



премия Губернатора Московской области

**INTERNATIONAL
BioTournament 2018
REGULATIONS**

I General information about BioTournament

1.1. The purpose of the BioTournament is the professional orientation of university graduates and the attraction of students to the solution of really existing practical up-to-date problems studied in academic institutes, R&D laboratories in the field of biology and related sciences.

1.2. BioTournament is organized by the initiative group of young scientists (the Organizing Committee) with the support of the Pushchino Scientific Center of the Russian Academy of Sciences.

1.3. The Organizing Committee reserves the right to amend these regulations.

1.4. The official email of the BioTournament is bioturnirpushchino@gmail.com. The e-mail of the Chairman of the Organizing Committee is vetoshkina_d@mail.ru.

II List of terms

2.1. Scientific fight (SF, or a challenge) - a sequence of actions in discussing one problem: an Opponent team selects a problem and challenges a Reporter team on it. Then follows the Reporter's speech, the answer to the clarifying questions, the opposition, the polemics between the Reporter and the Opponent, the speech of the Reviewer, the questions of the jury, and the grading.

2.2. Section - a room with an appointed Chairperson and an expert commission. In one section there are 4 (3) teams.

2.2. A circle is a closed sequence of challenges. If there are 4 teams in the section, then one circle consists of 4 challenges. In the case of 3 teams in one section in one round there will be 3 challenges.

2.3. The team passport is an individual blank of the team, in which there are rejections of problems, problems for which a report or opposition was made, information about the speakers, as well as points received by the team. Within one round the team passports are at a section's Chairperson.

III Participants

3.1. Teams participating in the BioTournament are students from 1-6 years of higher education. The team can consist of 3 - 5 participants. The team can be accompanied by a curator. The team can consist of representatives of different universities.

3.2. All participants, as well as team curators, must be registered on the website <http://bioturnir21.ru/en/>.

3.3. Each team should have a selected captain; when registering the selected participant must fill in the appropriate field.

IV Biotournamant 2018 Rules and Regulations

BioTournament 2018 is held in two leagues: international (working language - English) and Russian-language. The team can apply for participation in both leagues.

4.1. Extramural stage

4.1.1 Biotournament 2018 is held in two stages: extramural and intramural. The purpose of conducting the extramural stage is to select teams for the intramural stage. To participate in the extramural stage teams should send solutions to the problems of the extramural stage to organizing committee email bioturnirpushchino@gmail.com until 04.04.2018. For the Russian-language league solutions must be sent in Russian, for participation in the international league - in English. Teams that want to take part in both leagues must send solutions separately in Russian and English.

The Organizing Committee may decide to hold an additional extramural stage.

4.1.2. The extramural stage is a solving by the teams problems published in advance on the site of the event. In total for the extramural stage three problems are published, the team should send presentations of solutions of two or three problems in * ppt or * pptx format. The title slide of the presentation should contain the name of the team, the university and the list of team members. The team can send one or several solutions in video format (* avi, no longer than 8 minutes). The best two solutions are taken into account. The scores for the solutions are set according to the results of the expert evaluation, organized by the organizing committee.

4.1.3. Based on the results of the extramural stage (additional extramural stages), the main list of participants of the international and Russian-language leagues of the BioTournament 2018 is formed. In case of exceeding the possibilities of the organizing committee for the reception of teams, waiting lists for each of the leagues are formed.

4.1.4. Teams that applied to participate in the intramural stage of the BioTournament 2018 after the end of the extramural stage(s) are put into the end of the waiting lists.

4.2 Russian-language league

4.2.1. The Russian-language Biotournament 2018 league consists of three intramural stages: qualifying, semifinal and final. Each of the stages consists of scientific fights in advance published on the website <http://bioturnir21.ru/ru> tasks. Before the start of scientific fights, the teams provide the organizing committee with all the solutions to problems in electronic form (in * ppt format, and in case of problems from sponsors, an extended solution in * doc format). The Organizing Committee reserves the right to transfer the teams' solutions to the authors of problems, and also to publish them in open sources with the authors of the solutions.

4.2.2. The qualifying stage consists of three rounds of scientific fights. The fights are held on 10 problems of the qualifying stage. The top eight teams, who score the highest number of points for the total of three qualifying rounds, fall into the semifinal stage. Semifinal and final stage are played on 5 problems. In the semifinals, 1 round of scientific fights is played. Teams that took the first and second places in their fights are in the final. The final stage consists of 1 round.

4.2.3. During a scientific fight, the following roles are distributed among the teams: a Reporter, an Opponent, a Reviewer. Each round consists of 4 (3) scientific fights (challenges), the number depends on the number of teams in the section. The selection of the roles before the qualifying stage is based on the results of the competitive draw.

4.3 International League

4.3.1. The international league of the BioTournament 2018 consists of two stages: semifinal and final. Each of the stages consists of scientific fights in advance published on the website <http://bioturnir21.ru/ru> tasks. Before the start of scientific fights, the teams provide the organizing committee with all the solutions to problems in electronic form (in * ppt format, and

in case of problems from sponsors, an extended solution in * doc format). The Organizing Committee reserves the right to transfer the teams' solutions to the authors of problems, and also to publish them in open sources mentioning the authors of the solutions.

