Behind sealed bio-hazard doors, scientists race against time to sequence diseases and test cures to save humanity. Shake things up with the Lab challenge, plus new roles, events, Virulent Strain effects, a new Mutation scenario, and rules for solo and team play.

**Lab Actions (Must be at a Research Station)**
- **Sequence a Disease**
  - Draw a Sequence card. Place, swap, or discard it. If swapped and its cure sequence a Disease that matches the line’s cure color. Remove 1 cube of this color from any not be moved onto a Sequence card without a cure vial.
  - Move Sequence card’s vials. Put this cure vial on the Sequence card.
  - Place 1 City card to be this research line’s cure color. It must match 1 of the Characterize a Disease.
- **CharacteRize a Disease**
  - As an action, discard this card to make removing its cubes with Treat Disease takes discard 1 fewer City card than needed discard It when hIs next turn begIns.
- **Exchange Data**
  - Use as a City card of the cure color Use as a City card (solo game)
- **Reassign Role**
  - As 1 action, you may give (or a player can take) any City card from your hand. You
- **Move Player**
  - You cannot do movement actions (Drive/Ferry
- **Drive/Ferry**
  - Doing this is a free bonus action. Drive/Ferry. Doing this is a free
- **Flying Pilot**
  - With permission) move another player’s pawn connected to the city you are in. Flying Pilot. With permission
- **Connect Pilot**
  - Once per turn, you may (with permission) move another player’s pawn connected city. If a connected city has 2 or more Virulent Strain cubes, make this 3 cubes and do
- **Chain Reaction Outbreaks**
  - When you Discover a Cure, you may discard 2 City cards of the same color discard It when the next cure Is dIscovered.
  - • Lab Challenge
    - • Once during same
    - • You may, as an action, fly
    - • You cannot do movement actions (Drive/Ferry
    - • As an action, discard a City card to
    - • When you Discover a Cure, you may discard 2 City cards of the same color discard It when hIs next turn begIns.
    - • You may, as an action, fly
    - • You cannot do movement actions (Drive/Ferry
    - • As an action, discard a City card to
    - • When you Discover a Cure, you may discard 2 City cards of the same color discard It when hIs next turn begIns.

**GOAL**
- **team game**
- **first cure**
- **first eradication**
- **virulent cure**
- **virulent eradication**
- **virulent eradication**
- **virulent eradication**

**EVENT**
- **treat disease**
  - Move the infection rate Marker forward 1 space. Treat disease removes 1 more cube of the same color, If present, untIl the player's next turn begIns.
- **virulent eradication**
  - Play any time. Not an action. Virulent eradication
- **virulent eradication**
  - Play any time. Not an action. Virulent eradication
- **virulent eradication**
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- **virulent eradication**
  - Play any time. Not an action. Virulent eradication

**Tokens - Pandemic In the Lab**
- **1-Increase**
- **2-Infect**
- **3-Intensify**

To see a Pandemic In the Lab teaching video, go to:
www.zmangames.com/rules/in-the-lab.html
NEW ROLES AND EVENTS

New Roles
Add the 4 new Role cards to the other Role cards before shuffling and dealing 1 Role card to each player. See page 8 for role details.

Use the Lab versions of the Epidemiologist and Researcher only when playing the Lab challenge. Use the CDC “role” only in solo play.

New Events
Add the 3 new Event cards to the other Event cards and shuffle them face down. Use 2 Event cards per player, as in On the Brink. Play the new Events normally.

VIRULENT STRAIN CHALLENGE

Add these 2 cards to the other Virulent Strain Epidemic cards during setup of the On the Brink Virulent Strain challenge. There are no other changes to setup or play.

MUTATION CHALLENGE: WORLDWIDE PANIC

This modifies the On the Brink Mutation challenge.

Setup Changes
Increase the purple cube supply to 24 cubes. Use the 2 Mutation cards with red titles instead of the 2 On the Brink Mutation cards.

In step 3 — Infect 9 Cities — put 1 purple cube on the 1st city drawn (in addition to 3 cubes of the card’s color); put 2 purple cubes on the 4th city drawn (in addition to 2 cubes of that card’s color); and put 3 purple cubes on the 7th city drawn (in addition to 1 cube of that card’s color).

