



Provided by the author(s) and University College Dublin Library in accordance with publisher policies. Please cite the published version when available.

Title	Preliminary Results and Publication Impact of a Dedicated Addiction Clinician Scientist Research Fellowship
Authors(s)	Klimas, Jan; Fernandes, Elaine; deBeck, Kora; Cullen, Walter; et al.
Publication date	2017-02
Publication information	Journal of Addiction Medicine, 11 (1): 80-81
Publisher	Lippincott, Williams and Wilkins
Item record/more information	http://hdl.handle.net/10197/8429
Publisher's statement	This is not the final published version.
Publisher's version (DOI)	10.1097/ADM.0000000000000270

Downloaded 2020-09-20T17:37:05Z

The UCD community has made this article openly available. Please share how this access benefits you. Your story matters! (@ucd_oa)



Some rights reserved. For more information, please see the item record link above.



Manuscript Information

Journal name: Journal of addiction medicine
NIHMS ID: NIHMS820285
Manuscript Title: Preliminary Results and Publication Impact of a Dedicated Addiction Clinician
Scientist Research Fellowship
Submitter: Lippincott, Williams And Wilkins (EditorialSolutions@lww.com)

Manuscript Files

Type	Fig/Table #	Filename	Size	Uploaded
manuscript	Manuscript	NEAR_paper1_draft9.docx	61790	2016-09-30 06:02:03

This PDF receipt will only be used as the basis for generating PubMed Central (PMC) documents. PMC documents will be made available for review after conversion. Any corrections that need to be made will be done at that time. No materials will be released to PMC without the approval of an author. Only the PMC documents will appear on PubMed Central -- this PDF Receipt will not appear on PubMed Central.

Brief Research Letter

Preliminary Results and Publication Impact of a Dedicated Addiction Clinician Scientist Research Fellowship

Jan Klimas^{1,3,4}, Elaine Fernandes¹, Kora deBeck^{1,3}, Kanna Hayashi^{1,2,3}, M-J Milloy^{1,2,3}, Thomas Kerr^{1,2,3}, Walter Cullen⁴, Evan Wood^{1,3}

1. British Columbia Centre for Excellence in HIV/AIDS, St. Paul's Hospital, 608-1081 Burrard Street, Vancouver, BC, CANADA, V6Z 1Y6
2. School of Population and Public Health, University of British Columbia, 5804 Fairview Avenue, Vancouver, BC, CANADA, V6T 1Z3
3. Department of Medicine, University of British Columbia, St. Paul's Hospital, 608-1081 Burrard Street, Vancouver, BC, CANADA, V6Z 1Y6
4. School of Medicine, University College Dublin, Belfield, Dublin 8, Ireland

Send correspondence to:

Jan Klimas, MSc, PhD
Associate Fellowship Director
Canada Addiction Medicine Research Fellowship
B.C. Centre for Excellence in HIV/AIDS
University of British Columbia
St. Paul's Hospital
608-1081 Burrard Street, Vancouver, B.C., V6Z 1Y6
Canada
Tel: 604-685-6355
Fax: (604) 806-9044
Email: jan.klimas@ucd.ie

Word Count: 491
Tables: 1
Revised: 15 Sept 2016

Preliminary Results and Publication Impact of a Dedicated Addiction Clinician Scientist Research Fellowship

Clinician-scientists serve to bridge the gap between addiction research and clinical practice but cultivating clinician-scientists, who are able to develop and publish clinical research, remains a challenge (Einhorn, 2006; Hauser, et al., 2006; Roberts, et al., 2012; Wilson-Kovacs, et al., 2012). Therefore, we describe the design and first-year data from a controlled, non-randomized comparison trial that prospectively evaluates how a dedicated research-training program for addiction medicine physicians contributed to subsequent research involvement and research productivity.

In order to evaluate our Canadian research-training fellowship, funded by the U.S. National Institute on Drug Abuse (NIDA), we compared accepted fellows with non-admitted controls, based on baseline questionnaire and rate of peer-reviewed publication (Wood, et al., 2013). The study sample was drawn from those physicians who applied to the part-time, one-year addiction research immersion-training program. Of the eight top-ranked individuals from the 11 applicants, four were selected to participate in the training program and another four were designated to serve as a comparison group. Participants' publication rates were followed via biomedical databases (e.g., PubMed, EMBASE) after applying to the program. The main outcome measure was the number of first-author publications at the end of the one-year fellowship.

The addiction research immersion training program consisted of three half-days per week of addiction research training, two half-days per week of longitudinal research methods training, and three half-days per week of mentored publication and grant development. The control group continued in their usual clinical practice. Participants were not compensated for their time. The

Providence Health Care/University of British Columbia Behavioural Research Ethics Board (PHC/UBC REB) has approved this study (Certificate no. H14-00244).

At baseline (N=8, five women), six participants reported any past research involvement, three had one or more advanced graduate degrees (e.g., MPH, PhD) and four had published peer-reviewed publications as a first author (total of six). They were internal medicine physicians (one), family physicians (five), psychiatrists (one) and one public health physician. At the end of the one-year fellowship, the four fellows published seven papers and the controls published one paper; however, this difference was not statistically significant due to the small sample size (Table 1).

These preliminary results suggest that a structured clinical research-training program could lead to an increased rate of publications, as indicated by previous, non-experimental research (Alford, et al., 2009; Truncali, et al., 2012; Guydish, et al., 2015). The study has a number of limitations including: a non-randomized design, small sample size and a limited follow-up interval. The fellowship cohort had more papers published as first author papers than the control group. We did not evaluate the impact of being married and possibly having family responsibilities on research productivity. Based on the first-year data, we expect that, with further prospective follow up and cohorts of fellows and controls, undertaking the research fellowship program will be independently associated with significant research outputs, signalling successful training of the next generation of addiction clinician-scientists, who can help close the gap between clinical evidence and standards of care in this area.

