

A. ALWAYS
B. Be
C. Curing CANCER

The
ATLANTIC
Philanthropies

The Atlantic
Philanthropies'
Grantmaking in
the Cancer and
Biomedical Fields:
1986-2015

MARCH 2018

Executive Summary

This report summarizes and discusses The Atlantic Philanthropies' investments in the cancer and biomedical fields between 1986 and 2015—a total of more than \$1 billion in funding for investigators, programs, and building projects to help advance cancer research around the world¹.

Atlantic's support for cancer research dates back to its earliest days, with Founder Chuck Feeney personally seeking out opportunities “ripe” for investment. The loss of a nephew to the disease in 1992 reinforced Feeney's conviction that with the foundation's support “we can find solutions and we will find solutions.”

The defining characteristics of Feeney's and the foundation's approach to cancer-related grantmaking included:

- A desire to advance better health outcomes for people, especially vulnerable populations.
- An emphasis on identifying and investing in qualified people and supporting institutions poised to grow and make meaningful advances.
- A large number of significant investments in building projects, reflecting Feeney's belief that “Good buildings for good minds can make a difference in the lives of a lot of people.” Investments in cutting-edge facilities helped attract leading researchers who could collaborate on potentially life-saving treatments in cutting-edge facilities.
- Ongoing support for, and encouragement of, collaboration between institutions and research groups.
- A special interest in supporting promising innovative research, including immunotherapy, which at the time Atlantic began making grants was so new, some considered this research on the fringes of medical science.

In the years since Atlantic first started making its cancer and biomedical research grants, survival rates for cancer have been moving upward, giving hope that the day will soon come when cancer no longer will be considered a terminal illness but a treatable or manageable chronic disease.

¹ See Appendix for a year-by-year list of the foundation's cancer and biomedical grants to organizations in Australia, Cuba, Northern Ireland, the Republic of Ireland, South Africa, the United Kingdom, the United States and Viet Nam.



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In supporting cancer research, Atlantic Founder Chuck Feeney saw the opportunity to address a very pressing need and to support qualified people and institutions.

Introduction

Over three decades, Atlantic has awarded more than \$1 billion in cancer- and biomedicine-related grants to dozens of institutes or organizations around the world.

While the foundation's giving for cancer research dates back to its earliest days, it took on extra importance after Atlantic Founder Chuck Feeney experienced first hand the disease's toll with the death of his nephew James Fitzpatrick in 1992.

As biographer, Conor O'Clery wrote in *The Billionaire Who Wasn't*, his nephew's death reinforced Feeney's "determination to focus the Atlantic Foundation on medical and biomedical research in future years."

Although the increased outlay of money to support cancer research was driven by Feeney's deep personal desire to do for others what he couldn't do for his own family, from the start, giving for this purpose aligned with Atlantic's other work to advance better health outcomes for people, especially vulnerable populations.

“A key thing for Chuck Feeney, for all of his grantmaking, was a humanitarian factor. The impact on people really affected him,” says longtime associate Jim Downey. The reality of cancer’s terrible toll hit Feeney a second time five years later with the death from prostate cancer of longtime business partner, George Parker, who had served as president and director of General Atlantic Group Limited, and as a director of Duty Free Shoppers.

In cancer, Downey adds, Feeney saw a “very pressing need,” coupled with opportunities to invest in qualified people who had good ideas and to support institutions that were poised to grow and make meaningful advances.

When it came to identifying prospects for cancer- and biomedicine-related grants, Feeney said, “The time is now, I’m convinced that the time is now to make progress. We can find solutions and we will find solutions.”

Over the course of its history, Atlantic’s cancer grants supported buildings, institutions, basic research, prevention and up-and-coming treatment strategies. Designed to help both patients impacted by the disease and the researchers and investigators working on advancements in treatment and possible cures, Feeney’s grant choices were based on his own personal research and assessments of where he saw the greatest opportunity.

In his efforts to find solutions to cancer, Feeney chose to invest in established, experienced research institutions that had the commitment and capacity for innovation and were already doing outstanding, sometimes cutting-edge work. This offered the prospect of leveraging existing knowledge and progress and the ability to take the work to another level, or get behind promising approaches to cancer solutions that had not yet caught on with other funders.



Atlantic invested \$32 million to help establish the Translational Research Center in Queensland, Australia. Professor Ian Frazer is TRI's founding CEO and director.

Find the Right People

When it came to identifying prospects for cancer- and biomedicine-related grants, Atlantic's Chuck Feeney relied on the same instincts he'd honed over many years as a successful entrepreneur: doing his own reading, research and reconnaissance; meeting, talking and listening to people on his frequent world travels; and keeping his eyes open for "ripe" opportunities, including ones that came of chance encounters.

For example, one such meeting Feeney had with cervical cancer vaccine developer Ian Frazer helped cultivate a \$32 million (A\$50 million) Atlantic investment in the Translational Research Institute (TRI) in Queensland, Australia, according to Madonna King's 2013 biography of Frazer, *The Man Who Saved a Million Lives*.¹

"As the concept of building the Translational Research Institute progressed, Chuck and I kept in touch with each other, but we never actually spoke

¹ King, M. (2013). *Ian Frazer: The man who saved a million lives*. University of Queensland Press.



