

Pioneering Astrobiologists: Fred Hoyle

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Sir Fred Hoyle (1915-2001)

As the original formulator of stellar nucleosynthesis and a modern-day proponent of the panspermia hypothesis, Sir Fred Hoyle is one of the great pioneers of a new science: Astrobiology.

"A junkyard contains all the bits and pieces of a Boeing 747, dismembered and in disarray. A whirlwind happens to blow through the yard. What is the chance that after its passage a fully assembled 747, ready to fly, will be found standing there?"
— Sir Fred Hoyle

Sir Fred Hoyle touched many lives



Jocelyn Bell Burnell

Sir Fred Hoyle publicly criticized the Nobel Committee for the omission of Jocelyn Bell Burnell for the discovery of the first pulsar



Chandra Wickramasinghe

Professor Chandra Wickramasinghe completed his PhD under Sir Fred Hoyle's supervision. They together proposed the modern works on panspermia which Fred himself believes is their most important work.

"The most difficult problems require unorthodox solutions because if the problem was solved the orthodox solution was correct but if it was not solved for a long period of time. Then, he reckoned we need to seek unorthodox solutions"
— Professor Chandra Wickramasinghe on Fred Hoyle's teachings

Science & fiction author



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Early Life

Born on the 24th of June 1915

Won Mayhew Prize in 1936 for being the best student in applied Mathematics while studying at Cambridge. Awarded the top Smith's Prize in 1938.

1915



Stellar Nucleosynthesis

Initially proposed this theory in 1946, who later refined it in 1954.

In 1952 he proposed the Triple Alpha Process; it is the principle that 3 He atoms can be fused to create a carbon nucleus. The famous review paper B²FH paper was co-published in 1957

1946



Steady State Universe vs. "Big Bang"

Published influential paper that asserted the steady state model of the universe and rejected the Big Bang theory, he coined the term "Big Bang" on BBC radio's third programme broadcast on 28 March 1949.

1949



Institute of Astronomy

Founded the Institute of Theoretical Astronomy at Cambridge and served as director until 1972.

1966



Panspermia

Proponent and advocate of panspermia. Theory suggests life exists throughout universe and can be distributed by meteoroids, asteroids, space dust etc. and was brought to Earth as an unintended consequence.

1974



Later Life

Became a great popularizer of science, appearing on British radio and television, and writing popular science books. In addition to dozens of scientific books, Hoyle wrote, or co-wrote with his son, over 20 science fiction novels.

He passed away on the the 20th of August 2001.

2001



"Space isn't remote at all. It's only an hour's drive away if your car could go straight upwards"
— Sir F. Hoyle

