The Andy Hill Cancer Research Endowment (CARE) Fund, Washington’s cancer research endowment, invests in public and private entities to promote cancer research in Washington. Through research grants and strategic partnership, CARE Fund aims to improve health outcomes by advancing transformational research in the prevention and treatment of cancer. The Washington State Legislature created the CARE Fund in 2015 and this public investment in cancer research is maximized by private and other non-state matching funds.
There were an estimated 42,620 new cancer cases in Washington this year. Virtually every Washingtonian will be affected in some way by cancer in their lifetime – be it through a colleague, friend, family member, or personal diagnosis.

Yet, we know cancer will not affect us all equally. There remain stark inequities and disparities such as those associated with race and ethnicity, gender, income level, and urban/rural status. Disparities appear in cancer screening, diagnosis, treatment, and survival.

As the COVID-19 pandemic laid bare, there is much more work to be done to eliminate health disparities across our state. This awareness profoundly informed the CARE Board’s thinking about cancer research investments now and in the future.

The CARE Fund began fiscal year 2022 by evaluating our past work and establishing a strategic plan to zealously promote cancer research that will lead to discoveries, increase access, and improve health outcomes for all of Washington.

The CARE Board launched the multi-year implementation of the CARE Fund’s strategic plan, including the following first steps:

- Increased cancer research investments to better understand the impacts of the COVID-19 pandemic on cancer patients and survivors. As initial COVID-19 Response Grant researchers reported on progress, CARE Fund opened a next round of funding.
- Invested in the recruitment of world-class researchers to Washington, population health research to address cancer disparities, and cancer research projects aiming to make breakthrough scientific discoveries.
- Increased statewide representation by nominating board members from counties with a population of less than one million.
- Improved cost efficiency by working with the Washington Department of Commerce to transition administrative services to a 501 (c)(3) nonprofit organization specializing in fiscal sponsorship of public-private partnerships.

As the year neared its end, the State of Washington made an unprecedented additional investment in cancer research through the CARE Fund. We will, in turn, be able to substantially increase the CARE Fund’s research investments in the next year to benefit our state’s residents. Even as this report is being prepared, our staff and Board are at work implementing the release of new investment opportunities through the CARE Fund. We look forward to sharing developments with you through CARE Fund’s newsletters, Twitter, LinkedIn, Instagram and (COVID-19 allowing) at in-person community events.

Thank you for your interest and your shared commitment to the health and well-being of our neighbors, our communities, and the state of Washington.

Sincerely,

David R. Byrd, MD | Chair, CARE Fund Board of Directors
### Grants Awarded, Fiscal Year 2022

**Total of all new grant commitments made during the fiscal year.**

<table>
<thead>
<tr>
<th>Grant Program</th>
<th>Grantee</th>
<th>Amount Awarded</th>
<th>Date Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distinguished Researchers</td>
<td>Fred Hutchinson Cancer Center (Burcu Darst, PhD)</td>
<td>$500,000</td>
<td>Dec 2021</td>
</tr>
<tr>
<td>Distinguished Researchers</td>
<td>Fred Hutchinson Cancer Center (Vida Henderson, PhD, PharmD)</td>
<td>$500,000</td>
<td>Dec 2021</td>
</tr>
<tr>
<td>Distinguished Researchers</td>
<td>Fred Hutchinson Cancer Center (Megan Shen, PhD)</td>
<td>$500,000</td>
<td>Dec 2021</td>
</tr>
<tr>
<td>Distinguished Researchers</td>
<td>University of Washington (Devin Schweppe, PhD)</td>
<td>$345,000</td>
<td>Dec 2021</td>
</tr>
<tr>
<td>Breakthrough Research</td>
<td>Institute for Systems Biology (James Heath, PhD)</td>
<td>$3,000,000</td>
<td>Feb 2022</td>
</tr>
</tbody>
</table>

**Total Awarded in Fiscal Year 2022**

$4,845,000

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### Grants Awarded, Fiscal Year 2021

