



ACCOUNTABILITY REPORT

2015

Department of Anesthesia,
Pain Management
& Perioperative Medicine

OFFICE OF RESEARCH



**DALHOUSIE
UNIVERSITY**

Anesthesia, Pain Management and Perioperative Medicine Vision and Mission

Vision

A culture of excellence in anesthesia clinical practice and programs, research and education.

Mission

To deliver anesthesia services through up-to-date clinical care based on the latest evidence (research) and knowledge (education).

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EXECUTIVE SUMMARY

The Department of Anesthesia, Pain Management & Perioperative Medicine **2015 Research Accountability Report** includes research-related achievements with respect to established targets and goals stated in the *Research Accountability Framework*. The information in this report highlights research productivity from January to December 2015 as well as data from previous years for comparative and trending purposes.

Targets that were met, partially met, or not met in 2015 are outlined below in summary.

AREAS IN WHICH THE DEPARTMENT MET ITS TARGETS IN 2015:

- Thirty-four new research projects were initiated in 2015
- The number and value of grants and industry contract funded research are 57 and \$5.5M, respectively (**Figure 1** and **Table 1**). Sixty percent of researchers with protected time were designated as principal investigators for at least one grant or contract totaling over \$3.3M
- The proportion of collaborative projects and publications remains high at 88%
- Eighty percent of researchers are members on research related administrative committees with 73%, 47% and 27% serving on local, national and international committees, respectively
- Forty-seven percent of researchers chair research related committees with 33%, 27% and 7% serving on local, national and international committees, respectively
- Thirty-three percent of researchers perform editorial activities with 27% and 13% serving on national and international committees, respectively
- Eighty-six percent of action items from the 2015 strategic plan were successfully completed (**Table 3**) with 83% of performance targets met in 2015
- Eighty percent of researchers are at the rank of Associate Professor or higher
- The majority of researchers (97%) are satisfied/very satisfied with the services provided by Office of Research
- The total number of publications reached 111 in 2015 (**Figure 3**) with 100% of the publications peer reviewed
- There were 67 abstracts accepted in 2015 with 22% of abstracts invited to present
- The number of presentations by researchers invited to present their work included 28 local, 18 national and 20 international (**Figure 4**)
- Sixty percent of researchers were invited to present their work in 2015 as a keynote, plenary or symposium speaker (**Figure 4**)
- Two research recognition awards were conferred in 2015
- Seven media interviews were provided by researchers
- Fifty-three percent of researchers supervise learners as the primary supervisor and 20% supervise graduate students

AREAS IN WHICH THE DEPARTMENT **DID NOT MEET ITS TARGETS** IN 2015:

- Sixty percent of researchers reviewed papers in 2015, whereas the target is 80% of researchers review journal papers for submission
- Thirty-three percent of researchers reviewed funding applications in 2015, whereas the target is 80% of researchers review funding applications
- Sixty-seven percent of all researchers presented an abstract in 2015, whereas the target is 100% of researchers present an abstract annually
- Sixty percent of researchers mentor research learners, whereas the target is 100% of researchers mentor research learners

INTRODUCTION

The annual **Research Accountability Report** reports on the department's research activities in relation to predetermined targets outlined in the **Anesthesia, Pain Management & Perioperative Medicine Research Accountability Framework**. The **Research Accountability Framework** was developed by a working group of departmental researchers and administrative staff. Through it, the department attempted to structure the ongoing measurement of the value of the full scope of scholarly research activity, from engaging in the process of creativity to implementing research projects, communicating the results, and influencing clinical best practice.

The framework ties resources devoted to research to the outcomes; identifies the most appropriate indicators of research activity and productivity, our current targets, how to measure the indicators and how to report the results; and outlines an evaluation strategy.

This **Research Accountability Report (2015)** covers the time period from January to December 2015. It is the product of the *Framework's Measurement and Reporting Plan* in which key indicators and targets were identified in 2010 and revised in 2015 for subsequent measurement and reporting. The results of this report will be used in the implementation of the *Evaluation Strategy*. Consistent with the *Results Chain*, this report reflects the activity of research-oriented clinicians or other professional faculty with protected time (time funded by the department) for research.

The following outlines the 2015 research-related results for each predetermined target. It also provides a comparison to the data from previous years. This is done in graphical and table formats. Lists of currently held research grants/contracts and peer-reviewed publications are found in *Appendix B* and *C*, respectively.

Engage in process of creativity

INDICATOR: Number of new proposals that are developed into research endeavours

TARGET: At least three (3) new research projects annually

RESULT: **Thirty-four (34) new research projects are underway (funded and unfunded)**

Thirty-four new research projects began in 2015; 23 funded and 11 unfunded. Pain research including pre-clinical and clinical research studies involving pediatric and adult populations make up most of these new projects. There are several new projects that include medical device development and testing. Research studies involving the effectiveness of regional anesthesia techniques and competency-based medical education have increased from previous years.

The *2015 Anesthesia Research Day* saw sixteen research studies presented. These were generated by a variety of learners, including seven residents/fellows; seven graduate/post doc students and two undergraduate students.

Engage in the process of research

INDICATOR: Number & value (\$) of grants & industry contracts received

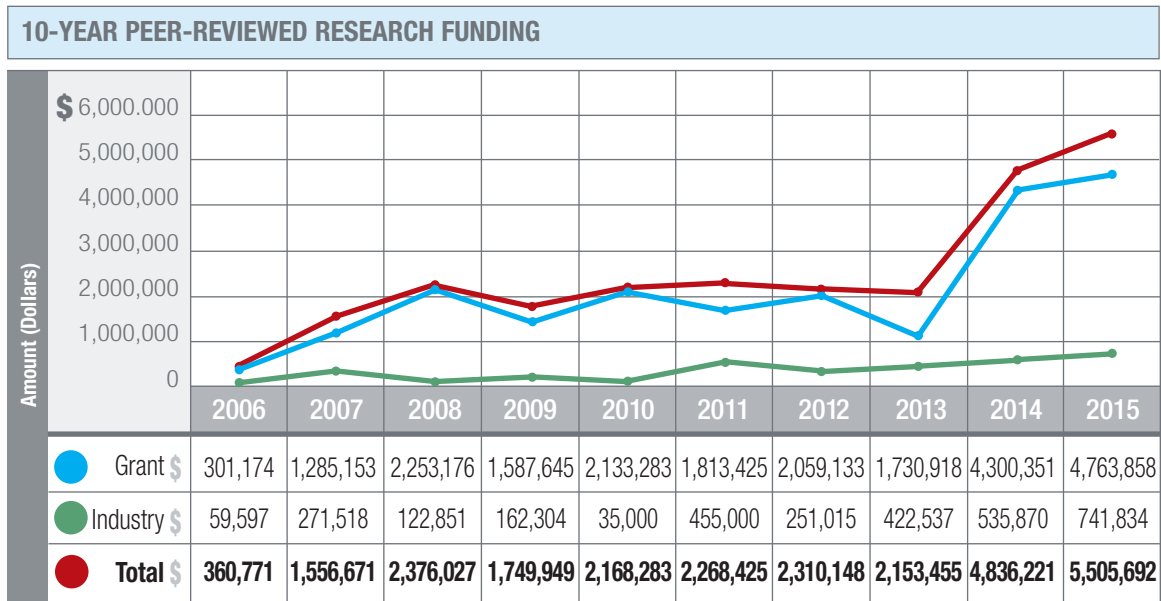
TARGET: Total external funding (\$) reflects maintenance or increase from previous year

RESULT: **57 externally funded projects totaling over \$5.5M**

Since January 2015, 57 ongoing and new grant/industry funded projects amount to over \$5.5M (**Figure 1** and **Table 1**). National and international funds make up approximately 33% of this total with 67% of funds from regional, institutional and department organizations. Major contributors to this success are the availability of protected time (**Table 2**) as well as the support provided by the Office of Research.

Grant funded research underway in the department since January 2015 includes 10 projects funded by the Canadian Institutes of Health Research (CIHR), accounting for 34% of the total funds (\$1.6M). Seven CIHR funded projects are led by department members totaling over \$1.1M. A list of the grants is found in *Appendix B*.

FIGURE 1: The amount (\$) in external research grant/industry contract funding received (2006-2015).



Note: The value of research funding each year includes revenue from all research awards generating funds in that year (for multi-year awards, the revenue is reported in the year it is budgeted). All research projects in which a department researcher is a team member are included. Also, the number of grants received reflects the number of grants and contracts generating funds that year (which may be continuing from earlier years).

