



International Center of Medicine

TRADE
DEVELOPMENT
ALLIANCE
of
GREATER
SEATTLE



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An overview of Greater Seattle's health services industry for prospective partners in business, investment and research, as well as for individuals seeking specialized health services or pursuing health studies.

Did You Know?

Medical Products and Services

Humanitarian and Educational Organizations

Research

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Did You Know?

A fifth of the world's bone marrow transplants, a treatment pioneered by the Fred Hutchinson Cancer Research Center, are performed in Seattle.

Seattle researchers have won two Nobel Prizes in Medicine in the last five years.

Many amputees in Vietnam and Thailand can now walk thanks to prosthetic devices and computer hardware and software designed by Washington state research teams, headed by an orthopedic surgeon and a former Boeing engineer.

The University of Washington Medical Center is ranked among the top ten teaching hospitals in the nation? The automatic gene-sequencing machine used in laboratories around the world was developed by a professor at the University of Washington.

Virginia Mason Medical Center's Research Center--an international leaders in diabetes research-- analyzes and modifies genes associated with Type I diabetes.

The University of Washington and Harborview Medical Center have gained national and international acclaim for excellence in AIDS research.

The Program for Appropriate Technology in Health (PATH), headquartered in Seattle, has managed more than 500 health and family planning projects in 54 developing countries.

A Greater Seattle area company is designing medical facilities in China, Japan and Mexico.

Medic One, an emergency response program developed in Seattle, has become a model for other such programs worldwide.

Medical Products and Services

The Greater Seattle area has one of the most significant concentrations of biomedical and biotechnology companies in the United States. Many are in research and development phases, creating the medical breakthroughs of the future.

Biomedical and biotechnology companies now sell their products worldwide. For many, export sales comprise a large part of their annual revenue. Often they work with partners in other countries.

High-technology businesses often choose to locate in the Greater Seattle area because of its well-educated work force. Many of their employees are graduates of Washington state educational institutions.

Biomedical and Biotechnology Companies

Leroy Hood, an internationally renowned professor at the University of Washington, developed the automatic gene-sequencing machine found in laboratories around the world. He is also the founder of Darwin Molecular Corporation, a biotechnology company backed by Microsoft Chairman Bill Gates.

M+IND, the company that designed and manufacturers the "Seattle Foot" for amputees,

is also the world leader in the design and manufacture of CAD-CAM technology for automated fabrication of prostheses.

One of the largest and fastest growing biotechnology companies, Danish-owned Zymo-genetics, focuses on the development of genetically engineered active compounds for wound healing, hard and soft tissue repair, coagulation disorders and diabetes control.

Heartstream, Inc. is developing a new generation of automatic external defibrillators, enabling much faster response times for the treatment of sudden cardiac arrest.

Alcide Corporation develops and markets infection-control products that are used in the animal and human health industries throughout the United States and Western Europe.

Immunex Corporation, merged with Amgen to form the world's largest biotechnology company. Amgen maintains a large research and development facility in Seattle.

Physio-Control Corporation revolutionized the defibrillator marketplace with a battery-powered unit to be used both in and outside of hospital settings.

Siemens Medical Systems' Ultrasound Group, based in Seattle, is the worldwide head-quarters for the production of state-of-the-art diagnostic imaging systems.

Industrial Hygiene and Safety Services

Prezant Associates, Inc., a leader in industrial hygiene consulting, has conducted asbestos worker and supervisor training at the Kadeena Air Base in Okinawa, Japan; at the Osan Air Base in Osan, Korea; and in Seoul, Korea for the Army Corps of Engineers.

Software Developers and Manufacturers

PHAMIS, Inc. develops and manufactures LASTWORD system software, an on-line electronic medical record system.

Optimas Corporation develops, manufactures and markets Microsoft Windows-based image processing and analysis software which converts images into quantitative data for biomedical, scientific and industrial uses. The company markets its software in 30 countries in Europe and Asia.

Eastern King and Snohomish Counties, including the communities of Bellevue, Redmond and Kirkland, have the highest per capita concentration of software companies of any region in the United States.

Architecture Firms and Health Care Facility Operators

Columbia Pacific Group and Hillhaven Corporation have signed a joint-venture agreement with a Malaysian hospital company to develop and operate a 120-bed, \$3.6 million nursing home in Kuala Lumpur.

NBBJ, an architecture firm based in Seattle, is the largest developer of health care facilities in the United States with projects under way in China, Mexico, and Japan.

Mithun Partners, an industry leader in the planning and design of residential care facilities, is currently designing a luxury, 16-story independent living facility in downtown Seattle. The firm is working on several projects in Japan and Indonesia.

