Reports on Federal Awards in Accordance with the Program-Specific Audit Option under the Uniform Guidance

Year ended March 31, 2022

Reports on Federal Awards in Accordance with the Program-Specific Audit Option under the Uniform Guidance

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Year ended March 31, 2022

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Report of Independent Auditors

To the Board of Governors of University of Alberta

Report on schedule of expenditures of federal awards

Opinion

We have audited the accompanying schedule of expenditures of federal awards for the research and development cluster funded by United States of America federal awards (the "Program") of the University of Alberta (the "University") for the year ended March 31, 2022, including the related notes (collectively referred to as the "financial statement").

In our opinion, the accompanying financial statement presents fairly, in all material respects, the expenditures of federal awards for the Program of the University for the year ended March 31, 2022, in accordance with the basis of accounting described in Note 2 to the financial statement.

Basis for opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (US GAAS); the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance), except as noted below. Our responsibilities under those standards and the Uniform Guidance are further described in the Auditor's Responsibilities for the Audit of the Financial Statement section of our report. We are required to be independent of the University and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Personnel of PricewaterhouseCoopers LLP in Canada do not participate in a continuing education program that fully satisfies the requirements set forth in Chapter 4, paragraphs 4.16-4.18 of *Government Auditing Standards*. However, this firm does participate in continuing education programs applicable in Canada.

Further, PricewaterhouseCoopers LLP in Canada did not have an external quality review by an unaffiliated audit organization as required by Chapter 5, paragraph 5.60 of *Government Auditing Standards*, since no such program is offered by professional organizations in the country. However, this office participates in the PricewaterhouseCoopers worldwide internal control review program, which requires the office to be periodically subjected to an extensive quality control review by partners and managers from other PricewaterhouseCoopers affiliated firms.

Responsibilities of management for the audit of the financial statement

Management is responsible for the preparation and fair presentation of the financial statement in accordance with the basis of accounting disclosed in Note 2 to the financial statement; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the financial statement that is free from material misstatement, whether due to fraud or error.

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Auditor's responsibilities for the audit of the financial statement

Our objectives are to obtain reasonable assurance about whether the financial statement as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with US GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of certain internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the schedule of revenue.

In performing an audit in accordance with US GAAS and Government Auditing Standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statement, whether due to fraud
 or error, and design and perform audit procedures responsive to those risks. Such procedures include
 examining, on a test basis, evidence regarding the amounts and disclosures in the financial
 statement.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures
 that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the
 effectiveness of the University's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statement.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that
 raise substantial doubt about the University's ability to continue as a going concern for a reasonable
 period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control–related matters that we identified during the audit.

Chartered Professional Accountants

Pricewaterhouse Coopers LLP

Edmonton, Alberta, Canada March 29, 2023



Schedule of Expenditures of Federal Awards **Year ended March 31, 2022**

Assistance Listing #	Assistance Listing Title	Award #	Direct / Pass-through	Agency or Pass-through entity	Federal expenditure US\$	Sub recipients US\$
Department	of Health & Human Services	-National Institu	utes of Health (NIH	l)		
93.393	Cancer Cause and Prevention Research	2P01CA0925 84-16	Pass-through	University of California	21,855	
93.213	Research and Training in Complementary and Integrative Health	589633 NP-MRD RFP	Pass-through	Battelle	138,863	
93.242	Mental Health Research Grants	1R01MH1183 62-01	Pass-through	Washington University in St. Louis	19,507	
93.286	Discovery and Applied Research for Technological Innovations to Improve Human Health	U01EB02760 1	Pass-through	George Mason University	36,123	
93.286	Discovery and Applied Research for Technological Innovations to Improve Human Health	1UG3EB0249 65	Pass-through	Sloan Kettering Inst for Cancer Research	686,367	
93.310	Trans-NIH Research Support	F0418-02	Pass-through	New York University	20	
93.350	National Center for Advancing Translational Sciences	U54TR00145 6	Pass-through	Emory University	(1,388)	
93.393	Cancer Cause and Prevention Research	11236030-78 76275	Pass-through	St. Jude Children's Research Hospital	82,536	
93.583	Refugee and Entrant Assistance Wilson/Fish Program	R61NS11934 5	Pass-through	University of California	26,401	
93.837	Cardiovascular Diseases Research	210415	Pass-through	Loyola University Chicago	45,932	
93.837	Cardiovascular Diseases Research	HL092321	Pass-through	Loyola University Chicago	116,068	
93.838	Lung Diseases Research	1U01HL1251 8-01	Pass-through	University of Colorado	(4,076)	