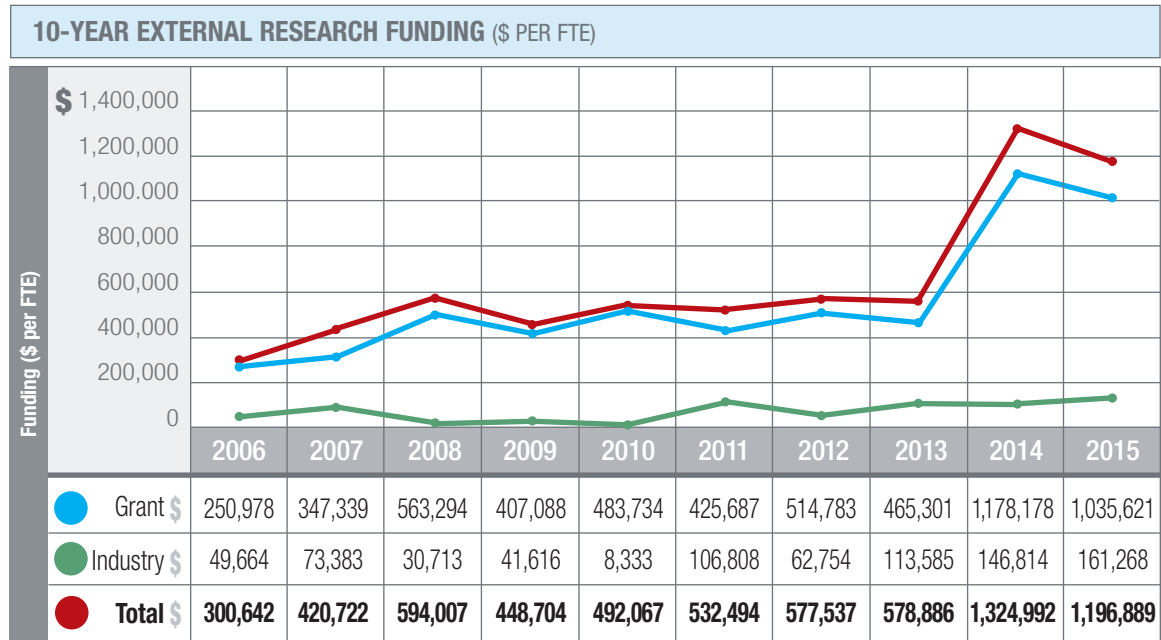
TABLE 1: Number of grants and industry contracts received (2006-2015)

10-YEAR FUNDING GRANTS & INDUSTRY CONTRACTS										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Grant	5	10	23	17	24	27	31	29	60	51
Industry	3	4	3	2	1	6	7	9	11	6
Total	8	14	26	19	25	33	38	38	71	57

TABLE 2: Protected time (FTE) for research activities (2006-2015)

FTE PROTECTED TIME OVER 10 YEARS										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Protected Time	1.5	3.8	4.2	4.2	4.2	4.26	4.0	3.7	3.7	4.6

FIGURE 2: Number of grants received relative to FTE (Table 2) of protected time for research



There was an increase in the FTE from 3.7 in 2014 to 4.6 in 2015 (Table 1). In 2015, the increase in funding dollars together with an increase in FTE resulted in a decline of the external research grant/industry funding relative to the FTE. Note that a 1.0 FTE was added to the department in August 2015.

INDICATOR: Value (\$) of grants & industry contracts received by departmental **principal investigators**

TARGET: External funding dollars obtained as **principal investigator** reflects maintenance or increase from previous year

RESULT: **\$3.3M was obtained by departmental principal investigators**

Nine of 15 researchers (60%) with protected time were designated as principal investigators for at least one grant or contract totaling over \$3.3M.

SCHOLARLY CURIOSITY (CONT'D.)

INDICATOR: Value (\$) of grants & industry contracts received by departmental **co-investigators**

TARGET: External funding obtained as a **co-investigator** reflects maintenance or increase from previous year

RESULT: **\$2.2M was obtained by departmental co-investigators**

An additional \$2.2M in external grants and contract funding was obtained by researchers with protected time designated as co-investigators.

Actively seek collaborative opportunities with interdisciplinary colleagues

INDICATOR: Number of collaborative projects and publications

TARGET: 80% of all projects and publications are collaborative

RESULT: **88% of all projects and publications are collaborative**

Of 111 publications, 106 have co-authors (95%). Of 57 funded grants and industry contracts, 41 have co-investigators (72%). Therefore, 147 out of 168 projects and publications are collaborative (88%). For collaborative projects and publications, 51% and 58% respectively include other department members.

Members of scientific and organizing committees

INDICATOR: Number of researchers who participate in research committee work

TARGET: 80% of all researchers are members of research related administrative committees: 50% local, 40% national and 10% international

RESULT: **80% of all researchers are members of research related administrative committees: 73% local, 47% national and 27% international**

Twelve of 15 researchers are members of research related administrative committees (80%).

INDICATOR: Number of researchers who chair research related committees

TARGET: 25% chair research related committees

RESULT: **47% of researchers chair research related committees**

Seven of 15 researchers were invited to chair research related committees (47%): 33% local, 27% international and 7% international.

INDICATOR: Number of researchers who review journal articles

TARGET: 80% review journal articles

RESULT: **60% of researchers review journal articles**

Nine of 15 researchers were invited to review journal manuscripts (60%).

INDICATOR: Number of researchers who review funding applications

TARGET: 80% review funding applications: 50% at the local, 40% at national level and 10% at international level

RESULT: **33% review funding applications: 7% local, 20% national and 7% international**

Five of 15 researchers were invited to review funding applications (33%).

INDICATOR: Number of researchers who perform editorial activities

TARGET: 25% perform editorial activities

RESULT: **33% of researchers perform editorial activities: 27% national and 13% international**

Five (5) of 15 researchers perform editorial activities (33%).

Engage in the administrative process

INDICATOR: Engage in planning activities to advance the research mission

TARGET: 80% of action items completed from strategic plan each year

RESULT: **86% of action items completed from the 2015 strategic plan**

TABLE 3: Action items status from the 2015 strategic plan. The strategic plan is reported based on the academic year (September 2015 to August 2015).

STATUS OF ACTIONS			
Status	# Action Items	% Acted Upon	
Completed	5	14%	86%
Ongoing (never completely done)	12	32%	
Progress underway	15	41%	
No progress	5	14%	14%
TOTAL	37		

The Office of Research updated its strategic plan on October 07, 2015. The specific strategic directions are shown in **Appendix D** and the four priority actions are identified below:

1. **Support** emerging research teams' alignment with *Patient Oriented Research* and translation to improved clinical practice.
2. **Facilitate** the changes to the infrastructure in accordance with the implementation of the combined AFP.
3. **Encourage** hiring practices of clinician scientists that are aligned with practice plan needs.
4. **Support** key strategic research initiatives: *PACT*, *PCRC* and the *Dalhousie University Pain Institute* and *Endowed Chair for Pain*.

INDICATOR: Number of performance targets achieved

TARGET: 80% of performance targets achieved

RESULT: **86% of performance targets were achieved**

Targets completed and items initiated but not completed (46%) in 2015 included developing research tools and templates for use to new researchers and research teams as well as actions associated with supporting *PACT's* growth and transition to a new chair.

INDICATOR: Number of associate and full professors

TARGET: 75% of all researchers are associate professor or higher and 60% of research related promotions are successful

RESULT: **80% of all researchers are ranked as associate professor or higher**

There are nine full, three associate and three assistant professors who receive protected time to conduct research.

INDICATOR: Researcher satisfaction with services provided by the Office of Research

TARGET: 90% researcher satisfaction with services provided by the Office of Research

RESULT: **97% researchers are satisfied/very satisfied with the services provided by the Office of Research**

Twenty-two department members completed the 2015 Office of Research Satisfaction Survey. The responses indicated that they were either satisfied or very satisfied with knowledge/skill of staff (90%), communication (98%), leadership/innovation (91%), strategic planning/organization (100%) and research meetings/events (96%) categories. For an overall satisfaction rating, 57% of the members were very satisfied and 47% reported they were satisfied with the services provided by the Office of Research.

SCHOLARLY COMMUNICATIONS

Write and publish

INDICATOR: Number of accepted and published publications (peer reviewed & non-peer reviewed)

TARGET: Trending of accepted and published peer and non-peer review papers reflects maintenance or increase from previous year

RESULT: **111 publications have been submitted and accepted**

Since January 111 publications have been submitted and accepted (**Figure 3**) with 42 peer-reviewed manuscripts published online (*Appendix C*). **Table 4** shows the relative to protected time with respect to number of publications.

