



UNIVERSITY
of HAWAII®

David Lassner
President

DEPT. COMM. NO. 121

December 8, 2021

The Honorable Ronald D. Kouchi,
President and Members of the Senate
Thirty-First State Legislature
Honolulu, Hawai'i 96813

The Honorable Scott Saiki, Speaker
and Members of the House of Representatives
Thirty-First State Legislature
Honolulu, Hawai'i 96813

Dear President Kouchi, Speaker Saiki, and Members of the Legislature:

For your information and consideration, the University of Hawai'i is transmitting one copy of the Annual Report on the Research and Training Revolving Fund (Section 304A-2253, Hawai'i Revised Statutes) as requested by the Legislature.

In accordance with Section 93-16, Hawai'i Revised Statutes, this report may be viewed electronically at: <https://www.hawaii.edu/offices/government-relations/2022-legislative-reports/>.

Should you have any questions about this report, please do not hesitate to contact Stephanie Kim at 956-4250, or via e-mail at scskim@hawaii.edu.

Sincerely,

A handwritten signature in black ink, appearing to read 'David Lassner'.

David Lassner
President

Enclosure

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UNIVERSITY OF HAWAI‘I SYSTEM ANNUAL REPORT



REPORT TO THE 2022 LEGISLATURE

Annual Report on the
Research and Training Revolving Fund

HRS 304A-2253

December 2021

ANNUAL REPORT ON THE RESEARCH AND TRAINING REVOLVING FUND 2020-2021

INTRODUCTION

The Research and Training Revolving Fund continues to be very effective in stimulating research, which results in extramural contracts and grants. This report summarizes the investments of the Fund for 2020-2021 and indicates the effectiveness of this support. Procedures for awarding grants from the Fund were the same as in previous years.

The Governor's approved guidelines for the administration and investments of the Fund:

1. The funds were administered by the Vice President for Research & Innovation (VPRI), the UH Mānoa Vice Chancellor for Research (VCR), and the University Research Council within the general guidelines approved by the University President.
2. The funds were administered in the four categories described under Part I – Fund Investments.

FUND INVESTMENTS

Pursuant to HRS Section 304A-2253, \$51,697,507.91 was deposited into the Research and Training Revolving Fund and invested as follows:

1. Scholarly Development Fund

The Scholarly Development Fund serves two purposes. The first is to provide seed money support to develop research projects or training programs for extramural funding. The second is to provide travel funds for University professionals that enable them to communicate research and new ideas at international, national or regional meetings, and to permit contact with extramural funding agencies.

NOTE: Due to COVID-19 pandemic, travel was restricted for FY 2021.

Investments

A total of \$1,335 was invested in Professional Travel by the UH Mānoa VCR distributed as follows:

The Council reviewed 5 travel requests and made 5 awards totaling \$1,335. Table 1 lists the Professional Travel recipients.

A total of \$6,357 was invested in Professional Travel for UH West O'ahu and was distributed as follows:

The Council reviewed 22 travel requests and made 20 awards totaling \$6,357. Table 2 lists the Professional Travel recipients.

Investments for 2020-2021: \$7,692

2. Facilitating Services Fund

The Facilitating Services Fund is used to support the research, instruction and public service missions of the University units that generated overhead revenue.

The fund is invested in proportion to the overhead revenue generated by each of the units.

Effective FY 1999, the Deans and Directors of the units were granted the authority to expend these funds at their own discretion.

Investments

A total of \$34,989,965 was invested in the fund. Table 3 lists the distribution by unit.

Investments for 2020-2021: \$34,989,965

3. Project Development Fund

The Project Development Fund is used to facilitate research and training in new or developing fields, provide matching funds for the acquisition of research equipment, and to promote participation in professional organizations.

Investments

The UH Mānoa VCR made 66 awards totaling \$5,208,626.69. Table 4 lists the Project Development Fund recipients.

\$0 was invested in the Student Excellence in Research Awards by the UH Mānoa VCR. For FY 2021, other sources of funds were used for the awards.. Table 5 lists the Student Excellence in Research Awards recipients.

