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MESSAGE FROM WRF’S LEADERSHIP

2021 marked a milestone in WRF’s history: 40 years since our founding by Tom Cable, Bill Gates Sr. and Hunter Simpson. From an uncertain beginning, when it often seemed that we were living on borrowed time—and money—we now have both a proud legacy and exciting future as a Washington state grant-maker and venture investor. We remain committed in our support of exceptional life sciences research that can transform lives.

2021 was a year of challenges and triumphs. COVID-19 continues to dominate our world, highlighting just how interconnected we are. Very little seems exclusively local anymore, bringing into relief how our support of innovative research in Washington state has significant impact far beyond our borders.

Washington state has much to celebrate. Our scientists and entrepreneurs are at the forefront of cutting-edge technologies: in response to the pandemic, certainly, but also in developing new diagnostics and treatments for serious diseases, prevention of life-threatening conditions, and in many other areas that are vital to our future wellbeing.

We recently said goodbye to two of our long-term colleagues. Ron Howell retired in April after 29 years as CEO. Jeff Eby, CFO for 19 years, retired in June. We are immensely grateful to both for their many contributions to WRF. We were delighted to welcome Meher Antia and Clarisse Benson to our grant-making team during the year.

In our roles as Interim President & CEO, and Chairman, we thank you for being a crucial part of our community.

Susan M. Coliton
Interim President & CEO

Brooks Simpson
Chairman
40 YEARS OF IMPACT

In 2021, Washington Research Foundation reached its 40th anniversary.

WRF’s founders, Tom Cable, Bill Gates Sr. and W. Hunter Simpson, set out four decades ago to solve a problem: How could Washington’s nonprofit research institutions earn money from their inventions and move them forward to deliver public benefit? The Bayh-Dole Act had just made it a possibility, but most institutions were not equipped to make it a reality.

WRF was created for this purpose. By providing expertise in intellectual property management, WRF could help Washington’s research institutions realize the true potential of these discoveries.

The early days were difficult.

“For a while, I was one of two WRF employees. While we had gained a lot of technology transfer experience over the years, our revenues were slow to appear and we still had bills, like patent costs, to pay. I updated my resume while we charged ahead and worked with our board to find a path forward.”

Loretta Little | Managing Director
(Now celebrating her 35th anniversary with WRF)

Thanks to inventions from local researchers and the diligence of WRF’s staff over many decades, the Foundation eventually earned more than $445 million in licensing revenue for the University of Washington. The success of WRF’s licensing program enabled it to establish additional programs, broaden its reach and become one of the leading grant-making and investment organizations in the Pacific Northwest.

More importantly, technologies supported by WRF’s programs—including many used in major vaccines, insulins and other therapeutics—have improved the lives of billions of people worldwide.
40TH ANNIVERSARY CELEBRATION

WRF celebrated its 40th anniversary in July at a small gathering in the ASUW Shell House, home of “The Boys in the Boat.”

Current and former colleagues shared stories of WRF’s history and impact, and recognized the recent retirements of CEO Ron Howell and CFO Jeff Eby.
WRF not only provided the necessary funding, but also leveraged their internal expertise and network of external advisors to help us shape the project and the team of collaborators to maximize the translational potential of our discoveries.

Aimée Dudley, Ph.D.
Pacific Northwest Research Institute
**Stephanie Berger, Ph.D.**

Dr. Stephanie Berger, a translational investigator at the University of Washington’s Institute for Protein Design, is developing an oral biologic for inflammatory bowel disease (IBD) with the assistance of over $1 million in grants from WRF.

There is significant unmet need in IBD, which affects millions of people worldwide. Dr. Berger’s group is developing an orally administered, de novo designed protein to treat IBD with biologic-like potency but greater convenience, lower cost and improved safety compared to standard-of-care antibody therapies.

**Gabriele Varani, Ph.D.**

Dr. Gabriele Varani’s research focuses on how ribonucleic acid (RNA) participates in cancer and viral disease. Dr. Varani, a chemistry professor at the University of Washington, has received $630,000 in grant support from WRF to investigate the role of the microRNA-21 molecule in disease progression and therapeutic resistance.

“This generous award from WRF can help us find new ways to treat many medical conditions we haven’t been able to treat well before.”