This challenge begins with 24 disease cubes on the board, 6 of them purple, plus 11 Infection cards in the Infection Discard Pile (the 9 City cards drawn in step 3, plus the 2 red-titled Mutation cards).

Play Changes
• 2 purple cubes, not 1, are placed when a Mutation card is drawn,
• To Discover a Cure for the purple disease, discard 5 City cards (in any colors) with at least 2 of them, not 1, being cities that have at least 1 purple cube.

When combined with the Virulent Strain challenge, the purple disease now can be the Virulent Strain. If it is, Complex Molecular Structure’s additional cure card must be a city with at least 1 purple cube; Hidden Pocket has no effect; and Rate Effect applies to Mutation cards drawn.
LAB CHALLENGE

In this challenge, cures must be developed in the lab before they can be discovered. This challenge can be played with just the base game or combined with other challenges, except the Team game.

Setup
Set up the game normally, except:

- Place the Lab board next to the game board. Put the 5 petri dishes on the 5 circles.
- Shuffle the Sequence cards. Place this draw pile next to the lab board. Draw a Sequence card and put it face up on the upper sequence space.
- Substitute the cure vials for the cure markers.

Use the purple cure vial only when combining this challenge with the Mutation or Bio-Terrorist challenges.

- Give each player a Lab Actions reference card.
- Do not use the Field Operative role. Use the Lab versions of the Researcher and Epidemiologist.

The Researcher’s and Epidemiologist’s abilities are unchanged, except for their new Lab challenge abilities. The Local Liaison also has a Lab challenge ability (used only in this challenge).

OVERVIEW

In this challenge, before a player can Discover a Cure, the disease must first be characterized and sequenced, and its cure tested, using lab actions to do so.

2 cures can be worked on at once in separate research lines, as shown by the pairs of spaces on the lab board.

Each Sequence card shows a disease’s structure. The Characterize a Disease lab action determines which disease is being cured. Cubes must then be moved onto the card, using Process a Sample lab actions, to fill each spot on it, 1 cube per spot. Gray spots are filled by cubes of the cure color.

Cubes enter the lab board as samples from Treat Disease actions, in the 2 left-most dishes, before being processed.

PLAY

Take turns as in the base game. Some actions are done differently, as noted below.

Important: lab actions must be done at research stations. Any research station can be used.
LAB ACTIONS

Build a Research Station
After building a research station, the player building it may immediately do 1 lab action as a free, bonus action.

When placing a research station with the Event, Government Grant, the player may still do a bonus lab action, even if the new research station is not in the city that player is in.

Treat Disease
1 cube removed by this action may be put in either of the 2 sample dishes (instead of the supply).

Characterize a Disease (lab action)
Play a City card on a characterize space to set the cure color for this research line. This color must match a vial symbol shown on the Sequence card.

Move this color’s cure vial onto the Sequence card to mark it. A research line must be characterized before cubes can be moved onto its Sequence card.

Process a Sample (lab action)
Move all cubes from 1 dish along 1 arrow to a new dish or Sequence card, adjusting them as shown on the arrow used. Return any cubes lost from adjustments to the supply.

Process a Sample works differently based on the dish moved from and the arrow moved along:

- Move all cubes in 1 sample dish to either the centrifuge dish (put all cubes of 1 color in it and return the rest to the supply) or the separator dish (put 1 cube of each color present in it and return the rest to the supply). Cubes already in these dishes (from earlier process actions) are not affected.
- Move all cubes in either the centrifuge or separator dish to the growth dish, doubling each cube moved, using cubes from the supply. Cubes already in the growth dish (from earlier process actions) are not affected.

If you can’t place the number of cubes needed in the growth dish, because there are not enough of the needed cubes left in the supply, the game ends and your team has lost!

- Move all cubes in 1 of the centrifuge, separator, or growth dishes to 1 Sequence card (not both). This Sequence card must be characterized. Fill empty Sequence card spots with cubes that match their colors, 1 cube per spot. Return any cubes left over to the supply.

Example: 1 red and 2 blue cubes are in a sample dish. They can be moved to either the centrifuge dish (returning either 1 red or 2 blue cubes to the supply) or the separator dish (returning 1 blue cube to the supply).