Investments for 2020-2021: \$5,208,626.

4. Vice President for Research and Innovation Investments:

A total of \$11,996,360 was invested for research support and services, including \$6,143,079 paid to RCUH for procurement and HR services for the University's extramural funds.

Description	FY 2021
RCUH Management Fees	6,143,079
A-133 Audit	343,965
Office of the VP for Research and Innovation	1,758,867
Office of Research Services	1,630,837
Office of Innovation and Commercialization	952,152
Office of Research Compliance	1,137,461
TOTAL	11,966,360

The VPRI made 12 awards totaling \$2,541,381.42 in support of programs summarized in Table 6.

Investments for 2020-2021: \$14,507,741

5. Summary of Investments

	Allocation	Carry Forwards / Adjustments	Total Available	Expenditures	Committed to be Spent	Available Balance
Professional Travel	-	407,951.00	407,951.00	8,155.00	399,796.00	-
Facilitating Services	28,208,905.00	25,225,512.00	53,434,417.00	25,904,944.00	27,529,473.00	-
Project Development Fund						
Vice Chancellor for Research	6,781,060.00	5,754,171.00	12,535,231.00	4,717,876.00	7,817,355.00	-
Student Excellence in Research Awards	-	-	-	-	-	-
Vice President for Research & Innovation	4,741,183.00	(3,309,501.00)	1,431,682.00	2,688,424.00	(1,256,742.00)	-
Research Services	5,823,281.00	(254,684.00)	5,568,597.00	5,933,075.00	(364,478.00)	-
RCUH Management Fee	6,143,079.00	-	6,143,079.00	6,143,079.00	-	-
TOTAL	51,697,508	27,823,449	79,520,957	45,395,553	34,125,404	-

RESULTS OF SEED MONEY AND PROFESSIONAL TRAVEL AWARDS

1. Extramural Awards to Recipients of Seed Money

Recipients of these funds are actively seeking new sources to support their research. The Scholarly Development Fund ("Fund") is very important in this connection, especially for younger faculty not yet having established a track record. Once they have initiated research with seed money, they can cite initial results, and thus make a much stronger case for receiving additional support.

Results from seed money are not always immediate, but may occur sometime after a seed money award. The results reported herein thus may be due to funds invested in earlier years. The Fund was initiated in 1975.

The Research Council awards for seed money from the Fund give due consideration to the potential for generating extramural support. Faculty receiving seed money awards must indicate their plans for extramural funding to further research. During the last fiscal year, no awards were given for seed money.

2. Extramural Awards to Faculty Receiving Travel Support

The recipients of these travel awards are all productive scholars with active research agendas. The presentation of their research results at major professional meetings allows the investigators to meet with potential sponsors and exchange ideas with colleagues. It also exposes the broader professional community, including funding agencies, to the work being accomplished at the University of Hawai'i, results in increased professional recognition of investigator and the University, and leads to additional funding.

TOTAL EXTRAMURAL SUPPORT FOR RESEARCH/TRAINING, 2020-2021

Attached summary table, Table 7 for research and non- research projects, each of which gives comparative figures for awards made to the University, the past five years.

In 2020-2021, research awards worth \$238,259,645 and training awards worth \$247,269,281 were received.

CONCLUSIONS:

As summarized in this report, the Research and Training Revolving Fund is essential to the effective operation of the programs administered through this office. It is one of the most important sources of support this University has. The Governor and the Legislature should be commended for their foresight in establishing the Fund as an investment in the health of research and training at the University, and for the provision of the additional funds for equipment, repairs and maintenance.