FIGURE 3: Number of submitted and accepted publications (peer reviewed & non-peer reviewed)

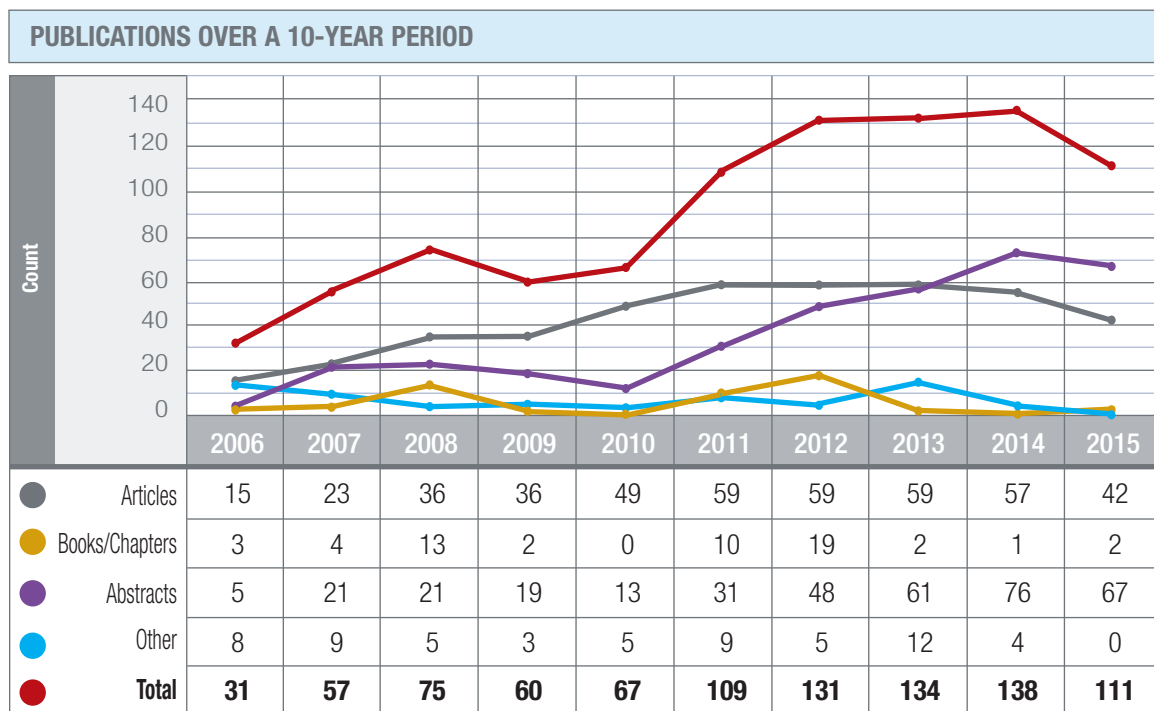


TABLE 4: Number of submitted and accepted publications (peer reviewed & non-peer reviewed) relative to FTE of protected time for research

PUBLICATIONS PER FTE PROTECTED RESEARCH TIME										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Articles	13	6	9	9	11	14	13	16	16	9
Book/Chapters	3	1	3	1	0	2	4	1	0	0
Abstracts	4	6	5	5	3	7	11	16	21	15
Other	7	2	1	1	1	2	1	3	1	0
Total	27	15	18	16	15	26	30	36	38	24

INDICATOR: Number of peer-reviewed publications

TARGET: 90% of publications are peer-reviewed

RESULT: **100% of the publications were peer reviewed**

Of the peer (57) and non-peer review (4) papers, 93% were peer reviewed in 2014

INDICATOR: Number of accepted abstracts

TARGET: Trending of accepted abstracts reflects maintenance or increase from previous year

RESULT: **67 abstracts were accepted**

Prepare and deliver presentations

INDICATOR: Number of all presentations (local, national, international)

TARGET: Trending of presentations reflects maintenance or increase from previous year

RESULT: **28 local, 18 national and 20 international invited presentations**

The total number of presentations by researchers is found in **Figure 4** with adjustments relative to protected time for research shown in **Table 5**. While the number of local and national presentations stayed relatively the same, presentations at the international level have noticeably increased.

FIGURE 4: Presentations (count) for local, national and international audiences

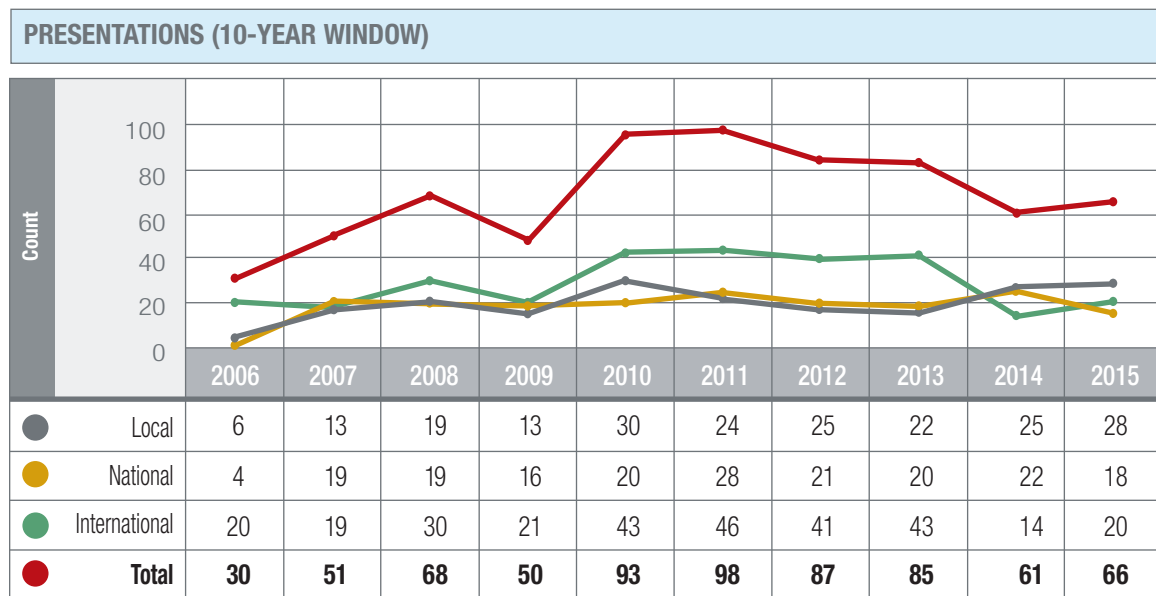


TABLE 5: Presentations relative to FTE time

NUMBER OF PRESENTATIONS RELATIVE TO FTE PROTECTED TIME FOR RESEARCH OVER 10 YEARS										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Local	5	4	5	3	7	6	2	6	7	6
National	3	5	5	4	5	7	4	5	6	4
International	17	5	8	5	10	11	5	12	4	4
Total	25	14	18	12	22	23	11	23	17	14

INDICATOR: Number of **invited presentations**

TARGET: 50% of all researchers are invited to present (plenary, keynote or symposium)

RESULT: **60% of all researchers are invited to present**

Many researchers (60%) were invited to present their work in 2015 as a keynote, plenary and symposium speaker.

INDICATOR: Number of abstracts presented annually

TARGET: 100% of all researchers have an abstract presented annually

RESULT: **67% of all researchers presented an abstract in 2015**

INDICATOR: Number of abstracts presented as a podium

TARGET: 20% of abstracts are invited to present a podium

RESULT: **22% of abstracts were invited to present a podium**

Sixty-seven percent of all researchers presented an abstract in 2015. There were 67 abstracts accepted in 2015 with 22% of abstracts invited to present as a podium.

Strategically Engaging with External Stakeholders

INDICATOR: Number of interviews provided to the media
TARGET: Number of media interviews reflects maintenance or increase
RESULT: **Seven (7) media interviews were provided by the researchers**

INDICATOR: Number of recognition awards
TARGET: FTE reflects maintenance or increase of research *recognition awards* from previous year
RESULT: **Two (2) research recognition awards were conferred in 2015**

TABLE 6: Number of recognition awards (2006-2015)

RECOGNITION AWARDS (OVER 10 YEARS)										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Awards	6	7	3	7	3	3	2	1	1	2

TABLE 7: Number of recognition awards relative to FTE of protected time for research (2006-2015)

RECOGNITION AWARDS RELATIVE TO FTE (OVER 10 YEARS)										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Awards	4.0	1.9	0.7	1.7	0.7	0.7	0.45	0.3	0.3	4.0

Mentoring, Teaching and Supervision

INDICATOR: Number of researchers mentor research learners

TARGET: 100% of researchers mentor research learners

RESULT: **60% of researchers mentor research learners**

INDICATOR: Number of researchers supervising trainees (undergraduate, graduate, postgraduate students and research projects for residents and fellows)

TARGET: 50% of researchers supervise trainees as the primary supervisor

RESULT: **53% of researchers supervise trainees as the primary supervisor**

INDICATOR: Number of researchers supervising graduate students (MSc and PhD)

TARGET: Number of graduate students reflects maintenance or increase

RESULT: **20% of researchers are supervising graduate students**

APPENDIX A – PROTECTED TIME FOR RESEARCH

2015 PROTECTED TIME FOR RESEARCH (THE FTES ARE DIRECTLY RELATED ONLY TO THE ANESTHESIA NOVA SCOTIA INC. AFP.)

RESEARCHER	PROTECTED TIME
J. Chorney	0.17
A. J. Clark	0.20
A. Finley	0.20
O. Hung	0.40
J. Hashmi	1.00
M. Kwapisz	0.05
K. Kwofie	0.20
A. Law	0.20
C. Lehmann	0.60
M. Lynch	0.60
J. MacDougall	0.33
A. Milne	0.20
M. Schmidt	0.40
A. Vlatten	0.10
TOTAL PROTECTED TIME	4.6

Individuals with protected time for anesthesia related research who work on national organizations also include **Dr. Richard Hall** (0.1).