Schedule of Expenditures of Federal Awards **Year ended March 31, 2022**

Assistance Listing #	Assistance Listing Title	Award #	Direct / Pass-through	Agency or Pass-through entity	Federal expenditure US\$	Sub recipients US\$
93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	R01DK12648 2	Pass-through	Stanford University	96,621	
93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	5U01DK1055 54-05	Pass-through	The Broad Institute, Inc.	7,093	
93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	5U01DK0583 69-14	Pass-through	U of Texas Southwestern Medical Center	11,618	
93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	2R01DK0881 31-06	Pass-through	U Texas Hlth Sci Centre at Houston	597	
93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	VUMC80721	Pass-through	Vanderbilt University Medical Center	34,360	
93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	2R01NS0475 67-06A2	Direct	National Institutes of Health	1,760	
93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	1R01NS1108 26	Pass-through	Columbia University	3,668	
93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	1U01NS1138 51-01	Pass-through	Northwestern University	1,035	
93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	A18-0660-S0 01	Pass-through	University of California	(11,014)	
93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	1R01NS1044 36-01	Pass-through	University of Rhode Island	79,665	
93.853	Allergy and Infectious Diseases Research	1R01AI11884 2-01A1	Pass-through	National Institutes of Health	225,147	



Schedule of Expenditures of Federal Awards **Year ended March 31, 2022**

Assistance Listing #	Assistance Listing Title	Award #	Direct / Pass-through	Agency or Pass-through entity	Federal expenditure US\$	Sub recipients US\$
93.855	Allergy and Infectious Diseases Research	1R01AI1509 44-01	Direct	National Institutes of Health	326,277	86,882
93.855	Allergy and Infectious Diseases Research	1R01AI1463 29-01	Pass-through	Albert Einstein College of Medicine	45,596	
93.855	Allergy and Infectious Diseases Research	1R01AI1560 37	Pass-through	Colorado State University	17,955	
93.855	Allergy and Infectious Diseases Research	1UO1AI131 339-01	Pass-through	Columbia University	38,391	
93.855	Allergy and Infectious Diseases Research	R34AI13678 3-01	Pass-through	University of Calgary	1,430	
93.859	Biomedical Research and Research Training	1R01GM12 6745-01	Pass-through	University of Idaho	47,383	
93.865	Child Health and Human Development Extramural Research	2R01HD055 741-11	Pass-through	Univ of North Carolina at Chapel Hill	864	
93.865	Child Health and Human Development Extramural Research	5R01HD089 713-02	Pass-through	University of British Columbia	20,259	
93.866	Aging Research	2R01AG008 235-22A1	Direct	National Institutes of Health	1,460	
93.866	Aging Research	5U19-AG06 3744-02	Pass-through	Duke University	50,856	
93.866	Aging Research	1558 G VA356	Pass-through	UCLA Univ of California DNU Use SFR2131	91,587	
93.866	Aging Research	AG068992	Pass-through	University of California	94,884	
93.867	Vision Research	R21EYO330 78	Direct	National Institutes of Health	30,702	
93.RD	US Dept Health & Human Services Project	450521	Pass-through	Battelle	188,122	
93.RD	US Dept Health & Human Services Project	Not available	Pass-through	Hamilton Health Sciences Corporation	1,425	



