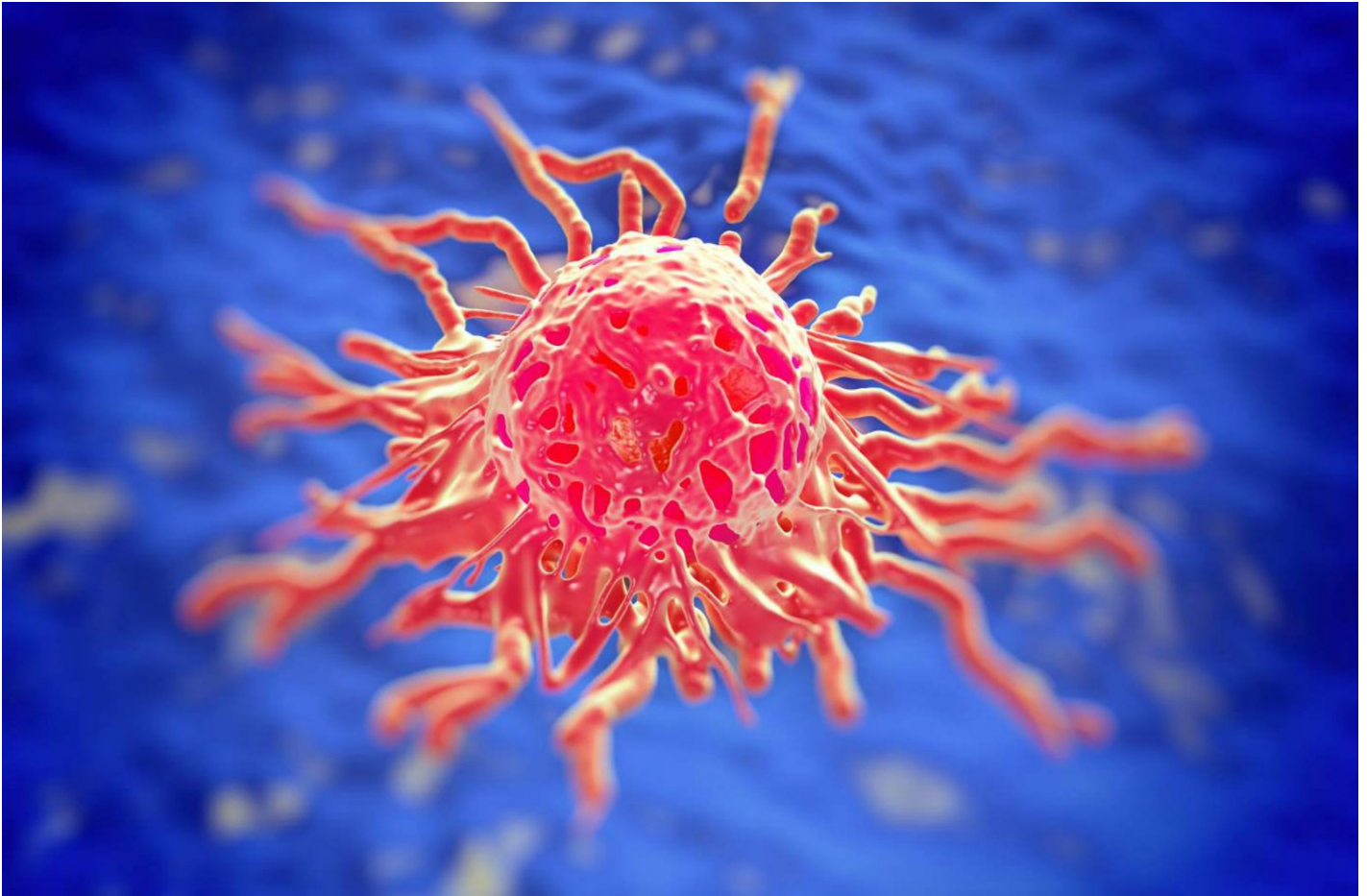


# Stanford And Columbia Researchers Pioneer Antibody Production Methods

Stanford University



Monoclonal antibodies play a key role in diagnosing and treating various diseases. These man-made antibodies are derived from a single cell, and can be tailor-made to locate and attach themselves to specific substances, such as cancer cells, in the body.

A significant milestone in the development of monoclonal antibodies came in 1984 with the invention of functional antibody technology. Professor Leonard Herzenberg and Dr. Vernon Oi of Stanford University in Stanford, Calif., and Professor Sherie Morrison, formerly of Columbia University in New York City, developed the technology involving a molecular method for producing “humanized” or chimeric antibodies — a unique genetically engineered fusion of certain portions of antibodies in mice with those of humans.

“ This was a significant development because it overcame the obstacle of the human body rejecting the mouse antibody, otherwise known as the HAMA (human anti-mouse antibodies) response.

In the years since, this technology has benefited thousands through its use in developing therapeutic antibodies for treating Crohn's disease, rheumatoid arthritis, cancer and multiple sclerosis. It also has been used to develop an anti-clotting agent. Professor Leonard Herzenberg Stanford University in Stanford, CA.

In 2002, the functional antibody technology was cited as one of Stanford University's top 10 inventions from 1975 through 2002, having generated \$30.2 million in royalties at that time. It is also one of Columbia's top three revenue-earning inventions to date.

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