Respectfully submitted,

Vassilis L. Syrmos
Vice President for Research & Innovation

Attachments

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Table 7	Five-Year Summary of Research and Non-Research Grants and Contracts Awarded

Table 1
2020-2021 Professional Travel Awards Annual Report – Mānoa

Count	Last Name	First Name	Rank	Estimated Funds Requested	Amount Approved	Department	Conference	Title of Presentation
1	Furuto	Linda	I5	\$ 175.00	\$ 175.00	Curriculum Studies	2021 National Council of Teachers of Mathematics Virtual Annual Meeting	Rehumanizing Mathematics Classrooms through Equity and Access in Ethnomathematics
2	Harris-McCoy	Daniel	I4	\$ 280.00	\$ 280.00	LLEA	International Association for the Study of Dreams Annual Conference	Virgil's Aeneid and Aeneas' False Dream of Ancient Rome
3	Murphy	Mark	I3	\$ 360.00	\$ 360.00	Educational Psychology	AEFP 46th Annual Conference	Heightened Immigration Enforcement and School Enrollment: Evidence from 2012-18
4	Ooi	Phillip	I5	\$ 335.00	\$ 335.00	Civil and Environmental Engineerin	2021 Transportation Research Board Annual Meeting	Incorporating Load Cycle Number and Shear Stress Ratio in a Simple Permanent Deformation Model for Unbound Material
5	Yamauchi	Lois	I5	\$ 185.00	\$ 185.00	Educational Psychology	American Educational Research Association	Formative Measurement to Support Teacher Learning to Implement Instructional Conversations for Equitable Participation
Total:				\$1,335.00	\$1,335.00			

Table 2
2020-2021 Professional Travel Awards Annual Report – West O‘ahu

<u>Group Count</u>	<u>Faculty</u>	<u>Rank</u>	<u>Department</u>	<u>Estimated Funds Requested</u>	<u>Amount Awarded</u>	<u>Purpose</u>	<u>Title of Presentation/Paper</u>
1	Ashburn, Bradley	I3	Math, Natural and Health Sciences	595.00	595.00	Experimental Biology 2021	Synthesis of Novel Anti-leishmanial Agents
2	Chernisky, Carina	L3	Library	300.00	399.00	Association of College & Research Libraries	Low Bandwidth-High Engagement: Making Library Connections in Quarantine & Beyond
3	Ikeda, Cathy	I4	Education	180.00	175.00	National Conference for Teachers of English	Ho‘okaulike: Balancing Literacy Instruction Through An Indigenouse, Hawai‘i Focused Perspective
4	Mello, Christina	I4	Social Science	280.00	280.00	Society for Applied Anthropology	Sustainable Social Enterprise and Growing Community Wellbeing in Wai‘anae Hawai‘i
5	Romero, Yasmine	I3	Humanities	284.00	249.00	American Association of Applied Linguistics	Speaking Absences: Pidgin From the Perspectives of K-12 Teachers in Hawai‘i
6	Levy, Jason	I5	Public Administration	1,250.00	500.00	6th International Conference on Recent Trends in Computer Science and Electronics	Advances in Indigenous Pedagogies for Underwater Autonomous Docking Stations and Disaster Risk Reduction: A UHWO-UH Manoa partnership for a second-generation Marine Collaborative Robot Testbed
7	Schwartz, Jonathan	I4	Education	335.00	335.00	Association for the Advancement of Computing in Education	Moving Online: Creating Effective Tasks for Analysis of Teaching Evidence
8	James, Laurie	I3	Education	249.00	150.00	National Council of Teachers of Mathematics	Modeling Strategies to Integrate Hands-on Activities that will Create an Inclusive Environment
9	Vacca, Kirsten	I3	Social Science	270.00	270.00	Society for American Archaeology Annual Conference	Diverse Expertise: On the Importance of Multivocality and Inclusion in Archaeology
10	Aumer, Katherine	I3	Social Science	295.00	295.00	Society for Affective Science 2021 Virtual Meeting	Cross-Cultural Examination of Hate