Acknowledgments:

We thank participants for completing the surveys and staff for assisting with fellowship administration: Deborah Graham, Peter Vann, Emily Wagner, Carmen Rock, and Tricia Collingham. The study was supported by the US National Institutes of Health (R25DA037756). This research was undertaken, in part, thanks to funding from the Canada Research Chairs program through a Tier 1 Canada Research Chair in Inner City Medicine that supports Dr. Evan Wood. ELEVATE: Irish Research Council International Career Development Fellowship – co-funded by Marie Curie Actions (ELEVATEPD/2014/6), and Marie Skłodowska-Curie Individual Fellowship (701698) – supported Dr. Jan Klimas. Dr. Kanna Hayashi is supported by the Canadian Institutes of Health Research New Investigator Award (MSH-141971). Dr. Milloy is supported in part by the National Institutes of Health (R01-DA021525) and the Michael Smith Foundation for Health Research. His institution has received unstructured funds from NG Biomed, Ltd., to support his research. Dr. Kora DeBeck is supported by a MSFHR/St. Paul's Hospital Foundation-Providence Health Care Career Scholar Award and a Canadian Institutes of Health Research New Investigator Award.

REFERENCES

1. Einhorn TA. Funding the mandate for the orthopaedic clinician scientist. *Clinical orthopaedics and related research*. 2006;449:76-80.
2. Hauser SL, McArthur JC. Saving the clinician-scientist: report of the ANA long range planning committee. *Ann Neurol*. 2006;60:278-285.
3. Roberts SF, Fischhoff MA, Sakowski SA, Feldman EL. Perspective: Transforming Science Into Medicine: How Clinician–Scientists Can Build Bridges Across Research's “Valley of Death”. *Academic Medicine*. 2012;87:266-270.
4. Wilson-Kovacs DM, Hauskeller C. The clinician-scientist: professional dynamics in clinical stem cell research. *Sociology of health & illness*. 2012;34:497-512.
5. Wood E, Sakakibara T, McIver G, McLean M. A UBC, Vancouver Coastal Health and St. Paul s Hospital Strategy for Education in Addiction Medicine. *UBC Medical Journal*. 2013;5:5-7.
6. Alford D, Bridden C, Jackson A, et al. Promoting Substance Use Education Among Generalist Physicians: An Evaluation of the Chief Resident Immersion Training (CRIT) Program. *JGIM: Journal of General Internal Medicine*. 2009;24:40-47.
7. Truncali A, Kalet AL, Gillespie C, et al. Engaging Health Professional Students in Substance Abuse Research: Development and Early Evaluation of the SARET Program. *Journal of addiction medicine*. 2012;6:196-204.
8. Guydish J, Masson C, Flentje A, Shopshire M, Sorensen JL. Scientific Writing Seminar for Early-stage Investigators in Substance Abuse Research. *Subst Abus*. 2015:0.

Table 1 Baseline and follow-up characteristics stratified by the 2014/15 program group (n = 8)

Characteristic	Value	Total N (%) 8 (100)	Fellows n (%) 4 (50)	Controls n (%) 4 (50)	p -value
Age (median, IQR)	Per year older	34 (34-41)	37.5 (29-44)	34 (30-37)	0.443
Gender	Male	3 (37.5)	2 (50)	1 (25)	1.000
	Female	5 (62.5)	2 (50)	3 (75)	
Year of medical school graduation	(median, IQR)	2009 (2002-2011)	2009 (2001-2011)	2008 (2002-2011)	0.443
Residency program	Internal Medicine	1 (12.5)	1 (25)	0 (0)	1.000
	Family Medicine	5 (62.5)	3 (75)	2 (50) ^b	1.000
	Psychiatry	1 (12.5)	0 (0)	1 (25)	1.000
	Other	1 (12.5)	0 (0)	1 (25)	1.000
Canadian Med. School	Yes	6 (75)	3 (75)	3 (75)	1.000
	No	2 (25)	1 (25)	1 (25)	
No. First-author papers [*]	n (%)	6 (100)	5 (83.3)	1 (16.7)	0.100
No. Co-author papers [*]	n (%)	14 (100)	4 (40)	10 (60)	0.443
No. Papers published under different name (e.g. maiden name) [*]	n (%)	7 (100)	0 (0)	7 (100)	0.343
Advanced grad. degree [*]	Yes	3 (37.5)	1 (25)	2 (50)	1.000
	No	5 (62.5)	3 (75)	2 (50)	
Past res. experience [*]	Yes	6 (75)	3 (75)	3 (75)	1.000
	No	2 (25)	1 (25)	1 (25)	
Total res. funding ^a	<i>Currency:</i>				
	USD\$	8,000	8,000	0	0.343
	CAD\$	1,260,211	50,000	1,210,211	0.443
No. Scholarly presentations ^a	n (%)	16 (100)	7 (43.8)	9 (56.2)	0.343
No. New first-author papers at Fellowship end ^c	n (%)	8 (100)	7 (87.5)	1 (12.5)	0.100

^a Denotes activities in the past 5 years before the date of application.

^{*} As self-reported on the date of application/informed consent, i.e. 3 May - 8 Jun 2014

^b It's actually '3' as one participant did both Family as well as Public & Preventive Medicine

^c Fellowship ends on June 30th each year.