Schedule of Expenditures of Federal Awards **Year ended March 31, 2022**

93.RD	Assistance Listing #	Assistance Listing Title	Award #	Direct / Pass-through	Agency or Pass-through entity	Federal expenditure US\$	Sub recipients US\$
Services Project Research Institute	93.RD	•		Pass-through		75,427	
Services Project 0052 Georgia 93.RD US Dept Health & Human Services Project 0052 93.RD US Dept Health & Human Services Project 0052 93.RD US Dept Health & Human Services Project 1052 93.RD US Dept Health & Human Services Project 1052 93.226 Research on Healthcare Costs, Quality and Outcomes 1052 93.RD US Dept Health & Human Services Project 1053 93.RD US Dept Health & Human Services Project 1053 93.RD US Dept Health & Human Services Project 1053 93.RD US Dept Health & Human Services Project 1053 93.RD US Dept Health & Human Services Project 1053 93.RD US Dept Health & Human Services Project 1053 93.RD US Dept Health & Human Services Project 1053 93.RD US Dept Health & Human Services Project 1053 93.RD US Dept Health & Human Services Project 1053 94. Department of International Development 1053 95. Department of Agriculture 200001 96. Department of Agriculture 200001 97. Pass-through Services Project 200001 98.001 Pass-through Johns Hopkins University 11,807 10.310 Agriculture and Food Sessearch Initiative (AFRI) 4562 10.RD United States Not available Direct United States Department of Agriculture Project 10,512 10.RD United States Department of Agriculture Project 10,512 98.001 Pass-through Services Project 11,807 10.RD United States Not available Direct United States Department of Agriculture Project 10,512	93.RD	•	Not available	Pass-through	•	11,007	
Services Project 0052 Georgia 93.RD US Dept Health & Human Services Project 93.226 Research on Healthcare Costs, Quality and Outcomes 93.RD US Dept Health & Human Services Project 93.RD US Dept Health & Human Services Project 93.RD US Dept Health & Human Services Project 94.RD US Dept Health & Human Services Project 95.RD US Dept Health & Human Services Project 96.RD US Dept Health & Human Services Project 97.RD US Dept Health & Human Services Project 98.RD US Dept Health & Human Services Pass-through Oregon Health & 67,768 Science University 98.RD University 98.RD US Dept Health & Human Services Project 98.RD US Dept Health & Human Services Pass-through University 98.RD US Dept Health & Human Services Pass-through University 98.RD University 99.RD Pass-through University 99.RD Johns Hopkins University 140,639 University	93.RD	•		Pass-through	•	1,779	
Services Project Research on Healthcare Costs, Quality and Outcomes 93.226 US Dept Health & Human Services Project US. Agency for International Development 98.001 Foreign Assistance for Programs Overseas 00001 Pass-through 00001 Pass-through Science University 3,969,702 085,014 Pass-through Science University 3,969,702 685,014 Pass-through Science University 140,639 University Department of Agriculture 10.310 Agriculture and Food Research Initiative (AFRI) Research Initiative (AFRI) United States Department of Agriculture Project Not available Direct University South Florida Univo North Carolina at Chapel Hill Pass-through Science University 3,969,702 685,014 Pass-through University 140,639 University 140,639 University Direct University University University University 1,512 Department of Agriculture Project	93.RD	•		Pass-through	•	160,062	
Costs, Quality and Outcomes 93.RD US Dept Health & Human Services Project U.S. Agency for International Development 98.001 Foreign Assistance for Programs Overseas 00001 Department of Agriculture 10.310 Agriculture and Food Research Initiative (AFRI) Department of Agriculture 10.RD United States Department of Agriculture Pass-through Carolina at Chapel Hill Pass-through Science University Pass-through University Pass-through University Pass-through University Direct United States Department of Agriculture United States Department of Agriculture Project Carolina at Chapel Hill Carolina at Chapel Hill Pass-through Science University Pass-through University I lowa State University University United States Department of Agriculture Project	93.RD	•	Not available	Pass-through	•	921	
Services Project 500009I Science University U.S. Agency for International Development 98.001 Foreign Assistance for Programs Overseas 00001 University 10.310 Agriculture and Food Research Initiative (AFRI) 4562 Project Project Project United States Department of Agriculture Overseas Overseas 00001 Project Project University University United States Department of Agriculture Overseas Over	93.226	Costs, Quality and		Pass-through	Carolina at	9,064	
U.S. Agency for International Development 98.001 Foreign Assistance for 7200AA19CA Pass-through University Department of Agriculture 10.310 Agriculture and Food Research Initiative (AFRI) Afoca Department of Agriculture 10.RD United States Department of Agriculture Project Pass-through Iowa State University University United States Department of Agriculture Project Department of Agriculture Agriculture Project	93.RD	•		Pass-through	Science	67,768	
98.001 Foreign Assistance for Programs Overseas 00001 Pass-through University Department of Agriculture 10.310 Agriculture and Food Research Initiative (AFRI) Afficulture 10.RD United States Department of Agriculture Project Not available Direct United States Department of Agriculture Agriculture Project 140,639 140,639 140,639 140,639 140,639 140,639 140,639 10.80 Diversity 11,807 10.80 United States Department of Agriculture Project United States Department of Agriculture					_	3,969,702	685,014
Programs Overseas 00001 University Department of Agriculture 10.310 Agriculture and Food Research Initiative (AFRI) 4562 University 10.RD United States Department of Agriculture Project Project University 10.RD University United States Department of Agriculture Agriculture Project Agriculture	U.S. Agency f	or International Developme	ent				
10.310 Agriculture and Food 2021-67015-3 Pass-through lowa State University 10.RD United States Department of Agriculture Project Not available Direct Direct Department of Agriculture Project Agriculture	98.001	<u> </u>		Pass-through	•	140,639	
Research Initiative (AFRI) 4562 University 10.RD United States Not available Direct United States 1,512 Department of Agriculture Department of Agriculture Agriculture	Department o	f Agriculture					
Department of Agriculture Department of Agriculture Agriculture	10.310	•		Pass-through		11,807	
13,319	10.RD	Department of Agriculture	Not available	Direct	Department of	1,512	
					-	13,319	



