



RESEARCH EXCELLENCE

GOAL 1: INCREASE THE QUALITY AND IMPACT OF UBC'S RESEARCH AND SCHOLARSHIP

Objective: Excellence in Research and Scholarship

Purpose:

UBC is a leading research-intensive university and continues to support the critical and creative thinking that has fostered our capacity to innovate within and beyond academia. We continue to strive for excellence in all aspects of our research activity. The combination of research funding (inputs), scholarly production and bibliometrics (outputs), provide us with a set of metrics comparable to other institutions within Canada and globally, to benchmark our performance as a research-intensive university.

Definition:

Total Annual Research Funding:

To measure the total value of all research funding at UBC. In combination with other metrics in Goal 1, total annual research funding provides evidence of the level of funded research activity at UBC.

- Total research funding data are extracted from the RISE database.
- Total research funding is from all sources and includes international funding.
- Total research funding is the amount of funding per fiscal year. Grants awarded over a multi-year period are allocated in RISE into annual funding amounts.

Total annual Tri-Council (TC) funding, including national TC success rates and overall market share:

Measures the total annual value of TC research funding at UBC. In combination with other metrics in Goal 1, annual Tri-Council funding (seen as gold standard of research quality in Canada), national TC (SSHRC IG, NSERC DG) success rates and market share provide evidence of the quality and competitiveness of research activity at UBC.

Field-Normalized Citation Impact:

This metric measures the utilization by peers of UBC research publications, through field normalized citation impact factors. This measure, along with other bibliometric data, forms a proxy for the quality and impact of the outputs of research and scholarship at UBC. The metric allows us to compare research quality with peer institutions around the globe. This metric was selected to provide additional evidence to existing research funding metrics, to form a more complete indicator of the quality and impact of the research outputs and scholarship at UBC. SciVal is the bibliometric tool used at UBC to source this publication metric.

High Quality Publications:

This metric measures the percentage of UBC journal publications published in top quality (top 25%) journals. Along with other research metrics, this forms a proxy for the quality and impact of the outputs of research and scholarship at UBC. This metric was selected to provide additional evidence to existing research funding metrics, to form a more complete indicator of the quality and impact of the research outputs and scholarship at UBC. SciVal is the bibliometric tool used at UBC to source this publication metric.

Overall Metrics: (Fiscal Cycle 2014-15)

	UBC -Okanagan			UBC – Vancouver			Combined		
	2012/13	2013/14	2014/15	2012/13	2013/14	2014/15	2012/13	2013/14	2014/15
Total Annual Research Funding (\$M)	\$14.47	\$18.16	\$11.48	\$505.14	\$546.12	\$519.15	\$519.61	\$564.28	\$530.63
Total Tri-Council Funding: (\$M)	4.44	4.56	4.8	189.84	195.55	188.73	194.28	200.11	193.53
National Success rate*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Market Share**	N/A	N/A	N/A	N/A	N/A	N/A	9.4%	9.5%	TBA
Field Normalized Citation Impact	N/A	N/A	N/A	N/A	N/A	N/A	1.79	1.82	1.9
% High Quality Publications	N/A	N/A	N/A	N/A	N/A	N/A	64.29	65.86	TBA

*Note: National success rates for the Tri-Council is only available on a program by program basis, and would require multiple listing in this summary table. That detail is included in the attached supplemental visuals, and in mid-level reporting completed by the VP Research & International, and the Office of Research Services – SPARC team.

**Note: Market Share figures are based on an analysis of UBC's share of Funding Directly from Tri-Council Agencies - utilizes publicly-available data taken directly from the Tri-Council agencies' online award search engines.

Note: N/A = Data Not Available. TBA = To Be Announced

Explanation of the Results and Next Steps

Total Annual Research Funding: The research funding totals for 2014-15 fiscal cycle are representative of the cyclical nature of research funding programs, federally, provincially and internationally, as well as evidence of changes to the research funding environment. In retrospect, fiscal 2013-14 was a record research funding year for UBC, and the current fiscal cycle is still maintaining UBC's research funding well ahead of the two prior fiscal cycles of 2011-12 and 2012-13.

