



A Short Guide How to Organize a Successful International BioHackathon

Step by Step Protocol by iGEM 2018 Team Vilnius-Lithuania

INTRODUCTION

This guidebook is created to provide practical guidelines for the biohackathons' organizers including pre-hack preparation as well as during the hackathon itself. Also, it will cover some information for people who are keen to participate in that kind of event.

As nowadays life sciences require more and more multidisciplinarity, it is crucial to encourage people from different fields to communicate and exchange their ideas. Unfortunately, there is a considerable gap between life sciences, design and IT fields. One of the best ways to bring people as well as organizations together is to organize a BioHackathon. In this case, the BioHackathon is held to bring designers, IT professionals and amateurs to help people from life sciences field by creating projects which would facilitate their daily laboratory life. In addition, it is a great way to motivate people and to harness the creativity of themselves.

This guide helps us support organizers in their pursuit to throw multidisciplinary hackathons and empower all hackers to build great hacks.

SUGGESTIONS FOR PARTICIPANTS

Participating in the BioHackathon can be challenging not only for people from life sciences field but also for IT specialists. It is due as this event requires extra knowledge to solve problems in the ways that you may never thought of. In this case, it is recommended to have a diverse team consisting of programmers as well as biologists. You can get involved in team by pitching your ideas and representing all the best skills you have. Team diversity will help you to understand the main concept of the problem you want to solve and to get deeper knowledge about that field in general. Also, it is a great way to boost your creativity and find like-minded people.

1. Do not be afraid of the lack of knowledge about certain topic

While BioHackathon is orienteed not only in IT, but also in life sciences, many people think that they do not have enough knowledge to fully contribute to the project. However, this kind of hackathon is a place where you will extend your knowledge! Usually, the organizers will help you to overcome this struggle by holding lectures or pre-hackathon workshops.

2. Pitch your skills & ideas

Before the BioHackathon you will have to create (or join) team to work with. In order to find like-minded people, you will need to present yourself: tell everyone what kind

of skills you have and, most importantly, how would you contribute to the project. On the other hand, you can pitch your ideas and find people who would like to collaborate.

3. Join existing team or create the new one
4. Exchange skills and ideas to fulfill your project

← TIMELINE



Step 1: THE VISION

Organizing an international BioHackathon which brings together life sciences and IT specialists might be a challenge, therefore take at least three months before the scheduled event date, to plan the following first steps:

- Develop your purpose. Why are you interested in organizing life sciences hackathon? Maybe it is because you need some particular problems to solve? Or you find bioinformatics really promising, so you want to try something similar to? It also might be that you are keen on the idea of multidisciplinary team and that kind of event would give some more awareness about it. Do not forget: when the purpose is clear, it is easier to plan the audience, subject and other crucial moments.
- Decide your audience. BioHackathon itself explains that you must focus on two types of specialists – IT and life sciences enthusiasts. These two spheres are very different, therefore their synthesis can create the most interesting results. Such type of the event will connect people from various spheres, age groups and countries so it means the target audience is broad and it should not limit your organizational choices.
- Consider the subject and write a brief description of the event. Remember the goal you are aiming for: the subject should describe your main purpose. The event title must be short and easy to grasp for every participant. In the description write not only the purpose of hackathon but present schedule.
- Pick the date. If you have decided to organize two days lasting hackathon, it is the most efficient to do it on weekend. Then participants can be more flexible with their schedules. We recommend you open the event on Friday evening and award winners on Sunday evening.

Step 2: RESOURCES

- Invite qualified mentors and judges. When you know the theme of BioHackathon it is time to invite some competent lecturers, mentors and judges. You might look for two types of specialists – people from IT and life sciences fields. Think about your colleagues, lecturers or authorities who have certain skills and knowledge in these fields. Write them polite e-mails with invitations. However, if you know that individual personally, better invite him to have a meeting and discuss the offer orally. Do not give up if you got a negative answer. Just keep seeking because there are so many interesting people to invite.
- Plan the event's budget. The biggest amount of your budget will be dedicated for rental of premises, prizes, and food:

- Find options of suitable places and inquire the prices. If you have a limited budget it is a great choice to think about a free of charge place. Contact representatives and arrange when you can meet to look at the premises. Find out what kind of perks will be included into the rental. It is a great advantage if you get the access to the internet. Sign the request or contract for the scheduled date.
- Decide total amount you can spend on food. Calculate how much can you spend on person's meals per day. Do not forget to count in organizers, judges and mentors because you definitely do not want to leave them hungry. Seek food suppliers that produces a variety of foods including vegetarian and vegan meals. Unless you know that none of such people will participate in BioHackathon.
- Determine maximum sum for prizes. Prizes must motivate event's participants. Firstly, search for potential sponsors, it might be companies that are interested in BioHackathon theme. Also, cash prizes are great alternative. Designate first, second and third places prizes respectively.
- And one of the most important rules while budgeting – leave some cash for unplanned expenses because always some unplanned struggles happen.

We attach an excel sheet draft to ease your BioHackathon budgeting.