APPENDIX B – 2015 RESEARCH PROJECTS

FUNDED PROJECTS: NOTE THAT THE BRACKETED DOLLAR AMOUNT IS THE TOTAL VALUE OF THE AWARD WHEREBY ANNUAL AMOUNTS ARE PROVIDED IN **FIGURE 1**.

NEW FUNDED PROJECTS IN 2015

1. Uppal V, Kwofie K, Szerb J, McKeen D (2015-2016). Ultrasound Guided Axillary Brachial Plexus Block: Influence of Obesity on Block Failure Rate, Performance Time and Incidence of Acute Complications – A prospective observational study [Grant] - Central Zone - \$5000.
2. Kwofie MK, Uppal V, Szerb J, Baldrige W, Zhou J, Sandeski R (2015-present). Incidence of Subepineurial Injection with Ultrasound-Guided Supraclavicular Brachial Plexus Block in Cadavers [Grant] - NSHRF - \$14244.
3. Kwofie MK, Uppal V, Szerb J, Baldrige W, Zhou J, Sandeski R (2015-2016). Incidence of Subepineurial Injection with Ultrasound-Guided Supraclavicular Brachial Plexus Block in Cadavers [Grant] - Dalhousie Clinical Cadaver Research Program Grant - \$5000.
4. Kwofie MK, Uppal V, Szerb J, Baldrige W, Zhou J, Sandeski R (2015-2016). Incidence of Subepineurial Injection with Ultrasound-Guided Supraclavicular Brachial Plexus Block in Cadavers [Grant] - Dalhousie - \$5000.
5. Schmidt M, Roach D (2015-2016). Technical and Physical Validation of a Membrane Assembly in an Anesthetic Environment [Industry Contract] - National Research Council- Industrial Research Assistance Program - \$49993.
6. McDougall JJ (2015-2018). Exploring A Neuroprotective Effect of Cannabinoids To Mitigate Osteoarthritis Pain [Grant] - The Arthritis Society - \$360000.
7. Ritchie K, Snelgrove-Clarke E, Murphy A, George RB, MacPhee S, Versnel J, Matte M (2015-2018). Evidence informed practice-related knowledge, attitudes and practices (KAP): Describing nursing, pharmacy, occupational therapy, and medicine [Grant] - NSHRF - \$148260.21.
8. Schmidt M, Roach D (2015 - 2016). Optimal Module Designs for Membrane-based Medical Gas Separation Device [Grant] - Industrial Research Program - Business Innovation Access Program - \$46869.
9. Sjaus A, Munro A, Ta M, Ritchie K, George RB (2015-2016). Anesthesia residents' experiences with standardized feedback to assess clinical competencies [Grant] - Dalhousie - \$5000.
10. Lehmann C (2015). Cellular physiology of iron in inflammation and infection processes: novel Fe chelator responses in experimental model systems [Grant] - MITACS - \$5000.
11. Schmidt M, Roach D (2015-2017). Membrane Optimization [Industry Contract] - Atlantic Canada Opportunities Agency - \$499995.00.
12. Schmidt M, Roach D (2015-2017). memsorb: CO2 filter for safe, environmentally sound anesthesia [Grant] - Sustainable Development Technologies Canada - \$686575.
13. Higgins K, Chambers C, Clark AJ, Rosen , Sherry S, Campbell-Yeo M, Lynch M (2015-present). Risk and resilience in children of parents with chronic pain [Grant] - CDHA - \$4936.
14. Schmidt M, Eskes G, George RB, Matwin, S, Bernard A, Drappeau, D, Milne A (2015-2017). Is it feasible to evaluate cognitive changes after surgery with computerized neuropsychological assessment in patients aged 55 or older undergoing major surgery?" [Grant] - Nova Scotia Health Authority - \$14744.
15. Finley Ga, Chambers C (2015). International Forum on Pediatric Pain [Grant] - DMRF - \$5000.
16. Munro A, George RB, Allen VA (2015-2016). A retrospective cohort assessment of the impact of an anesthetic intervention during the second stage of labour [Grant] - Anesthesia Research Fund, Dalhousie University - \$5000.
17. Lehmann C (2015-2016). Cellular physiology of iron in inflammation and infection processes: novel Fe chelator responses in experimental model systems [Industry Contract] - CRA - \$6000.
18. Kelly M, Lynch ME (2015-2016). Novel formulations for ocular pain and inflammation [Grant] - Early Stage Commercialization Fund (ESCF) - \$50000.
19. West J, Snelgrove-Clarke E, Mann C, McKeen DM, Kinnear H, Wenning J, Allen V, Courtney E, (2015-2017). Second stage labour management: Translating evidence to enhance maternal newborn outcomes: The TEEM Study [Grant] - IWK - \$68886.
20. Chorney J, Ellis P. (2015-2017). Don't Stumble, Tumble: A motion-detecting videogame to reduce general anesthetics for MRIs in young children [Grant] - IWK - \$85000.
21. McDougall J (2015-2016). Investigation of anti-sodium channel monoclonal antibodies for osteoarthritis pain management [Grant] - NSHRF - \$15000.
22. Hung OR (2015-present). A comparative study of the McGrath MAC and Glidescope videolaryngoscopes for tracheal intubation in cadavers with simulated oropharyngeal bleeding [Grant] - Clinical Cadaver Program - \$5000.
23. Hung OR (2015-present). Management of the difficult and failed airway. 3rd edition [Grant] - McGraw-Hill Book Grant (Editor Grant) - \$5000.

NEW SCHOLARLY PROJECTS (UNFUNDED)

1. Vlatten A, Bird S, Law A, Hung O (2015-2016). A comparison of the STORZ CMAC DBLade versus direct laryngoscopy in a restricted access pediatric motor vehicle accident victim [Clinical]
2. Vlatten A, Bird S, Law A, Hung O (2015-2016). A randomized comparison of the AIRTRAQ versus direct laryngoscopy in a Pierre Robin manikin [Clinical]
3. Vlatten A, Bird S, Law A, Hung O (2015-2016). A randomized comparison of the STORZ Miller CMAC to direct laryngoscopy in a Pierre Robin manikin [Clinical]
4. Chorney J, Howlett M (2015-2016). The Influence of Pain Catastrophizing on Parent Responses to Adolescent Chronic Pain [Clinical]
5. Bailey K, Chorney J, Finley A, McGrath P, Gorodzinsky A (2015-2016). Identifying factors predictive of successful and unsuccessful parental presence at induction of anesthesia: A Delphi study [Clinical]
6. Chorney J, Gorodzinsky A, Finley A, Sangster M, Betsch T (2015). Healthcare providers' stigmatization of pediatric chronic pain patients based on diagnostic labels: A vignette study [Clinical]
7. Dryden T, McKeen D (2015-2016). Implementation of a Patient Centred Care Guideline in the PACU: An Exploration of Barriers and Facilitators [Clinical]
8. Ho L, Drysdale S, McKeen D (2015-2016). An observational trial of staff anesthesiologists key performance indicators in a simulated clinical environment [Medical Education or Training]
9. Bailey J, McKeen D (2015-2016). A Systematic Review of Regional Anesthesia for Abdominal Surgery [Clinical]
10. Uppal V, McKeen D (2015-2016). Intrathecal Hyperbaric Versus Isobaric Bupivacaine For Adult Non- Caesarean Section Surgery: Systematic Review [Clinical]
11. Higgins K, Bezuhly M, Chorney J, Morris S, Krauss E, Gillis J, LeBlanc M, Williams J. (2015-2016). Psychosocial Impact of Flap Failure Following Autologous Breast Reconstruction in Women with Breast Cancer [Clinical]

CONTINUING ONGOING FUNDED PROJECTS

1. Uppal V, Kwofie K, Szerb J, McKeen D (2015-2016). Ultrasound Guided Axillary Brachial Plexus Block: Influence of Obesity on Block Failure Rate, Performance Time and Incidence of Acute Complications - A prospective observational study [Grant] - Central Zone - \$5000.
2. Schmidt M, Roach D (2015-2016). Technical and Physical Validation of a Membrane Assembly in an Anesthetic Environment [Industry Contract] - National

Research Council- Industrial Research Assistance Program - \$49993.