Despite a 5.9% drop in research funding overall, UBC witnessed significant increases in both industry and provincial funding, at 19 and 30 percent respectively. Federal funding decreased primarily due to major projects being at the end-stages of a significant funding influx from Western Economic Diversification (WED), Department of Foreign Affairs, Trade and Development (DFATD, formerly the Canadian International Development Agency (CIDA)), NCE Networks, and program changes in the Tri-Councils.

Non-US Industry funding showed strong increases and were balanced out by decreases in US Granting Agencies and Foreign Foundations. A strong US dollar did lead to a currency exchange gain for US dollar awards but even with this growth was solid in FY15. International funding, US and other Foreign, decreased by 5.7% compared to FY14.

It is expected that the incoming Canada Excellence Research Chairs (CERC) and the inaugural Canada First Research Excellence Fund (CFREF) competitions, will have a strong impact on UBC's research funding totals in FY16, reinforcing an upwardly trending 'wave-like' pattern in research funding at UBC.

Next Steps: Increased support for engagement of foreign sponsors in research at UBC and international collaborations is helping to diversify the traditional sponsor funding composition.

Provincial funding in general is increasing and a focus on increasing Genome BC funding would be productive.

Retain a focus on international research engagement and opportunities, and explore further opportunities in FY16. The National Science Foundation funded collaborations are now easier to engage in and worth exploring.

Tri-Council funding success through increased resourcing of the SPARC facilitation office and its coordinated efforts with faculty grants facilitators is already showing promise with higher success rates in several major competitions. These numbers are expected to be reflected in the FY16 year-end.

Total Annual Tri-Council Funding, Success Rates and Market Share:

Until the March 2015 OOG results are available in mid-July, here is a summary of the previous competition's results.

In the past 10 OOG cycles (since September 2009), in terms of both total funding and number of awards, UBC has ranked 3rd six times and 4th three times, with one 2nd-place ranking in the March 2014 competition. Specifically, in March 2014, UBC received one more award and ~\$3.5M more than McGill to move into 2nd place behind U of T. In fact, for the past 3 OOG competitions, UBC has consistently increased its funding dollars and awards received, while the performance of most other major universities has been plateauing or declining.

Until the 2014 Foundation final (Stage 3) competition results are announced in mid-July, here is a summary of the Stage 1 and Stage 2 interim results. In comparison to the national numbers, UBC performed above average at Stage 1, in terms of % of applications invited forward (48% vs. 34%) and on par with the national average at Stage 2 (~45%).

In 2013/14, UBC placed 2nd in the number of awards and total funding, behind the U. of Toronto. In 2014/15, UBC was 6th in total CHRP funding and tied for 6th for the number of awards. Over the past 3 years of competition, U. of Toronto received 25 awards, UBC 14, McGill 9, U. de Montréal 6 and U. of Alberta 5.

SPARC provided a full platform of services for the CHRP competition in 2012/13. However, minimal services were provided for the 2013/14 and 2014/15 competitions due to a redirection of resources towards other programs.

Next Steps:

There is no recommended action for the OOG because March 2015 was the final competition.

At this point in time, there is no institutional baseline against which to compare UBC's 2014 Foundation results. Therefore, the primary recommended action is to learn as much as possible about the outcomes of the inaugural 2014 competition (i.e., the new peer review process and corresponding adjudication criteria), by analyzing the applications and review packages of successful and unsuccessful Stage 1, 2 and 3 applicants, to enhance support for UBC's 2015 applicants.

2015 preparations include the updating of existing resources (e.g., workshops, application templates, Internal Review, Editorial Review) and the development of new ones (e.g., applicant profiles, best practices, sample grants).

A CIHR Research Development Officer position has been advertised and is expected to be filled in late Summer 2015. This new hire will enhance SPARC's capabilities in providing support to CIHR's new

Project Scheme competition. Assuming the CHRP Program continues to run, additional resources will be needed to enable SPARC to provide support for CIHR Strategic programs, such as CHRP.