4.3.2. Semifinal scientific fights are held on 5 semifinal problems.

4.3.3. Final scientific fights are held on 5 final problems.

4.3.4. During a scientific fight, the following roles are distributed between the teams: a reporter, an opponent, a reviewer. Each round consists of 4 (3) scientific fights (challenges), the number depends on the number of teams in the section. The selection of the roles before the qualifying stage is based on the results of the competitive draw.

4.4. Rules of a Scientific Fight

4.4.1. **The Reporter team.** The captain of the Reporter team appoints one of the team members for the role of the Reporter. This participant reports the solution within 8 minutes, using pre-prepared slides in Microsoft PowerPoint (in .ppt format). During the report, the Reporter can not use the literature or records, and also communicate with other members of his team. Before the beginning of the report, the Reporter can provide the jury with a paper solution (the solution should contain the main points of the report).

4.4.2. **Team - Opponent** starts a challenge at the beginning of a scientific fight. The Opponent team can challenge the Reporter on any of the problems except:

- problems rejected by the Reporter before of the BioTournament
- problems that have already been reported by the Reporter
- problems that the Opponent team already opposed
- problems that were reported on this day in the current section

In case that there are no such problems, the limitations are omitted in order starting with the last one.

After the Reporter has completed his speech, the Opponent may ask two clarifying questions.

The purpose of these issues is to clarify the information received from the Reporter during the report. After that, the Opponent team has 1 minute to prepare the opposition, in case there are no clarifying questions, the time for questions (1 minute) is added to the time of preparation of the opposition. After that one of the participants of the Opponent team goes to the Reporter's place and begins to oppose the reported solution.

4.4.3. **Reporter-Opponent Polemics.** Each participant in the polemics has 5 minutes, each one chooses the tactics of using this time. All arguments and evidence must be given in the correct form. During the Polemics Reporter's team can take 1 time-out (1 minute), the Reporter's team informs the chairperson about the wish to take a time-out, then the chairperson stops the time of the polemics exactly for 1 minute (this minute is not subtracted from Reporter's time for polemics). During the time-out, the Reporter can consult with his team. The Opponent remains in his place and is not advised by the team.

4.4.4. **Team - Reviewer.** For the role of the Reviewer, the participant is appointed by the captain. After the polemics between the Reporter and the Opponent, the Reviewer must evaluate the work of both and has 5 minutes for this.

For the Russian-language league. For all 3 rounds of qualifying fights, each team member can act 1 time as a Reporter, 1 time as an Opponent, the restrictions are not imposed on the role of the Reviewer. To the semi-final for the number of roles played by each of the team members is reset. During the semi-final and final fights, each participant can perform 1 time as a Reporter, 1 time as an Opponent and 1 time as a Reviewer.

For the international league. In the semi-finals and finals, each team member can perform once as a Reporter, once in the role of the Opponent, the restrictions are not imposed on the role of the Reviewer.

All participants in a scientific fight should behave and polemize correctly and respectfully!

4.4.5. **Team curators** can be brought to work in an expert commission. However, the team curator can not evaluate the work of his team. During scientific fights, the Curator can not be close to and help the members of his team.

4.4.6. **Experts.** Postgraduate students, Ph. Ds, doctors of science, university teachers, and representatives of R&D companies are invited to be the members of the expert jury. After the performances of the teams experts have the opportunity to ask questions to any of the participants of a scientific fight. In case the expert needs to leave the battle before the procedure of an announcement of marks, the fight is not stopped, and the blank of the expert is considered invalid.

V Scientific Fight Procedure

Challenge by the Opponent (done by team's captain): «Team «team's name» challenges «reporter's team's name» for the problem № .. «problem's name». The opponent will be «team's member name»	1 min
Captain of the reporting team announces the Reporter's name, this person prepares for the report	1 min
Captain of the reviewing team announces the Reviewer's name	1 min
Presentation of the report	8 min
Clarifying questions of the Opponent to the Reporter	1 min
Preparation of the Opponent	1 min
Statement by the Opponent	5 min
Polemics between Reporter and Opponent	10 min (5 min for the Reporter and 5 min for the Opponent)
Statement by the Reviewer	5 min
Questions from the Jury to all speakers	10 min
Grading, Concluding remarks of the Jury	5 min

Each SF is conducted by the Chairperson who facilitates discussions, announces the ordering, manages time, clarifies the Regulations, and ensures their implementation.

VI Rejections

There are two types of rejections in BioTournament: eternal and tactical.

An eternal rejection is made before the start of the Tournament and is valid for all 3 rounds of qualifying fights. There is 1 eternal rejection for 10 qualifying tasks. In the semi-finals and finals, each team has 1 eternal rejection for 5 problems.