3. Szerb J, Kwofie MK, Uppal, V (2015-2016). Incidence of Subepineurial Injection with Ultrasound-Guided Supra-clavicular Brachial Plexus Block in Cadavers [Pre-Clinical]
 - a. Dalhousie - \$5000
 - b. Dalhousie Clinical Cadaver Research Program Grant - \$5000
 - c. NSHRF - \$14244
4. McDougall JJ (2015-2018). Exploring A Neuroprotective Effect of Cannabinoids To Mitigate Osteoarthritis Pain [Grant] - The Arthritis Society - \$360000.
5. Burkovskiy I, Lehmann C (Supervisor) (2015-2016). Cannabinoid 2 Receptor Modulation in Post-Stroke Immunosuppression [Grant] - Heart and Stroke Foundation Canada - \$5000.
6. Wafa K, Porter R, Kelly M, Lehmann C (Supervisor) (2015 - 2016). Cellular physiology of iron in inflammation and infection processes: Novel Fe chelator responses in experimental model systems [Grant] - Dalhousie - \$2000.
7. Ritchie K, Snelgrove-Clarke E, Murphy A, George RB, MacPhee S, Versnel J, Matte M (2015-2018). Evidence informed practice-related knowledge, attitudes and practices (KAP): Describing nursing, pharmacy, occupational therapy, and medicine [Grant] - NSHRF - \$148260.21.
8. Schmidt M, Roach D (2015-2016). Optimal Module Designs for Membrane-based Medical Gas Separation Device [Grant] - Industrial Research Program - Business Innovation Access Program - \$46869.
9. Sjaus A, Munro A, Ta M, Ritchie K, George RB (2015 - 2016). Anesthesia residents' experiences with standardized feedback to assess clinical competencies [Grant] - Dalhousie - \$5000.
10. Lehmann C (2015). Cellular physiology of iron in inflammation and infection processes: novel Fe chelator responses in experimental model systems [Grant] - MITACS - \$5000.
11. Schmidt M, Roach D (2015-2017). Membrane Optimization [Industry Contract] - Atlantic Canada Opportunities Agency - \$499995.00.
12. Schmidt M, Roach D (2015-2017). memsorb: CO2 filter for safe, environmentally sound anesthesia [Grant] - Sustainable Development Technologies Canada - \$686575.
13. Higgins K, Chambers C, Clark AJ, Rosen , Sherry S, Campbell-Yeo M, Lynch M (2015-present). Risk and resilience in children of parents with chronic pain [Grant] - CDHA - \$4936.
14. Schmidt M, Eskes G, George RB, Matwin, S, Bernard A, Drapeau, D, Milne A (2015-2017). Is it feasible to evaluate cognitive changes after surgery with computerized neuropsychological assessment in patients aged 55 or older undergoing major surgery? [Grant] - Nova Scotia Health Authority - \$14744.

CONTINUING ONGOING FUNDED PROJECTS (CONT'D)

15. Finley Ga, Chambers C (2015). International Forum on Pediatric Pain [Grant] - DMRF - \$5000.
16. Munro A, George RB, Allen VA (2015-2016). A retrospective cohort assessment of the impact of an anesthetic intervention during the second stage of labour [Grant] - Anesthesia Research Fund, Dalhousie University - \$5000.
17. Lehmann C (2015-2016). Cellular physiology of iron in inflammation and infection processes: novel Fe chelator responses in experimental model systems [Industry Contract] - CRA - \$6000.
18. Kelly M, Lynch ME (2015-2016). Novel formulations for ocular pain and inflammation [Grant] - Early Stage Commercialization Fund (ESCF) - \$50000.
19. West J, Snelgrove-Clarke E, Mann C, McKeen DM, Kinnear H, Wenning J, Allen V, Courtney E, (2015-2017). Second stage labour management: Translating evidence to enhance maternal newborn outcomes: The TEEM Study [Grant] - IWK - \$68886.
20. Chorney J, Ellis P. (2015-2017). Don't Stumble, Tumble: A motion-detecting videogame to reduce general anesthetics for MRIs in young children [Grant] - IWK - \$85000.
21. McDougall J (2015 - 2016). Investigation of anti-sodium channel monoclonal antibodies for osteoarthritis pain management [Grant] - NSHRF - \$15000.
22. Hung OR (2015-present). A comparative study of the McGrath MAC and Glidescope videolaryngoscopes for tracheal intubation in cadavers with simulated oropharyngeal bleeding [Grant] - Clinical Cadaver Program - \$5000.
23. Hung OR (2015-present). Management of the difficult and failed airway. 3rd edition [Grant] - McGraw-Hill Book Grant (Editor Grant) - \$5000.
24. Lehmann C, Fisher N, Zhou J, Sczcesniak A, Kelly M, Tugwell B (2014-2015). Cannabidiol for prevention of type 1 diabetes – an experimental study on pancreatic inflammation [Grant] - Department of Anesthesia, Pain Management and Perioperative Medicine - \$5000.
25. Chambers C, Campbell-Yeo M, Barwick M, Chorney J, Finley A, Latimer M, McGrath P, Wittman H. (2014-2015). It Doesn't Have to Hurt: Extending our Reach to Help Parents of Children [Grant] - NSHRF - \$10000.
26. Stinson J, Campbell F, Chorney J, Clark AJ, Dick B, Forgeron P et al (2014-2017). ICanCope with pain: A integrated smartphone and web self-managment program for adolescents and young adults with chronic pain [Grant] - CIHR - \$383884.
27. Hung O, Mariotti C, Eichhorn V, Bernard A, Mullen T, Brousseau P, Wood L (2014-present). A new and innovative method for CO2 removal in anesthesia circuits: Replacing chemical granulate absorbers [Industry Contract] - DMF Medical (Michael Schmidt) - \$1.00.
28. Curran J, Klassen T, Chorney J, Colwell J, Fitzpatrick E, Jabbour M, MacPhee S, Murphy A, Petrie D (2014-2017). Understanding discharge communication in the context of paediatric emergency care in regional and community emergency departments in Nova Scotia [Grant] - NSHRF - \$146000.
29. Rosen N, George RB, Chorney J, Snelgrove-Clarke E, Pirece M, Andreou P, Binik Y (2014-2017). A Prospective Study of the Trajectory and Biopsychosocial Determinants of Postpartum Genito-pelvic Pain [Clinical]
 - a. CIHR-NSHRF RPP - \$227364
 - b. NSHRF - \$145000
30. Hebert PI, Turgeon A, Burns K, Cook D, Gilfoyle E, Lamontagne F, Hutchison J, McIntyre L, Herridge M, Tucci M, Marshall J, Meade MA, Fowler R, Zarychanski R, Hall R, Sinuff T (2014-2019). The Canadian Critical Care Trials Group [Grant] - ICRH Community Development Program Grants - Critical Care Clinical Trials and Stroke Clinical Trials - \$1542601.
31. McDougall JJ, Marshall J, Bezuhly M, Legare JF, Lin TJ (2014-2019). Restitution Enhancement in Arthritis and Chronic Heart Disease [Grant] - CIHR - \$2337154.
32. Hall R, Cook D, Al Hazzani W (2014-2015). Proton pump inhibitors for stress ulcer prophylaxis in critically ill patients: Pilot randomized trial (REVISE) [Grant] - Capital Health - \$15000.
33. Poole O, Hung OR, Vargo M (2014-2015). A comparison of three techniques for cricothyroidotomy in a manikin [Grant] - Dalhousie Department of Anesthesia - \$1500.
34. Lavigne GJ, Lynch ME, Boulanger A, Cooper L, Laliberte J (2014-2015). Prevention of opioid analgesic misuse in Canada: pragmatic and innovative strategies? [Grant] - Universite de Montreal - \$50000.
35. Lynch ME (2014-2016). Randomized, double blind, placebo controlled trial with open label extension of Delivra joint health cream in the treatment of pain caused by osteoarthritis of the knee [Industry Contract] - LivCorp, Inc - \$300000.
36. Hebert PC, Bagshaw S, Dodek P, Lamontagne F, Martin C, Muscedere J, Scales D, Stelfox H, Turgeon A, Hall R (2014 -2015). Structuring patient-oriented research: Developing a National Agenda in patient care research and evaluation [Grant] - CIHR - \$25000.
37. Kim RB, Carleton B, Tirona R, Ross C, Amstutz U, Dionne F, Dube M-P, Goralski K, Hall RI, et al. (2014-2017). Drug Safety and Effectiveness Network (DSEN) - Pharma-cogenomics of Adverse Reaction Events National Team (DSEN-PREVENT) [Grant] - CIHR - \$750000.
38. Hall R (2014-2015). A two part study to investigate the safety, tolerability, pharmacokinetics and pharmacodynamics of GSK2586881 in patients with acute lung injury (ACE114622) [Industry Contract] - GlaxoSmithKline - \$36626.

APPENDIX B – 2015 RESEARCH PROJECTS (CONT'D.)

