

Project Hail Mary

Project Hail Mary is a 2021 science fiction novel by American novelist Andy Weir. Set in the near future, the novel centers on junior high (middle) school-teacher-turned-astronaut Ryland Grace, who wakes up from a coma afflicted with amnesia. He gradually remembers that he was sent to the Tau Ceti solar system, 12 light-years from Earth, to find a means of reversing a solar dimming event that could cause the extinction of humanity.^[1]

Project Hail Mary has received generally positive reviews, and the book was a finalist for the 2022 Hugo Award for Best Novel.^[2] The unabridged audiobook is read by Ray Porter.^[3] The film rights have been purchased by Metro-Goldwyn-Mayer. Drew Goddard (who adapted *The Martian*, Weir's traditional publishing debut, into a 2015 film) is slated to adapt the book into a film. Actor Ryan Gosling plans to star as Grace in the film adaptation.^[4]

Contents

Plot

- Narrative structure
- Before launch
- Aboard the *Hail Mary*

Characters

Production

Publication

Reception

Awards

Film adaptation

References

Plot

Narrative structure

The story follows two storylines, each told chronologically. Starting with the story on board the spacecraft *Hail Mary* where Ryland Grace regains his memory in bursts. This story is frequently intercut with flashbacks revealing earlier events leading up to the launch of the *Hail Mary*.

Before launch

In the near future, a global dimming event is observed, coinciding with the formation of a bright line from the Sun to Venus. The exponential rate of dimming is calculated to result in a catastrophic ice age within 30 years. A space probe is used to discover that the line appears to contain alien microbes. The world's governments cooperate, giving former ESA administrator Eva Stratt unilateral authority and legal immunity to solve the problem.

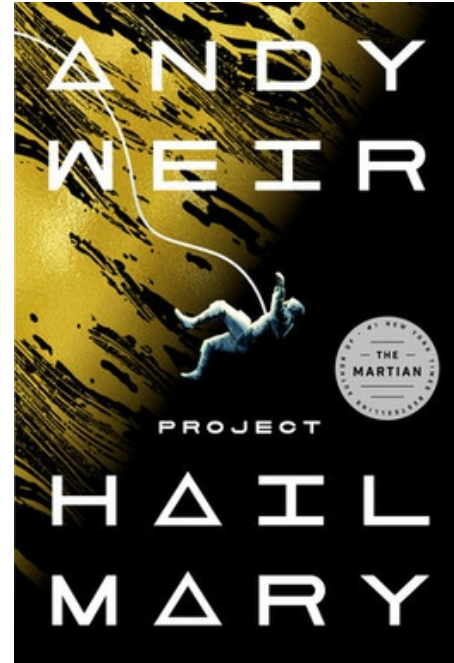
Stratt nominates Ryland Grace, a teacher and former molecular biologist, as the first person to study a sample of the organism recovered from Venus, as she views him as expendable. He discovers that the single-celled organism consumes all forms of electromagnetic radiation and uses radiant energy to move. Since the organism consumes energy from the Sun, Grace names it "Astrophage" (Greek for "star eater"). Grace subsequently discovers that Astrophage reproduces using carbon dioxide, commonly found on Venus. Other scientists discover that Astrophage employs mass–energy conversion via neutrinos, and can be mass-bred for use as rocket fuel.

Astronomy data reveals that Astrophage infects and dims nearby stars, but one star, Tau Ceti, has unexpectedly resisted Astrophage infection. An Astrophage-fueled starship, the *Hail Mary*, is developed to travel to Tau Ceti to obtain knowledge of Astrophage resistance, and to return the findings to Earth with unmanned mini-ships ("beetles"). *Hail Mary* can only be fueled and supplied for a one-way trip, making it a suicide mission.

Stratt orders the release of methane from Antarctica to reduce global cooling, but the threat of famine and wars over food on Earth remains for the 26 years that the *Hail Mary* mission is expected to take.

Since the crew of three astronauts will travel under a coma to avoid psychiatric issues, potential astronauts are restricted to people with coma-resistant genes, including Grace. Stratt tasks Grace to train the science experts for the mission, but the science experts are killed in an Astrophage-induced explosion shortly before launch. With no time to train a replacement, Stratt asks Grace to join the mission. When he declines she forces him. Grace threatens sabotage, so an amnesia-inducing drug is administered to him before launch.

