



TJ Pharmaceutical Research Group

# Introductory Starter Packet



*A Guide for New Members*

Last Revised by the 2022 Leadership Core

## I. Introduction

*Hint: There will be multiple boxes. Those are important, read them!*

**TLDR:** A primary function of this group is to teach students how to conduct research, and to get such research published. While this might not be in a national journal, any form of recognition or publication is considered an accomplishment. We also aim to teach about interpersonal skills, have guest lecturers and professionals come in, and allow students to make vital connections with others. The group aims to set students up for success in the future.

The TJ Pharmaceutical Research Group was founded in 2022. It was a rebranding of the former Pharmaceutical Club and shifted its focus from drug-based learning to a more research-focused interpretation of current problems in the pharmaceutical and medicinal fields. Contrary to its name, the club welcomes students of all specializations, not just Biomed. The group saw an opportunity to teach students at TJHSST, specifically underclassmen, how to get recognized for their scientific discoveries. **Any student with a passion for research can succeed.** A student with a strong computer science background might be able to use pre-existing datasets to perform data analysis and/or use machine learning models to predict future trends. Students with a biology or chemistry background may go out to their local communities to collect and sample data. Students who may simply be interested in a field of science might write a literature review on the topic, and add their own thoughts to it.

A major goal of the group is to **have students carry out their own research projects.** Whether they do this on their own or with other members, we aim to get their research recognized in some shape or form. This could be publishing in a local newspaper, publishing with the school journal *Teknos*, presenting at a local science fair, and more. The group will lecture about different fields in pharmaceuticals, help students brainstorm ideas, give them research ideas, teach them paper writing skills, and guide them through the publication process. It should be considered, however, that a great amount of success from students comes from their dedication and motivation, and that the club is simply an environment for their momentum.

A secondary goal of the club is to **teach students about interpersonal skills.** This includes cold-emailing, resume writing, and more. We want to help students land internships at research institutions, and provide them with more valuable opportunities in the future. **This is usually much easier if the student has completed a research project before.**

A tertiary goal of the club is to be a relaxed place where students can have fun, eat food, and meet others. Everyone knows that school can be stressful. **The club wants to be a place where students can relax and focus on topics they are passionate about.** This can be done with fairs, collaborating with other clubs, having guest lectures, presentation days, bringing professionals, and more.

The group acts as a medium for success.

## II. Types of Club Meetings

### ◆ Topic Review

This type of meeting will focus on summarizing various topics within the pharmaceutical field such as the current state of treatment progression pertaining to various diseases and disorders. The purpose of these meetings is to help students develop a specialized research interest regarding practical applications within the pharmaceutical field. Topics will be chosen by popular vote and strongly considered by officers.

### ◆ Article Reading Skills

This type of meeting will focus on teaching students the crucial skill of effectively breaking down primary and secondary scientific articles. These meetings will help students develop the skill of interpreting articles in an efficient, unbiased manner that will aid them in their independent research. We will utilize example articles during these meetings for learning purposes. Meetings of this type can be both lecture-based and seminar-based.

### ◆ Interpersonal Skills

This type of meeting will focus on teaching students how to formally reach out to mentors. These meetings have the purpose of helping students further their independent research and strive for a potential publication. Skills such as the fundamentals of cold emailing, resume writing, and finding appropriate mentors will be taught. Meetings will be strictly lecture-based and all supplementary material will subsequently be posted on our website.

### ◆ Publication Skills

What is publishing? Where should I publish? What do I need to do to get published? These are just some of the questions we'll help you answer through this type of meeting. The most important part of publishing is to get recognized for your work in

some shape or form. This could be publishing to a renowned journal, writing an article in the local newspaper, or even putting it on your own blog.

#### ◆ **Proposal Presentation**

This will be a meeting today in which members can pitch their ideas. It's a way for people to find group members (if they want), merge, and receive critique or possible future avenues from officers and members.