39. Pelland A, George RB (2014-2015). Sidestream dark field imaging of the sublingual microcirculation to assess microvascular dysfunction in the preeclamptic patient [Grant] - Department of Anesthesia, Pain Management and Perioperative Medicine - \$5000.
40. Dumbarton T, Lehmann C (2014-2015). Tetrahydrobiopterin in the treatment of septic shock [Grant] - Department of Anesthesia, Pain Management and Perioperative Medicine - \$5000.
41. Chorney J, d'Entremont C, Allen S, Smith I, Bird S, Latimer M, Martin C, Wright S. (2014-2015). Identifying ways to improve the perioperative experience for children with Autism Spectrum Disorders [Grant] - IWK - \$3000.
42. Muscedere J, Hall R (2014-present). Prevention of nosocomial infections in critically ill patients with Lactoferrin: PREVAIL study [Grant] - Queen's University AFP Innovation Fund and Lotte & John Hecht Memorial Foundation - \$3030.
43. Schmidt M, Roach D, Wilfart F (2014-2015). Neuro-protection using noble gases [Grant] - Brain Repair Centre-Knowledge Translation (BRC-KT) grant, Faculty of Medicine, Dalhousie University - \$30000.
44. Chelation Partners Incorporated, Lehmann C, Parquet M, Hoskin D, Ritenour R (2014-2016). Novel Iron Chelating Excipients (NICE) [Grant] - AIF - \$2781915.
45. Schmidt M, Roach D (2014-2015). Toxicity of Anesthetic by-products and the Neuro-protective effects of noble gases [Industry Contract] - National Research Council - Industrial Research Assistance Program - \$285843.
46. Hung OR (2014-2015). Intravenous fluid administration monitor [Industry Contract] - Innovacorp, Nova Scotia - Phase II Early Stage commercialization Fund - \$44500.
47. Daneman N, Fowler R, Marshall J, Martin C, Hall R, Reynolds S, Stelfox T, Lamontagne F, Bagshaw S, Muscedere J, Dodek P (2014-2016). Bacteremia antibiotic length actually needed for clinical effectiveness (BALANCE): A pilot randomized controlled clinical trial [Grant] - Ministry of Health and Long-Term Care Academic Health Sciences Alternative Funding Plan Innovation Fund Award - \$20000.
48. Chorney J, Hong P, Curran J, McGrath P, Ritchie K, (2014-2017). Supporting Shared decisions in paediatric otolaryngology: Needs assessment and decision aid development [Clinical]
 - a. NSHRF - \$159816
 - b. CIHR - \$159816
49. Stinson J, Cafazzo J, Campbell F, Chorney J, Clark J, Dick B, Forgeron P, Gordon A, Jibb L, Laloo C, McGillion M, Montgomery L, Palermo T, Rashiq S, Ruskin D, Simmonds M, Tupper S, Victor C, Ware M. (2014-2017). iCanCope: an Integrated Smartphone and Web Self-Management Program for Adolescents and Young Adults with Chronic Pain [Grant] - CIHR - \$383884.
50. Hall R (2014-2015). OSCILLATE Knowledge Translation: An Audit of ARDS Management [Grant] - CIHR - \$3500.
51. Kiberd M, Wright S, Chorney J (2014-2015). Aromatherapy in children for the treatment of PONV [In-Kind] - IWK.
52. West J, Snelgrove-Clarke E, Mann C, McKeen DM, Harold J, Courtney L, Allen V (2014-2015). Second stage management: A collaborative strategy for change [Grant] - IWK - \$3000.
53. Clark AJ, Mumford K, George RB, Davis D, Milne D, Langille L, Hammond P, Yazbeck S, Sernyk S (2014-2015). The highly opioid tolerant patient - will a new paradigm of care improve outcomes? [Grant] - Translating Research into Care (TRIC) - \$3000.
54. Lehmann C (2014-2015). The Microcirculation Screening (MicroScreen) Project: Innovative Non-Invasive Point-of-Care Monitoring of Nutritional Status and Critical Health Conditions in Low-Resource Environments [Grant] - Grand Challenges Canada - \$113000.
55. Hall R (2014-2015). Multicenter, randomized, active-controlled efficacy and safety study comparing extended duration Betrixaban with standard of care EnoxaparinR for the prevention of venous thromboembolism in acute medically ill patients (the APEX study) [Industry Contract] - Portola - \$11383.
56. Mazer D, Fergusson DA, Shehata N, Thorpe K, Whitlock R and PACT group, Hall R (2014-2018). Transfusion requirement in cardiac surgery III (TRICS III) [Grant] - CIHR - \$3323110.
57. Lehmann C (2014-2015). Innovations in Microcirculatory Sepsis Research – Mechanisms of new anti-inflammatory strategies in the intestinal microcirculation [Grant] - MOF - \$5000.
58. Chorney J, Curran J, Hong P, McGrath P, Ritchie K (2013-2016). Understanding Shared Decisions in Pediatric Surgery [Grant] - NSHRF - \$147246.
59. Szerb J, Kwofie K (2013-2015). Histological Confirmation of Ultrasound-Guided Needle Placement in Regional Anesthesia Intraplexus Versus Periplexus Approach [Grant] - CDHA - \$15000.
60. Lehmann C, Zhou J (2013-2015). Modulation of cannabinoid receptor 2 signaling – a new therapeutic approach in CNS injury-induced immune deficiency syndrome (CIDS) [Grant] - CDHA Research Fund - \$14881.
61. Kwapisz M, Kent B, Mingo H, Poranek A (2013-2015). The use of Fibrinogen Concentrate in High-Risk Cardiac Surgery: A Prospective Double Blind Randomized Controlled Study [Grant] - CSL Behring - \$453674.
62. Curran J, Grimshaw J, McGrath P, Chorney J. (2013-2016). Understanding Discharge Instructions for Children and Caregivers in the Transition from Pediatric Emergency Care [Grant] - CIHR-NSHRF Regional Partnership Program Operating Grant - \$435804.
63. Lehmann C, Zhou J, Kelly Melanie (2013-2016). Manipulation of the Endocannabinoid System in Experimental Sepsis [Grant] - Nova Scotia Health Research Foundation - \$147960.

CONTINUING ONGOING FUNDED PROJECTS (CONT'D)

64. Shehata N, Mazer D and PACT group, Hall R (2013-2016). Transfusion Requirements In Cardiac Surgery II (TRICS II) [Grant] - CIHR - \$293728.
65. Hall R (2012-2015). A randomized, double blind, placebo controlled, Phase 3 study to assess the safety and efficacy of ART-123 in subjects with severe sepsis and coagulopathy (#3-001) [Industry Contract] - Asahi Kasei Pharma America Corporation - \$65320.
66. McDougall J (2012-2015). Effect of cannabinoids and opioids in the control of arthritis pain [Grant] - Nova Scotia Health Research Foundation (NSHRF) - \$149790.
67. Schmidt M (2012-2016). Refine and optimize ZEROSORB, a prototype CO2 removal device for anesthesia circuits [Grant] - Atlantic Canada Opportunities Agency - \$1245617.
68. Lehmann C (2012-2015). Modulation of the immune response after stroke by manipulation of cannabinoid receptor 2 signaling [Grant] - Clinician Scientist Program (CS) - \$19120.
69. Chorney J (2012-2016). Establishment of the Child Health and Perioperative Care Laboratory [Grant] - Canadian Foundation for Innovation (CFI) - \$312177.
70. Hall R (2012-2015). A Phase III international, randomized, double-blind, double-dummy study to evaluate the efficacy and safety of 300mg or 600mg of iv zanamivir twice daily compared to 75mg of oral oseltamivir twice daily in the treatment of hospitalized adults and adolesce [Industry Contract] - GlaxoSmithKline - \$14420.
71. Chorney J (2011-2016). Pain in Children at Home Following Major Surgery: New Investigator Award [Grant] - CIHR - \$300000.
72. McDougall J (2011-2016). The relationship between proteases, protease activated receptors and cytokines in mediating osteoarthritis pain [Grant] - Canadian Institutes of Health Research (CIHR) - \$601280.
73. Kain ZN, Chorney J, Blount RL (2011-2016). Improving pain and anxiety in children undergoing surgery: Changing Healthcare Provider Behavior [Grant] - National Institutes of Health - \$2730034.
74. Chorney J, Andreou P, El-Hawary R, Finley GA, Howard J, LeMay S, McGrath P, Ouellet J, Parent S, Valois-Gomez T, Villeneuve, E. (2010-2015). Pain at Home in Children following Major Surgery: Physical, Psychological, and Economic Consequences [Grant] - Canadian Institutes of Health Research - \$724991.
75. Lehmann C (2009-2015). Innovations in Microcirculatory Sepsis Research - Mechanisms of new anti-inflammatory strategies in the intestinal microcirculation [Grant] - IOF - \$25000.
76. McGrath PJ, Craig KD, Finley GA, Grunau RE, Johnston C, Stevens BJ, von Baeyer CL, Chorney J (2009-2015). Pain

in child health, an innovative, international, trans-disciplinary research training consortium - Phase II [Grant] - CIHR - \$1950000.

77. Lehmann C (2009-2015). Innovations in Microcirculatory Sepsis Research -Mechanisms of new antiinflammatory strategies in the intestinal microcirculation [Grant] - CFI - \$416351.
78. Chorney J., Allen S., Smith I. Identifying Ways to Improve the Perioperative Experience for Children with Autism Spectrum Disorder [Grant] - Department of Anesthesia, Pain Management and Perioperative Medicine - \$5000.