Dr. Varani believes that an increased understanding of how RNA binds to proteins and other RNAs in the body will enable scientists to develop new therapeutics for many diseases currently without effective treatments.
Fred Hutchinson Cancer Research Center

Fred Hutch collaborated with WRF to launch a program intended to accelerate the development of new diagnostics and treatments for a range of health conditions. WRF committed $750,000 to fund multiple projects aimed at improving patient outcomes.

Projects funded to date include the development of small molecules to improve cancer immunotherapies, a rapid diagnostic for bacterial vaginosis, "smart" T cells to eliminate harmful viruses in post-transplant patients and a method of identifying new therapeutics for idiopathic pulmonary fibrosis (IPF).

WRF is a critical collaborator in accelerating the translation of our discoveries to the people who need them most.

Hilary Hehman, Fred Hutch

Institute for Systems Biology

ISB’s Innovator Award Program supports early-career scientists working on high-risk, high-reward innovations that address urgent issues in human health. The program began in 2017 to encourage collaborations between ISB’s non-faculty, early-stage researchers, who often struggle to receive outside funding.

WRF provided $100,000 in 2021 to train and fund three teams carrying out 12-month projects investigating infection, Alzheimer’s disease, and molecular and metabolic function in human cells.

WRF’s generous support for ISB’s Innovator Award Program is a testimonial of their shared vision and commitment to propel the careers of early-stage scientists.

Dr. Nitin Baliga, ISB
2021 COHORT

Each year, 10 WRF Postdoctoral Fellows are selected to receive three years of funding to work on solutions to major public needs at nonprofit research institutions in Washington state. The fourth cohort of Fellows began their projects in 2021, addressing pressing issues in fields that include disease prevention and treatment, machine learning and crop sustainability.

ELLIE ARMSTRONG, PH.D.
Washington State University
School of Biological Sciences

MOLLY CARNEY, PH.D.
Washington State University
Department of Anthropology

BRAXTON JAMISON, PH.D.
Benaroya Research Institute at Virginia Mason

KORENA MAFUNE, PH.D.
University of Washington
Department of Civil &
Environmental Engineering

JULIA MCKECHNIE, PH.D.
Fred Hutchinson Cancer Research Center Vaccine &
Infectious Disease Division

ZACHARY NICOLAOU, PH.D.
University of Washington
Department of Applied Mathematics

SAM PELLOCK, PH.D.
University of Washington
Department of Biochemistry

ERIC SZELENYI, PH.D.
University of Washington
Department of Biological Structure

ANDREW WEITZ, PH.D.
Western Washington University
Department of Environmental Sciences

ANGELA YU, PH.D.
University of Washington
Department of Electrical &
Computer Engineering
We know that different areas of the brain are specialized for different purposes, such as vision or muscle control. If you implant electrodes into these specialized areas, it is possible to build basic prosthetic eyes and limbs. What we don’t yet know how to do is interface with cognitive areas of the brain. My work gives us some of the basic knowledge we need to start moving toward that goal.

Daniel Birman, Ph.D. 2020 cohort
University of Washington Department of Biological Structure

I am developing deep-learning-based methods for designing functional de novo proteins. These proteins are built from scratch rather than repurposing existing natural proteins, which makes them more convenient for many applications but also challenging to design. My work is intended to make the design process more flexible and powerful. I hope that my research will eventually lead to new types of drugs for difficult-to-treat diseases, and also enzymes that can contribute to more environmentally friendly ways of producing chemicals and fuels.

Jue Wang, Ph.D. 2020 cohort
University of Washington Department of Biochemistry

Ultimately, the goal is to increase the longevity of post-transplant patients. I also hope that my research can be applied to the treatment of viral-driven cancers, which comprise up to 20% of cancers worldwide. Fred Hutch has a center-wide initiative aimed at finding cures for pathogen-associated cancers, such as those linked to human papillomavirus (HPV) like cervical cancers and head and neck cancers. Since T cell-based immunotherapeutics have already shown promising results in the treatment of certain cancers, I believe that we can achieve similar, if not better, results in the treatment of viruses and viral-driven cancers.