Institutional Field-Weighted Citation Impact: The continued stability of the institution's citation impact indicates a continued and sustainable practice of high-quality research publication production, based on top-quality research outputs.

Next Steps: Continue monitoring these results to ensure high standards of research excellence are maintained and supported at UBC.

Percentage of total publication in the top 25% quality journals: Data for 2015 has yet to be published by SciVal. These numbers will be updated when published.

Next Steps: As above.

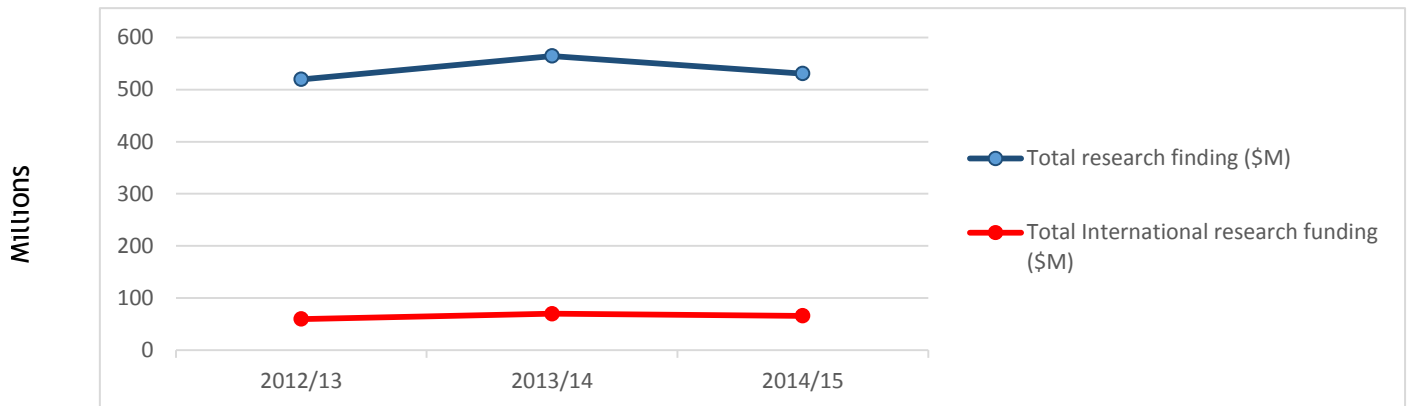
Supplementary Visuals

RESEARCH EXCELLENCE - Total and international research funding *

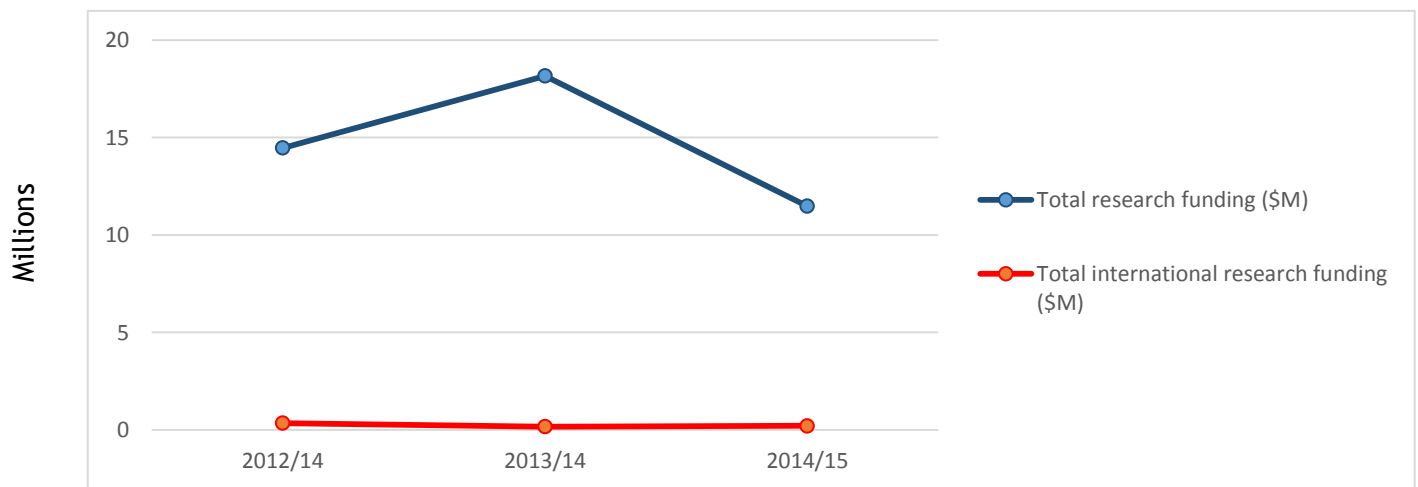
* Data obtained from RISE

	UBC - Okanagan			UBC - Vancouver and Okanagan		
	2012/14	2013/14	2014/15	2012/13	2013/14	2014/15
Total research funding (\$M)	14.47	18.16	11.48	519.61	564.28	530.63
Total international research funding (\$M)	0.35	0.17	.21	59.75	70.01	66.01

UBC - Vancouver and Okanagan Total and International Research Funding



UBC - Okanagan Total and International Research Funding



Description

- Total research funding is from all sources and includes international.
- Total international research funding includes all sources external to Canada.
- Total research funding is the amount of funding per fiscal year. Grants awarded over a multi-year period are allocated in RISE into annual funding amounts.

Total Annual Research Funding:

Total Annual Tri-Council Funding, Success Rates and Market Share:

RESEARCH EXCELLENCE - Success rate and funding amount in Tri-Council Operating Grant competitions

(All data are compiled as for Application Dates per fiscal year (April 1st - March 31st)).*

* The below data are the total grant funds awarded over the full award period.