Example: 1 yellow and 2 black cubes in the separator dish are moved to the growth dish, doubling to become 2 yellow and 4 black cubes.
Test a Cure (lab action)
Play a City card of the cure color on a research line’s test space. This research line’s Sequence card must have at least 1 cube on it. Remove 1 cube of the cure color from any city to the supply.

In the Mutation: Worldwide Panic scenario (only), the city card used to Test a Cure for the purple disease must be a city with at least 1 purple cube in it (which need not be the cube removed). In the Bio-Terrorist and standard Mutation challenges, any city card may be used.

Discover a Cure
If a research line is complete — meaning that it has been characterized, tested, and all spots on its Sequence card are filled with cubes — then discard 3 (not 5) City cards matching its cure color at a research station to cure this disease.

Move the cure vial to its cure indicator. Discard the City cards to the Player Discard Pile. Discard the Sequence card, returning its cubes to the supply. Draw and place a new Sequence card to open a new research line.

Sequence a Disease (lab action)
Draw a Sequence card (reshuffle the discards to form a new draw pile if there are none left to draw). Place it on an empty Sequence space, swap it for an existing Sequence card, or discard it. You may not place a Sequence card on an empty Sequence space until a 2nd research station is built.

If a swapped Sequence card had been characterized and the new Sequence card doesn’t match its cure vial, discard its characterization card, as well as any test card, and return its cure vial and any cubes on it to the supply. If the new Sequence card does match its cure vial, then use any cubes on the old card to fill out spots on the new one, returning any excess cubes to the supply. Discard the old Sequence card.

WINNING OR LOSING
This challenge is won or lost normally, as in the base game.
Tip: if very few cubes of a color are present, use them to cure that color disease, not other diseases.

REMINDEERS
• Lab actions must be done at research stations.
• All cubes in a dish must be moved when processing a sample.
• Cubes cannot be freely returned from the lab to the supply.
• Cubes cannot be moved onto a Sequence card until it is characterized.
• Gray spots on Sequence cards must be filled with cubes matching the cure color.
• A cure cannot be tested until at least 1 cube is on its Sequence card.

The cube removed by Test a Cure is returned to the supply.
Different players than the one intending to Discover a Cure can characterize or test it.
Spots of an eradicated disease’s color on a Sequence card can be filled by cubes of any color.
Cubes of an eradicated disease in the lab can still be used to fill out spots on Sequence cards.

The Scientist discards 2, not 3, cards to Discover a Cure. Some game effects change the number of discards needed to Discover a Cure; apply them to 3 (not 5) in the Lab challenge.

In the Mutation or Bio-Terrorist challenges, the City cards discarded to cure the purple disease can be of any color. These cities need not have purple cubes on them.

Since an open research line already has a Sequence card, this action is not necessary to Discover a Cure. It allows players to open the 2nd research line, replace Sequence cards for already cured diseases with new ones, or find more efficient Sequence cards.

Exception (very rare): If a game ends because a player cannot draw needed cards and 1 or more colors of disease cubes never appeared in any cities — either during setup or play — then the players win if they cured all the other diseases. (Since, in this challenge, players cannot cure a disease without at least 1 cube of its color.)
**SOLO GAME**

The solo game pits you, with a little help from the CDC, against all the diseases. It can be combined with other challenges, except the Bio-Terrorist challenge.

**Setup**

Perform setup as for a 2-player game, except:

- Before shuffling Events into the Player Deck, shuffle the City cards and deal 8, 12, 14, or 16 of them face up into the Player Discard Pile, for Easy, Standard, Heroic, or Legendary difficulty level. If more than 6 of these cards are the same color, redo this until no more than 6 cards of the same color are in the Player Discard Pile.
- Do not use the Event Special Orders. Shuffle in 4 Event cards.
- Do not use the Dispatcher, Researcher, Epidemiologist, or Local Liaison roles. Shuffle the other Role cards and deal 1 Role card to yourself.