**Total of all new grant commitments made during the fiscal year.**

<table>
<thead>
<tr>
<th>Grant Program</th>
<th>Grantee</th>
<th>Amount Awarded</th>
<th>Date Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakthrough Research</td>
<td>Institute for Systems Biology (James Heath, PhD)</td>
<td>$3,000,000</td>
<td>Feb 2021</td>
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<tr>
<td>COVID-19 Response</td>
<td>Fred Hutchinson Cancer Center (Garnet Anderson PhD)</td>
<td>$99,907</td>
<td>Feb 2021</td>
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<td>COVID-19 Response</td>
<td>Institute for Systems Biology (Wei Wei, PhD)</td>
<td>$100,000</td>
<td>Feb 2021</td>
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<tr>
<td>COVID-19 Response</td>
<td>University of Washington (Chaitra Ujjani, MD)</td>
<td>$100,000</td>
<td>Feb 2021</td>
</tr>
<tr>
<td>Population Health</td>
<td>Fred Hutchinson Cancer Center (Kikkeri Naresh, MBBS, DCP, MD, FRCPath)</td>
<td>$200,000</td>
<td>Apr 2021</td>
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<tr>
<td>Population Health</td>
<td>Washington State University (Brieann Satterfield, PhD)</td>
<td>$197,370</td>
<td>Apr 2021</td>
</tr>
</tbody>
</table>

**Total Awarded in Fiscal Year 2021**

$3,697,277
# Grants and Grantees, Cumulative Years

## Number and Amount of Grants

Total grant awards by year and program.

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Grant Programs</th>
<th>Total Awards</th>
<th>Total Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
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<td></td>
<td>Distinguished Researchers</td>
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<td></td>
<td><strong>Total</strong></td>
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<td><strong>4,845,000</strong></td>
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<tr>
<td>2021</td>
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<td></td>
<td>COVID-19 Response</td>
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<tr>
<td></td>
<td>Population Health</td>
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<td>$397,370</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
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</tr>
<tr>
<td>2020</td>
<td>Breakthrough Research</td>
<td>continued funding</td>
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<td></td>
<td><strong>Total</strong></td>
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<td><strong>$4,491,695</strong></td>
</tr>
<tr>
<td>2019</td>
<td>Breakthrough Research</td>
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<td>$1,150,000</td>
</tr>
<tr>
<td></td>
<td>Distinguished Researchers</td>
<td>5</td>
<td>$2,500,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>7</td>
<td><strong>$3,650,000</strong></td>
</tr>
<tr>
<td>2018</td>
<td>Distinguished Researchers</td>
<td>4</td>
<td>$2,000,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>4</td>
<td><strong>$2,000,000</strong></td>
</tr>
</tbody>
</table>

**Total Grants Awarded to Date: 6/30/2022**  
26  
$18,683,972
Since its inception, CARE Fund has steadily grown in its understanding and ability to promote cancer research in Washington through meaningful investment in one of the most significant biotech clusters in the United States.

The CARE Board’s vision, strategies, and metrics for success are accessible in the CARE Fund Strategic Plan. The CARE Fund continues to invest in its inaugural grant programs, one focused on recruiting world-class researchers to Washington State and the other investing in projects seeking to find the next breakthrough in cancer research.

Building off the initial successes and learnings, CARE Fund has expanded its grant programs. In response to the COVID-19 pandemic, the CARE Fund developed and implemented a new COVID-19 Response grant opportunity, to help support research aimed to address emergent public health issues related to cancer, including longer-term impacts of COVID-19. The CARE Fund has also started the Population Health grant program, now in its second cycle, to address cancer disparities, especially among populations for which disparities are most prevalent and/or persistent. Additionally, the CARE Fund continues to support a statewide COVID-19 and cancer data project to better understand the impact of COVID-19 on cancer patients and cancer care providers.

The benefits to Washington State and its residents are numerous. CARE Fund grantees advance and strengthen the cancer research ecosystem, making Washington State a national leader in the field, and support cultivation and mentorship of the upcoming generation of cancer researchers.

CARE Fund grants not only infuse resources into our economy but leverage additional non-state funds through a required match. Since its inception, the CARE Fund has awarded 26 cancer research grants, totaling more than $18.5M. (This total amount may increase to $22,945,000 if breakthrough research grantees continue to demonstrate success and are awarded continued funding). CARE Fund grantees have collectively:

- Received more than $100 million in additional research funding, as the principal investigators or collaborating investigators; and
- Authored or contributed to nearly 200 peer reviewed publications;
- Overseen and run research programs or laboratories supporting approximately 100 researcher and research administrator jobs.