Schedule of Expenditures of Federal Awards **Year ended March 31, 2022**

Assistance Listing #	Assistance Listing Title	Award #	Direct / Pass-thr ough	Agency or Pass-through entity	Federal expenditure US\$	Sub recipients US\$
Department of	of Energy					
81.112	Stewardship Science Grant Program	DE-NA00038 56	Pass-thro ugh	University of Rochester	184	
81.RD	United States Department of Energy Project	DE-AC52-07 NA27344	Pass-thro ugh	Lawrence Livermore National Security	3,988	
81.RD	United States Department of Energy Project	DE-AC52-07 NA27344	Pass-thro ugh	Lawrence Livermore National Security	47,260	
81.RD	United States Department of Energy Project	DE-AC52-07 NA27344	Pass-thro ugh	Lawrence Livermore National Security	75,597	
				•	127,029	
Department of	of Defense			•		
12.420	Military Medical Research and Development	W81XWH211 0797	Direct	US Department of Defense	44,053	
12.420	Military Medical Research and Development	W81XWH-17- 1-0470	Pass-thro ugh	University of Western Ontario	101,354	
12.431	Basic Scientific Research	W911NF-17-2 -0213	Direct	US Department of Defense	106,237	
12.910	Research and Technology Development	HR001117200 66	Pass-thro ugh	University of Central Florida	27,135	
12.RD	US Department of Defense Project	W81XWH211 0857	Direct	US Department of Defense	54,623	
12.RD	US Department of Defense Project	W81XWH201 0875	Direct	US Department of Defense	332,095	29,049
12.RD	US Department of Defense Project	W81XWH192 0048	Direct	US Department of Defense	409,762	
12.RD	US Department of Defense Project	XWH-19-DM RDP-CRMRP -RESTORE	Pass-thro ugh	Infinite Biomedical Technologies	133,674	
					1,208,933	29,049
Total expend	itures of Federal awards for		\$5,473,346	\$714,063		



Notes to Schedule of Expenditures of Federal Awards **Year ended March 31, 2022**

(amounts in USD unless otherwise stated)

1. Nature of operations

The University of Alberta is a post-secondary institution incorporated under its Board of Governors. The Governors of the University of Alberta is a corporation which manages and operates the University of Alberta (the "University") under the Post-secondary Learning Act (Alberta). All members of the Board of Governors are appointed by either the Lieutenant Governor in Council or the Minister of Advanced Education, with the exception of the Chancellor and President, who are ex officio members. Under the Post-secondary Learning Act, Campus Alberta Sector Regulation, the University is a comprehensive academic and research institution offering undergraduate and graduate degree programs as well as a full range of continuing education programs and activities. The University is a registered charity, and under section 149 of the Income Tax Act (Canada), is exempt from the payment of income tax.

The University participates in ongoing research projects that are funded in part by federal awards provided by United States Federal agencies.

2. Significant accounting policy

Basis of presentation

The accompanying Schedule of Expenditures of Federal Awards (the "financial statement") includes the federal grant activity for the research and development cluster (the "Program") funded by United States federal awards and has been prepared using the accrual basis of accounting. The University prepares its annual financial statements in accordance with Canadian Public Sector Accounting Standards. The information in this financial statement is presented in accordance with the program audit provisions of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance)*. The University receives funds in US dollars based on the grant agreements, but the expenses are incurred in Canadian dollars. The expenses reported on the accompanying financial statement have been converted from Canadian dollars to US dollars using an average exchange rate for the year. The University does not use the 10% de-minimis rate in Section 200.414 of the Uniform Guidance for indirect cost allocations but rather the rates that have been negotiated within each individual federal award.



Report of independent auditors on compliance for a federal program and report on internal control over compliance when using the program-specific audit option to satisfy the uniform guidance audit requirements

To the Board of Governors of University of Alberta

Report on compliance for the research and development cluster funded by United States of America federal awards

Opinion on compliance for the research and development cluster funded by United States of America federal awards

We have audited the University of Alberta's (the "University") compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on its research and development cluster funded by United States of America federal awards (the "Program") for the year ended March 31, 2022.

In our opinion, the University complied, in all material respects, with the compliance requirements referred to above that could have a direct and material effect on its Program for the year ended March 31, 2022.

Basis for opinion on the research and development cluster funded by United States of America federal awards

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America (US GAAS); the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Award* (Uniform Guidance), except as noted below. Our responsibilities under those standards and the Uniform Guidance are further described in the Auditor's Responsibilities for the Audit of Compliance section of our report.

Personnel of PricewaterhouseCoopers LLP in Canada do not participate in a continuing education program that fully satisfies the requirements set forth in Chapter 4, paragraphs 4.16-4.18 of *Government Auditing Standards*. However, this firm does participate in continuing education programs applicable in Canada.

Further, PricewaterhouseCoopers LLP in Canada did not have an external quality review by an unaffiliated audit organization as required by Chapter 5, paragraph 5.60 of *Government Auditing Standards*, since no such program is offered by professional organizations in the country. However, this office participates in the PricewaterhouseCoopers worldwide internal control review program, which requires the office to be periodically subjected to an extensive quality control review by partners and managers from other PricewaterhouseCoopers affiliated firms.

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We are required to be independent of the University and to meet our other ethical responsibilities, in accordance with relevant ethical requirements relating to our audit. We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on compliance for the Program. Our audit does not provide a legal determination of the University's compliance with the compliance requirements referred to above.

Responsibilities of management for compliance

Management is responsible for compliance with the requirements referred to above and for the design, implementation, and maintenance of effective internal control over compliance with the requirements of laws, statutes, regulations, rules and provisions of contracts or grant agreements applicable to the University's Program.