UBC Vancouver + Okanagan

	2012-2013 UBC-V+O						2013-2014 UBC-V+O						2014-2015 UBC-V+O					
	UBC Total Submitted	UBC Total Awarded	UBC Success Rates (%)	National Success Rates (%)	UBC Total Amount Funded (M\$)	UBC Market Share (%)	UBC Total Submitted	UBC Total Awarded	UBC Success Rates (%)	National Success Rates (%)	UBC Total Amount Funded (M\$)	UBC Market Share (%)	UBC Total Submitted	UBC Total Awarded	UBC Success Rates (%)	National Success Rates (%)	UBC Total Amount Funded (M\$)	UBC Market Share (%)
CIHR OOG (Sep.)	223	49	22%	17%	27.9	12%	255	42	17%	16%	23.6	10%	n/a	n/a	n/a	n/a	n/a	n/a
CIHR OOG (Mar.)	202	32	16%	18%	18.7	8%	293	44	15%	14%	29.1	12%	TBA	TBA	TBA	TBA	TBA	TBA
CIHR Fdn	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	TBA	TBA	TBA	TBA	TBA	TBA
NSERC DG^	196	146	75%	N/A	28.4	9%	179	131	73%	N/A	21.5	7%	168	128	76%	N/A	22.6	TBA
SSHRC IG	169	44	26%	21%	7.4	9%	155	55	36%	23%	10.5	11%	113	34	30%	23%	5.4	7%
SSHRC IDG	41	15	37%	29%	0.889	5%	57	19	34%	25%	1.2	7%	74	TBA	TBA	TBA	TBA	TBA

^ Discovery Grants Program - Individual and Group

UBC Okanagan

	2012-2013 UBC-O				2013-2014 UBC-O				2014-2015 UBC-O			
	Total Submitted UBC-O	Total Awarded UBC-O	UBC-O Success Rates (%)	Total Amount Funded UBC-O (\$M)	Total Submitted UBC-O	Total Awarded UBC-O	UBC-O Success Rates (%)	Total Amount Funded UBC-O (\$M)	Total Submitted UBC-O	Total Awarded UBC-O	UBC-O Success Rates (%)	Total Amount Funded UBC-O (\$M)
CIHR OOG (Sep.)	5	0	0%	0	7	1	14%	0.3	n/a	n/a	n/a	n/a
CIHR OOG (Mar.)	2	0	0%	0	2	0	0%	0.0	TBA	TBA	TBA	TBA
CIHR Fdn	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	TBA	TBA	TBA	TBA
NSERC DG	33	19	58%	2.2	22	14	64%	1.6	28	17	61%	2.395
SSHRC IG	15	2	13%	0.172	15	3	20%	0.951	9	1	11%	0.294
SSHRC IDG	14	6	43%	0.149	13	4	31%	0.271	22	TBA	TBA	TBA