Table 2
2020-2021 Professional Travel Awards Annual Report – West O‘ahu

<u>Group Count</u>	<u>Faculty</u>	<u>Rank</u>	<u>Department</u>	<u>Estimated Funds Requested</u>	<u>Amount Awarded</u>	<u>Purpose</u>	<u>Title of Presentation/Paper</u>
11	Chernisky, Carina	L3	Library	399.00	399.00	Association of College & Research Libraries	Embracing Virtual Spaces: OER Trainings in the COVID-19 Era
12	Ikeda, Cathy	I4	Education	700.00	700.00	National Conference on Race and Ethnicity	Huliha: Using the Pandemic as a Portal for Social Transformation
13	Machosky, Brenda	I5	Humanities	50.00	50.00	American Association of Australasian Literary Studies	The State of the Organization and the Journal Antipodes
14	Wong, Kamuela	I4	Math, Natural and Health Sciences	65.00	65.00	Society for Mathematical Biology 2021 Annual Meeting	A Mathematical Model of the Transmission of Rat Lungworm Disease
15	Liu, Veny	I3	Math, Natural and Health Sciences	435.00	435.00	10th Annual Hawaii University International Conferences on Science, Technology & Engineering, Arts, Mathematics and Education (STEM/STEAM & Education)	Teaching Stem Online: From Quagmire to Boon
16	Aumer, Katherine	I3	Social Science	159.00	159.00	American Psychological Sciences Convention	PreElection Emotions of Democrats and Republicans
17	Kamai, Stephanie	S5	Education	358.00	357.00	Ireland International Conference on Education	From My Na‘au
18	Williamson, Lynette	I3	Math, Natural and Health Sciences	435.00	435.00	10th Annual Hawaii University International Conferences on Science, Technology & Engineering, Arts, Mathematics and Education (STEM/STEAM & Education)	Teaching Stem Online: From Quagmire to Boon
19	Kamai, Stephanie	S4	Education	406.00	410.00	International Conference on Education and New Developments	Personal Perspectives that Matter
20	Ashburn, Bradley	I3	Math, Natural and Health Sciences	99.00	99.00	American Chemical Society Spring National 2021 Conference	Synthetic studies toward novel antileishmanial agents
TOTAL				7,144.00	6,357.00		

Table 3
2020-2021 Distribution of Facilitating Services Fund

RTRF Revenue by Unit	Basis	Allocation
College of Arts & Humanities	24,300.55	
College of Education	1,816,336.68	
College of Engineering	1,018,135.73	
College of Language, Linguistics and Literature	521,647.10	
College of Natural Sciences	3,922,635.76	
College of Social Sciences	1,607,280.33	
College of Tropical Agriculture and Human Resources	1,759,618.23	
Hawai'i'iunika School of Hawaiian Knowledge	81,457.42	
Institute for Astronomy	3,873,755.10	
John A. Burns School of Medicine	8,197,361.80	
Lyon Arboretum	43,199.37	
Outreach College	4,908.63	
School of Architecture	13,367.23	
School of Nursing and Dental Hygiene	87,289.05	
School of Ocean and Earth Science and Technology	12,346,191.81	
School of Pacific and Asian Studies	31,989.02	
School of Social Work	948,089.33	
Shilder College of Business	34,294.57	
UH Cancer Center	5,420,045.17	
Vice Chancellor, Academic Affairs	44,542.68	
Vice Chancellor, Research	391,423.19	
Vice Chancellor, Students	348,721.44	
Water Resources Research Center	154,510.36	
William S. Richardson School of Law	169,653.84	
Mānoa	42,860,754.39	28,798,284.00
UH Hilo	1,861,734.37	
SBDC	121,797.82	
UH Hilo	1,983,532.19	1,293,157.00
UH West Oahu	255,091.86	
West O'ahu	255,091.86	195,390.00
VP for Community College	103,517.07	
Hawai'i CC	39,817.92	
Honolulu CC	159,439.30	
Kapi'olani CC	166,443.60	
Kaua'i CC	91,257.71	
Leeward CC	110,845.34	
Maui College	951,080.72	
Windward CC	219,686.64	
Campus CC	1,842,088.30	1,014,666.00
VP for Academic Planning and Policy	331,962.63	
VP for Administration	4,073.57	
VP for Research and Innovation	848,386.81	
Office of the VP for Information Tech/Chief Info Officer	3,514,105.99	
Applied Research Laboratory	57,512.17	
Systemwide	4,756,041.17	3,688,468.00
Grand Total	51,697,507.91	34,989,965.00