Auditors' responsibilities for the audit of compliance

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on the University's compliance based on our audit. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with US GAAS, *Government Auditing Standards*, and the Uniform Guidance will always detect material noncompliance when it exists. The risk of not detecting material noncompliance resulting from fraud is higher than for that resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Noncompliance with the compliance requirements referred to above is considered material, if there is a substantial likelihood that, individually or in the aggregate, it would influence the judgment made by a reasonable user of the report on compliance about the University's compliance with the requirements of the federal program as a whole. In performing an audit in accordance with US GAAS, *Government Auditing Standards*, and the Uniform Guidance, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material noncompliance, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the University's compliance with the compliance requirements referred to above and performing such other procedures as we considered necessary in the circumstances.
- Obtain an understanding of the University's internal control over compliance relevant to the audit in
 order to design audit procedures that are appropriate in the circumstances and to test and report on
 internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of
 expressing an opinion on the effectiveness of the University's internal control over compliance.
 Accordingly, no such opinion is expressed.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and any significant deficiencies and material weaknesses in internal control over compliance that we identified during the audit.



Other matters

The results of our auditing procedures disclosed an instance of noncompliance, which is required to be reported in accordance with the Uniform Guidance and which is described in the accompanying schedule of findings and questioned costs as item 2022-001. Our opinion on each major federal program is not modified with respect to this matter.

Government Auditing Standards requires the auditor to perform limited procedures on the University's response to the noncompliance finding identified in our audit described in the accompanying schedule of findings and questioned costs and management's views and corrective action plan. The University's response was not subjected to the other auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.

Report on internal control over compliance

Our consideration of internal control over compliance was for the limited purpose described in the Auditors' Responsibilities for the Audit of Compliance section above and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies in internal control over compliance and therefore, material weaknesses or significant deficiencies may exist that have not been identified. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, as discussed below, we did identify a certain deficiency in internal control over compliance that we consider to be a significant deficiency.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A material weakness in internal control over compliance is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis.

A significant deficiency in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance. We consider the deficiency in internal control over compliance described in the accompanying schedule of findings and questioned costs as items 2022-001, 2022-02, 2022-03 and 2022-04 to be a significant deficiency.

Our audit was not designed for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, no such opinion is expressed.

Government Auditing Standards requires the auditor to perform limited procedures on the University's response to the internal control over compliance findings identified in our audit described in the accompanying schedule of findings and questioned costs and management's views and corrective action plan. The University's response was not subjected to the other auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.



The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Pricewaterhouse Coopers LLP
Chartered Professional Accountants

Edmonton, Alberta

March 29, 2023



Schedule of Findings and questioned costs

Year ended March 31, 2022

(amounts in USD unless otherwise stated)

Part 1 - Summary of Auditor's Results

Schedule of Expenditures of Federal Awards

Type of auditor's report issued Unmodified Internal control over financial reporting Material weakness(es) identified No Significant deficiency(ies) identified not considered to be material weakness None reported Noncompliance which is material to financial statement No Federal awards Internal control over major programs Material weakness(es) identified No Significant deficiency(ies) identified not considered to be material weakness Yes Unmodified Type of auditor's report issued on compliance for major programs Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a) Yes Identification of major programs (CFDA#'s) Name of Federal Program CFDA No.

Research and Development Cluster

Various

Part 2 – Financial Statement Findings and Questioned Costs

None reported.



Schedule of Findings and questioned costs

Year ended March 31, 2022

Part 3 - Federal Award Findings and Questioned Costs

2022-001 Timeliness of filing

Cluster / program name: Research & Development Cluster Assistance Listing Number: All on financial statement Assistance Listing titles: All on financial statement

Federal Agency: Department of Health & Human Services – National Institutes of Health (NIH), US Agency for International Development, Department of Agriculture, Department of Energy and Department of Defense

Award Numbers: All on financial statement Award Year: April 1, 2021 – March 31, 2022 Pass-through entities: All on financial statement

Criteria or Specific Requirement: The report on compliance for a federal program and report on internal control over compliance when using the program-specific audit option to satisfy the uniform guidance audit requirements must be completed within the earlier of 30 days after the receipt of the auditor's reports or 9 months after the end of the audit period, unless a different period is specified in a program-specific audit guide.

Condition Found and Context: Through our audit procedures we noted that the University did not comply with the audit reporting deadline requirement with the final audit report issued in excess of 9 months of the March 31, 2022 year end.

Cause: Management was not aware of the requirements given the extension granted in the prior year during the pandemic and encountered capacity limitations to meet the required timing.

Effect: Failing to meet the audit deadline may lead to non-compliance.

Questioned Costs: None

Recommendation: We recommend that management put in place a process to ensure the timely execution of the audit in line with the required timeframe.



