

“THIS FILM WILL INSPIRE YOUR STUDENTS AND FOSTER DISCUSSION NOT ONLY ABOUT SCIENCE TOPICS, BUT ALSO ABOUT THE PROCESS OF SCIENCE AS A HUMAN ENDEAVOR AND ABOUT HOW DREAMING BIG AND WORKING HARD PAYS OFF IN THE END.”

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GRADE LEVELS

Jim Allison: Breakthrough is appropriate for High School (grades 9–12), Community College, University, and Post-graduate students.

THEMES

- Basic Science
- Biological Sciences
- Character Study
- Human Perseverance
- Invention and Discovery
- Scientific Method

CURRICULAR ALIGNMENT

- Biology
- Health Sciences
- Immunology
- Microbiology
- Pre-med
- Research
- STEM

NOTICE

This film is rated PG-13 and there are a few instances of mature language and alcohol consumption.

BREAKTHROUGHDOC.COM

JIM ALLISON: BREAKTHROUGH FOR EDUCATORS

POST-VIEWING DISCUSSION QUESTIONS

- 1 What did you learn from watching *Jim Allison: Breakthrough*?
- 2 Who is Jim Allison? How did he become a scientist and what motivated him?
- 3 What were some of the challenges Jim had to face on his path to making his big discovery? What characteristics led to his success?
- 4 What are the benefits to training your immune system to fight diseases like cancer?
- 5 Why is it important to learn about scientists like Jim Allison?



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ABOUT THE FILM

Jim Allison: Breakthrough is the astounding, true story of one warm-hearted, stubborn man's visionary quest to find a cure for cancer.

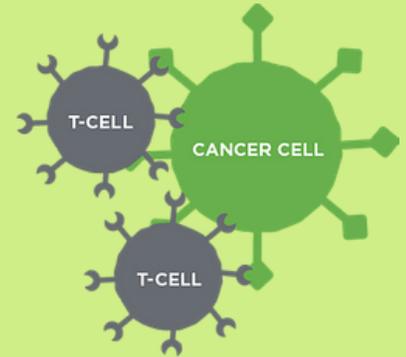
Today, Jim Allison is a name to be reckoned with throughout the scientific world — a 2018 Nobel Prize winner for discovering the immune system's role in defeating cancer — but for decades he waged a lonely struggle against the skepticism of the medical establishment and the resistance of Big Pharma.

Jim Allison: Breakthrough takes us into the inspiring and dramatic world of cutting-edge medicine, and into the heart of a true American pioneer, in a film that is both emotionally compelling and deeply entertaining.

Whether or not your students are interested in pursuing the sciences, everyone should know more about what scientists do and see the human side of their lives.

WHAT IS IMMUNOTHERAPY? A POWERFUL NEW TOOL TO KILL CANCER.

Immunotherapy has emerged as an effective alternative to traditional cancer therapies: in the last decade, with Dr. Jim Allison's leadership, T-cell immunotherapies have been developed that stimulate the body's immune system to fight cancer. Science magazine called Cancer Immunotherapy the "Breakthrough of the Year" in 2013.



WRITING EXERCISE PROMPTS

-  What is Basic Science? Why is Basic Science important? What is an example of Basic Science that Jim Allison follows in the film?
-  What is the role of creativity in science? How can science benefit from creative thinking? How does Jim Allison use creativity in his science?
-  What other characters (aside from Jim) did you find inspiring? Why? How is their work important in bringing scientific discoveries to the public? Who was missing in this film?
-  What is something that interested you as a child that could turn into a career? What kind of jobs are available in that field?

RESEARCH QUESTIONS

-  What is the purpose of the FDA? What is the process a treatment must undergo to make it to the general public?
-  What is the history of immunotherapy? When did this field of study begin, what else is treated using immunotherapy, and what other conditions are scientists currently studying where immunotherapy could provide a cure?
-  The film showed how other attempts at immunotherapy in the 1980s, such as interleukin-2 and interferon, were heralded as breakthroughs in the media, but ultimately failed to live up to expectations. Research examples of how science journalists have covered cancer research in the past and evaluate how journalists have conveyed excitement from recent scientific discoveries without contributing to outsized expectations?