Humanitarian and Educational Organizations

Greater Seattle is home to many organizations that work to improve the health of people worldwide. These Organizations vary as to geographic focus and target group.

All these organizations have in common the commitment to providing education, medical facilities, technology transfer and disease screening to people in countries that otherwise would not receive this assistance.

The [Program for Appropriate Technology in Health \(PATH\)](#), headquartered in Seattle and funded in part by United Nations agencies, has managed more than 500 health and family planning projects in 54 developing countries.

The City of Seattle has the highest national percentage of citizens who know cardio-pulmonary resuscitation (CPR) techniques, and has a 25-30 percent survival rate for patients suffering cardiac arrest -- one of the world's highest survival rates and six times the national average!

AIDS Impact, Inc. produces educational materials on HIV/AIDS that are used in more than 45 countries.

The [Prosthetics Outreach Foundation](#) provides services to the physically disabled in developing economy Countries. Notable examples include the establishment of prosthetic centers in Vietnam and Thailand and research in the field of mobility aids.

The American Red Cross, Seattle-King County Chapter, has formed a partnership with the Shanghai Red Cross Society.

[MiraMed](#) is a Seattle-based organization working to improve health care delivery to women and infants in Russia and the former Soviet republics by training Russian health care professionals and developing a modern birthing facility in Moscow.

Research

Greater Seattle is recognized around the world as a center for exciting and groundbreaking medical research. Researchers at educational institutions, independent facilities, and biomedical and biotechnology companies have earned the reputation for innovative basic science and clinical investigations.

The many health and medical-related schools at the University of Washington (UW) are known internationally for the expertise of their researchers and the breadth and depth of their work. In 1994, the University of Washington ranked first among all public universities in the receipt of federal research grants. Formal research partnerships allow Greater Seattle researchers to work with colleagues in other countries to improve the health of people worldwide.

The [Fred Hutchinson Cancer Research Center](#) houses the largest program in the world devoted to cancer prevention and control research.

The Department of Molecular Biotechnology, directed by Dr. Leroy Hood, was established at the University of Washington in 1992 with a \$12 million gift from Microsoft chairman Bill Gates.

[Seattle Biomedical Research Institute](#), in partnership with German researchers, is in-

investigating the parasite that causes “sleeping sickness” in Africa.

Researchers at the [UW School of Public Health and Community Medicine](#) are collaborating with researchers in Paris on the association between tubal infertility and infection with Chlamydia trachomatis and with researchers in Nairobi on the connection between this organism and pelvic inflammatory disease.

Scientists at [Benaroya Research Center at Virginia Mason](#) have developed a DNA test to identify patients at risk for rheumatoid arthritis.

The UW operates the world’s largest clinical training program for sexually transmitted diseases, including HIV/AIDS.

Fred Hutchinson Cancer Research Center researchers are working with colleagues in the former Soviet Union to study radiation exposure from the Chernobyl Power Station accident.

NeoPath, Inc. is researching an automated primary screener designed to identify false negative PAP smears.

The [UW School of Dentistry](#) maintains the largest program of biomedical research and one of the largest teams of behavioral scientists of any dental school in the nation.

In 1993, Advanced Technology Laboratories invested more than \$50 million in the research and development of diagnostic ultrasound systems.

Over 40 research studies are in progress at the [UW School of Nursing](#), focusing on three main areas: child, adolescent, and family health; women’s health; and health promotion and disease prevention.

In cooperation with the Boeing Company, researchers at the UW School of Medicine conducted one of the world’s largest studies on risk factors for back pain and related disability, a problem with enormous economic consequences.

[Northwest Hospital’s](#) physicians developed a non-surgical technique using radioactive seeds to treat early-stage prostate cancer, which has a seven-year success rate of over 90 percent. Dr. Gerald Murphy, the researcher who developed the prostate specific antigen (PSA) blood test for prostate cancer, is now at Northwest Hospital engaging in pioneering research for prostate cancer and brain cancer.

More than 150 pediatric research projects are underway at [Children’s Hospital and Medical Center](#) in areas such as cystic fibrosis, E. coli, AIDS and neonatal hearing loss. In 1995, \$11 million in research grants were awarded to Children’s.

Education and Training

Students from across the United States and all over the world receive training at our regional institutions. Many exchange programs provide visiting overseas students the opportunity to study in the Greater Seattle area while many of our students spend time in other countries.

Graduates from the UW and other regional institutions become the work force for the region's biomedical and biotechnology companies, as well as research and health care delivery institutions. Health care-related businesses are established in the Greater Seattle region or relocate here because they know they can find a highly educated and skilled work force.

Among UW medical scientists, three are Nobel Prize winners, 20 have been elected to the National Academy of Sciences, and 25 are members of the Institute of Medicine.