Schedule of Findings and questioned costs

Year ended March 31, 2022

2022-002 Subrecipient Monitoring

Cluster / program name: Research & Development Cluster

Assistance Listing Number: 93.847, 93.855, 12.RD

Assistance Listing titles: Diabetes, Digestive, and Kidney Diseases Extramural Research, Allergy and

Infectious Diseases Research, US Department of Defense Project

Federal Agency: Department of Health & Human Services – National Institutes of Health (NIH)

Award Numbers: 1U01DK120447-01, 1R01AI150944-01, W81XWH2010875

Award Year: April 1, 2021 - March 31, 2022

Pass-through entities: National Institute of Health, US Department of Defense

Criteria or Specific Requirement: 2 CFR 200.332 of the Uniform Guidance contains the requirements for organizations that pass-through funds to other entities. According to the guidance, pass-through entities must (among other items):

- Evaluate the subrecipient's risk of non-compliance with the requirements of the award and the federal statutes/regulations for the purpose of determining the appropriate subrecipient monitoring.
- Monitor the activities of the subrecipient as necessary to ensure that the subaward is used for authorized purposes, in compliance with federal statutes, regulations and the terms and conditions of the subaward and that performance goals are achieved. This must include reviewing financial and performance reports, understanding the results of the subrecipient's Uniform Guidance audit, resolving audit findings, ensuring appropriate and timely action is taken by the subrecipient, if required, etc.

Condition Found and Context: Through our audit procedures and understanding of the control environment specific to subrecipient monitoring, we noted that the University does not have policies and procedures in place specific to subrecipient monitoring. Subrecipient agreements, including acknowledgement of CFR requirements, are in place with subrecipients and periodic meetings with subrecipients are held, however, formal monitoring of subrecipient compliance including evaluation of subrecipient risk and review of subrecipient's Uniform Guidance audit was not completed. During fiscal year 2022, management identified 3 grants with subrecipients with total subrecipient expenditures of \$714,063.

PwC Recommendation: We recommend that management put in place a process to ensure that subrecipients are monitored. This should include implementation of a formal process to evaluate subrecipient risk of non-compliance as well as review of subrecipients Uniform Guidance Audits to assess compliance.



Schedule of Findings and questioned costs

Year ended March 31, 2022

2022-003 Documentation of Certain Procurement Transactions (Significant Deficiency in aggregation)

Cluster / program name: Research & Development Cluster

Assistance Listing Number: 93.286, 12.RD, 93.847

Assistance Listing titles: Discovery and Applied Research for Technological Innovations to Improve Human Health, US Department of Defense Project, Diabetes, Digestive, and Kidney Diseases Extramural Research.

Federal Agency: National Institute of Health, US Department of Defense

Award Numbers: 1UG3EB024965, W81XWH1920048, 1U01DK120447-01, W81XWH2010875

Award Year: April 1, 2021 - March 31, 2022

Pass-through entities: Sloan Kettering Institute for Cancer Research

Criteria or Specific Requirement: 2 CFR 200.320 requires organizations to use one of the following methods of procurement: micro-purchases, small purchase procedures, sealed bids, competitive proposals or in certain circumstances noncompetitive proposals. The current micro-purchase threshold is \$3,500, however, if documented in an organization's internal procurement policies, the threshold can be increased to \$10,000. Small purchase procedures apply to transactions greater than the micro-purchase threshold, but less than the simplified acquisition threshold (\$250,000) and require price or rate quotations to be obtained from an adequate number of qualified sources.

Condition Found and Context: Through review of the University's policies and procedures, they did not comply with the Uniform Guidance procurement standards as they did not have a stated micro-purchase threshold. Instead, the University has a process in place whereby purchases up to \$75,000 CAD (\$59,000 USD) require a minimum of one quote. We concluded that for the purchases between the micro-purchase threshold that the University could have adopted (\$10,000 USD) and the established \$59,000 USD threshold (excluding purchases from vendors that are not documented as a sole source vendor and are not on the University's preferred vendor list) management's process is currently not compliant with the Uniform Guidance requirements. For the year ended March 31, 2022 we identified 11 procurement transactions in the GL that were between the range of \$10,000 to \$59,000 with the total value of \$321,142 for which there was not more than one quotation obtained.



Schedule of Findings and questioned costs

Year ended March 31, 2022

2022-004 Suspension and debarment

Cluster / program name: Research & Development Cluster

Assistance Listing Number: 12.RD, 93.847

Assistance Listing titles: US Department of Defense Project, Diabetes, Digestive, and Kidney Diseases

Extramural Research,

Federal Agency: National Institute of Health, US Department of Defense

Award Numbers: 1UG3EB024965, W81XWH1920048, 1U01DK120447-01, W81XWH2010875

Award Year: April 1, 2021 - March 31, 2022

Pass-through entities: National Institute of Health, US Department of Defense

Criteria or Specific Requirement: 2 CFR 200.214 and 2 CFR part 180 indicate that non-Federal entities are prohibited from contracting with or making subawards under covered transactions to parties that are suspended or debarred. When a non-Federal entity enters into a covered transaction with an entity at a lower tier, the non-Federal entity must verify that the entity is not suspended or debarred or otherwise excluded from participating in the transaction. "Covered transactions" include those procurement contracts for goods and services awarded under a non-procurement transaction that are expected to equal or exceed \$25,000 USD or meet certain other criteria specified in the guidance. All non-procurement transactions entered into by a recipient, irrespective of award amount, are considered covered transactions, unless they are exempt. This verification may be accomplished by checking the Excluded Parties List System/System for Award Management (EPLS/SAM), collecting a certification from the entity, or adding a clause or condition to the covered transaction with that entity (2 CFR section 180.300).