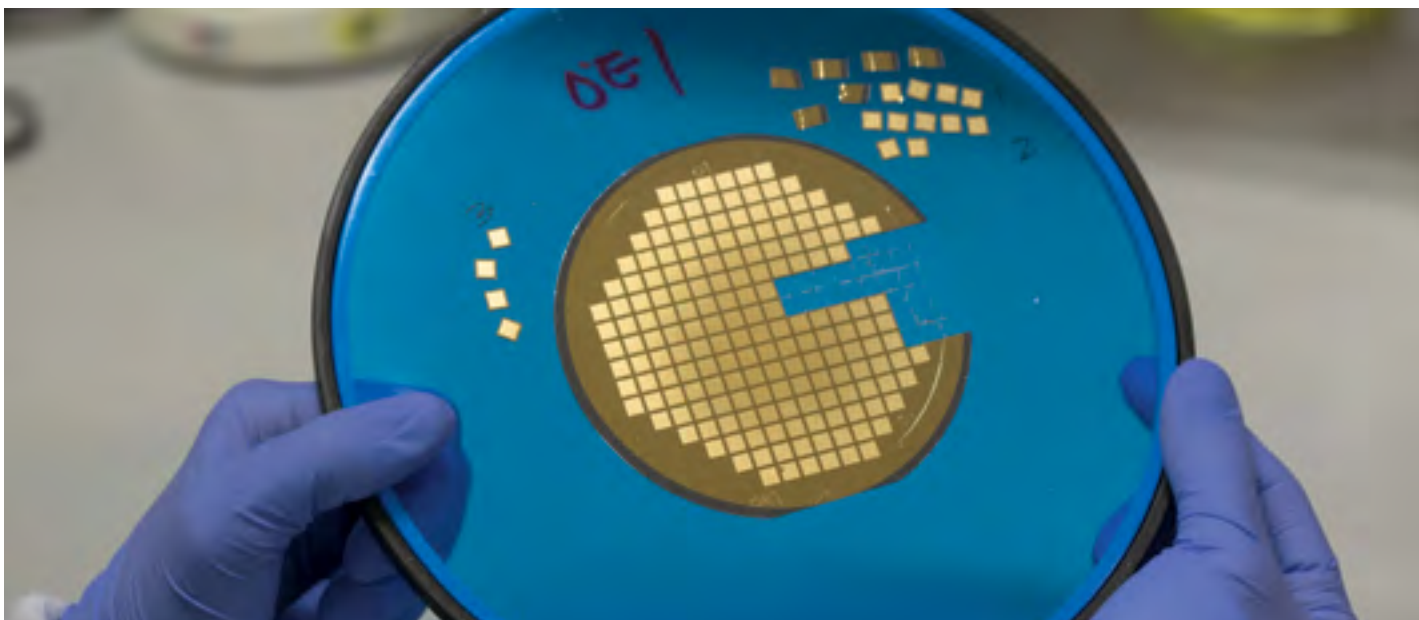
Lloyd J. Old was an early and steadfast believer that vaccines and other immunological means could fight cancer.

about the money, so to speak. It was never a case of going along and asking for cash, rather just keeping him up to date with what we were thinking,” Frazer recalls.

Ever on the prowl for people with big ideas, his interactions with individuals at the Cancer Research Institute (CRI)—particularly Lloyd J. Old, an early—and steadfast—believer that vaccines and other immunological means could fight cancer, encouraged Feeny to bet on Old and others who were pursuing this new avenue of research.

Once considered “fringe,” immunotherapy is now listed on the website of the American Cancer Society, where it is described as a “treatment that uses your body’s own immune system to help fight cancer.”

Cancer immunotherapy approaches range from cancer vaccines to antibody-based drugs that take the brakes off immune players poised to destroy malignant cells. They also include therapies that harvest immune cells from the patient and reintroduce those with the most potent anti-tumor activity (sometimes modifying the cells in between). Though still effective for only a subset of patients and cancer types, successful immunotherapy clinical trials have re-energized the field of oncology.



A scientist at the Australian Institute for Bioengineering and Nanotechnology in Queensland, Australia, works on a silicon wafer with several nano-patches. Nanoparticles are used to detect early cancer markers in the blood.

Betting on the Longshot

“Most people weren’t aware of [immunotherapy], because it wasn’t actually receiving all the attention it probably should have been through traditional funding mechanisms,” says Robert Strausberg, deputy scientific director at the Ludwig Institute for Cancer Research (LICR). “A lot of people just weren’t paying attention.”

Those in the field say immunotherapy was largely neglected by funding bodies for many years, but for the stubborn support and encouragement of nonprofit organizations such as CRI and the Ludwig Institute—which together received close to \$65 million in direct Atlantic funding from 1988 to about 2006, along with support obtained by leveraging some of those grants.