**CDC Actions**

The CDC (only) may do 1 of these actions:

- **Move Player:** the CDC may move your pawn by a movement action. If the CDC moves your pawn by a Direct or Charter Flight, discard the card used from the CDC's cards.
- **Reassign Role:** if you are at a research station, the CDC may replace your Role card (and pawn) with a new one of your choice from those available. Remove the old Role card from the game; it is no longer available (except by using the Event New Assignment).
- **Exchange Data:** if you are at a research station, the CDC may swap any 1 of its City cards for 1 City card from your hand, whose color must match the city you are in. Doing this has no effect on hand limits.
- **Draw Card:** draw 1 card from the Player Deck. Add it to the CDC’s face up cards. Resolve any drawn Epidemic. The CDC’s hand limit is 7 cards. If the CDC has more than 7 cards, discard cards or play Events until it has 7 cards.
- **Discover a Cure:** the CDC may discover a cure by discarding 5 CDC City cards of the same color to cure that color disease.

**Play**

You cannot Share Knowledge with the CDC. After you Infect Cities to end your turn, the CDC may do 1 action. The CDC does not draw Player cards (except by using its action to do so) nor Infection cards.

*The Field Director and Pilot are weaker in this game, but can still be played.*

- Place the CDC role card nearby. Put the 2nd set of 4 Player cards face up next to the CDC. The CDC has no pawn.

**TEAM GAME**

This divides either 4 or 6 players into 2 or 3 rival disease control teams, racing to cure and eradicate diseases, prevent outbreaks, and gain prestige. The team with the most prestige at game end wins! This adds a competitive element, while retaining cooperation between each team’s partners.

**Setup**

Perform setup normally, except:

- Divide the 4 or 6 players into 2 or 3 two-player teams. Each teams’ players sit next to each other. Give each team a reference card.
- Shuffle the Goal cards and deal 1 face down to each team, returning the other ones to the box. Each team can look at their Goal card, but should not discuss it out loud nor show it to the other teams.
- Shuffle and deal 3 Role cards face down to each team. Each team selects 2 to use and assigns them, returning their unused Role card. When all teams are done, flip the Role cards face up and take their pawns.
- Use 2 Events per player (8 or 12). Deal 2 Player cards to each player.
- If combining the Team game with the Virulent Strain challenge, do not use the Hidden Pocket Virulent Strain Epidemic card.
- Shuffle the 10 Bonus cards. Use as many of these as Epidemic cards. Return unused Bonus cards to the box. Shuffle 1 Bonus card along with each Epidemic card when preparing the Player Deck.

*Bonus cards, unlike Events, can be used only by players on their turns. The Troubleshooter must discard Regional Response Team cards when playing them.*

- Put the 14 awards near the board. Return the 2 Virulent Strain and/or the 2 Mutation awards if not using these challenges.
- **Important:** Place the Infection Rate marker on the 3rd “2” space, not the 1st space.
- Give each team a team research station. These are in addition to the research station (usable by all teams) in Atlanta.
- Choose a team to go first. Starting with the team to its right and in counter-clockwise (reverse) order, each team places their research station and pawns in a city at least 3 connections away from any other team’s research station (but possibly within 3 spaces of Atlanta). Begin play.

**Play**

Each team does 6 actions in its turn, which may be split 4-2, 3-3, or 2-4 between the players as they wish (if a team cannot decide, then each player does 3 actions). Each team member does his or her actions in clockwise seating order.

*The Generalist takes one more action than this number.*

Then each team player, in order, draws 1 Player card, resolving any Epidemic normally, and discards if over his or her individual hand limit of 7 cards. Then, once for the team, Infect Cities normally.

*The infection rate does not rise above 4. Once the end of the Infection Rate track is reached, the Infection marker stays there in later epidemics.*

The next team clockwise then takes its turn.

**WINNING OR LOSING**

This game is won or lost normally. Good Luck!
**Actions**

Do actions normally, except:

- It takes **2** actions, not **1**, to Share Knowledge between teams (due to the teams’ incompatible disease protocols). Within a given team, Share Knowledge takes just **1** action.

- Only its owning team can use a team research station for Shuttle Flights or to Discover a Cure. A regular research station may be built in a city with a team research station. Team research stations may not be rebuilt elsewhere.

- In 6-player Team Play (only), the Discover a Cure action requires **1 fewer** city card of the cure color (typically, **4** cards; **3** cards for the Scientist, etc.).

