

Bioscience Basics in Washington State



WEEB SHOTS

Washington State is Leading the Way

- **The Seattle metro area and Washington State have long been a leading center of technology advancement.**
- **The region is gaining international prominence as a center for medical innovation.**

Signs of Life: The Growth of Biotechnology Centers in the U.S.



**The Brookings Institution,
Center on Urban and
Metropolitan Policy**

- **Based on a survey of the nation's 51 largest metropolitan areas, the report concludes that the biotechnology industry is concentrated within nine of these regions.**

Biotech Leaders



• **San Francisco**



• **Boston**

Biotech Challengers



• San Diego



• Raleigh-Durham



• Seattle

Other Biotech Centers



• Philadelphia



• New York City



• Washington--Baltimore



• Los Angeles

Biosciences:

- **Biotechnology**
- **Bioinformatics**
- **Medical Devices**
- **Research Institutions**
- **Contract Research Organizations**

Biosciences:

- **To fight and cure disease**
- **To conquer hunger by growing more nutritious and higher-yield products**
- **To develop effective methods to clean up the environment**
- **To fight bioterrorism**

Washington Biotechnology & Biomedical Association

Vital Signs for Bioscience Centers

- **Strong Academic Research Institutions**
- **Successful Technology Transfer**
- **Access to Early Stage Capital**
- **Highly Skilled Workforce**
- **Stable and Supportive Public Policy Structure**

Signs of Life: Research Institutions

Biotech advancements come from cutting edge research.

- **The University of Washington**
- **Fred Hutchinson Cancer Research Center**
- **Washington State University**
- **Battelle/Pacific Northwest National Laboratories**



VIRGINIA
MASON Research Center
Benaroya Research Institute

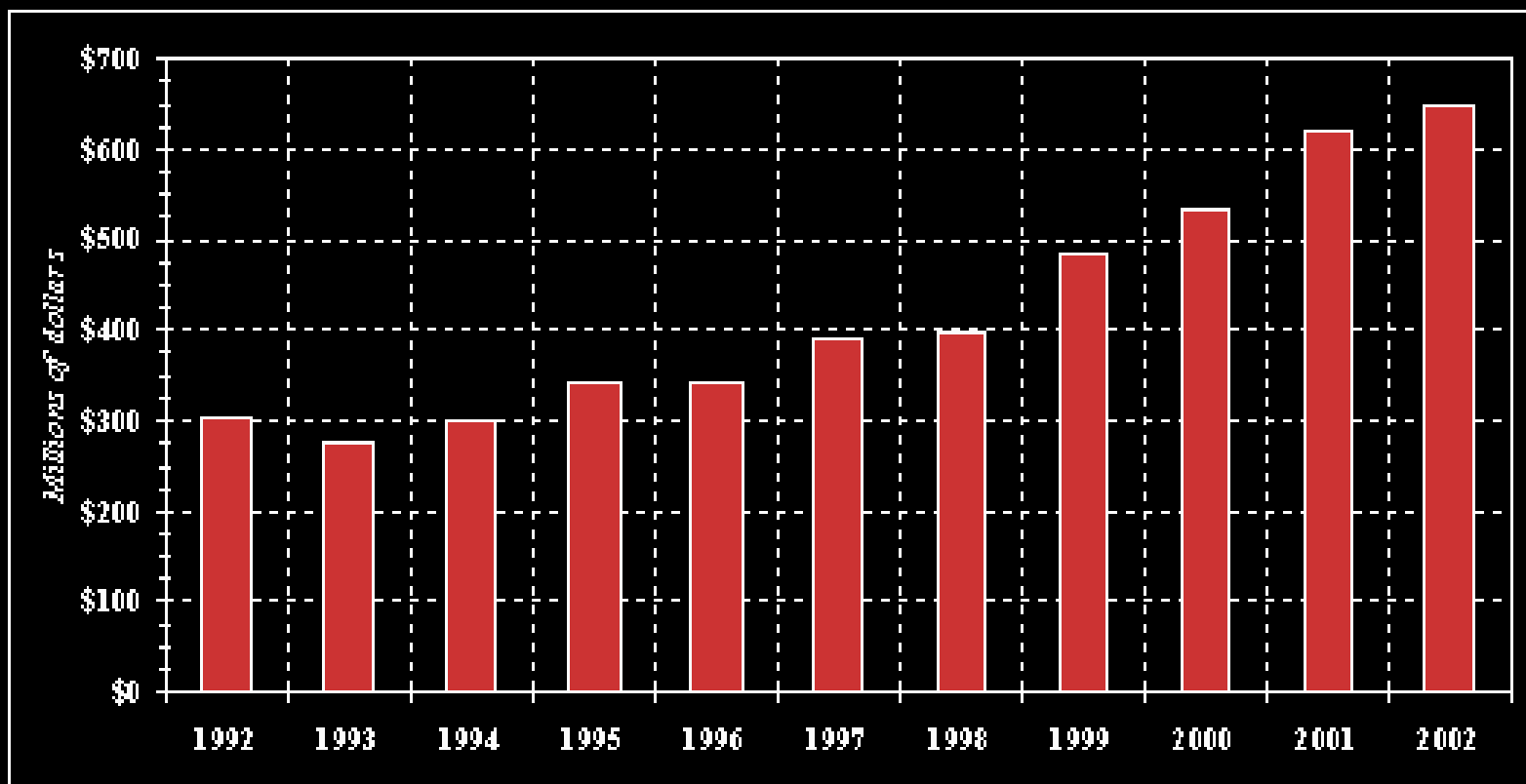
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Institute for Systems Biology