Condition Found and Context: For the year ended March 31, 2022 we identified four procurement transactions, totaling \$234,458 USD, which were in excess of the \$25,000 USD requirement. Through review of the University's policies and procedures, we noted that management does not assess whether potential vendors are suspended or debarred before initiating a transaction and thus no documentation of suspension and debarment checks was available for the four transactions noted above. Further, management does not have a process in place to periodically re-assess this status with existing vendors.



Summary Schedule of Prior Audit Findings and Status

Year Ended March 31, 2022

2021-001 Subrecipient Monitoring

Cluster / program name: Research & Development Cluster

Assistance Listing Number: 93.847, 93.853, 93.855

Assistance Listing titles: Diabetes, Digestive, and Kidney Diseases Extramural Research, Extramural

Research

Programs in the Neurosciences and Neurological Disorders, Allergy and Infectious Diseases Research

Federal Agency: Department of Health & Human Services - National Institutes of Health (NIH)

Award Numbers: 1U01DK120447-01, 2R01NS047567-06A2, 1R01AI150944-01

Award Year: April 1, 2021 - March 31, 2022

Pass-through entities: National Institute of Health, US Department of Defense

Criteria or Specific Requirement: 2 CFR 200.332 of the Uniform Guidance contains the requirements for organizations that pass-through funds to other entities. According to the guidance, pass-through entities must (among other items):

- Evaluate the subrecipient's risk of non-compliance with the requirements of the award and the federal statutes/regulations for the purpose of determining the appropriate subrecipient monitoring.
- Monitor the activities of the subrecipient as necessary to ensure that the subaward is used for authorized purposes, in compliance with federal statutes, regulations and the terms and conditions of the subaward and that performance goals are achieved. This must include reviewing financial and performance reports, understanding the results of the subrecipient's Uniform Guidance audit, resolving audit findings, ensuring appropriate and timely action is taken by the subrecipient, if required, etc.

Condition Found and Context: Through our audit procedures and understanding of the control environment specific to subrecipient monitoring, we noted that the University does not have policies and procedures in place specific to subrecipient monitoring. Subrecipient agreements, including acknowledgement of CFR requirements, are in place with subrecipients and periodic meetings with subrecipients are held, however, formal monitoring of subrecipient compliance including evaluation of subrecipient risk and review of subrecipient's Uniform Guidance audit was not completed. During fiscal year 2021, management identified 3 grants with subrecipients with total subrecipient expenditures of \$425,495.

PwC Recommendation: We recommend that management put in place a process to ensure that subrecipients are monitored. This should include implementation of a formal process to evaluate subrecipient risk of non-compliance as well as review of subrecipients Uniform Guidance Audits to assess compliance.

Actions taken: The prior year finding is consistent with current year finding 2022-002 Subrecipient Monitoring, see management's views and corrective actions included in the University of Alberta's Management's Views and Corrective Action Plan attached to this report.



Summary Schedule of Prior Audit Findings and Status

Year ended March 31, 2022

2021-002 Documentation of Certain Procurement Transactions (Significant Deficiency in aggregation)

Cluster / program name: Research & Development Cluster Assistance Listing Number: 93.286,93.847,93.855, 81.RD, 12.RD

Federal Agency: Department of Health & Human Services - National Institutes of Health (NIH),

Department of Energy, Department of Defense Award Year: April 1, 2021 – March 31, 2022

Pass-through entities: Sloan Kettering Inst for Cancer Research, National Institutes of Health, Lawrence

Livermore

National Security, US Department of Defense

Criteria or Specific Requirement: 2 CFR 200.320 requires organizations to use one of the following methods of procurement: micro-purchases, small purchase procedures, sealed bids, competitive proposals or in certain circumstances noncompetitive proposals. The current micro-purchase threshold is \$3,500, however, if documented in an organization's internal procurement policies, the threshold can be increased to \$10,000. Small purchase procedures apply to transactions greater than the micro-purchase threshold, but less than the simplified acquisition threshold (\$250,000) and require price or rate quotations to be obtained from an adequate number of qualified sources.

Condition Found and Context: Through review of the University's policies and procedures, they did not comply with the Uniform Guidance procurement standards as they did not have a stated micro-purchase threshold. Instead, the University has a process in place whereby purchases up to \$75,000 CAD (\$59,000 USD) require a minimum of one quote. We concluded that for the purchases between the micro-purchase threshold that the University could have adopted (\$10,000 USD) and the established \$59,000 USD threshold (excluding purchases from vendors that are not documented as a sole source vendor and are not on the University's preferred vendor list) management's process is currently not compliant with the Uniform Guidance requirements. For the year ended March 31, 2021 we identified 10 procurement transactions in the GL that were between the range of \$10,000 to \$59,000 with the total value of \$350,000 for which there was not more than one quotation obtained.

