

#### **GAME GOAL**

This game can be played by 2-5 people.

Your goal is to be the first researcher to design a bacterium capable of solving a problem: cleaning up an oil spill, detecting toxic compounds, producing blood for donation, etc.

To achieve this goal, you will need to combine a certain bacterium, a gene, a variable amount of time, money and food for the bacterium. You will have to collect and protect these resources to design your bacteria.

However, you won't be the only one racing to become the best scientist. Other players also have their own research projects and goals to achieve... and sometimes you'll have to compete for the same resources. Keep an eye on your colleagues!

### **TYPES OF CARDS**

## Objective cards

The Objective card represents the biotechnological challenge facing the player. It also provides information about the resource cards needed to achieve it.

Each objective requires a bacterium, a gene and a variable amount of culture media, time and money.

Unless stated otherwise on a card, Objective cards can't be discarded. Objective cards must always be visible to other players. The first player to design a bacterium capable of achieving the objective wins the game.

## Resource cards

Resource cards are the elements needed to achieve an objective. For Resource cards to be effective, they must be placed in front of the player, so that the other players can see them. They can be drawn or discarded by the effect of opposing cards. There are two types of resource cards:

Specific resources that are exclusive to achieving a goal: the bacteria and the gene. General resources that are useful for any objective: time, money and culture medium. The 'Biobrick' card is also part of this group.

Each player can have only one Gene card and one Bacteria card on the table. If a player plays another card from this category, the previous one must be discarded two or more cards from the same pile can be discarded in one turn). A player may accumulate up to two cards of each generic resource type on the table.



The 'Biobrick' card is the special case: this card represents the basis for the genetic constructs of the iGEM competition. The 'Biobrick' card can be substituted for any general resource (time, money or culture medium). This card is not affected by sabotage cards (except 'Industrial espionage'). Players can only have one 'Biobrick' card on the table at a time.

Note that you cannot use the 'Industrial espionage' card to steal a 'Biobrick' card if you already have one on the table.

## **Action cards**

Action cards affect the resources on the table. Some cards affect both the player's own resources and those of other players. Sabotage cards are designed to damage or diminish

the opponent's resources, and Improvement cards are designed to protect or improve a player's own resources. Some of these cards force or allow a change of objective. Be aware that some Action cards can be played at any time, even during other players' turns! These quick cards are marked with an "explosion" sign.

## Sabotage cards

Industrial espionage: Steal any player's bacteria, gene or lipid rafts and place them in front of you on the table. If you already have a gene or bacteria on the table, you must discard it to make room for the card you stole - unless you played an 'Extension of bench space' card (more on this card below in the Upgrade card section).

Research swap: Swap your objective card with any other player.

Contamination: The player of your choice loses a 'Culture medium' card.

Antibiotic whoopsie: All players (including the player playing the card) lose their bacteria.

Power outage: All players (including the player playing the card) lose a 'Time' card. Unexpected expense: All players (including the player who plays the card) lose a 'Money' card.

# Improvement cards

Extension of bench space: You can now have two bacteria at once, leaving room for their respective resources, on the table. You can also associate a gene with each bacterium. A higher chance of winning!



Bioeconomy: Choose any resource card from the discard pile.

Public funding: Choose a new objective of your choice and place it in front of you on the table. This card allows you to have two objectives - and therefore increases your chances of winning!

Lucky shot: Take the last general or specific resource card played by a player. If two players play this card at the same time, the first to leave the card on the discard pile prevails. You must immediately place the card you have taken on the table: if it is a gene or a bacterium and you already have one of these types of cards on the table, you must discard them first (unless you have played an 'Extension of bench space' card).

Back-up generator: You may play this card when someone plays a 'Power outage' card to protect your 'Time' card.

Antibiotic resistance: You can play this card when someone plays an 'Antibiotic whoopsie' card to protect your bacteria.

Savings: You can play this card when someone plays an 'Unexpected expense' card to protect your 'Money' card.

#### PLAYING THE GAME

Before you start, place the different types of cards (Action, Specific resources, General resources and Objectives) into separate decks. Deal each player, face down, two cards from each deck. After that, deal one card from the Objective deck to each player face up.

On each of his turns, a player can play as many cards as he wants, but he does not have to play any. The other players can play their fast cards whenever they want. When a player finishes his turn, he draws as many cards as he needs to have 6 cards in his hand (If a player plays a quick card he will complete his deck by drawing a card, so that he has 6 cards at the beginning of his next turn). The player may choose to draw from any deck, except the Objective deck. Players may draw cards from a single deck or from different decks.

If a player needs a 'Culture medium' card and a Gene card, for example, they should draw from both the Specific and General resources card piles to maximize their chances of winning. However, a player may not have more than 6 cards in his hand.

A player can claim victory at any time during his own turn if he has obtained all the cards necessary to achieve his goal.

If the Specific and General resources card decks are left without cards, shuffle the discarded cards and place them on the table to draw.