Seattle
Biomedical Research
Institute 

PNRI PACIFIC NORTHWEST
RESEARCH INSTITUTE

NIH Funding to Washington State, FY1992-2002



Signs of Life: Research Institutions

Local research institutions continue to be national leaders in securing federal research funding



- **The UW ranks 1st among all public universities in NIH funding**
- **Combined with other government funds ~ \$1.5 billion annually**
- **In fiscal 02 -- \$649 million from NIH**

Biotechnology and Medical Device Industry in Washington State: An Economic Analysis



Huckell/Weinman

Associates, Inc.

- **December 2002**
- **Huckell/Weinman Associates, Inc.**
- **Robert A. Chase, Principal Economist**

NASDAQ[®]



Snohomish County **EDC**

AMGEN[®]



**Economic Development Council
of Seattle & King County**

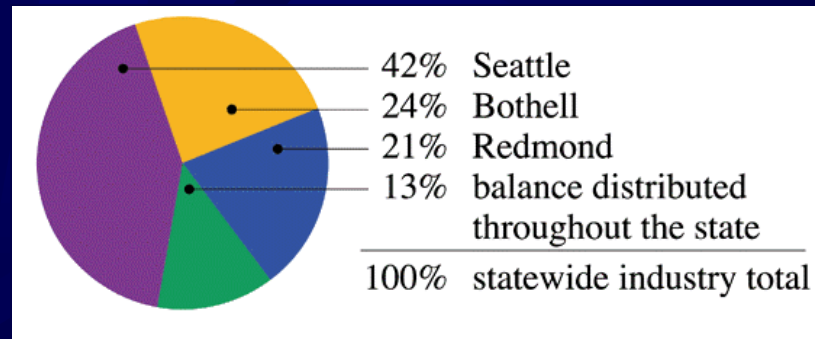
I N F O . R E S O U R C E , I N C .