- Find sponsors. Begin the partners hunting as soon as you have concept of BioHackathon. Remember, sponsors can provide you not just with finances they can also give you space, food or even T-shirts for the teams. That means you do not have to spend money on essential but at the same time pricey things. Firstly, reveal main points you want to share with potential sponsors. Make a list of companies and their representatives' contacts. Think what kind of facilities you would like to get and what could you offer in exchange. Doubtless it would be their advertisement before, during and after the event. Send offers and wait for answers. If you do not get the answer do not hesitate to call. When you came to the agreement keep in touch with your sponsors. Discuss the details: what kind of advertising they prefer, when you could barrow their production and etc. Also, you can invite the representatives to the event and suggest them to settle in the leisure area. Do not forget to thank sponsors after BioHackathon.

Step 3: COMMUNICATION



There are two types of communication while organizing such a massive event. You have to interact within your organizational team and interact with people from the outside:

- Communication among organizers. If you seek a high-quality event organizers should communicate properly. Every member of a team should know his responsibilities and strictly follow the plan. We suggest you find a convenient platform for work distribution and teammates communication. One of these could be *Trello* and *Slack*. Agree the time of the whole team meeting when you could discuss progress and future tasks.
- Communication on social media. Nowadays social media is a main field for BioHackathon's promotion. Use all the platforms you prefer, for example *Facebook*, *Twitter*, *Instagram*, *LinkedIn*, etc. Create an event with the





description and registration form. Invite all people that might be interested. Reach your target audience while sharing event in groups. Also, ask your partners, sponsors or University administration to promote BioHackathon. If you are creative enough use guerrilla marketing strategy. It is a way to advertise your event in unpredictable places such like public transport, benches in the park or even streets. Using this method, you will reach wide audience with small budget.

- Even though many organizers can be responsible for searching for lecturers, mentors and judges, it is better when one person contacts with them finally. You should start to communicate with them at least a month before the event. First, tell those people about the event shortly and ask them to join as an advisor or a judge, then send them preliminary (and later - final) schedule of the event, briefly explain what you expect from them. While communicating with judges, it is useful to create some keynote messages about judging itself, assessment criteria and scoring. It is also important to have online mentors' schedule where they could mark suitable time for them to come. In that case, everyone would be able to see if there are enough mentors at certain time. Also, do not forget to add mentors to *Slack* or another communication platform you are using during the event. It might be helpful when mentor is out, but someone needs his advice and mentor could reply. And always inform mentors, judges and lecturers about schedule and other changes as soon as possible. Do not leave them in abeyance!

Step 4: PREPARATION



Cycle of lectures. BioHackathon is a multidisciplinary event that brings together BIO and IT specialists. For this reason, you must think how to introduce participants into unknown field of science. Organizing cycle of lectures before the event might be a solution. The lectures itself are like small pre-events before BioHackathon:

- Decide your purpose. Why are you organizing the cycle of lectures? It is because:
 - You want to organize a successful BioHackathon, so you need to give more information about the topic for the participants.
 - IT specialists might not have enough skills and knowledge in life sciences and vice versa. Qualified lecturers will give the basic knowledge in the unknown area.
 - Participants who do not have a team yet might meet others during those lectures and form a full team.
 - Some teams might not have an idea and it is a great opportunity to come up with one.
- Decide the date. The lectures must be organized going to the end of the hackathon registration. It is perfect to plan it 1-2 weeks before the beginning of the final event.
- Find an appropriate place. As the registration is going to the end you know the preliminary number of participants, so you can book a sizeable audience or lecture hall. A *tip*: *it is worth to think about the alternative if an unplanned hazard occurs (personal experience) :).*
- Think about the topic. The cycle of lectures must reflect the theme of the BioHackathon. It might be divided into two parts – biological and IT.

- Find lecturers. When you came up with the topic search for the qualified lecturers and invite them.
 - Publish the details. When you already know the topic and the lecturers, write a description of the event. Also, do not forget to publish the event venue and exact time.
 - Invite the participants to the lectures. If you already have a list of participants, you can send personal invitations: the cycle of lectures and BioHackathon will get more interest.
- Finding a space. You might look for the appropriate place according to the aspects: count the preliminary number of participants, think well about the location, decide what kind of equipment you need (projector, screen, internet, etc.), how many separate spaces you need (the main hall for the lectures and coding, leisure time zone, a room for mentors and judges, dining room). Also, if you are planning to rent, do not forget to calculate the finances.
 - **Fast internet** connection is a must! Find out whether free internet access is included into the space rent. If not, you can try to find sponsors or just buy it for the weekend.

Step 5: TROUBLESHOOTING

Try to raise problematic issues and be prepared to solve them. Here we provide some problems we have encountered while organizing BioHackathon:

- To ensure that every participant will have team, before the main event you should do survey to see how many fully formed teams are attending as well as how many individuals are looking for teammates. This will help you to organize pitching part more efficiently.
- There might be teams consisted of only IT specialists or just lacking skills in biology and chemistry, so it would be difficult to find out the BioHackathon idea for them. To solve this problem, you can prepare a list of exemplary themes ahead of time.

AFTER THE EVENT

- Create surveys for participants, mentors, judges and lecturers to estimate the event success and get some feedback. Such a review will help you to find out the main details and organize later hackathons.
- Do not forget to thank participants, judges, mentors and your sponsors. For the sponsors you can send an e-mail with some event photos or meet the representatives and thank for the contribution to successful BioHackathon. If you have an opportunity, prepare certificates of appreciation and symbolic souvenirs with BioHackathon or your organization logo. And the most important - keep contacts of representatives for future events!



Fig. 1. Timeline of BioHackathon planning: Vilnius-Lithuania iGEM 2018
“BioHackathon: Lab Issues” example



The Guidebook was established by
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