Ultimately the most important benefit to Washington State is the benefit of ongoing research, aiming to improve cancer outcomes, increase rates of survivorship and advance health equity, now and in the future.
We are proud to highlight four investigators who are supported through the CARE Fund’s Distinguished Researchers grant. The Distinguished Researchers grant provides matching funds, up to $500,000 each, to institutions to add value to recruitment and start-up packages that bring world-class cancer researchers to Washington. This year all four researchers aim to address cancer disparities in their respective cancer research areas from genomics to survivorship.

**DISTINGUISHED RESEARCHERS (CYCLE 5):**

**Burcu Darst, PhD**

Dr. Burcu Darst is an epidemiologist who was recruited to the Fred Hutchinson Cancer Center as an Assistant Professor. Her research is focused on identifying and understanding the genetic risk factors of prostate cancer in diverse populations. Her research program will examine: the genetic risk factors of prostate cancer to identify novel risk factors and ascertain the clinical and biological impact of known risk factors; the metabolic mechanisms through which genetic risk factors impact aggressive prostate cancer behavior; and the clinical use and impact of including genetic information into prostate cancer screening. Dr. Darst’s research will be carried out in collaboration with other Washington-based initiatives and has high potential to reduce mortality and health disparities within diverse populations in Washington.

**Devin Schweppe, PhD**

Dr. Devin Schweppe was recruited to the University of Washington as an Assistant Professor in the Department of Genome Sciences. His research is focused on developing, improving, and generating diverse and representative datasets and databases to thoroughly understand the complex biological landscape of cancer cells. Multiplexed proteomics will be used to quantify thousands of human proteins from diverse cellular backgrounds in response to clinical therapeutics, mapping the dynamic proteome response. The protein-centric map of the cell states, due to environmental, genetic, and clinical factors, will then be used to investigate how they relate to different clinical outcomes. Dr. Schweppe’s studies have a strong potential to identify how cell state dynamics regulate the cellular response of tumors to cancer therapeutics. His approach is anticipated to significantly advance the field towards personalized medicine and treatment.

**Megan Shen, PhD**

Dr. Megan Shen is a psychologist who was recruited to the Fred Hutchinson Cancer Center as an Associate Professor. Dr. Shen’s research aims to improve engagement in advance care planning among advanced cancer patients, with a particular focus on reducing health disparities in end-of-life care. Her research program seeks to develop and validate interventions for population groups in Washington to improve advance care planning engagement and result in enhanced quality end-of-life care for Latino patients in rural areas, patients with low health literacy, and Native American patients. Dr. Shen will conduct formative research to develop and test culturally appropriate and targeted interventions for each of these groups. Dr. Shen’s research has a high potential to improve outcomes for hard-to-reach and underserved populations in a low-cost way.

**Vida Henderson, PhD, PharmD**

Dr. Vida Henderson is a public health researcher who was recruited to the Fred Hutchinson Cancer Center as an Assistant Professor. Dr. Henderson’s research is focused on preventive health services utilization and cancer prevention and early detection. Grounded in social and health behavior theories and her previous research, Dr. Henderson’s program aims to address racial disparities in breast cancer diagnosis, mortality, and survivorship by examining the factors that affect the use of genetic screening services for cancer and identifying the key points for interventions. Her research has high potential for impact because of the clinical translation opportunities, and moreover, the findings could be extended to other cancers and historically marginalized populations.
Future Program Directions

Below are the CARE Fund’s future program directions with respect to cancer research, prevention and care (per RCW 43.348.040(5)).

CARE Fund’s future program directions and strategic priorities are grounded in organizational vision, theory of change, and shared values.

The CARE Fund’s future program directions are guided by recommendations from an External Advisory Committee comprised of individuals with nationally recognized expertise in the scientific, clinical, ethical, commercial, and regulatory aspects of cancer research, prevention, and care. The CARE Board assessed gaps and opportunities in cancer research in Washington. The priorities also incorporate lessons learned through multiple grantmaking cycles and the experience of patients and healthcare providers during the COVID-19 pandemic.

