

What is Biotech?

The Biotechnology Industry Organization (BIO) explains biotechnology by breaking the word into its root words:

bio - the use of biological processes; and
technology - to solve problems or make useful products.

Then, expanding on the biological processes under research and in use today, biotechnology is the use of cellular and biomolecular processes to solve problems or make useful products.

The common association of the term biotechnology is with the discovery and development of new drugs, but other areas include stem cell therapy, cloning, and protection against or counteracting biological terrorism.

Advancements in biotechnology impact a wide range of goods and services that affect our daily lives. Biotechnology research and development industries include both new emerging industries and marketed biotechnology businesses with potential for further expansion.

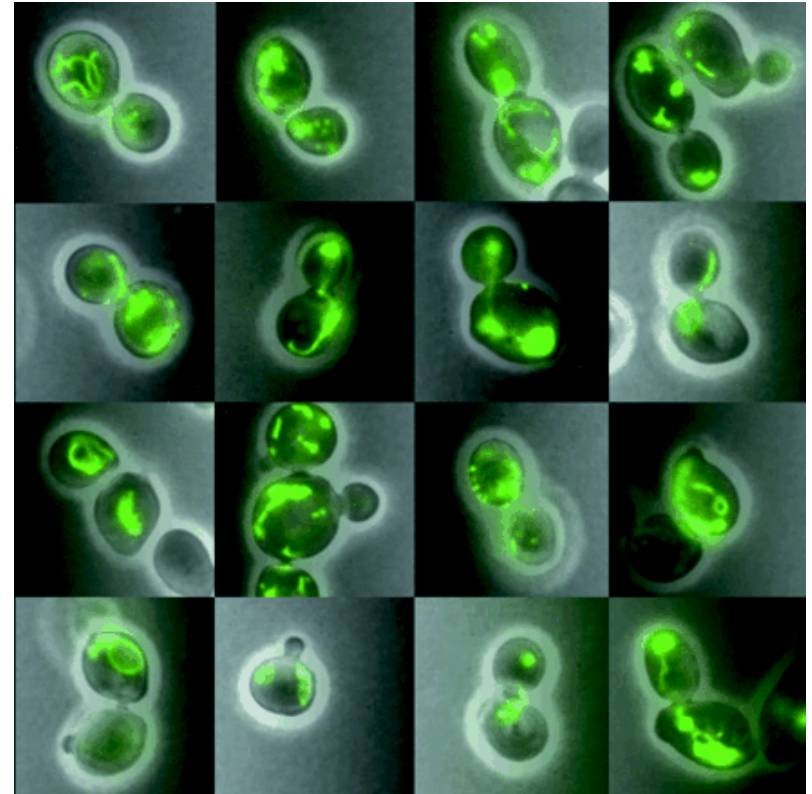
Sources:

- Occupational Projections & Training Data, 2004-2005 Edition, Table I-1, <http://www.bls.gov/emp/optd/home.htm>
- Occupational Employment & Wages, November 2003, Hawai'i State Dept. of Labor & Industrial Relations, www.hiwi.org
- Cell images from The American Society for Cell Biology
- Occupational images from US DOL ETA's Career Video Library

For additional information and the complete report on
Biotechnology: Exploring Jobs for Hawai'i's Future
visit www.hiwi.org



Biotechnology-Related Jobs in Hawai'i



an excerpt from
Biotechnology: Exploring Jobs for Hawai'i's Future

Hawai'i State Department of Labor & Industrial Relations
Research & Statistics Office
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Biotechnology-Related Jobs in Hawai'i

<u>Educational Level</u>	<u>Occupation</u>	<u>Average Annual Wage</u>	<u>2003 Employment</u>
Doctoral Degree	Medical Scientists, except Epidemiologists	\$61,980	*
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Masters Degree	Market Research Analysts	\$60,050	300
	Environmental Scientists and Specialists, including Health	\$52,230	470
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Bachelors Degree	Agricultural and Food Scientists	\$54,060	60
	Medical and Clinical Laboratory Technologists	\$50,710	620
	Microbiologists (Biological Scientists)	\$49,390	70
	Chemists	\$48,470	180
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Associates Degree	Environmental Science and Protection Technicians, including Health	\$36,070	90
	Biological Technicians	\$34,540	200
	Medical and Clinical Laboratory Technicians	\$33,670	500
	Agricultural and Food Science Technicians	\$33,380	*

Biotechnology currently represents just a small sector of the Hawai'i workforce, but Hawai'i is poised with the potential for dramatic change. Biotechnology occupations require higher education or more work experience than the average job and consequently the pay scale for these occupations also tend to be higher than the average wages in many industries. Biotechnology requires individuals with strong math and science backgrounds and finding experienced workers with specialty skills can be challenging with rapidly changing skill requirements resulting from advances in technology. Aside from the focal area of research and development (R&D), there are other biotechnology-related areas such as manufacturing, quality control, regulatory affairs management, information systems design and maintenance (designing and maintaining computer systems to organize, monitor and manage research information), and the marketing and sales of developed products.

*Data suppressed due to confidentiality.