During each qualifying fight the Reporter team can use exactly one tactical rejection, this rejection only affects a specific challenge.

In the semi-final, the Reporter team can also use one tactical rejection.

The team is not entitled to a tactical rejection during the final.

In the semi-final fights of the international league for five problems there is one eternal and one tactical failure. In the final scientific fights there is one eternal rejection.

VII Problems

7.1. The problems of the extramural stage are published separately. According to the decision of the organizing committee, the tasks of the extramural stage can become part of the problems of the full-time stage.

7.2 The problems of the intramural stage of the BioTournament are divided into two blocks: the problems of the selection round and the problems of the semi-final-final rounds. For the qualifying round, 10 problems are published on the site, one of which the team can (but does not have to) reject. For the semi-final-final stages, there are 5 problems published, one of which the team can (but not necessarily) reject.

7.3. Three weeks before the start of the event, the problems published on the site are divided into qualifying and final. Semifinal and final are played on the same set of problems.

VIII Grades

8.1. Reporter

The score for the reporter is from 0 to 10 points and includes an evaluation of the report (scientific justification and presentation of the solution) and the speaker's participation in the polemics.

To obtain the maximum score, the solution reported should contain:

- a review of the modern literature on the topic of the problem, it is recommended to use scientific articles and modern textbooks as sources of information.
- presentation of the schemes of the proposed plants
- **innovative** solution or improvement of existing methods / products
- consideration of profitability, if possible
- discussing the advantages and disadvantages of the solution.

Rules of presentation:

- the presentation of the solution should have a title slide, a slide with the text of the problem
- all slides must be numbered
- either at the end of each slide or on a separate slide at the end of the presentation, the references should be listed

8.2. Opponent

The score for the Opponent is from 0 to 10 points and includes an evaluation of the opposition (scientific statement about the Reporter's solution) and the speaker's participation in the polemics.

In the course of opposition, the Opponent should consider only the solution proposed by the Reporter. The Opponent has to assess the scientific validity of the Reporter's assumptions and point out the actual errors, if any. All comments should be limited to improving the proposed solution. However, the Opponent should not make an opinion on the speaker's speech and presentation.

To obtain the maximum score, the opponent must:

- correctly assess the solution presented by the Reporter
- indicate all the strengths and weaknesses of the solution
- show their understanding of the issue

- suggest ways to improve the solution of the Reporter

8.3. Polemics

During the Polemics, the Reporter and the Opponent should discuss only the proposed solution without introducing new ones. The aim of the polemics is to discuss all the shortcomings identified by the opponent in the course of the opposition and to find ways of eliminating these shortcomings in the solution. During the discussion, the Reporter and the Opponent should show how well and quickly they are guided in the field of the problem. All the issues discussed should concern the solution of the problem, and not be reduced to testing the general knowledge of the Reporter or the Opponent.

8.4. Reviewer

The score for the Reviewer is from 0 to 5 points. Within 5 minutes, the reviewer should give an assessment of the work of the Reporter and the Opponent.

To get the maximum score, the Reviewer must:

- assess the quality of the report and the presentation presented
- consider the construction of a report and presentation
- indicate the Reporter's mistakes that were not noted by the Opponent
- correctly assess the work of the Reporter and the Opponent
- if the Reviewer believes that the Reporter or the Opponent has not coped with his role, then the Reviewer should give convincing arguments for this.

8.5. Questions from the Jury

Experts can ask questions about the problem discussed to any of the participants of the scientific fight (Reporter, Opponent, Reviewer).

The grades put by the expert commission cannot be challenged. However, the captain of any team can ask experts to explain their judgment.

IX Scheme of BioTournament

Scheme for 16 teams participating

Competitive draw



Tournament Bracket for 16 teams

Section 1				Section 2				Section 3				Section 4			
1	8	9	16	2	7	10	15	3	6	11	14	4	5	12	13



Table of roles in a section

Team that has a higher place in a competitive draw can first chose a line in a table

team	role			
	Reporter	-	Reviewer	Opponent
	Opponent	Reporter	-	Reviewer
	Reviewer	Opponent	Reporter	-
	-	Reviewer	Opponent	Reporter

In a 3 team section there are three challenges.
Sections are mixed up according to the tournament bracket after each SF.
Experts do not change their sections.

X Semi-final stage of the Biotournament

The problems of the semifinal and final stages are published in advance on the BioTournament website. Semifinal and final are played on the same problems. Selection of eight teams in the semi-finals is based on the sum of points scored by the team during 3 rounds of qualifying fights.

Semi-final Tournament Bracket according to qualifying standings

Section 1				Section 2			
1	4	6	7	2	3	5	8

The teams that took the first and second places in their sections reach the final.

XI Final stage of the BioTournament

The problems of the final stage are published in advance on the BioTournament website. The final consists of 1 round of scientific fights. For the opponent's team, restrictions apply to the challenge, taking into account the semi-final fights.

Winners and prize-winners of the international and Russian-language BioTournament league are awarded with diplomas and valuable prizes.