Project Hail Mary



Author	Andy Weir
Audio read by	Ray Porter
Cover artist	Will Staehle
Country	United States
Language	English
Genre	Science fiction
Publisher	Ballantine Books
Publication date	May 4, 2021
Media type	Print, ebook, audiobook
Pages	496
Awards	2021 Dragon Award for Best Science Fiction Novel
ISBN	978-0-593-39556-1

Aboard the *Hail Mary*

Ryland Grace emerges from his coma with no memory of his identity or situation. As the mission proceeds, Grace deduces his situation while his memory returns gradually. Grace finds that his crew members have died en route, and gives them a space burial.

Hail Mary soon reaches Tau Ceti, and is approached by an alien starship, which Grace names "Blip-A". The other ship indicates that its home system in 40 Eridani is also plagued by Astrophage infection. *Blip-A* docks with *Hail Mary*, and its occupant meets Grace. Grace develops a system to communicate with the spider-like alien, whom Grace names "Rocky" due to its stone-like exoskeleton. Rocky, a skilled engineer, has been in the Tau Ceti system for 46 years as the last survivor of his crew; Grace deduces that the others died from space radiation, an unknown concept to Eridians.

Also unfamiliar with the concept of relativity, the Eridians greatly overestimated the amount of fuel needed for a round-trip to Tau Ceti, and the *Blip-A* has enough Astrophage fuel for both ships to return to their planets. Grace realizes that what was once a suicide mission now may end with him returning to Earth. He fantasizes about confronting Strat for coercing him to go.

Grace and Rocky discover the Astrophage's home planet in orbit around Tau Ceti, which they name Adrian, after Rocky's Eridian mate. The planet's atmosphere is found to contain a natural predator of Astrophage. While collecting a sample from Adrian, a hull breach occurs and Rocky risks his life to save Grace. Grace is severely burned when saving Rocky, who sustained severe injuries but eventually recovers. From the sample, the Astrophage predator is found to be a microbe which Grace names "Taumoeba".

After a Taumoeba outbreak on the *Hail Mary*, where all fuel in the ship's tanks are consumed, Grace and Rocky are captured in a decaying orbit over Adrian. They escape by mounting, and controlling, the beetles on the ship's hull. Grace and Rocky use selective breeding to produce nitrogen-resistant and pressure-tolerant Taumoeba for their home systems.

Rocky refuels the *Hail Mary*, and they part ways. En route, Grace discovers that he has accidentally bred into the Taumoeba the ability to permeate and escape their containers. Although Grace fixes the problem on *Hail Mary*, he realizes that the *Blip-A* is made of the same material as those containers, and that the Taumoeba has consumed the fuel and crippled the ship, leaving Rocky stranded.

Due to limited food, Grace is forced to choose between personally returning to Earth as a hero but dooming the Eridians, or saving Rocky and the Eridians while he himself would starve on Erid. Grace chooses the latter, sending the beetles back to Earth with the Taumoeba, while he locates the fuel-less *Blip-A* and reunites with Rocky three months after their departure. Rocky is overjoyed and points out that Grace could eat Taumoebas, thus possibly solving Grace's food shortage.

They return to Erid, fixing the Eridians' Astrophage problem. Using the digital archive of human knowledge given to Grace by Strat, the Eridians build a system to enable Grace to live on Erid, where he becomes a teacher of Eridian young. Some years later, Rocky tells Grace that the Astrophage infection around the Sun has abated too, meaning Grace's mission was a success and that Earth's scientists figured out a solution less than a year after the return of the Beatles. Knowing that humanity has survived on Earth, Grace considers returning to Earth, with the *Hail Mary* still operational and in orbit around Erid.