#### ◆ **Guest Lectures**

We'll try to bring in experts and professionals to help you gain insights into a field, and current fields of research. You'll be able to ask questions and talk to scientists directly. We'll also bring in other students who have done research before so that they can share their experiences.

#### ◆ **Collaborations**

We aren't the only club aiming to help you succeed. These meetings will be merged with other clubs so that we can discuss a shared interest in some topic. This is a great way to meet other people and talk about what you're interested in.

### **III. Incentives**

As mentioned before, the club serves to accomplish multiple goals to help a student. Primarily, we want to teach students how to conduct and publish scientific works. After doing so, there are multiple things you can do with your work.

#### ◆ **Publication**

Your work can be recognized in some shape or form. If your research is incredibly significant, we will help you with the publication process in top scientific journals such as RSC or Elsevier. However, there are other alternatives. You can publish to the local *Teknos* science journal, local or regional newspapers, or even blogs!

#### ◆ **Competitions**

Projects like these make great science fair projects. You can use it to compete in fairs such as the local Science fairs, ISEF, the AAN Neuroscience Research Prize, bioGENEius, and more! These are great ways to present your research and win prizes for your work.

#### ◆ **Conferences**

Perhaps you want to present your work to experts. You can apply for conferences such as IEEE, AACR, and more. You could also present to symposiums, like tjSTAR, or the Junior Science and Humanities Symposium, which is a common choice for students.

#### ◆ Internship

Your work matters and helps you stand out. Adding a project to your portfolio instantly sets you apart from thousands of other applicants when applying to research internships, especially if you've been published or won prizes. Every year, many TJ students get into GMU ASSIP, SEAP, NIH, and other national internships. Your work with tjPharma can increase these chances!

## IV. Leadership and Hierarchy

### Hierarchy

#### ◆ President (Pres)

There is only one president. They delegate and manage all primary functions of the club, ranging from teaching to marketing. The president covers all voids not delegated to other roles. To serve, they must have had a previous leadership position.

#### ◆ Vice President (VP)

There are two vice presidents. They advise the president on major decisions. They also delegate and manage functions of the club. Unlike the president, they may be more specialized in their work. To serve, they must have had a previous leadership position.

#### ◆ Research Coordinator (RC)

There are three Research Coordinators. They serve as a fill-all position. They have the shared combined responsibility of secretary, lecturer, outreach, and more. They help with outreach, lecturing, question-answering, and marketing. The reason for this ambiguity is so that the president and vice presidents can actively see who takes on the most responsibility and is most qualified to serve.

#### ◆ Website Developer (Dev)

There is one website developer. They manage all functions of the website and technical issues. They keep the website up-to-date with supplementary materials and lectures. They also work to train future website developers.

### Leadership Progression

1. All club leadership positions will be chosen through appointment by the preceding graduating President and Vice Presidents. Officers will not be chosen due to confounding variables such as popularity or nepotism.
2. To be elected as President or Vice President, a member must possess one year of experience in club leadership.

3. The President and Vice President are responsible for training and directing the other officers in their responsibilities. They are also responsible for carefully watching who will be most suitable to be their successor.
4. All officers must attend every meeting, with an exception under extenuating circumstances agreed to by the President or a Vice President.
5. Officers can be **Impeached**. If a President or Vice President is failing to uphold their responsibilities, they may be voted out of position by a majority vote from the remaining officers. If any other officer is failing to uphold their responsibilities, they may be voted out of position by a majority vote from the President and Vice Presidents.
6. There are no requirements outside of the previously mentioned clauses required to hold a position.

### **Ideal Traits**

*These are some ideal traits that officers should look for in potential officers, ranked by importance.*

1. A member who has achieved an exceptional level of achievement with the club should be considered for leadership.
  - a. Publication or recognition.
  - b. Earning a mentorship/internship position through the skills learned with the club.
  - c. Presenting at conferences or fairs.
2. A member who has repeatedly helped others, served as a group expert or grew the club should be considered for leadership.
  - a. Promoting the club and growing it in size
  - b. Answering questions
3. A member who has attended a significant amount of club meetings.