" and "----" which really got me Interested in the topic. Also attended ----- Ma'am Lecture in ----- College, Pune.

I look forward to your response and further communication, do let me know if I need to come to meet you regarding project and if you require apart from my CV to join.

Thanking you,

Is this a good or bad email?

Yours Sincerely ABC

# Some Examples of Emails

Dear Dr. ABC,

I, Snehal Kadam, am an undergraduate student at the Indian Institute of Science Education and Research (IISER) Pune, India. I am currently in the 4th year of a 5 year dual BS-MS course. I am interested in synthetic biology, gene circuits, their functioning and microbiology. I wanted to enquire about the possibility of doing my Masters Thesis project in your research group.

I am currently working with Dr. XYZ at IISER Pune studying a synthetic genetic circuit and gene expression patterns using *E.coli* as a model organism. I was also a part of the IISER Pune iGEM team that won a bronze medal in iGEM 2015. I have previously done an internship at the Mechanobiology Institute (National University of Singapore) in Prof. PQR's lab, studying regulation in a genetic network involved in *Salmonella* pathogenesis.

As a part of our course at my home institute, we are required to do a project (roughly from May 2017 to March 2018) in the 5th year of our course (Masters Thesis Project). This is an evaluated project and required to successfully obtain the degree.

I am interested in the work your lab is doing, particularly in understanding noise in genetic networks. I wanted to know if there is a possibility of doing my masters thesis project in the lab. I have attached my CV, which details my education background and research experience.

Looking forward to your reply.

Thanking you, Snehal Kadam IISER Pune

### Is this a good or bad email?

# Some Examples of Emails

Respected Dr.ABC,

I am Omkar Joshi, a 3rd-year student in the BSMS Dual Degree Program at the Indian Institute of Science Education and Research (IISER), Pune. I write to you with interest in working in your Ray Lab at the \*\*\*\*\*\*\* (Name of Institute), ### (Place), as a research student, during the Summer months (May-July) of 2019.

With a long-standing inclination towards Cell Biology, I decided to join a Cell Biology Lab at IISER-Pune. I worked in that lab, under Dr. XYZ, for a year and a half. In the course of my work, along with all the theoretical and Wet Lab Cell Biology skills, I developed a keen interest in Cancer Biology. Understanding the "Hallmarks of Cancer" further fascinated me towards this exciting system.

The field of Cancer Biology and it's association with various transcription factors and this in turn driving metastasis has fascinated me. Knowing from my previous cell biology experience that the transcriptome of cancer cells is nothing short of a mess, I am excited to know how it is various regulations work in the cancer cells to achieve various phenotypes. The work in your Lab has sparked my curiosity and I would love to learn more along these lines, particularly the transcriptional regulation of ++++ (Specifics).

I have also taken Advanced Cell Biology and Genome Biology courses as a part of my semesters, which will help me learn the research questions better.

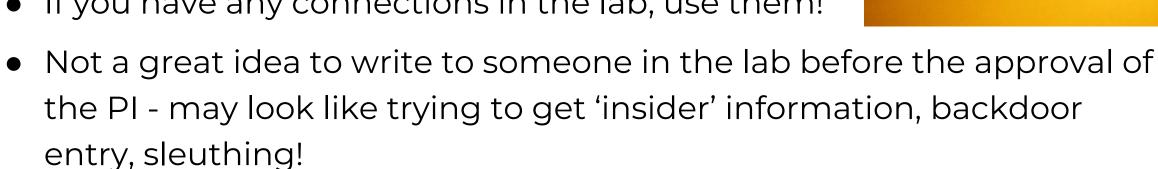
- So, with my current and research background, I hope that I will be able to contribute to the research in your Lab.
- I hence write to you, Dr.ABC to ask if there is an opening in your lab this summer.
- I am thrilled about this opportunity and hope to hear from you soon!

Kindly find my CV attached with this email.

Is this a good or bad email?

### In Conclusion

- DON'T BLUFF to make your email attractive
  - You may land into unnecessary problems
- If you have any connections in the lab, use them!





# Special Considerations

### How do you <u>find</u> internships?

Personal network / Twitter / 'Blind date' emails!

**Remember:** Internships are still largely dependent on networking and connections! We will have a session on social media for scientists soon, and we can talk more there!

### How do you <u>fund</u> internships?

Always personal money? Institutional / Government funding?

Can crowdfunding GoFundMe work? Any experiences?

Any other ideas?

# Making your Resume

# An Important Question

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- · Should I attach my Resume with my email?
  - (Personal opinion : Yes)

### Else, the next email will usually be - send me your Resume :)

Nothing more than a 1-pager, at most 2 pager

PDF format

Well-formatted, clear font, should enable a quick assessment

### How Do You Structure a Resume?

- According to importance/relevance or According to chronological order?
- Name, Contact Details

### No need for photo/marital status/blood group etc

- · Educational background (from your undergraduate onwards)
- Publications (if any) or Project Experience
- Workshops/Conferences/Seminars Attended
- Awards/Fellowships Received
- Any outreach activities/blogs/features/scicomm
- · Additional information (national level rifle shooting!)