Characters

- **Ryland Grace** – The novel's protagonist, a disillusioned molecular biologist who becomes a junior high school science teacher before being recruited to study Astrophage by Eva Strat.
- **Eva Strat** – A Dutch woman, previously an administrator at the European Space Agency, who is subsequently given absolute authority to stop Astrophage, leading to the *Hail Mary* mission. Weir describes Strat, along with Grace, as the two human "heroes" of the book.^[5]
- **Rocky** – An alien engineer from the 40 Eridani system whose planet is simultaneously threatened by Astrophage. Due to his proximity to radiation-shielding Astrophage fuel, he survives space radiation while his crew mates do not. Rocky eventually encounters the *Hail Mary* and works together with Grace.
- **Yáo Li-Jie** – The intended commander of *Hail Mary*'s crew. He dies en route to Tau Ceti.
- **Olesya Ilyukhina** – The intended engineer and EVA specialist of *Hail Mary*'s crew, ribald yet cheerful. She dies en route to Tau Ceti.
- **Dr. Lokken** – A Norwegian scientist who assists in the design of the *Hail Mary* and its rotational gravity. She has a short rivalry with Grace over an academic paper he wrote.
- **Dimitri Komorov** – A Russian scientist who develops the Astrophage-based propulsion system for the *Hail Mary* and discovers its mass-conversion properties.
- **Steve Hatch** – A researcher from the University of British Columbia. He develops the "Beetle" probes and is an avid Beetle fan. He is described as very talkative and optimistic.
- **Martin DuBois** – An American man and original science advisor on the *Hail Mary* mission. He dies in an explosion nine days before launch. He is described as honest and gregarious.
- **Annie Shapiro** – The original backup science advisor on the *Hail Mary* mission. She dies with Martin in the same explosion.
- **Robert Redell** – A solar energy expert from New Zealand. Arrested for embezzlement and the death of seven technicians in a testing accident, he develops a method to breed Astrophage rapidly.
- **François Leclerc** – A French climatologist who helps to slow down the climate changes caused by the Astrophage absorbing the sun's energy through the development of a method releasing trapped methane embedded in Antarctic ice sheets into the atmosphere through the use of fusion bombs.

Production

In a profile in *The New York Times*, Weir says that after completing *The Martian*, he began a multi-volume space opera called *Zhek*, which was about a substance that could absorb electromagnetic radiation and use it as a fuel for interstellar travel. He wrote 75,000 words before abandoning the project and beginning on *Artemis*. Several elements from *Zhek* were brought over to *Project Hail Mary*, including a ruthless bureaucrat character, and an energy-absorbing substance used as starship fuel.^[6]

Publication

Project Hail Mary was released on May 4, 2021, by Ballantine Books. It is available in hardcover, e-book, and audiobook formats. The audiobook narrated by Ray Porter uses melodic sound effects in the background, whenever "Rocky" speaks.

Reception

Project Hail Mary has received generally positive reviews. Writing for *The New York Times*, sci-fi author Alec Nevala-Lee wrote "For readers who can forgive its shortcomings, the result is an engaging space odyssey."^[7] *Kirkus Reviews* gave the book a starred review, describing it as "An unforgettable story of survival and the power of friendship—nothing short of a science-fiction masterwork."^[8]

In writing her review for *The Washington Post*, SFWA president and science fiction writer Mary Robinette Kowal mentions that there are plenty of things to love about this book, such as Grace's infectious enthusiasm for science. At the same time, Kowal mentions some of the many flaws in the novel, such as the lack of the use of checklists, which are very important in the fields of aviation, astronautics, and medicine in reducing human-induced errors which Grace seems to ignore and could have prevented him from creating his many errors in judgment.^[9]

A reviewer for *Locus Magazine* wrote, "*Project Hail Mary*, however, isn't a simple rehash of *The Martian*. Instead, it's a celebration of Weir's voice... Weir's jaunty blend of science and fiction in *Project Hail Mary* is a return to the work that got him where he is."^[10] The reviewer for *The Boston Globe* wrote that "*Project Hail Mary* is still a suspenseful space yarn that zigs and zags — sometimes literally — in ingenious directions."^[11]

Project Hail Mary debuted at number 3 on *The New York Times* Best Seller list for Combined Print & E-Book Fiction in May 2021.^[12] By August 2021, the book had been on the NYT list for 9 weeks.^[13] *Project Hail Mary* additionally achieved the #1 spot on the New York Times Audio Fiction Best Seller List for three weeks in February 2022.^{[14][15]}

The novel debuted at number 2 on the *Los Angeles Times* SoCal Bestsellers for Hardcover Fiction^[16] and number 6 on *The Wall Street Journal* Bestselling Books List for Hardcover Fiction^[17] during the same month. The book was still on the *L.A. Times* list in mid-August.^[18]

In August 2021, *Project Hail Mary* debuted at number 1 on the Locus Bestsellers list for hardcovers^[19] while remaining at the top position for five consecutive months^[20] before dropping to a lower position while still remaining on the list for 11 consecutive months by June 2022.^[21] As of August 2021, the novel remained on the above-mentioned bestseller lists.