Indeed, Jill O’Donnell-Tormey, CRI’s chief executive officer and director of scientific affairs, says the two \$20 million grants that CRI received from Atlantic in 1997 and 2002 were “the most transformative gifts that the Cancer Research Institute had.”



Robert Strausberg is deputy scientific director at the Ludwig Institute, which received support from Atlantic to pursue immunotherapy research.

O’Donnell-Tormey, who has been with CRI since 1987, recalls that Feeney also secured approval for a \$5 million grant from Atlantic in 1998 to support CRI’s prostate cancer programs after CRI trustee—and Feeney’s longtime business partner—George Parker died of the disease.

Though it is tricky to come up with firm figures on the number of patients who have benefited from treatments informed by Atlantic-, CRI-, and the Ludwig Institute-supported research, there is no doubt that these organizations fostered the basic research findings and clinical trials that collectively moved the field of cancer immunology toward the treatments emerging today.

With the help of the most substantial grants from Atlantic in 1997 and 2002, CRI roughly doubled the number of investigator awards it handed out annually to support young scientists working in cancer immunology. Its post-doctoral fellow funding climbed by 40 percent over the span of both awards. The organization also introduced a tumor immunology training program that benefited graduate students at universities in the United States, Russia, and India.

The initial \$20 million grant also made it possible for CRI to create its first real clinical program, explains O’Donnell-Tormey. That included a Coordinated Cancer Initiatives effort to support research, pre-clinical and clinical trials, and a Cancer Vaccine Consortium made up of research centers, pharmaceutical companies, and biotechnology firms.

In conjunction with Ludwig, CRI conducted dozens of clinical trials over the nearly 12 years that it leveraged and stretched out support from the two largest Atlantic grants. Atlantic supported still more immunotherapy-focused researcher projects and clinical trials in 2006 when it awarded \$18 million to Ludwig.

At other centers that have secured infrastructure funding from Atlantic over the years, investigators are rallying behind clinical and basic research in the immunotherapy space.

At the Atlantic-funded QIMR Berghofer Medical Research Institute in Brisbane, Australia, researchers have completed a deal with Bristol-Myers Squibb for a new immune checkpoint target, according to Frank Gannon, the institute’s director and chief executive officer. Investigators there have also signed a deal with Atara Biotherapeutics on research related



Jill O’Donnell-Tormey (right), chief executive officer and director of scientific affairs, at the Cancer Research Institute, says the two \$20 million grants from Atlantic were “transformative.”

to Epstein Barr virus—targeting adoptive T-cell immunotherapies for nasopharyngeal carcinomas.

The University of Queensland’s Ian Frazer says at the Translational Research Institute, “Immunology is probably the place where the impact has been greatest as a basic science, both from the point of view of better management of cancer and also better management of autoimmune diseases.”

Following from Frazer’s work to develop a vaccine that targets cervical cancer-causing forms of the human papillomavirus (HPV), his team is now searching for potential vaccine targets in other virus-associated cancers.

Separately, Washington University researcher Robert Schreiber made important discoveries about a process known as immunosurveillance in mouse studies supported by Atlantic’s 2006 grant to LICR. Schreiber, a CRI scientific advisory council member, showed that the immune system interacts with cancer over time in ways that shape the traits and immunogenicity of the resulting tumor.²

Together, these and other pieces to the immune-cancer puzzle have pushed immunotherapy along, creating a space that is beginning to yield results and is ripe for further developments.

“There have been a lot of promises about immunotherapy and it’s been recently that some of these promises have been realized,” Schreiber says. “I do think it’s come from an enhanced understanding of the basic biology between the interaction of tumors with the immune system, which most people just turned their backs on for years.”



Robert Schreiber of Washington University says that after years of promises about immunotherapy, some are finally being realized.

² Dunn, G.P., Bruce, A.T., Ikeda, H., Old, L.J. and R.D. Schreiber. (2002). “Cancer immunoediting: from immunosurveillance to tumor escape.” *Nat. Immunol.* 3:991-998.



Patient being examined in the Stanford Women's Cancer Center in Palo Alto, California.

If You Build It

“Good buildings for good minds can make a big difference in the lives of a lot of people,” Chuck Feeney has said.³

That idea has been pervasive and important to Atlantic's grantmaking in cancer and biomedical disciplines. Feeney, the man who Bill Gates called the “consummate builder and giver,” routinely searched for opportunities to create structures that would outlast any one research project or treatment strategy.

In early 2016, as part of his effort to promote the United State's cancer “moonshot,” then Vice President Joe Biden and his wife Dr. Jill Biden visited the University of California, San Francisco's (UCSF) Mission Bay campus, one of the biomedical centers that has benefited from significant Atlantic investments. Atlantic funding, totaling \$290 million between 2004 and 2012, has supported cancer research, cardiovascular institute, and hospital buildings at UCSF.

³ From remarks delivered at a meeting of Giving Pledge signatories in May 2012.