CONTINUING SCHOLARLY PROJECTS (UNFUNDED)

1. Vlatten A, Bird S, Law A, Hung O (2015-2016). A comparison of the STORZ CMAC DBlade versus direct laryngoscopy in a restricted access pediatric motor vehicle accident victim [Clinical]
2. Vlatten A, Bird S, Law A, Hung O (2015-2016). A randomized comparison of the AIRTRAQ versus direct laryngoscopy in a Pierre Robin manikin [Clinical]
3. Vlatten A, Bird S, Law A, Hung O (2015-2016). A randomized comparison of the STORZ Miller CMAC to direct laryngoscopy in a Pierre Robin manikin [Clinical]
4. Chorney J, Howlett M (2015 - 2016). The Influence of Pain Catastrophizing on Parent Responses to Adolescent Chronic Pain [Clinical]
5. Bailey K, Chorney J, Finley A, McGrath P, Gorodzinsky A (2015-2016). Identifying factors predictive of successful and unsuccessful parental presence at induction of anesthesia: A Delphi study [Clinical]
6. Chorney J, Gorodzinsky A, Finley A, Sangster M, Betsch T (2015). Healthcare providers' stigmatization of pediatric chronic pain patients based on diagnostic labels: A vignette study [Clinical]
7. Dryden T, McKeen D (2015-2016). Implementation of a Patient Centred Care Guideline in the PACU: An Exploration of Barriers and Facilitators [Clinical]
8. Ho L, Drysdale S, McKeen D (2015-2016). An observational trial of staff anesthesiologists key performance indicators in a simulated clinical environment [Medical Education or Training]
9. Bailey J, McKeen D (2015-2016). A Systematic Review of Regional Anesthesia for Abdominal Surgery [Clinical]
10. Uppal V, McKeen D (2015-2016). Intrathecal Hyperbaric Versus Isobaric Bupivacaine For Adult Non-Caesarean Section Surgery: Systematic Review [Clinical]
11. Higgins K, Bezuhly M, Chorney J, Morris S, Krauss E, Gillis J, LeBlanc M, Williams J. (2015-2016). Psychosocial Impact of Flap Failure Following Autologous Breast Reconstruction in Women with Breast Cancer [Clinical]

- 12.** Clark AJ, George RB, Chambers C, McDougall J (2014-2015). DalPAIN: A multidisciplinary approach to clinical care and research [Clinical]
- 13.** Gu Y, Robert J, Hung O, Milne A, Morris I, MacQuarrie K, Kovacs G, Law JA (2014-2015). A Deliberately Restricted Laryngeal View With the GlideScope® GVL Video-laryngoscope is Associated With Faster and Easier Tracheal Intubation: A Randomized Clinical Trial [Clinical]
- 14.** Brousseau C, Brousseau P, Milne AD (2014-2015). A Retrospective Review of Ventilation Settings Used During Laparoscopic Cholecystectomy Surgical Procedures [Clinical]
- 15.** Dumbarton TC, Maxan A, Sharawi N, Farah N, Zhou J, Lehmann C (2014-2015). Tetrahydrobiopterin in experimental sepsis [Pre-Clinical]
- 16.** Tan E, Milne A (2014-2015). Impact of anesthesia residents on operating room times in a Canadian teaching hospital [Clinical]
- 17.** Kwofie K, Philip G, Watton D (2014-2017). A retrospective study of primary total knee arthroplasty and multimodal analgesic methods on postoperative opioid requirements and outcome [Clinical]
- 18.** Law JA, Milne A, Morris I, Brousseau P (2013-2015). A retrospective database review of methods used to achieve tracheal intubation in operative patients [Database]
- 19.** Foss M, Lynch ME (2013-2017). Patient-Controlled Analgesia versus Continuous Opioid Infusion for the Treatment of Pain Caused by Oral Mucositis Following Myeloablative Chemotherapy for Hematopoietic Stem Cell Transplantation: A Retrospective Review [Clinical]
- 20.** Pike M, Lynch ME (2013-2017). Observational Trial of Qigong as a Complementary Therapy in a Chronic Pain Clinic [Clinical]
- 21.** Schep L, Chorney J (2013-2017). Child and parent involvement in decision-making for otolaryngology procedures [Clinical]
- 22.** Maguire E, Chorney J (2013-2017). How does perceived parental involvement and actual involvement in decisions concerning ENT surgery for their child contribute to parental decisional conflict? [Clinical]
- 23.** Scott J, George RB, Bird S (2013-2017). A systematic review in Pediatric Anesthesia (specific topic TBD) [Database]
- 24.** Morris I, Law JA, MacQuarrie K, Launcelott G, Butler H (2008-present). Fiberoptic Learning Curve [Medical Education or Training].

Appendix C – 2015 Publications

Note that this list of publications only includes those *peer-reviewed* articles that are currently *published* and *accessible online* (42).

1. Yang H, Zhou J, Lehmann C. (2015). GPR55 - a putative "type 3" cannabinoid receptor in inflammation. *J Basic Clin Physiol Pharmacol*. [Published] PubMed ID: [26669245](#).
2. Lynch ME, Ware MA (2015). A systematic review of randomized controlled trials in chronic pain. *JNIP*. [Review - Published] DOI: [10.1007/s11481-015-9600-6](#).
3. Hong P, Haworth R, Sobey S, Chorney J, Bezuhly M. (2015). Measuring Attentional bias in children with prominent ears: A prospective eye-tracking study. *Journal of Plastic, Reconstructive & Aesthetic Surgery*, 68(12), 1662-1666. [Published] DOI: [10.1016/j.bjps.2015.08.009](#).
4. Graham ME, Haworth R, Chorney J, Bance M, Hong P. (2015). Decisional conflict in parents considering bone-anchored hearing devices in children with unilateral aural atresia. *Annals of Otolaryngology & Laryngology*, 124(12), 925-930. [Published] PubMed ID: [26082472](#).
5. McKeen DM, DesRoches J, George RB, Kells C, Warren A, Shukla R (2015). Stable Idioventricular Tachycardia During Cesarean Delivery Complicating Hypertrophic Cardiomyopathy. *Anesthesia and Analgesia*. [Case Report - Published] PubMed ID: [26720049](#).
6. Cape D, Fox-Robichaud A, Turgeon AF, Seely A, Hall R, Burns K, Singal RK, Dodek P, Bagshaw S, Sibbald R, Downar J (2015). The impact of the Rasouli decision: a survey of Canadian intensivists. *BMJ (J Med Ethics online)*. [Published] PubMed ID: [26621856](#).
7. Szerb J, Greenberg JL, Kwofie MK, Baldrige W, Sandeski R, Zhou J, Wong K (2015). Histological Confirmation Of Needle Tip Position During Ultrasound-Guided Interscalene Block: A Comparison Of Intraplexus And Periplexus Approach. *Canadian Journal of Anesthesia*. [Published].
8. Zaphiratos V, George RB, Boyd JC, Habib AS (2015). Uterine exteriorization compared with in situ repair for Cesarean delivery: a systematic review and meta-analysis. *Canadian Journal of Anesthesia*, 62(11), 1209-1220. [Review] PubMed ID: [26296298](#).
9. Vincent Jean-Louis, Marshall JC, Dellinger RP, Simonson SG, Guntupalli K, Levy MM, Singer M, Malik R and Hall R, for the Oral Talactoferrin in Severe Sepsis study investigators (2015). Talactoferrin in Severe Sepsis: Results from the Phase II/III Oral Talactoferrin in Severe Sepsis Trial. *Critical Care Medicine*, 43, 1832-1838. [Published] PubMed ID: [26010687](#).
10. Daneman N, Rishu A, Xiong W, Palmay L, Fowler RA on behalf of the BALANCE research program, Hall R (2015). Antimicrobial cost savings associated with shorter duration treatment for bloodstream infections. *Journal of Antimicrobial Chemotherapy (JAC)*. [Letter to the Editor - Published].
11. Higgins KS, Birnie KA, Chambers CT, Wilson AC, Caes L, Clark AJ, Lynch M, Stinson J, Campbell-Yeo M. (2015). Offspring of Parents with Chronic Pain: A Systematic Review and Meta-Analysis of Pain, Health, Psychological, and Family Outcomes. *Pain*, 156(11), 2256-66. PubMed ID: [26172553](#).
12. Cerny V, Abdo I, George RB, Maddison L, Sharawi N, Lehmann C (2015). Analysis of microcirculation measurements by novice users trained by a standardized interactive tutorial: An inter-observer variability study. *Clinical Hemorheology and Microcirculation*, 1-7. PubMed ID: [26444590](#).
13. Tarride J-E, Moulin DE, Lynch M, Clark AJ, Stitt L, Gordon A, Morley-Forster PK, Nathan H, Smyth C, Toth C, Ware MA. (2015). Impact on health-related quality of life and costs of managing chronic neuropathic pain in academic pain centres: Results from a one year prospective observational Canadian study. *Pain Res Manag*. PubMed ID: [26474381](#).
14. Ware MA, Wang T, Shapiro S, Collet JP, Boulanger A, Esdaile JM, Gordon A, Lynch ME, Moulin DE, O'Connell C. (2015). Cannabis for the management of pain assessment of safety study (COMPASS). *Journal of Pain*. DOI: [10.1016/j.jpain.2015.07.014](#).
15. Law JA, Milne AD, Morris IR. (2015). In reply: No reduction in fiberoptic intubation rates with universal video laryngoscopy. *Can J Anaesth.*, 63(1), 114. [Letter to the Editor - Published] PubMed ID: [26424715](#).
16. Munro A, George RB (2015). Chestnut's Obstetric Anesthesia Principles and Practice, Fifth Edition : David H. Chestnut, Cynthia A. Wong, Lawrence C. Tsen, Warwick D. Ngan Kee, Yaakov Beilin, Jill M. Mhyre. Philadelphia: Elsevier Saunders, 2014, 1328 pages, \$324.00. ISBN: 978-1-4557-4866-2. *Canadian Journal of Anesthesia*, 62(9), 1027-8. [Review] PubMed ID: [26429576](#).
17. Moulin DE, Clark AJ, Gordon A, Lynch M, Morley-Forster PK, Nathan H, Smyth C, Toth C, VanDenKerkhof E, Gilani A, Ware M. (2015). Long term outcome of the management of chronic neuropathic pain – a prospective observational study. *J Pain*, 16(9), 852-61. PubMed ID: [26080044](#).
18. Hall R, Turgeon AF (2015). Palliative care in the neurologic ICU - Are we there yet? *Critical Care Medicine*, 43(9), 2033-2034. [Published] PubMed ID: [26274714](#).
19. Rancourt KM, Chorney J, Kain Z (2015). Children's Immediate Postoperative Distress and Mothers' and Fathers' Touch Behaviors. *Journal of Pediatric Psychology*, 40(10), 1115-1123. PubMed ID: [26251440](#).