Competitions	Full Names	Application Dates	Results Announcement
CIHR OOG (Sep.)	Open Operating Grant	September	n/a - this competition ended in Sep. 2013
CIHR OOG (Mar.)	Open Operating Grant	March	Late June same year; note: March 2015 was the final competition
CIHR Fdn	Foundation Scheme	Sep. (Stage 1); Feb. (Stage 2)	Mid-July following year
NSERC DG	Discovery Grants Individual	November	UBC results - April following year; Canada-wide results - Fall following year
SSHRC IG	Insight Grant	October	UBC results - April following year; Canada-wide results - Winter following year

UBC Vancouver + Okanagan: Total of Tri-Council Operating Grant Funding

Tri-Council Operating Grant - Funding Summary	2012-2013 UBC-V+O			2013-2014 UBC-V+O			2014-2015 UBC-V+O		
	UBC Market Share (%)	Total UBC Funding (\$M)	National Ranking	UBC Market Share (%)	Total UBC Funding (\$M)	National Ranking	UBC Market Share (%)	Total UBC Funding (\$M)	National Ranking
CIHR OOG (Sep. + Mar.) + Fdn	10%	46.602	Sep. - 3 Mar. - 4	11%	52.667	Sep. - 3 Mar. - 2	TBD	TBD	Sep. - n/a Mar. = TBD Fdn = TBD
NSERC DG	9%	28.389	1	7%	21.464	2	TBA	22.550	TBA
SSHRC IG	8%	7.479	2	11%	10.5	1	7%	5.4	TBA
Total		82.470			84.117				

NOTE: N/A = not available; n/a = not applicable; TBA = National results to be announced by the funding council; TBD = To be determined

RESEARCH EXCELLENCE - Success rate and funding amount in Tri-Council Multi-Participant grant competitions^{1,2}

NOTES:

1. All data are compiled as for Application Dates per fiscal year (April 1st - March 31st).
2. CIHR holds numerous multi-participant grant competitions every year and the majority are ad hoc. However, the Collaborative Health Research Projects competition, funded by CIHR and NSERC, is an annual competition.

	2012-2013 UBC-V+O						2013-2014 UBC-V+O						2014-2015 UBC-V+O					
	UBC Total Submitted	UBC Total Awarded	UBC Success Rates (%)	National Success Rates (%)	UBC Total Amount Funded (\$M)	UBC Market Share (%)	UBC Total Submitted	UBC Total Awarded	UBC Success Rates (%)	National Success Rates (%)	UBC Total Amount Funded (\$M)	UBC Market Share (%)	UBC Total Submitted	UBC Total Awarded	UBC Success Rates (%)	National Success Rates (%)	UBC Total Amount Funded (\$M)	UBC Market Share (%)
CIHR/NSERC CHRP [^]	16	8	50%	31%	4.082	19%	19	4	21%	29%	1.921	9.5%	10	2	20%	TBA	1.313	TBA
NSERC CREATE [^]	3	1	33%	N/A	1.650	7%	4	2	50%	N/A	3.300	13%	4	2	50%	N/A	3.300	12%
NSERC SPG [*]	29	12	41%	26%	5.287	15%	24	9	38%	24%	4.265	12%	22	4	18%	26%	2.215	6%
SSHRC PDG	13	4	31%	37%	0.792	7%	11	5	45%	37%	0.978	9%	4	1	25%	40%	0.196	TBA
SSHRC PG [^]	8	1	13%	20%	2.503	5%	7	1	14%	17%	2.500	6%	7	2	29%	12%	4.6	TBA

[^]CIHR/NSERC CHRP, NSERC CREATE and SSHRC PG - final (Phase 2) results reported only