Table 4
2020-2021 Project Development Fund Awards – Vice Chancellor for Research

<u>Item No.</u>	<u>Unit</u>	<u>Account Title</u>	<u>P.I.</u>	<u>Amount</u>
1	College of Engineering	Faculty Start-Up	Chen, R.	62,500.00
2	College of Engineering	Faculty Start-Up	Chun, I. Y.	31,250.00
3	College of Engineering	Faculty Start-Up	Jun, E.	25,000.00
4	College of Engineering	Faculty Start-Up	Park, H.	31,250.00
5	College of Engineering	Faculty Start-Up	Ray, T.	70,750.00
6	College of Engineering	Faculty Start-Up	Weldon, J.	100,000.00
7	College of Language Linguistics and Literature	Chinese Flagship Support	Song, J.	30,000.00
8	College of Natural Sciences	Research Support	Amend, A.	24,000.00
9	College of Natural Sciences	Faculty Start-Up	Belcaid, M.	8,333.33
10	College of Natural Sciences	Faculty Start-Up	Chong, R.	35,000.00
11	College of Natural Sciences	Faculty Start-Up	Farrah, D.	8,333.33
12	College of Natural Sciences	Faculty Start-Up	Ferguson, J.	39,666.00
13	College of Natural Sciences	Faculty Start-Up	Fuller, A.	3,333.00
14	College of Natural Sciences	Faculty Start-Up	Haas, R.	24,000.00
15	College of Natural Sciences	Faculty Start-Up	Haglund, E.	83,333.33
16	College of Natural Sciences	Faculty Start-Up	Heyduk, C.	95,000.00
17	College of Natural Sciences	Faculty Start-Up	Honarvar, S.	26,720.00
18	College of Natural Sciences	Faculty Start-Up	Hyvi, J.	83,333.33
19	College of Natural Sciences	East China MOU	Kaiser, R.	50,000.00
20	College of Natural Sciences	Faculty Start-Up	Muir, C.	55,000.00
21	College of Natural Sciences	Faculty Start-Up	Nasrin, F.	10,000.00
22	College of Natural Sciences	Faculty Start-Up	Nishimura, K.	87,000.00
23	College of Natural Sciences	Faculty Start-Up	Rubin, D.	52,833.33
24	College of Natural Sciences	Faculty Start-Up	Sadowski, P.	40,000.00
25	College of Natural Sciences	Faculty Start-Up	Sakstein, J.	50,000.00
26	College of Natural Sciences	Faculty Start-Up	Sugiyama, A.	36,178.00
27	College of Natural Sciences	Faculty Start-Up	Sun, R.	60,000.00
28	College of Natural Sciences	Faculty Start-Up	Sutherland, T.	24,000.00
29	College of Natural Sciences	Faculty Start-Up	Tewari, V.	6,666.00
30	College of Natural Sciences	MS Repair	Williams, P.	9,340.00
31	College of Natural Sciences	Faculty Start-Up	Zenil-Ferguson, R.	39,333.00
32	College of Tropical Agriculture and Human Resource	Research Support	Lee, A.	50,258.00
33	College of Tropical Agriculture and Human Resource	Faculty Start-Up	Price, M.	87,000.00