Former UCSF Executive Vice Chancellor Regis Kelly (second from left), now executive director of QB3, says Atlantic's investments lifted the Mission Bay campus from biomedical obscurity.

The campus is now a hub for research on cancer, heart disease, and other chronic health conditions. But it once teetered on the brink of biomedical obscurity, according to former UCSF Executive Vice Chancellor Regis Kelly, who now serves as executive director of QB3.

When the first grant was made, Kelly remembers, there was debate over whether the cancer center would be located at Mission Bay or in another part of San Francisco. The original \$20 million grant from Atlantic helped to ensure that the former was successful in its bid, laying the foundation for a medical campus at Mission Bay while simultaneously changing the neighborhood's fortunes.

With the original investment and those that followed, Kelly believes Feeney and Atlantic elevated not only the campus, but also the neighborhood around it, “taking this depressed area of San Francisco and making it into a vibrant, exciting place to live.”

Another Northern California institution, Stanford University, credits Feeney's support for a facility to advance translational medicine as contributing to “a sea change in academic research.” According to a 2014 article in the *Stanford Benefactor*, The Center for Clinical Sciences Research “placed scientists who make basic discoveries side by side with investigators who move those findings from the laboratory toward clinical applications that can benefit patients.” Atlantic's investment, which totaled \$50 million, “has enabled collaborators to make significant progress in critical areas like lymphoma, skin cancer, and radiation therapy.”

Atlantic also gave \$25 million for the Stanford Cancer Center that has helped the university make the patient experience more coordinated, comprehensive, and scientifically advanced than ever before. For example, the *Stanford Benefactor* reported that “one floor is devoted to cutting-edge radiation oncology, including two CyberKnives (a system invented at Stanford). Audiovisual technology allows doctors outside the Bay Area to consult with Stanford tumor boards.”

“[T]he buildings that Chuck and Atlantic launched have always been about the people who dreamed them and inhabit them: the leaders, innovators, scientists, educators, medical doctors, nurses, students, patients, social workers, community and rights activists, athletes, thespians, musicians, and audiences,” Atlantic President and CEO Christopher G. Oechsli writes in *Laying Foundations for Change: Capital Investments of The Atlantic Philanthropies*. “They are the homes, the incubators of change, in the lives of those who come for them.”

Still, the people inside the buildings are just one part of the equation, Oechsli explains. Each infrastructure investment carries with it new jobs, economic opportunities, and community development, just as much as in the biomedical space as in Atlantic grants made to support basic education. “[Y]ou can’t escape the implication that these buildings and the activities they house are central to lifting up entire communities,” he writes.

The locations and institutions that received Atlantic’s biomedical grants over the years suggest that Feeney was keenly aware of the parallel payoffs that infrastructure projects could have for research programs, institutions, patients, and populations.

That pattern is especially evident in Queensland, Australia. Looking around Brisbane and other parts of southeast Queensland, Ian Frazer, of the University of Queensland, says, “There are six or seven buildings which are clearly [Chuck’s].”

Feeney’s focus on the region coincided with the state’s effort to transition from its reliance on natural resources to become a “Smart State,” as O’Clery describes in *The Billionaire Who Wasn’t*.

In Queensland, Feeney sensed—and seized the opportunity—to help it realize its potential, and to close the gap between the state’s fortune and those of the high flyers in New South Wales and other parts of Australia.



Frank Gannon, director and CEO of QIMR Berghofer Medical Research Institute in Queensland, Australia, says Atlantic’s and Chuck Feeney’s contributions helped Brisbane become a major center of biomedical research.

At the University of Queensland, for example, a \$6.1 million grant in 1998—amounting to A\$10 million—went toward building a molecular bioscience institute, while two grants in 2001 and 2004 supported a bio-engineering and nanotechnology lab complex and Queensland Brain Institute construction, respectively.

Atlantic invested \$32.2 million (A\$50 million) to help establish the Translational Research Institute—a center established through a University of Queensland, Princess Alexandra Hospital, Mater Medical Research Institute, and Queensland University of Technology.

A \$15.3 million grant (A\$20 million) from The Atlantic Philanthropies in 2005 contributed to construction of the University of Queensland Centre for Clinical Research (UQCCR), along with funding from the university and Queensland state government.

“We are not just politely grateful. We recognize the full value of what has come through Atlantic and Chuck,” explains QIMR Berghofer’s Frank Gannon. “We wouldn’t be where we are—and in fact Brisbane wouldn’t be where it is—without his investments.”



Atlantic partnered with the government of Northern Ireland on the Support Programme for University Research Initiative to establish new research facilities. Projects included the Centre for Molecular Biosciences at the University of Ulster's Coleraine campus.

Match My Grant

Atlantic's capital grants typically came with a mandate to leverage the funds into further investments by others. In the case of the UCSF Mission Bay hospital's grant, for example, Salesforce Founder, Chairman, and CEO Marc Benioff put \$100 million towards the UCSF Benioff Children's Hospital. Shaun R. Coughlin, Director, Cardiovascular Research Institute, notes that Atlantic provided a \$100 million gift, along with a \$25 million grant to be matched by other contributors.