20. Bailey K, Bird SJ, McGrath PJ, Chorney J (2015). Preparing Parents to be present for the child's anesthesia induction: A randomized controlled trial. *Journal of Anesthesia & Analgesia*, 121(4), 1001-1010. PubMed ID: [26237623](#).
21. McKeen D., Turner K., Fortier L.P., DeMedicis E., Warriner B., Jones P.M., Chaput A., Pouliot J.F., Galarneau A. (2015). The RECITE study: A Prospective, Multicenter Study of the Incidence and Severity of Residual Neuromuscular Blockade in Canada. *Anesthesia and Analgesia*, 121(2), 366-372. PubMed ID: [25902322](#).
22. Kiberd MB, Hall RI (2015). Aspirin in the perioperative period: a review of the recent literature. *Curr Opin Anaesthesiol*, 28, 349-355. [Review] PubMed ID: [25887192](#).
23. Kiberd M, Hall R (2015). Does haloperidol cause delirium? *Crit Care Med*, 43, 1143-1144. [Editorial] PubMed ID: [25876117](#).
24. Gorodzinsky A, Hong P, Chorney J (2015). Parental Knowledge in Pediatric Otolaryngology Surgical Consultations: A Qualitative Content Analysis. *International Journal of Pediatric Otorhinolaryngology*, 79(7), 1135-1139. PubMed ID: [26027724](#).
25. Lamb A, Zhang J, Hung O, Flemming B, Mullen T, Bissell M, Arseneau I (2015). Accuracy of identifying the cricothyroid membrane by anesthesia trainees and staff in a Canadian institution. *Canadian Journal of Anesthesia*, 62(5), 495-503. [Published] PubMed ID: [25637060](#).
26. Krag M, Adams J, Timmins A, Oldner A, Hall R, et al. (2015). Prevalence and outcome of gastrointestinal bleeding and use of acid suppressants in acutely ill adult intensive care patients. *Intensive Care Medicine*, 41, 833-845. DOI: [10.1007/s00134-015-3725-1](#).
27. Krag M, Perner A, Wettersley J, Wise MP, Borthwick M, Bendel S, McArthur C, Cook D, Nielsen N, Pelosi P, Keus F, Guttormsen AB, Moller AD, Moller MH and the SUP-ICU collaborators, Hall RI (2015). Stress ulcer prophylaxis in the intensive care unit: an international survey of 97 units in 11 countries. *Acta Anaesthesiologica Scandinavica*, 59, 576-585. DOI: [10.1111/aaas.12508](#).
28. Tansley G, Hall R (2015). Pharmacokinetic considerations for drugs administered in the critically ill. Review. *British Journal of Hospital Medicine*, 76(2), 89-94. [Case Report].
29. Forgeron P, Dick B, Chorney J, Carleson T, Plante E. (2015). To Befriend or Not: Naturally Developing Friendships Amongst a Clinical Group of Adolescents with Chronic Pain. *Pain Management Nursing*, 16(5), 721-732. DOI: [10.1016/j.pmn.2015.04.003](#).
30. Lehmann C, Islam S, Jarosch S, Zhou J, Hoskin D, Greenshields A, Al-Banna N, Sharawy N, Szczesniak A, Kelly M, Wafa K, Cheliak W, Holbein B (2015). The Utility of Iron Chelators in the Management of Inflammatory Disorders. *Mediators of Inflammation*, 2015. [Review] DOI: [10.1155/2015/516740](#).
31. Lynch ME (2015). What is the latest in the field of Pain Mechanisms and Management? *Can J Psychiatry*, 60(4), 158-159. [Editorial - Published].
32. Brooks EA, Unruh A, Lynch ME (2015). Exploring the lived experience of adults using prescription opioids to manage chronic noncancer pain. *J Pain Res Manage*, 20(1), 15-22.
33. Lynch ME, Ware MA (2015). Cannabinoids for the Treatment of Chronic Non-Cancer Pain: An Updated Systematic Review of Randomized Controlled Trials. *J Neuroimmune Pharmacol*. [Review] PubMed ID: [25796592](#).
34. Karkouti K, Grocott HP, Hall R, Jessen ME, Kruger C, Lerner AB, MacAdams C, Mazer CD, de Medicis E, Myles P, Ralley F, Rheault MR, Rochon A, Slaughter MS, Sternlicht A, Syed S, Waters T (2015). Interrelationship of preoperative anemia, intraoperative anemia, and red blood cell transfusion as potentially modifiable risk factors for acute kidney injury in cardiac surgery: a historical multicentre cohort study. *Canadian Journal of Anesthesia*, 62(4), 377-384. PubMed ID: [25537735](#).
35. Munro A, George RB (2015). The Peripartum Anesthesiologist. *Canadian Journal of Anesthesia*, 62(3), 237-240. [Editorial] PubMed ID: [25501492](#).
36. Lim W, Meade M, Lauzier F, Zarychanski R, Mehta S, Lamontagne F, Dodek P, McIntyre L, Hall R, Heels-Ansdell D, Fowler R, MD7; Pai M, Guyatt G, Crowther MA, Warkentin TE, Devereaux PJ, Walter SD, Muscedere J, Herridge M, Turgeon AF, Geerts W, Finfer S, Jacka M, Berwanger O, Ostermann M, Qushmaq I, Friedrich JO, Cook DJ, for the PROphylaxis for ThromboEmbolism in Critical Care Trial Investigators, the Canadian Critical Care Trials Group, and the Australian and New Zealand Intensive Care Society Clinical Trials Group (2015). Failure of anticoagulant thromboprophylaxis: Risk factors in medical-surgical critically ill patients. *Critical Care Medicine*, 43(2), 401-410. PubMed ID: [25474533](#).
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Appendix C – 2015 Publications (CONT'D.)

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Appendix D – 2015-16 Strategic Plan

DIRECTION 1	DIRECTION 2	DIRECTION 3
ADVANCE SCHOLARLY COLLABORATION	SUPPORT A FLOURISHING INFRASTRUCTURE	FOSTER A CULTURE OF RESEARCH
▼	▼	▼
OBJECTIVES	OBJECTIVES	OBJECTIVES
Innovative research programs and partnerships that are strong and numerous	Advance an appropriately resourced Office of Research that is transparent and accountable	Support key strategic research initiatives
▼	▼	▼
Major Initiatives	Major Initiatives	Major Initiatives
<ol style="list-style-type: none"> 1. Develop targeted partnerships with key stakeholders 2. Support emerging research teams' alignment with patient oriented research and translation to improved clinical practice in NSHA 3. Foster discovery and innovation in clinical care and delivery 	<ol style="list-style-type: none"> 1. Facilitate the changes to the infrastructure in accordance with the imminent implementation of the combine academic funding plan 2. Encourage hiring practices of clinician scientists that are aligned with practice plan needs and recruitment of residents with research backgrounds 3. Expand the Anesthesia internal funding model 4. Proactively seek support, develop and implement a potential program for recognizing academic activities 	<ol style="list-style-type: none"> 1. Support the Perioperative Anesthesia Clinical Trials (PACT) initiative 2. Support the Perioperative Care Research Collaborative (PCRC) 3. Establish a Dalhousie University Pain Institute and Endowed Chair for Pain



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