CARE Fund’s current strategic priorities are to:

- Increase investments in areas of cancer research that lack sufficient external funding and are of particular relevance to Washington residents.
- Encourage projects to address health services delivery and community-based participatory research to address cancer disparities, including but not limited to, by race/ethnicity and among rural populations.
- Expand the applicant pool by broadening the promotion of CARE Fund grant programs, including communicating funding opportunities and the allowable uses of grant funds.
- Inform policymaking and decision-making at the state and local levels (including clinics, hospitals, teaching/training curricula) through data and cancer research findings to address persistent cancer disparities.

CARE Fund’s investment areas of focus are to:

- Expand the organization types and research focus areas of grantees in the portfolio.
- Include mentoring activities as a desired criterion in grant programs and applications.
- Include cancer survivorship in children and adults in upcoming grant programs.
- Include strengthening research and interventions focused on public health interventions or environmental exposure in upcoming grant opportunities.
- Convene an industry working group to expand partnerships.
- Create a flexible funding allocation for entrepreneurial opportunities and/or leverage funding partnerships yet to be identified.

For additional details, please see the CARE Fund Strategic Plan.
The Washington State Legislature is authorized to appropriate up to $10 million per year to the CARE Fund. From the CARE Fund’s inception through fiscal year 2022, the state Legislature has consistently appropriated and grown investment in the CARE Fund. In fiscal year 2022 grants awarded totaled $4,845,000.

In the fiscal year ending June 30, 2022, the CARE Fund awarded four new grants to Washington State organizations in the category of Distinguished Researchers, and awarded continued funding for one Breakthrough Research grant. In all, CARE Fund grants support cancer research projects across a broad range of disciplines. The tables on pages 4 and 5 detail the CARE Fund grants awarded through fiscal year 2022, which include addressing cancer disparities in Washington, reducing cancer risks associated with environmental exposures and developing technologies to detect cancer recurrence.

In fiscal year 2022 the CARE Fund transitioned to a new fiscal sponsor, Evergreen Social Impact, whose leadership has significant experience in nonprofit governance and grant funded management.

The cost of CARE Fund program administration in fiscal year 2022 was $1,494,139. This amount includes the cost of CARE Fund program administration, investment management fees, state agency costs and Assistant Attorney General services. RCW 43.348.060.
The work of the CARE Fund would not be possible without the vision and guidance of the Governor-appointed CARE Board of Directors.*

J. Elaine-Marie Albert, MD, MHA
Board Vice Chair
Seattle Children's Hospital

Frederick Appelbaum, MD
Immediate Past Chair
Fred Hutchinson Cancer Center

Cliff Berkman, PhD
Washington State University

Thomas Brown, MD, MBA
Syapse

David R. Byrd, MD
Board Chair
University of Washington

Carol Dahl, PhD
(Formerly) The Lemelson Foundation

Steven Harr, MD
Board Treasurer
Sana Biotechnology

Eunice Hostetter
Board Secretary
American Cancer Society Cancer Action Network

Jennifer Kampsula Wong, JD
American Cancer Society Cancer Action Network

Gary Kaplan, MD
Virginia Mason Franciscan Health

Elizabeth Lawlor, MD, PhD
Seattle Children’s Research Institute

Karin Rodland, PhD
Pacific Northwest National Laboratory

*Organizational affiliations are for identification purposes only.
The Andy Hill Cancer Research Endowment (CARE) Fund is named in honor of State Senator Andy Hill who was a dedicated legislator and public champion of cancer research. He lost his battle with cancer at the age of 54. The CARE Fund carries on his legacy of promoting cancer research and ensuring access to scientific advancements for all Washingtonians.

Evergreen Social Impact is the program administrator of CARE Fund.
“Washington state is a national leader in groundbreaking research and technology innovation, with particular success stemming from our cancer research ecosystem. The response of our world class universities, research institutions and companies to the COVID-19 pandemic showcases this prowess and collaborative culture. Washington’s life science and global health sector stepped up when the world needed it the most.”

Dr. Lisa Brown | Director, Washington State Department of Commerce