Denise Buenrostro, Ph.D. 2019 cohort
Fred Hutchinson Cancer Research Center
Division of Immunology

Making strides in the development of dynamic biomaterials will help us as we work towards creating organs on the benchtop. I hope my work will enable other researchers to design an appropriate strategy to create their organ of choice and implant it successfully, doing my part to solve the organ transplant crisis within my lifetime.

Teresa Rapp, Ph.D. 2020 cohort
University of Washington Department of Chemical Engineering
WRF has backed 116 Washington-based startups since 1996, primarily spinouts from nonprofit research institutions in the state that are commercializing products and services to improve lives.

2021 was one of WRF’s most successful investment years, with highlights including notable returns from Neoleukin Therapeutics’ 2019 Nasdaq listing and Sana Biotechnology’s initial public offering (IPO) in February. Two additional companies in WRF’s portfolio, Absci and Icosavax, completed IPOs after making significant progress during the year. Icosavax and Neoleukin are both commercializing technologies developed at the University of Washington’s Institute for Protein Design.

2021 Investment Snapshot

- 12 COMPANIES INVESTED IN
- 40 ACTIVE PORTFOLIO COMPANIES
- Portfolio Includes Spinouts From
- University of Washington
- FRED HUTCH
- Seattle Children’s®

COMPANY INVESTMENTS IN 2021

- 2Morrow
- Absci
- AdaptX
- Alpenglow Biosciences
- Bluedot Photonics
- Cyrus Biotechnology
- Link Immunotherapeutics
- Outpace Bio
- SEngine Precision Medicine
- Umoja
- Watershed Medical
- Wavely Diagnostics
Absci is a drug and target discovery company that uses synthetic biology and artificial intelligence to design and create next-generation protein-based drugs, many of which are difficult or impossible to make with conventional technologies. Absci made two acquisitions and closed two financing rounds during the fiscal year.

$125M
Absci completed a $125 million crossover financing in March.

$230M
In July, Absci completed its $230 million IPO (Nasdaq: ABSI).

Icosavax spun out of the University of Washington’s Institute for Protein Design in 2017 to develop safe and effective vaccines for important unmet needs in infectious diseases, applying breakthrough computationally designed virus-like particle technology. The company’s vaccine candidates for COVID-19 and respiratory syncytial virus (RSV) are currently in clinical trials, and the vision is to create pan-respiratory vaccines for older adults.

$100M
Icosavax closed a $100 million series B financing in April.

$209M
The company completed an IPO in July that raised $209 million in gross proceeds (Nasdaq: ICVX).
Alpenglow Biosciences
Alpenglow’s platform uses light sheet fluorescence microscopy to create rapid, high-resolution tissue images in greater detail than is possible with traditional 2D technologies. The company believes that this capability, coupled with its AI analysis software, offers pathologists a degree of biological insight that is not available elsewhere.

$4M
Alpenglow closed a $4 million Series A round that will enable the University of Washington spinout to develop and commercialize its proprietary 3D pathology platform.

Link Immunotherapeutics
Link Immunotherapeutics is developing T-cell engagers to provoke immune responses that it believes will offer significant advantages over current treatments for a range of cancers.

“We want to engineer therapies that will provide durable responses. So this is a moonshot type of opportunity, but the potential reward is enormous.”
David Meininger, Co-Founder and CEO
WRF is led by an accomplished staff and board of directors. Their collective expertise in science, medicine, philanthropy, startup operations and venture funding contributes to the state’s vibrant research and enterprise communities.

OUR TEAM

**WRF Staff**

WRF Venture Analysts are full-time graduate students who assist with due diligence on WRF’s grant and investment opportunities.