City of Seattle
Office of Economic Development

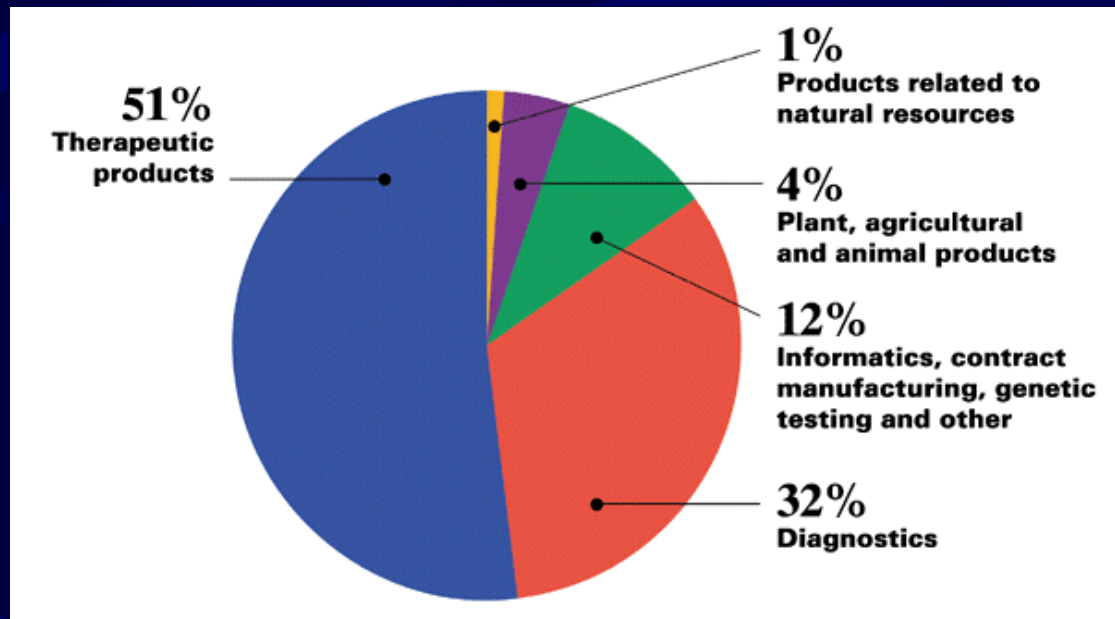
Biotechnology and Medical Device Industry in Washington State: An Economic Analysis

- 190+ biotechnology and medical device companies
- Nearly 30% were formed in the last 5 years
- Concentration is in the greater Seattle area:



Biotechnology and Medical Device Industry in Washington State: An Economic Analysis

- Focus areas for Washington's 190+ bioscience companies



Washington State is Leading the Way



Philips Ultrasound

Medtronic PhysioControl

Hollister-Stier

GenPrime

Amgen

ICOS

Corixa

Chiron

Targeted Genetics

Cell Therapeutics

ZymoGenetics

Biotechnology and Medical Device Industry in Washington State: An Economic Analysis

More than 19,300 Washingtonians work in the industry, earning an average annual salary of \$68,000, and generating an estimated \$1.8 billion in revenues and nearly \$500 million in exports.



Economic Impact of Biotechnology & Medical Device Industry, 2002

- **19,360 workers directly employed**
- **Multiplier effect = 2.23 jobs**
- **Indirect 43,170+ jobs**
- **Total: $19,360 + 43,170 = 62,530$**

Biotechnology and medical device companies in Washington directly employed 19,360 workers, but their purchases from other companies and the spending of their employees generated another 43,170 jobs. The total job generation attributable to the bioscience sector is 62,530.

Biotechnology is Facing Major Challenges

- **Public awareness** — good intentions can create unintended consequences.
- **Research** — continued funding is crucial to medical innovation
- **Access** — price controls would limit money for research, prevent new drugs and treatments from entering the pipeline, and reduce hope for patients.



The WBBA is nationally recognized as the regional leader in advancing the state's biosciences through:

- **Political Advocacy**
- **Business Development**
- **Industry News & Information**
- **Member Services**



- **Founded in 1989**
- **Not-for-profit trade association**
- **Over 375 biotechnology and medical device companies, academic and research institutions, and related business partners**

2003 Gold Leaders

Acordia

Amgen

Axio Research Corporation

Battelle / Pacific Northwest National
Laboratory

Berlex Laboratories, Inc.

BNBuilders, Inc.

Cell Therapeutics Corporation

Chiron Corporation

Corixa Corporation

Ernst & Young LLP

Fred Hutchinson Cancer Research Center

Gray Cary Ware & Freidenrich LLP

Heller Ehrman Attorneys

Hollister-Stier Laboratories LLC

Howard S. Wright Construction Co.

KPMG LLP

Lane Powell Spears Lubersky

Lease Crutcher Lewis

Medtronic Physio-Control Corporation

Orrick Herrington & Sutcliffe, LLP

Perkins Coie

Philips Ultrasound

Rosetta Inpharmatics, Inc.

Silicon Valley Bank

Turner Construction Company

University of Washington

Vulcan, Inc.

Washington State University

Woodruff-Sawyer Company,

Washington, Inc.

ZymoGenetics Inc.

Biotech Leaders



• San Francisco



• Washington



• Boston



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