More recently, UCSF Mission Bay received a \$185 million grant from the Weill Family Foundation and Joan and Sandy Weill to establish a Weill Institute for Neurosciences and build a second neuroscience building.

At the Cancer Research Institute, Atlantic grants intended to run a few years were stretched out to seven or eight years by using the original funds to motivate additional donations, CEO O'Donnell-Tormey says. To this day, the organization uses the leveraging model that Atlantic encouraged to boost giving by board members, run its venture philanthropy initiative, and support other initiatives.

Leveraging helped organizations secure funding from governments as well, as illustrated by the formation of the Translational Research Institute in Queensland, built with an A\$100 million investment from Australia's federal government, A\$100 million from the Queensland state government, and an A\$50 million grant from Atlantic in 2009.

As that funding was coming together, Atlantic leveraged tens of millions in funding for QIMR Berghofer and the Queensland University of Technology—part of Feeney's broader challenge to Australia's federal government to match Atlantic's funding in Queensland in 2009. The same model panned out in other parts of Australia as well, where both government and institutional funding were typically used to match Atlantic grants.

Likewise, Atlantic partnered with the government in Northern Ireland between 2001 and 2008 on the Support Programme for University Research (SPUR) initiative. From the \$152.8 million the government and Atlantic provided for SPUR, Northern Ireland universities reportedly raised hundreds of millions more in funding and established new research centers, including the Centre for Molecular Bioscience at the University of Ulster and the Centre for Cancer Research & Cell Biology at Queen's University Belfast.



In mid-2017, the Walter and Eliza Hall Institute of Medical Research in Melbourne, Australia, signed a \$325 million deal for royalty rights from a cancer-fighting drug its researchers helped develop.

The Business of Better Health

Given the entrepreneurial acumen of Atlantic founder Chuck Feeney, it seems fitting that investigators at grantee sites are taking a business-based approach to putting their discoveries to work—a feature that is not unique to Atlantic-funded sites, but one that is fostered by the types of institutions that have been funded.

For example, in mid-2017 The Walter and Eliza Hall Institute of Medical Research (WEHI), in Melbourne Australia, announced a deal worth up to \$325 million (A\$406 million) from the sale of royalty rights to the cancer-fighting drug Venetoclax to a wholly owned subsidiary of Canada Pension Plan Investment Board. Venetoclax, developed in part by Institute researchers, takes aim at a form of blood cancer known as chronic lymphocytic leukemia with 17p deletion. Approved for use in Australia and the United States, the drug is considered a last-chance option for patients with the disease.

According to WEHI director Doug Hilton, a “significant proportion” of users had responded well to the drug. “Patients who received it in its experimental stage, who had been given weeks or months to live, are alive four years later and doing well.”

WEHI President Christopher Thomas points out the success in developing the life-saving drug is also due to Feeney’s and Atlantic’s investments that led to the “establishment of the buildings that made it possible for us to bring in so many of the people who enabled the Venetoclax breakthrough to be achieved.”

Business is also at the forefront when QIMR Berghofer’s Frank Gannon describes strategies for applying research to impact public health and patients’ lives.

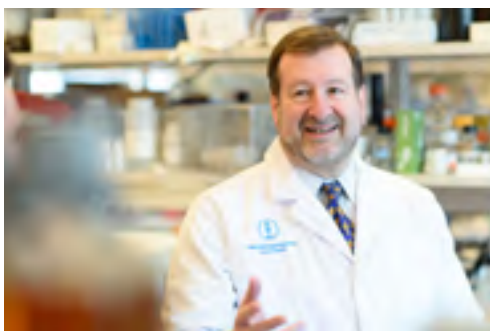
“The cliché of ‘from bench-to-bedside’ [the notion of taking basic research into the clinic to benefit patients] is one that I don’t agree with,” Gannon says. “I think it has to be from bench-to-business-to-bedside because unless you do the middle bit, nothing happens. So we’ve re-emphasized and invested such that there would be more of that connection on its way to the bedside.”

At UCSF Mission Bay in the United States, Regis Kelly points to incubator space that’s nurturing around 80 life sciences-related startup companies.

He believes Feeney hopes to foster a similar spirit of translation and entrepreneurship at the Cornell NYC Tech Campus on Roosevelt Island in New York City, where Atlantic made a massive \$350 million investment. Kelly joined Feeney on a visit with Tech Campus planners to “tell them about what UCSF was doing in terms of startups and fostering entrepreneurship.”

AN ATLANTIC-RELATED CONTRIBUTION TO THE BUSINESS OF CANCER RESEARCH

In addition to grants from Atlantic to support research and development of cancer treatment, the General Atlantic Group Limited (GAGL), an investment arm Chuck Feeney set up to manage the foundation's assets, played a part too.



Dr. David A. Scheinberg of Memorial Sloan Kettering Cancer Center says “alpha particles are the most potent cancer-killing agents of which we are aware.”