Table 4
2020-2021 Project Development Fund Awards – Vice Chancellor for Research

Item No.	Unit	Account Title	P.I.	Amount
34	Graduate Division	GSO Support	Westfall-Senda, M.	50,000.00
35	Graduate Division	GSO Merit Support	Westfall-Senda, M.	57,940.00
36	Information Technology Services	HI Data Sci	Jacobs, G.	250,000.00
37	Institute for Astronomy	Faculty Start-Up	Baxter, E.	58,333.33
38	Institute for Astronomy	Faculty Start-Up	Bottom, M.	40,000.00
39	Institute for Astronomy	Faculty Start-Up	Shappee, B.	65,000.00
40	Institute for Astronomy	Faculty Start-Up	VanSaders, J.	65,000.00
41	John A. Burns School of Medicine	HJMPH journal	Hedges, J.	15,000.00
42	John A. Burns School of Medicine	MHRT Program	Nerurkar, V.	103,209.60
43	John A. Burns School of Medicine	COBRE III - Ward	Ward, S.	42,116.00
44	School of Ocean & Earth Science Technology	Faculty Start-Up	Coats, S.	33,000.00
45	School of Ocean & Earth Science Technology	Faculty Start-Up	Dobrica, E.	100,000.00
46	School of Ocean & Earth Science Technology	Faculty Start-Up	Hawco, N.	33,333.00
47	School of Ocean & Earth Science Technology	AEC Service	Ishii, H.	40,000.00
48	School of Ocean & Earth Science Technology	Faculty Start-Up	Johansen, J.	100,000.00
49	School of Ocean & Earth Science Technology	NSF-MRI Cost Share	Konter, J.	89,000.00
50	School of Ocean & Earth Science Technology	NERRS Support	Lemus, J.	75,000.00
51	School of Ocean & Earth Science Technology	DOE Cost Match - Severa	Severa, G.	23,609.00
52	School of Ocean & Earth Science Technology	Faculty Start-Up	Stuecker, M.	50,000.00
53	School of Ocean & Earth Science Technology	Faculty Start-Up	Torri, G.	30,000.00
54	School of Ocean & Earth Science Technology	Faculty Start-Up	White, A.	90,000.00
55	School of Pacific and Asian Studies	CSEAS GA Support	Stark, J.	42,576.00
56	Vice Chancellor for Research	Coconut Island R&M	Kameoka, V.	493.00
57	Vice Chancellor for Research	VCR Operating	Kameoka, V.	34,000.00
58	Vice Chancellor for Research	Makai Pier	Kameoka, V.	40,000.00
59	Vice Chancellor for Research	Coconut Island R&M	Kameoka, V.	57.88
60	Vice Chancellor for Research	Primo Conference	Kameoka, V.	5,000.00
61	Vice Chancellor for Research	Bond	Kameoka, V.	1,664,305.23
62	Vice Chancellor for Research	Strategic Investment	Konter, B.	10,000.00
63	Vice Chancellor for Research	UROP	Litton, C.	2,821.00
64	Vice Chancellor for Research	UROP Support	Litton, C.	5,547.00
65	Waikiki Aquarium	Research Support	Rossiter, A.	500,000.00
66	Water Resources Research Center	Research Support	Giambelluca, T.	53,875.00
TOTAL COMMITTED				\$5,208,626.69

Table 5
2020-2021 Student Excellence in Research Awards

NONE

Table 6
2020-2021 VP for Research and Innovation Investments

Item	Campus	Unit	Purpose	Commitment
1	HI	Chancellor	COBRE	125,000.00
2	HI	Chancellor	Center for Maunakea Stewardship	712,000.00
3	HI	Chancellor	PISCES	270,000.00
4	MA	School of Ocean and Earth Science and Technology	Faculty Start-Up	100,000.00
5	MA	School of Ocean and Earth Science and Technology	KOK Support	250,000.00
6	MA	College of Social Sciences	UHERO	64,625.00
7	MA	John A. Burns School of Medicine	Akahi Cohort Program	125,000.00
8	MA	College of Natural Sciences	Decommission the NMR Spectrometer	6,930.00
9	SW	Vice President for Research and Innovation	UH Ventures Support	392,499.98
10	SW	Vice President for Research and Innovation	Excellence in Research Award	12,000.00
11	SW	Office of General Counsel	Research Support	210,354.18
12	SW	Office of General Counsel	Mauna Kea Legal Fees	272,972.26
				<u>2,541,381.42</u>

Table 7
Five-Year Summary of Research and Non-Research Grants and Contracts Awarded

<u>Description</u>	<u>Fiscal Year</u> <u>2017</u>	<u>Fiscal Year</u> <u>2018</u>	<u>Fiscal Year</u> <u>2019</u>	<u>Fiscal Year</u> <u>2020</u>	<u>Fiscal Year</u> <u>2021</u>
Research	209,249,788	215,982,321	222,860,456	229,664,292	238,259,645
Non-Research	177,751,917	170,329,382	198,991,704	220,774,957	247,269,281
	387,001,705	386,311,703	421,852,160	450,439,249	485,528,926