Bill Gates and Barack Obama added the book to their respective 2021 book recommendations.^{[22][23]}

Awards

- 2021 Dragon Award for Best Science Fiction Novel^[24]
- 2021 Best Science Fiction, Goodreads Choice Awards^[25]
- 2022 Audie Award for Science Fiction^[26]
- 2022 Audie Award for Audiobook of the Year^[26]
- 2022 Seiun Award Best Translated Long Work^[27]

Film adaptation

Weir sold the book's film adaptation rights to Metro-Goldwyn-Mayer in early 2020 for \$3 million.^[28] Actor Ryan Gosling plans to produce and star as Ryland Grace. It will be directed and produced by filmmaking duo Phil Lord and Christopher Miller. Its screenwriter will be Drew Goddard, and Ken Kao will produce with Ryan Gosling via their production banner Arcana.^[4]

References

- ↑ "Andy Weir – Project Hail Mary" (https://www.andyweirauthor.com/books/project-hail-mary). *AndyWeirAuthor.com*. Retrieved May 12, 2021.
- ↑ "2022 Hugo Awards" (https://www.thehugoawards.org/hugo-history/2022-hugo-awards/). *The Hugo Awards*. Retrieved June 8, 2022.
- ↑ *Project Hail Mary by Andy Weir - Audiobook - Audible.com* (https://www.audible.com/pd/Project-Hail-Mary-Audiobook/B08G9PRS1K). *Audible.com*. May 4, 2021. Retrieved May 12, 2021.
- ↑ McNary, Dave (March 27, 2020). "Ryan Gosling to Star in Astronaut Movie 'Project Hail Mary'" (https://variety.com/2020/film/news/ryan-gosling-astronaut-movie-hail-mary-1203547436/). *Variety*. Retrieved May 12, 2021.
- ↑ Kaplan (host), Mat (May 5, 2021). "Author Andy Weir and Project Hail Mary" (https://www.planetary.org/planetary-radio/andy-weir-project-hail-mary). *Planetary Radio*. Episode 1000. *The Planetary Society*. 16:00 minutes in. Retrieved August 25, 2022.
- ↑ Alter, Alexandra (May 3, 2021). "Andy Weir's New Space Odyssey" (https://www.nytimes.com/2021/05/03/books/andy-weir-project-hail-mary.html). *The New York Times*. Retrieved May 12, 2021.
- ↑ Nevala-Lee, Alec (May 4, 2021). "Alone on a Spaceship, Trying to Save the World" (https://www.nytimes.com/2021/05/04/books/review/andy-weir-project-hail-mary.html). *The New York Times*. Retrieved May 12, 2021.
- ↑ "PROJECT HAIL MARY" (https://www.kirkusreviews.com/book-reviews/andy-weir/project-hail-mary/). *Kirkus Reviews*. February 10, 2021. Retrieved May 12, 2021.
- ↑ Kowal, Mary Robinette (May 23, 2021). "Andy Weir's 'Project Hail Mary' is a bestseller. It also has some problems" (https://www.washingtonpost.com/entertainment/books/andy-weirs-project-hail-mary-is-a-bestseller-it-also-has-some-problems/2021/05/22/7ccd3578-b8bc-11eb-a5fe-bb49dc89a248_story.html). *The Washington Post*.
- ↑ Martini, Adrienne (May 5, 2021). "Adrienne Martini Reviews The Only Living Girl on Earth by Charles Yu and Project Hail Mary by Andy Weir" (https://locusmag.com/2021/05/adrienne-martini-reviews-the-only-living-girl-on-earth-by-charles-yu-and-project-hail-mary-by-andy-weir/). *Locus Magazine*.
- ↑ Harlan, Landry (May 13, 2021). "Science lessons in 'Project Hail Mary'" (https://www.bostonglobe.com/2021/05/13/arts/science-lessons-project-hail-mary/). *The Boston Globe*.