### Page 1

#### RESUME

#### Objective

To learn new technologies & techniques by working in research oriented professional environment.

#### Academics

#### MSc. Biotechnology (5 Years Integrated)

Institute of Bioinformatics and Biotechnology (IBB), SPPU, Pune CGPA= 5.12/6; Grade=O [University Ranker – 3<sup>rd</sup> Rank]

#### Higher Secondary Exam. (XII)

2014 83.69%

#### SSC Exam (X)

2012 91.45%

#### Projects / Interships

#### Internship at IISER, Pune

: Since June 2019 till now in Adhesion Lab

Working on deducing the role of Arf1 GEFs in Cell-matrix dependent Golgi organization and how adhesion dependent Golgi organization is regulated by kinetics of change in Arf1 activation, under the guidance of Dr. Nagaraj Balasubramanian. This work is now being written as a manuscript in which I am the joint first author.

#### Masters Dissertation Project at IISER, Pune

: December 2018 to April 2019

'Study the role of Arf1 GEFs in Cell-Matrix Adhesion Mediated Golgi Organization'

#### Summer Internship at IISER, Pune

: May-June 2017 and 2018 in Adhesion Lab

Hands on learning on Tissue Culture and Western Blot techniques during the internship.

#### Techniques Acquired -

UV Spectrophotometer Sterilization Culture Techniques Confocal Microscopy Size-exclusion Chromatography

Protein Estimation Activity Assay Gel Electrophoresis Cell Western Blot

### Presentations

-Paper presentations during 5th, 6th and 7th Semesters.

- -3<sup>rd</sup> year project presentation on 'Effect of Conditioned Media from 3T3-L1 Pre-adipocytes on Mouse Skin Melanoma Cells'
- -Review writing on 'Mitotic Cell Rounding' and 'Protein Trafficking' during 8th and 9th Semesters. -5th year project presentation on 'Study The Role of Arf1 GEFs in Cell-matrix Adhesion Mediated Golgi Organization'.

### Workshops / Conferences Attended

- -Conference on "Phenotypic Heterogeneity as a Driver of Cancer Progression" in January 2020 at IISc, Bangalore.
- -Seminar on "Epigenetics" in February 2016 at Savitrabai Phule Pune University (SPPU), Pune.
- -Seminar on "Coronary Artery Disease" in February 2016 at SPPU, Pune.
- -C-DAC symposium in January 2017
- -Bioconclave 2017 seminars at IISER, Pune.

### Page 2

#### Skills / Strengths

- -Passion for Technologies & Research
- -Effective Time Management
- -Ability to work with all levels of Management Teams
- -A Hard Worker, Energetic person with a desire to be the best in the Industry / Academics
   -Computer literacy in MS Office & C Programming

#### Extra-Curricular Activities

- -I am actively involved in Social Work since 2010, volunteering with nLiten, an NGO that is working in the field of Education, Environment & Traffic.
- I have been working in the field of Education of underprivileged students by teaching them different subjects like Mathematics, English and Science.
- -I have also worked in various Traffic Management Programs since last 4-5 yrs.
- -Apart from these Programs I have participated in various drives like Blood Donation Camps, Tree Plantation, Cleanliness Drives, Menstrual Hygiene Programs for adolescent girls etc. as a

At present, I'm working with an NGO RSGS that is working in Rural Areas of Pune for improving the Quality of Lives for the villagers. My role is to Mentor Girl student from their 2 hostels for their Overall Development.

-A proud foodie, I am also interested in trekking.

#### Personal Details

Name : Nikita Shah
Gender : Female
Date of Birth : 5th May, 1996
Marital Status : Single
Nationality : Indian

Languages Known : English, Hindi, Gujarati, Marathi and German

Address: M-10 Sneh Paradise, Near MIT College, Paud Road, Pune-411038

I, hereby declare that the above-mentioned information is complete and correct to best of my knowledge.

# Some Tips to Remember

- · Modify your Resume depending on the application details
  - E.g.: You could change the objective, details of research experience, chronology as per need
- Keep it short: Profs will seldom read a 5-page Resume in entirety
- Extra-curricular sections are important, and make you stand out!
- . Grammar check!

## Special Considerations

An on-site internship seems unfathomable right now. Can you pitch alternatives?

### Can we consider Remote internships?

Yes, it is not perfect but possible.

Depends on PI and their interest to make this work.

Not a reflection of you!

**Work that can be done:** contribute ideas for a project, writing a scicomm article, research / literature review a topic, developing educational tools/curricula

Bioinformatics work has a huge advantage!

### Other Relevant Sources

Vishu Guttal's blog, IISc

https://teelabiisc.wordpress.com/tag/education/

India Bioscience

https://indiabioscience.org/

Resume versus CV

https://theundercoverrecruiter.com/cv-vs-resume-difference-and-when-use-which/