Actions taken: The prior year finding is consistent with current year finding 2022-003 Documentation of Certain Procurement Transactions, see management's views and corrective actions included in the University of Alberta's Management's Views and Corrective Action Plan attached to this report.



Summary Schedule of Prior Audit Findings and Status

Year ended March 31, 2022

2021-003 Suspension and debarment

Cluster / program name: Research & Development Cluster

Assistance Listing Number: 93.286, 12.RD as presented in the Schedule of Expenditures of Federal Awards

Federal Agency: Department of Health & Human Services - National Institutes of Health (NIH), Department of Defense, as presented in the Schedule of Expenditures of Federal Awards Award Year. April 1, 2021 – March 31, 2022

Pass-through entities: Sloan Kettering Inst for Cancer Research, US Department of Defense, as presented in the Schedule of Expenditures of Federal Awards

Criteria or Specific Requirement:

2 CFR 200.214 and 2 CFR part 180 indicate that non-Federal entities are prohibited from contracting with or making subawards under covered transactions to parties that are suspended or debarred. When a non-Federal entity enters into a covered transaction with an entity at a lower tier, the non-Federal entity must verify that the entity is not suspended or debarred or otherwise excluded from participating in the transaction. "Covered transactions" include those procurement contracts for goods and services awarded under a non-procurement transaction that are expected to equal or exceed \$25,000 USD or meet certain other criteria specified in the guidance. All non-procurement transactions entered into by a recipient, irrespective of award amount, are considered covered transactions, unless they are exempt. This verification may be accomplished by checking the Excluded Parties List System/System for Award Management (EPLS/SAM), collecting a certification from the entity, or adding a clause or condition to the covered transaction with that entity (2 CFR section 180.300).

Condition Found and Context: For the year ended March 31, 2021 we identified three procurement transactions, totaling \$152,834 USD, which were in excess of the \$25,000 USD requirement. Through review of the University's policies and procedures, we noted that management does not assess whether potential vendors are suspended or debarred before initiating a transaction and thus no documentation of suspension and debarment checks was available for the 3 transactions noted above. Further, management does not have a process in place to periodically re-assess this status with existing vendors.

Actions taken: The prior year finding is consistent with current year finding 2022-004 Suspension and Debarment, see management's views and corrective actions included in the University of Alberta's Management's Views and Corrective Action Plan attached to this report.



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University of Alberta's Management's Views and Corrective Action Plan

2022-001 Timeliness of Filing

Contact: Michael Walesiak

Corrective Action:

Management agrees with the recommendation. We will coordinate with our external provider to ensure

completion

and filing within the prescribed filing period by initiating the external examination in the summer of 2023.

Anticipated Completion Date: August 31, 2023

2022-002 Subrecipient Monitoring and 2021-001 Subrecipient Monitoring

Contact: Michael Walesiak

Corrective Action:

Management agrees with the recommendation. We will begin performing the following procedures on an annual basis:

- We will request subrecipients complete the newly created "Request for U.S. Subrecipient Institutional Information".
- 2. We will access subrecipients' Uniform Guidance reports when available and review to determine if there are any unacceptable risks based on findings disclosed in those reports.
- We will ensure appropriate agreements are in place with all applicable terms and conditions before any
 payments are issued to sub recipients. On an annual basis, we will confirm that agreements are in place
 for any subrecipients receiving a payment.

Michael Walesiak is responsible for implementing this recommendation.

Anticipated Completion Date: We expect to have all responses by August 31, 2023

2022-003 Documentation of Certain Procurement Transactions and 2021-002 Documentation of Certain Procurement Transactions

Contact: Michael Walesiak

Corrective Action:

Management agrees with the recommendation. To comply with the Uniform Guidance, management implemented a micropurchase-threshold of \$10,000 USD for U.S. federally funded purchases, so that purchases over this threshold require two quotes, excluding purchases made from vendors on the preferred vendor list. Evidence of the quotes will be attached to the purchase requisition. Management has updated the procurement policy to note the micropurchase- threshold.

Completion Date: Completed



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2022-004 Suspension and Debarment and 2021-003 Suspension and Debarment

Contact: Michael Walesiak

Corrective Action:

Management agrees with the recommendation. Management has updated internal procedures to monitor for purchases related to U.S. federally funded projects from entities included in the Excluded Parties List System/System for Award Management (EPLS/SAM). Educational efforts will be undertaken to ensure award recipients are aware of the prohibition on using US Federal Awards to purchase goods or services from suspended or debarred entities and we will ensure that US Federal funds are not used for such purchases. Corrective action will be taken on any non-compliant purchases. Michael Walesiak is responsible for this recommendation.

Completion Date: August 31, 2023