GAGL was an early investor in the biotechnology startup Actinium that was working on cutting-edge cancer therapies. In 2010, GAGL donated its \$44 million investment in shares in the company to Memorial Sloan Kettering Cancer Center (MSKCC). Now a publicly traded firm called Actinium Pharmaceuticals, the company is developing what it says are “innovative targeted therapies for patients with cancers lacking effective treatment options.”

Some of this research, which Actinium describes as focused on delivering radioisotopes directly to cells to kill them both safely and effectively, is being done in partnership with MSKCC. One such joint effort has already resulted in “the first targeted alpha emitting monoclonal antibody to move forward in clinical trials in patients with Acute Myeloid Leukemia (AML),” according to Dr. David A. Scheinberg, Chair, Molecular Pharmacology Program, Sloan Kettering Institute; Director, Center for Experimental Therapeutics, Memorial Sloan Kettering.

Dr. Scheinberg says that “alpha particles are the most potent cancer killing agents of which we are aware.” He adds that results from the first trial in patients with AML was completed successfully “showing activity of the drug in achieving remissions of leukemia and safety, even in older sicker patients.”

Conclusion

When The Atlantic Philanthropies awarded its first grants in biomedical research in the 1980s, fewer than 55 percent of Americans diagnosed with cancer survived five years or more, on average, according to data from the National Cancer Institute's (NCI) surveillance, epidemiology, and end results program.⁴

Survival rates inched up in the decades that followed, alongside advances in cancer awareness, detection, and treatments. Nearly 69 percent of those diagnosed with cancer in the United States in 2008 were alive five years later, NCI data suggests, though progress has been more pronounced for some cancer types than others.

While five-year survival data for cases caught in or after 2009 are not yet available, U.S. Food and Drug Administration approval for drugs targeting specific tumor mutations or altering immune responses to cancer have jumped since then, prompting optimism about the possibility of adding more cancer types to the “treatable” list. All this gives hope that the day will soon come when cancer no longer will be considered a terminal illness but rather treatable or a manageable chronic disease.

Tomorrow's treatments will benefit from work done by investigators at institutes built with the help of Atlantic funding; by basic scientists who got their start with early career grants from Atlantic, the Cancer Research Institute, and the Ludwig Institute; and by seasoned immunologists, geneticists, bioinformaticians, and chemists untangling the biology of cancer, its interactions with the immune system, and its potential vulnerabilities.

4 National Cancer Institute Surveillance, Epidemiology, and End Results program website: <http://seer.cancer.gov>

Appendix

THE ATLANTIC PHILANTHROPIES CANCER AND BIOMEDICAL GRANTS

(CHRONOLOGICAL BY GEOGRAPHY AND INSTITUTION/ORGANIZATION; USD)

AUSTRALIA

Queensland Institute for Medical Research (QIMR Berghofer)

Brisbane, Queensland

- | | |
|------|--|
| 1998 | \$12.3 million
To expand Cancer Research Centre at the Queensland Institute of Medical Research to combine basic research into cancers together with the development of new forms of treatments and the testing of those treatments on humans using clinical trials. |
| 2002 | \$1.8 million
To support the Cell-Based Cancer Therapy Centre. |
| 2006 | \$4.4 million
For training and development, novel cancer biotherapeutics testing in Asia-Pacific region. |
| 2009 | \$17.7 million
For Smart State Medical Research Centre, to increase staff capacity and introduce mental health, tropical disease specializations, clinical trials, vaccine development, and national science education. |
| 2010 | \$241,325
To develop the Pan-Pacific Cancer Prevention Consortium, a coalition of institutes and centres that will link researchers, teachers, and students from different regions of the world to increase capacity for addressing cancer health issues facing both developed and developing nations. The project will facilitate a research partnership with Arizona that will enhance skin cancer research and skin cancer prevention, detection and treatment. |

University of Queensland

Brisbane, Queensland

- 1998 \$6.1 million
To support construction of the Institute for Molecular Bioscience.
- 2001 \$8.9 million
To support Institute of Bio-Engineering and Nanotechnology lab complex construction.
- 2004 \$15.2 million
To support the Queensland Brain Institute.
- 2005 \$15.3 million
To build Clinical Research Center (now, the University of Queensland Centre for Clinical Research, UQCCR).
- 2011 \$4.9 million
To support head and neck cancer prevention and treatment in Queensland and Southeast Asia through the Princess Alexandra Hospital Health Service District.

Royal Brisbane & Women's Hospital

Brisbane, Queensland

- 2000 \$3 million
To establish stroke unit.
- 2006 \$377,050
To support intervention services and best practices development at the stroke center.
- 2006 \$738,300
For stroke research and treatment at the stroke center.

Queensland University of Technology

Brisbane, Queensland

- 2005 \$15.3 million
To build Centre for Physical Activity, Health, and Clinical Education and expand research, education, and community capacity.

Wesley Research Institute

Brisbane, Queensland

- 2005 \$7.8 million
To contribute to the \$30 Million endowment campaign to establish a Clinical Trials Centre and Tissue Bank, and establish a Research Fellowship program.