The UW School of Public Health and Community Medicine offers advanced training in biostatistics, epidemiology, environmental and occupational health, community medicine, and research on health care delivery systems. Many of the school's programs have international components-- for example, the International AIDS Research and Training Program.

Fred Hutchinson Cancer Research Center has trained most of the physicians who perform marrow transplants at more than 200 centers worldwide.

Officials of Tohoku University, Japan and the UW School of Medicine have signed a formal agreement to work together and enhance cooperation.

The UW School of Medicine was ranked number one in the United States in 1995 by U.S. News & World Report for the teaching of primary care medicine (including family medicine and rural medicine). It ranks number three in women's health, number four in pediatrics and AIDS research, and number five in geriatrics.

The UW School of Nursing, along with the University of California, San Francisco, ranks number one in the nation for its masters degree programs. The School of Nursing has consistently ranked first in a number of surveys over the last 11 years.

The Greater Seattle area is on the leading edge of education and research in alternative health care. Greater Seattle is home to Bastyr University, one of only two schools of naturopathic medicine in the nation, and the Northwest Institute of Acupuncture and Oriental Medicine. Both schools draw students and faculty from abroad.

Virginia Mason Medical Center has arrangements for shared educational services and medical observorships with hospitals in Bangkok, Hong Kong, Kuala Lumpur, Singapore and the Russian Far East.

The University of Washington School of Medicine's nationally-recognized Department of Pediatrics is based at Children's Hospital and Medical Center. Hundreds of pediatric residents and fellows from Washington, Alaska, Montana, Idaho and Wyoming benefit from Children's pediatric training in a variety of subspecialties.

Health Care Delivery

The Greater Seattle region is home to more than a half dozen major hospitals and medical centers that provide health care for patients from across the nation and other countries. These institutions are equipped with the latest in medical technology and are staffed by highly-skilled medical professionals, many of whom are internationally respected. All local hospitals welcome non-English speaking patients by providing translators and other special services to ethnically and culturally diverse populations. In addition, orientation tours and briefings are made available for visiting health-related delegations. Our hospitals consistently rank among the most efficient in the nation on all measures of hospital use.

[Virginia Mason Medical Center](#)'s innovative International Medical Services program maintains an extensive network of international physician contacts, facilitates care for foreign patients with its own customized interpretation program and offers a Travelers Health Advisory service about health care around the world.

Brain cancer patients from around the world receive non-invasive treatment at [Northwest Hospital's Gamma Knife Center](#), the only such center in the Pacific Northwest.

The [University of Washington Medical Center](#) is considered one of the top ten teaching hospitals in the nation. The Medical Center has internationally-recognized programs in cancer treatment, cardiac surgery, and videoendoscopic surgery.

[Fred Hutchinson Cancer Research Center](#) has treated 6,000 patients, including nearly 500 from 46 countries. A fifth of the world's bone marrow transplants (a treatment pioneered by the Fred Hutchinson Cancer Research Center) are performed in Seattle.

[Swedish Health Services](#) Tumor Institute was the first cancer-care center west of the Mississippi and today is the largest comprehensive cancer treatment facility in the Northwest. The Pain Clinic at the Tumor Institute is one of only two cancer-based clinical pain programs in the world.

[Puget Sound Blood Center's](#) transfusion service laboratory is the largest in the nation and a model for efficiency and cost control.

[Harborview Medical Center](#) has gained national and international acclaim for the excellence of its trauma and burn centers.

[Swedish Health Services](#), which has one of the most active orthopedics programs in the country, performed nearly 8,000 orthopedic surgeries in 1994. Swedish specializes in joint and limb replacement, spinal surgery, hand surgery and sports medicine.

[Children's Hospital and Medical Center](#) is a national leader in health care for children. Children's unique expertise focuses on cardiology/cardiac surgery, cancer, birth defects, pediatric surgery and diagnostic services in laboratory and radiology.

[Group Health Cooperative](#) maintains a special service to provide health services to employees and families of Japanese-owned companies in the Greater Seattle area.

Medic One is an emergency response program developed in Seattle and regarded as a model for other such programs worldwide.

Contacts

The Trade Development Alliance of Greater Seattle is a partnership of the City of Seattle, the Port of Seattle, King and Snohomish County governments, organized labor and the Greater Seattle Chamber of Commerce. The Trade Alliance is dedicated to making this region one of North America's premier international gateways and commercial, educational, biotechnology and research centers through trade promotion and other activities.

If you have trade or market-related questions about the health care industry in the Greater Seattle area, please contact:

[Trade Development Alliance of Greater Seattle](#)

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If you need information about business relocating services for the Greater Seattle area, or about joint-venture partners, please contact:

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