^{*}NSERC SPG -Source: NSERC website and emails to UBC

	2012-2013 UBC-O				2013-2014 UBC-O				2014-2015 UBC-O			
	Total Submitted UBC-O	Total Awarded UBC-O	UBC-O Success Rates (%)	Total Amount Funded UBC-O (\$M)	Total Submitted UBC-O	Total Awarded UBC-O	UBC-O Success Rates (%)	Total Amount Funded UBC-O (\$M)	Total Submitted UBC-O	Total Awarded UBC-O	UBC-O Success Rates (%)	Total Amount Funded UBC-O (\$M)
CIHR/NSERC CHRP	None submitted				None submitted				None submitted			
NSERC CREATE	None submitted				None submitted				None submitted			
NSERC SPG	4	0	0%	0	0	0	0%	0	4	0	0%	0
SSHRC PDG	3	0	0%	0	3	1	33%	0.198	None Submitted			
SSHRC PG	None submitted				None submitted				None Submitted			

NOTE: "Total Amount Funded" values represent the total grant funds awarded over the full award period.

Competition	Full name	Application Date	Results Announcement
CIHR/NSERC CHRP	Collaborative Health Research Projects	October (Phase 2)	March-May following year
NSERC SPG	Strategic Project Grant	April	February following year
NSERC CREATE	Collaborative Research And Training Experience	September (Phase 2)	Mid-Spring following year
SSHRC PDG	Partnership Development Grants	November	Late Spring following year
SSHRC PG	Partnership Grants	October (Phase 2)	Late Spring following year

NOTE: N/A = Not Available
TBA = To be announced

Institutional Field-Normalized Citation Impact:

Institution	Overall	2013	2014	2015
Harvard University	2.38	2.38	2.38	2.39
Stanford University	2.37	2.33	2.37	2.41
Massachusetts Institute of Technology	2.35	2.38	2.28	2.4
University of Oxford	2.21	2.22	2.2	2.22
University College London	2.00	1.99	2.01	2.01
University of Cambridge	2.04	2.02	1.99	2.1
University of Toronto	1.87	1.9	1.85	1.87
University of British Columbia	1.84	1.79	1.82	1.9
McGill University	1.74	1.76	1.67	1.78
University of Alberta	1.53	1.51	1.5	1.57
Université de Montréal	1.57	1.64	1.31	1.75

Data set: Field-Weighted Citation Impact by year; The definition is: Field-Weighted Citation Impact is the ratio of the citations actually received by the denominator's output, and the average number of citations received by all other similar publications ([Source](#), Snowball Metrics recipe Book, p. 75); Year range: 2012 to 2015. Data source: Scopus. Date last updated: 05-May-15; © 2015 Elsevier B.V. All rights reserved. SciVal® reg. trademark of Elsevier Properties S.A., used under license.

Percentage of Total Publication in the Top 25% Quality Journals:

Institution	2012	2013	2014	2015
Harvard University	78.88	78.93	79.82	TBA
University College London	70.41	71.28	73.02	TBA
Stanford University	70.72	71.17	72.79	TBA
University of Oxford	71.11	71.28	72.66	TBA
University of Cambridge	68.24	69.01	70.5	TBA
University of Toronto	65.55	66.12	67.35	TBA
Massachusetts Institute of Technology	65.81	65.95	67.09	TBA
McGill University	65.67	65.64	66.94	TBA
Université de Montréal	64.5	65.01	66.07	TBA
The University of British Columbia	64.04	64.29	65.86	TBA
University of Alberta	60.26	61.2	62.66	TBA

<http://www.scimagoir.com/research.php?rankingtype=research&indicator=Q1§or=Higher%20educ.&country=CAN&display=table&page=2&year=2008>

As per SCImago Website Methodology: **High Quality Publications:** Ratio of publications that an institution publishes in the most influential scholarly journals of the world, those ranked in the first quartile (25%) in their categories as ordered by SCImago Journal Rank (SJRI) indicator (Miguel, Chinchilla-Rodríguez and Moya-Anegón, 2011). This is a size-independent indicator. (<http://www.scimagoir.com/methodology.php>)