**Venture Analysts**

- Louisa Helms
- Kendan Jones-Isaac
- Richard Lee
- Maneeshika Madduri
- Deeter Neumann
- Parker Sommerville
- Heidi Spears
- Issa Yousif
- Nicole Zeinstra
OUR TEAM

WRF Board Of Directors

JACQUELINE BRAINARD
VP, Operations and Compliance Officer, First Choice Health

ADRIANE BROWN
Managing Partner, Flying Fish Partners

KEVIN CABLE
Managing Director, Cascadia Capital

THOMAS CABLE/CO-FOUNDER
Private Investor

KENT CARLSON
Senior of Counsel, K&L Gates

SUE COLITON
Interim President & CEO, Washington Research Foundation

DAVID GALAS, PH.D.
Senior Investigator, Pacific Northwest Research Institute

BROOKS SIMPSON/CHAIRMAN
President, Pacific Rim Medical Systems

JAMES UHLIR
Partner, COJK (retired)

Officers

Sue Coliton
Interim President & Chief Executive Officer

Morgan Hellar
Treasurer, Secretary & Chief Financial Officer

Brooks Simpson
Chairman
## FINANCIALS

### Statement of Financial Position

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<thead>
<tr>
<th>ASSETS</th>
<th>6/30/2019</th>
<th>6/30/2020</th>
<th>6/30/2021</th>
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</thead>
<tbody>
<tr>
<td>Current Assets</td>
<td>$17,225,156</td>
<td>$11,660,527</td>
<td>$6,926,953</td>
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<tr>
<td>Long Term Assets</td>
<td>$243,693,062</td>
<td>$257,308,625</td>
<td>$325,072,475</td>
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<tr>
<td>Total Assets</td>
<td>$260,918,218</td>
<td>$268,969,152</td>
<td>$331,999,428</td>
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<table>
<thead>
<tr>
<th>LIABILITIES AND EQUITY</th>
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<tbody>
<tr>
<td>Liabilities</td>
<td>$15,019,673</td>
<td>$11,948,039</td>
<td>$7,205,837</td>
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<tr>
<td>Unrestricted Net Assets</td>
<td>$245,898,544</td>
<td>$257,021,113</td>
<td>$324,793,591</td>
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<tr>
<td>TOTAL NET ASSETS</td>
<td>$260,918,218</td>
<td>$268,969,152</td>
<td>$331,999,428</td>
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### Statement of Activities

<table>
<thead>
<tr>
<th>OPERATING</th>
<th>6/30/2019</th>
<th>6/30/2020</th>
<th>6/30/2021</th>
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<tbody>
<tr>
<td>Total Royalties and Licensing Revenue</td>
<td>$4,879,495</td>
<td>$3,303,210</td>
<td>$325,508</td>
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<tr>
<td>Total Royalty Costs</td>
<td>$3,027,899</td>
<td>$2,007,590</td>
<td>$874,733</td>
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<tr>
<td>Net Licensing Income</td>
<td>$1,851,596</td>
<td>$1,295,620</td>
<td>($342,225)</td>
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<tr>
<td>Operating Expenses</td>
<td>$4,057,168</td>
<td>$4,354,907</td>
<td>$5,469,689</td>
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<tr>
<td>Grants and Distributions Expense</td>
<td>$7,974,726</td>
<td>$8,080,571</td>
<td>$9,629,263</td>
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<tr>
<td>Change in Unrestricted Net Assets from Operating Activities</td>
<td>($10,180,298)</td>
<td>($11,139,859)</td>
<td>($15,441,176)</td>
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<table>
<thead>
<tr>
<th>NON-OPERATING</th>
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<tbody>
<tr>
<td>Net Investment (Loss) Income</td>
<td>$10,652,399</td>
<td>$21,606,639</td>
<td>$83,285,352</td>
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<td>Change in Unrestricted Net Assets</td>
<td>$472,101</td>
<td>$10,466,780</td>
<td>$67,844,175</td>
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<table>
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<tr>
<th>OTHER INFORMATION</th>
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<tbody>
<tr>
<td>Licensing Fees Paid to UW</td>
<td>$2,517,417</td>
<td>$2,695,706</td>
<td>$2,035,298</td>
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<tr>
<td>Grants Paid</td>
<td>$10,165,992</td>
<td>$10,409,322</td>
<td>$13,610,606</td>
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</table>

**WRF 2021 Financial Position**

**Total Net Assets**

$332M
Cumulative Support to Washington State Research Institutions

WRF was founded in 1981 to support research and scholarship in Washington state. Over the past 40 years, WRF has provided more than $570 million in funding to nonprofit research institutions in the state through grants and licensing payments.

Grant and Licensing Payments Combined

$600M
$500M
$400M
$300M
$200M
$100M


$570,127,960