If several Teams wish to play Events at the same time, the Team taking its turn does so first; then, in clockwise order, the other teams do so.

**Awards**

When a disease is cured or eradicated on a Team’s turn, take the relevant award marker(s) and put them face up in front of that team. These earn prestige at game end, as shown on each team’s Goal card.

If an eradication results from playing an Event, the Team that played the Event takes the relevant award markers.

There are also awards for 1st disease cured and eradicated and for curing and eradicating the Virulent Strain and purple Mutation diseases (if these challenges are used). These earn the prestige shown (and possibly more at game end from certain Goal cards).

**Etiquette**

Players can listen to other teams as they plan. Team members may show each other their cards and point to them when planning their turns to say less out loud.

The Team Game can be easier as the teams together have more actions, more Events, and greater hand size to assist them, despite the higher infection rate. Most diseases can be eradicated. However, the players can lose when a team that is behind refuses to help cure the final disease. Teams should keep their goals hidden to help keep the game’s outcome in doubt. Teams that are behind can eradicate diseases to both narrow the prestige gap and possibly end the game without a final cure.

**Option**

Once players are experienced with the Team game, during setup, deal **2** Goal cards along with **3** Role cards for each team to look at, before picking **1** Goal card and **2** Role cards to use.

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![In the Mutation Challenge, if the game ends by a team removing the last purple cube from the board (see below), give the team doing this 4 prestige (this is listed on the reverse of the purple eradication award).](image)

**GAME END / WINNING**

The game ends when the teams either lose, as in the normal rules, or win by either:

- discovering cures for all 4 diseases,
- or
- discovering cures for 3 diseases and eradicating them.

If the teams win, all teams flip over their Goal cards and total their prestige as shown. Add any prestige from awards and Bonus cards held at game end. The team with the most prestige wins! If there is a tie, all tied teams share the victory.

**Modify this when playing the Mutation challenge. Players can win by either:**
- curing all 5 diseases; curing all 4 regular diseases and then removing the last purple cube from the board; curing and eradicating any 4 diseases; or curing and eradicating 3 of the 4 regular diseases and then removing the last purple cube from the board.
**ROLES**

Each player has a role with special abilities to improve your team’s chances.

**FIELD DIRECTOR**

The Field Director may:

- Treat Disease in a city connected to the city he is in (instead of the city he is in), or
- move another player’s pawn in his city, or a city connected to it, once per turn by Drive/Ferry, as a free bonus action.

He must get permission before moving another player’s pawn.

*The Field Director cannot move the Pilot.*

**LOCAL LIAISON**

The Local Liaison may give a city card that matches the color of the city she is in to a player in any city of the same color. Doing this is an action, which she may do once a turn and only on her turn.

**In the Lab challenge**, she may either Characterize a Disease or Test a Cure as a free bonus action, once during her turn, at a research station.

**PILOT**

The Pilot may not do any movement actions (Drive/Ferry or Flights), nor build research stations.

He may, as an action, fly to any city within 3 connections of the city he is in, or a city connected to it, once per turn by Drive/Ferry, as a free bonus action.

He must get permission before taking along another player’s pawn. It must be in the same city as he is. Passenger abilities that occur when a city is entered, such as the Containment Specialist’s ability, affect only the city moved to, not cities in between. When moved by the Dispatcher or the Event Special Orders, the Pilot may not fly and instead uses the normal movement actions. The Pilot may play Regional Response Team cards.

**VIROLOGIST**

The Virologist may discard:

- 2 City cards of the same color to replace 1 City card of the cure color, when she Discovers a Cure, or
- 1 City card, as an action, to remove 1 cube of its color from any city, returning it to the supply.

She may discard several pairs of City cards to Discover a Cure. For example, she could discard 2 yellow, 2 blue, and 3 red City cards to Discover a Cure for the red disease.

**EPIDEMIOLOGIST**

In the Lab challenge, she may Process a Sample as a free bonus action, once during her turn, at a research station.

**RESEARCHER**

In the Lab Challenge, she may Sequence a Disease as a free bonus action, once during her turn, at a research station.

**PLAYTESTERS**


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Learn the rules online at: www.zmangames.com/rules/in-the-lab.html

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