12. "Combined Print & E-Book Fiction – Best Sellers – Books" (<https://www.nytimes.com/books/best-sellers/2021/05/23/combined-print-and-e-book-fiction/>). *The New York Times*. May 23, 2021. Retrieved May 14, 2021.
13. "Combined Print & E-Book Fiction – Best Sellers – Books" (<https://www.nytimes.com/books/best-sellers/2021/08/01/combined-print-and-e-book-fiction/>). *The New York Times*. August 1, 2021.
14. "Audio Fiction Books - Best Sellers - Books - Feb. 6, 2022 - The New York Times" (<https://www.nytimes.com/books/best-sellers/2022/02/06/audio-fiction/>). *The New York Times*. February 6, 2022. ISSN 0362-4331 (<https://www.worldcat.org/issn/0362-4331>). Retrieved June 22, 2022.
15. "Audio Fiction Books - Best Sellers - Books - Feb. 27, 2022 - The New York Times" (<https://www.nytimes.com/books/best-sellers/2022/02/27/audio-fiction/>). *The New York Times*. February 27, 2022. ISSN 0362-4331 (<https://www.worldcat.org/issn/0362-4331>). Retrieved June 22, 2022.
16. "Bestsellers List Sunday, May 16" (<https://www.latimes.com/entertainment-arts/books/story/2021-05-12/bestsellers-list-sunday-may-16>). *Los Angeles Times*. May 12, 2021.
17. "Bestselling Books Week Ended May 8" (<https://www.wsj.com/articles/bestselling-books-week-ended-may-8-11620941227>). *The Wall Street Journal*. May 13, 2021.
18. "Bestsellers List Sunday, August 22" (<https://www.latimes.com/entertainment-arts/books/story/2021-08-18/bestsellers-list-sunday-august-22>). *Los Angeles Times*. August 18, 2021.
19. "Locus Bestsellers, August 2021" (<https://locusmag.com/2021/08/locus-bestsellers-august-2021/>). *Locus Magazine*. August 18, 2021.
20. "Locus Bestsellers, December 2021" (<https://locusmag.com/2021/12/locus-bestsellers-december-2021/>). *Locus Magazine*. December 22, 2021.
21. "Locus Bestsellers, June 2022" (<https://locusmag.com/2022/06/locus-bestsellers-june-2022/>). *Locus Magazine*. June 20, 2022.
22. Gates, Bill (November 22, 2021). "5 books I loved reading this year" (<https://www.gatesnotes.com/About-Bill-Gates/Holiday-Books-2021>). *GatesNotes: The Blog of Bill Gates*.
23. Kranc, Lauren (July 9, 2021). "Barack Obama Has Shared His Annual Summer Reading List" (<https://www.esquire.com/entertainment/books/g36984522/barack-obama-summer-reading-list-2021/>). *Esquire*. Retrieved June 26, 2022.
24. "2021 Recipients – The Dragon Award" (<https://www.dragoncon.org/awards/2021-recipients/>). *Dragon Con*. Retrieved September 11, 2021.
25. "Best Science Fiction" (<https://www.goodreads.com/choiceawards/best-science-fiction-books-2021>). *Goodreads*. December 2021. Archived (<https://web.archive.org/web/20211209205217/https://www.goodreads.com/choiceawards/best-science-fiction-books-2021>) from the original on December 9, 2021.
26. "2022 Audie Awards® - APA (en-US)" (<https://www.audiopub.org/winners/2022-audies>). *Audio Publishers Association*. Retrieved June 22, 2022.
27. 2022年 第53回星雲賞 (<http://www.sf-fan.gr.jp/awards/2022result.html>) [2022 53rd Nebula Award] (in Japanese). Science Fiction Fan Groups' Association of Nippon. Retrieved September 3, 2022.
28. Kit, Borys (June 18, 2020). "Lord & Miller's 'Project Hail Mary' Enlisting 'The Martian' Scribe Drew Goddard (Exclusive)" (<https://www.hollywoodreporter.com/movies/movie-news/lord-millers-project-hail-mary-enlisting-martian-scribe-drew-goddard-1299338/>). *The Hollywood Reporter*.

Retrieved from "https://en.wikipedia.org/w/index.php?title=Project_Hail_Mary&oldid=1117629444"

This page was last edited on 22 October 2022, at 19:13 (UTC).

Text is available under the Creative Commons Attribution-ShareAlike License 3.0; additional terms may apply. By using this site, you agree to the Terms of Use and Privacy Policy. Wikipedia® is a registered trademark of the Wikimedia Foundation, Inc., a non-profit organization.