

## Jim Allison: Breakthrough

(<https://www.breakthroughdoc.com/for-educators>)

- \_\_\_ 1. What event happened in Jim's childhood that shaped his career path later on?  
a) he was bullied      b) his mother died      c) he was burned in a fire
- \_\_\_ 2. What instrument did Jim play? a) guitar      b) flute      c) harmonica
- \_\_\_ 3. What conflict did Jim have with his science teacher?  
a) the teacher refused to teach evolution  
b) the teacher didn't like Jim's father  
c) Jim thought the teacher was unqualified
- \_\_\_ 4. What was Jim's first job at the university?  
a) groundskeeper      b) dishwasher      c) dog walker
- \_\_\_ 5. T cells are responsible for the body's:  
a) defense against disease      b) temperature regulation      c) blood circulation
- \_\_\_ 6. What famous singer did Jim invite to play at his local bar?  
a) Elvis Presley      b) Willie Nelson      c) Frank Sinatra
- \_\_\_ 7. What was Jim's "breakthrough?"  
a) he discovered a new drug  
b) he discovered how cancer cells reproduce  
c) he determined how T cells target other cells
- \_\_\_ 8. Engaging CTLA-4 does what to the immune response (according to Jim's research)?  
a) it stops the response      b) it makes it stronger      c) it recruits other cells
- \_\_\_ 9. What happened when Jim added an antibody that blocked the CTLA-4 receptor?  
a) T cells stopped working      b) T cells reproduce faster      c) T cells attacked the cancer



-- Pause a 43:20 ---

10. Synthesis - Describe the relationship between T-cells, CTLA-4, and cancer.



- Continue to 2nd half of the program -

- \_\_\_ 11. The early results of clinical trials of immunotherapy were: a) disappointing b) promising
- \_\_\_ 12. Phase 1 trials focus on what aspect of the drug?  
a) how well it works b) how much to give c) whether it is safe
- \_\_\_ 13. What was Sharon's experience with the experimental drug?  
a) she suffered severe side effects b) she had few side effects c) it made her very sick
- \_\_\_ 14. Why did Jim decide to move his lab to New York?  
a) he wanted to be near where the trials were occurring  
b) he wanted to be closer to his family  
c) the pharmaceutical company demanded it
- \_\_\_ 15. Why did Pfizer quit its clinical trials?  
a) funding ran out b) tumors continued to grow c) the FDA stopped the program
- \_\_\_ 16. To show that the drug could work, Jim had to convince BMS to:  
a) allow higher doses b) provide more funding c) let the trials go on longer
- \_\_\_ 17. What type of cancer was Jim diagnosed with? a) lung b) prostate c) skin
- \_\_\_ 18. What did Sharon do when she first met Jim?  
a) she asked him questions b) she gave him a hug c) she wrote him a check
- \_\_\_ 19. When the FDA announced the approval of Ipilimumab, the team of scientists celebrated by:  
a) drinking whiskey b) having a parade c) releasing balloons
20. Synthesis - **Perseverance** is a trait that was mentioned several times in this program. Describe how Doctor James Allison exhibited this trait.