Translational Research Institute (TRI)*Brisbane, Queensland*

- 2009 \$32.2 million
To establish the Translational Research Institute (TRI), a premier medical research institute in Australia, in partnership with the Diamantina Institute (DI) of the University of Queensland (UQ), the Queensland University of Technology Institute of Health and Biomedical Innovation (QUT IHBI), the Collaborative Centres for Health Research and Education (CCHRE) at the Princess Alexandra Hospital (PAH), and the Mater Medical Research Institute (MMRI).

Baker Medical Research Institute*Melbourne, Victoria*

- 1999 \$8.5 million
For relocation and construction of the Baker Medical Research Institute.
- 2000 \$12.1 million
For Macfarlane Burnet Centre for Medical Research expansion.

University of Melbourne*Melbourne, Victoria*

- 2000 \$18.2 million
For research and commercial biotechnology precinct building in Parkville, Victoria.

Walter and Eliza Hall Institute of Medical Research*Melbourne, Victoria*

- 2000 \$7.3 million
To acquire, upgrade, and modify research facilities.
- 2002 \$4.1 million
For capital investment at Parkville facility.
- 2006 \$21.8 million
To construct an extension for the medical research and training facilities.

Royal Children's Hospital Foundation*Melbourne, Victoria*

- 2002 \$14 million
For construction of Royal Children's Hospital-Murdoch Children's Research Institute research and training facility.

Victor Chang Cardiac Research Institute
Sydney, New South Wales

- 2006 \$15.8 million
To build the Victor Chang Cardiac Research Institute (Sydney, Australia).
- 2010 \$257,577
To support a medical scholar exchange between the Victor Chang Cardiac Research Institute and University of California at San Francisco.

University of New South Wales
Sydney, New South Wales

- 2010 \$9.7 million
To establish the Institute for Infection and Immunity in Society and expand that National Centre in HIV Epidemiology.

Menzies Research Institute
Hobart, Tasmania

- 2003 \$4.6 million
For new research facility.
- 2010 \$8.8 million
For stage three building construction.

CUBA

Empresa Carlos J. Finlay, Cuban Ministry of Basic Industry
Havana

- 2011 \$267,650
To upgrade manufacturing facilities and make diagnostic kits for cancer and cardiovascular disease in primary health care system.

Global Links
Pittsburgh, Pennsylvania, United States

- 2002 \$90,000
To purchase and deliver breast cancer screening equipment to Asclepios Breast Cancer Diagnostic Reference Center in Havana, Cuba.
- 2002 \$100,000
For upgrade of mammography unit to Asclepios Breast Cancer Diagnostic Reference Center in Havana, Cuba and nephrology institute equipment and supplies.
- 2007 \$150,000
To strengthen hospital administration and research capacity in Cuban public health system through bibliographical support.

REPUBLIC OF IRELAND

Cork University

Cork, Co. Cork

1998 \$1.1 million
To enable development of a Cancer Research Centre at the University College Cork.

Dublin City University

Dublin, Co. Leinster

1999 \$317,108
For anti-cancer drug and painkiller research by the National Cell and Tissue Culture Centre.

NeuroPath Therapeutics Limited

Dublin, Co. Leinster

2015 \$9 million
To support pre-clinical development and a phase 1 clinical trial of candidate drug discovered at Trinity College Dublin with potential to treat neurodegenerative disease.

SOUTH AFRICA

University of Western Cape

Cape Town

2007 \$15 Million
To support the construction of a new Life Sciences complex.

2007 \$415,800
To support The South African National Bioinformatics Institute for two years, with a focus on vaccine, biomarker, therapeutic target, and clinical development related to HIV and cancer.

2008 \$338,308
For the university's forensic DNA lab.

UNITED KINGDOM

University of Cambridge

Cambridge, England

1999 \$19.8 million
To enable the University of Cambridge to build a new cancer research building and collaborate with the Imperial Cancer Research Fund in an expanded cancer research program.

University of Ulster

Coleraine, Northern Ireland

- 2000 \$10.4 million
To support development and construction of the Centre for Molecular Science, a leading biomedical research center concentrating on degenerative diseases, especially the interactions of nutrition and disease.

University College London

London, England

- 2002 \$2.8 million
For Cancer Institute capital costs.

Queen's University Belfast

Belfast, Northern Island

- 2003 \$12.6 million
To support the Centre for Cancer Research & Cell Biology (CCRCB) and encourage matching funding through the Northern Ireland government's support program for university research II.
- 2012 \$24.4 million
To support the construction of the Queen's University Belfast's Institute of Health Sciences Centre for Experimental Medicine (CEM), specializing in scientific research, with the aim of finding cures for eye disease, diabetes and genetic illnesses, many of which are age-related.

UNITED STATES

The West Side Y House

New York, New York

- 1986 \$25,000
To renovate a building used to house cancer patients being treated at Memorial Sloan-Kettering Cancer Center and their families.

The Cancer Research Institute (CRI)

New York, New York

- 1988 \$125,000
For AIDS and macrophage immune cell research.
- 1988 \$16,796
For AIDS-related workshop.
- 1989 \$125,000
For antigen processing and B-cell differentiation research.

1991	\$150,000	To support two post-doctoral research fellows in macrophage-related AIDS research.
1994	\$200,000	To support CRI's Clinical Investigator Award in Cancer Immunology program which provides funding at the assistant professor level to scientists embarking on independent research careers, contingent on matching 2:1 grants.
1995	\$500,000	To support CRI's Prostate Cancer Initiative, created to address an inadequate level of funding for both research and public education on prostate cancer.
1996	\$500,000	To support two additional research fellowships per year in 1997, 1998, and 1999.
1997	\$20 million	To support Predoctoral, Fellowship, Investigator Award, and Clinical Investigation Programs.
1998	\$5 million	To support prostate cancer research.
2001	\$50,000	To support a Southeast Asia biomedical training strategy meeting in Australia.
2002	\$20 million	For pre-doctoral, fellowship, investigator awards and clinical investigation programs.

Cornell University Medical College

New York, New York

1992	\$6.7 million	For the purchase of the Cornell University Medical College at 1301-1303 York Avenue in New York City.
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Ludwig Institute for Cancer Research

New York, New York

2006	\$18 million	To support 12 special research projects, the production of recombinant therapeutics and antibodies, and clinical trials to accelerate the understanding and control of cancer.
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Tri-Institutional Initiative*New York, New York*

- 2000 **\$29.8 million**
To support the Tri-Institutional Initiative, between Cornell University (the Ithaca Campus and the Cornell Weill Medical College), Rockefeller University, and Memorial Sloan Kettering Cancer Center, aimed at fostering cooperation among these elite institutions, but particularly in respect of the research opportunities related to the human genome, and bioinformatics generally.
- 2000 **\$27.9 million**
To Memorial Sloan-Kettering Cancer Center.
- 2000 **\$15.6 million**
To Cornell/Weill Medical College.
- 2000 **\$15 million**
To Cornell University Office of the President.
- 2000 **\$5.5 million**
To Cornell University Office of the President.

University of California at San Francisco (UCSF) at Mission Bay*San Francisco, California*

- 2004 **\$20 million**
To help build the multidisciplinary Cancer Research Building at UCSF.
- 2006 **\$50 million**
For UCSF Cardiovascular Research Institute.
- 2007 **\$75 million**
For UCSF Cardiovascular Research Institute.
- 2008 **\$125 million**
To support the construction of a Children's, Women's, and Cancer hospital complex at UCSF's Mission Bay campus.
- 2012 **\$20 million**
For Global Health Sciences building at Mission Bay.
- 2015 **\$177 million**
To establish the Global Brain Health Institute in partnership with Trinity College Dublin.

Stanford University*Stanford, California*

- 1996 \$30 million
To support the Center for Clinical Sciences Research, a medical research center billed at \$86 Million.
- 1998 \$25 million
To support construction on a cancer treatment and prevention/ambulatory care pavilion.
- 2000 \$60 million
To support construction of the James H. Clark Center for Biomedical Engineering and Sciences.
- 2000 \$20 million
To complete construction on the Center for Clinical Sciences Research.

Elderly Health Screen Service*Waterbury, Connecticut*

- 1990 \$15,000
To support breast cancer screening for elderly women.

Massachusetts General Hospital*Boston, Massachusetts*

- 2001 \$2.4 million
For clinical translation at Carolyn Frye-Halloran Brain Tumor Therapy Program and for national clinical practice dissemination.

United States Cancer Pain Relief Committee (CPRC)*Middleton, Wisconsin*

- 2014 \$1 million
For Palliative Care Cluster to implement 2014 World Health Organization resolution aimed at strengthening palliative care.

University of Arizona/Arizona Cancer Center*Tucson, Arizona*

- 2010 \$250,000
To facilitate new research partnerships through formal interactions with Queensland Institute of Medical Research to benefit skin cancer research as well as provide proof-of-concept of multiple cancer prevention groups to collaborate around an area of mutual need. The consortium of international institutes and centres will link researchers, teachers, and students from different regions of the world to increase capacity for addressing cancer health issues.

VIET NAM

Reach Vietnam

Ha Noi

2001 \$50,000
To assess the appropriateness and cost-effectiveness of various cervical cancer screening methods among Vietnamese women.

American Cancer Society (ACS)

Framingham, Massachusetts

2008 \$900,000
To enable collaboration between ACS to team up with Viet Nam Committee on Smoking and Health (VINACOSH) in developing a national tobacco control media advocacy strategy and in building a strategic partnership with community-based groups, business sector and donor community.

HealthBridge Foundation of Canada

Ottawa, Ontario, Canada

2009 \$1 million
To establish a comprehensive cancer communication research to increase knowledge and identify practical strategies for enhancing cancer communications and improving prevention and control of cancer in Viet Nam.

This report is based on writing and research done for
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