



Collaboration for Outcomes
Research and Evaluation

ANNUAL REPORT 2019



Collaboration for
Outcomes
Research and
Evaluation

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2019 ANNUAL REPORT



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CORE at a Glance

Housed within The University of British Columbia's Faculty of Pharmaceutical Sciences, the Collaboration for Outcomes Research and Evaluation (CORE) is an academic research group established in 2000. Led by Director, Dr. Larry Lynd, CORE's vision is to lead evidence-based evaluations to improve health-related outcomes locally, nationally, and internationally.

The overarching goal of our research is to improve health-related outcomes through the application of the best in research, education, and practice enhancement strategies. CORE strives to provide the best evidence to inform practice, policy, and future research aimed at improving clinical outcomes, quality of life, and economic benefits of health interventions. This is achieved through a combination of independent and collaborative multidisciplinary research programs including engagement with patients, clinicians, other researchers, policy makers, and both public and private sector stakeholders.

Highlights



65

PEER REVIEWED
JOURNAL ARTICLES



COMPLETED | ACTIVE
6 | **17**

TRAINEES

(Masters, PhD, and Postdoctoral Fellows supervised by CORE Faculty)



17

COURSES
TAUGHT



FUNDING

AWARDED

1.6M

(New grants and contracts awarded to CORE Faculty as Principal Investigator/Applicant)

A Word From The Dean

It is my great pleasure to introduce the Collaboration for Outcomes Research and Evaluation (CORE) 2019 annual report. Established in 2000 in the Faculty of Pharmaceutical Sciences at UBC, CORE is at the centre of our pursuit of scientific discovery in the area of health outcomes and epidemiology. Such research is not only vital to the areas and strategies set out in our strategic plan (Catalyst for Change: 2017–2022), it is essential to a global understanding of the diseases that affect us all and a tool to be used in the prevention and treatment of those diseases.

Over the past two decades, CORE has grown to become a team of internationally-renowned researchers with expertise in a number of areas such as pharmacoepidemiology, health economics, and clinical pharmacy – to name but a few; and an impressive cohort of graduate students and other trainees. Levels of funding are equally impressive, and CORE is therefore highly representative of the research excellence the Faculty of Pharmaceutical Sciences is known for.

I would like to acknowledge and thank the many faculty members and staff who contributed to the success of CORE over the years, and, to the accomplished and talented faculty members and staff who are a part of CORE today. In particular, I want to acknowledge Dr. Larry Lynd and the leadership he has provided to CORE as director – a role he has served in since 2014.

As this Faculty looks to the year ahead and beyond, I have every confidence that CORE will continue to succeed in achieving its mission to improve health-care related outcomes for drug therapy through the application of the best in research, education and practice enhancement strategies. And that success will continue to have lasting positive impacts on the health sciences and the well-being of society as a whole.

Sincerely,
Michael Coughtrie BSc(Hons) PhD FCAHS
Professor and Dean



The CORE Evolution and Leadership

2019 was another banner year for CORE faculty and trainees, with continued growth and research accomplishments in terms of funding, publications, and building new collaborations and partnerships.

With the recruitment of Dr. Jacquelyn Cragg, a neuro-epidemiologist specializing in data science and machine learning techniques, CORE has expanded to a total of 9 Faculty, which in turn has supported ongoing growth in research staff and trainees, and has afforded new opportunities for collaborations both within and outside our group. With our continued growth and the potential new opportunities that come from the development of a critical mass of health outcomes faculty has come a need for expanding the CORE leadership team. So, this year also saw the appointment of Drs. Mary de Vera and Mohsen Sadatsafavi as the Associate Director - Education and Associate Director - Research, respectively.

2019 was one of our most successful years to date, generating more than \$1.6 in PI-led reviewed funding from highly competitive funding sources including CIHR, Genome Canada, and Michael Smith Foundation for Health Research. Furthermore, our trainees continue to be very successful in obtaining awards and salary support, exemplifying the high-quality trainees that we are attracting into our program. With over 20 trainees at any time, and continued growth in our training program, we have developed a collaborative, integrated, well supported environment for all levels of trainees from undergraduate summer students to post-doctoral fellows. Under the leadership of CORE, this year we also launched the Data Analytics, Statistics, and Informatics unit, providing statistical support for both the Faculty and other researchers outside the Faculty. Following early success of the unit, we are looking forward to moving towards expanding the unit over the coming months.

Our growth and success over the last two decades has been made possible with ongoing support from the Faculty leadership. This continued support will see the recruitment of additional Faculty over the next 24 – 36 months, including targeted recruitment in the areas of cardiovascular and respiratory health outcomes. Additional faculty will also enable additional trainee recruitment and staff expansion. As such, we will also be embarking on identifying new partnerships to support the development of formalized graduate training program in health outcomes, with a focus on drug therapies.

With our current successes and new opportunities, the future of CORE is very bright, and I look forward to sharing our ongoing successes in the future!



Recognitions and Highlights

Dr. Larry D. Lynd was appointed as Associate Dean Research.

Dr. Mohsen Sadatsafavi was appointed as Associate Director-Research, CORE.

Dr. Mary De Vera was appointed as Associate Director-Education, CORE and was awarded the New Investigator Research Award (\$500).



Dr. Jacquelyn Cragg, joined as the CORE Faculty team as an Assistant Professor. She is a data scientist that completed MPH and PhD degrees in epidemiology and biostatistics from the UBC School of Population and Public Health.

Dr. Cragg also completed her post-doctoral fellowships with the Harvard T.H Chan School of Public Health and International Collaboration on Repair Discoveries (ICORD).

Our Research

PHARMACY PRACTICE RESEARCH
GLOBAL HEALTH
HEALTH SERVICES RESEARCH
HEALTH ECONOMICS
EPIDEMIOLOGY/CLINICAL EVALUATION
PHARMACOEPIDEMIOLOGY
DISEASE MODELING



Faculty



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Graduate and Post Graduate Trainees

COMPLETED

Mohsen Yaghoubi

ACTIVE

Genevieve Breau
Magda Aguiar
Zeinab Hosseini

Postdoctoral
Fellows



Kate Johnson
Mohammad Atiquzzaman
Nelson Gorrin

Alyssa Howren
Ariana Saatchi
Celestin Hategakimana
Nirma Vadlamudi
Norma Biln
Rebecca Metcalfe
Shahrzad Salmasi
Tae (Harry) Lee
Hadis Mozaffari

PhD
Students



Khalid Saad El Din
Ross Duncan

Kexin Zhang
Lisa Liu
Nevena Rebic
Safa ahmadian
Taraneh Bahremand

Masters
Students



Clinical Trainees & Undergraduate Students

Enav Zusman
Jamie Park
Louise Araujo
Nardin Roshan-Moniri
Rebecca Wang
Ria Garg

PharmD
Students/
Residents



Ainsleigh Hill
Bryan Ng
Catherine Gai
Doris Stratoberdha

Jenny Gu
Joseph Ho
Joshua Quisias
Manrubby Dhillon

Undergraduate *
Students



*Undergraduate students include: Summer students, directed studies, and undergraduate academic assistants supervised.

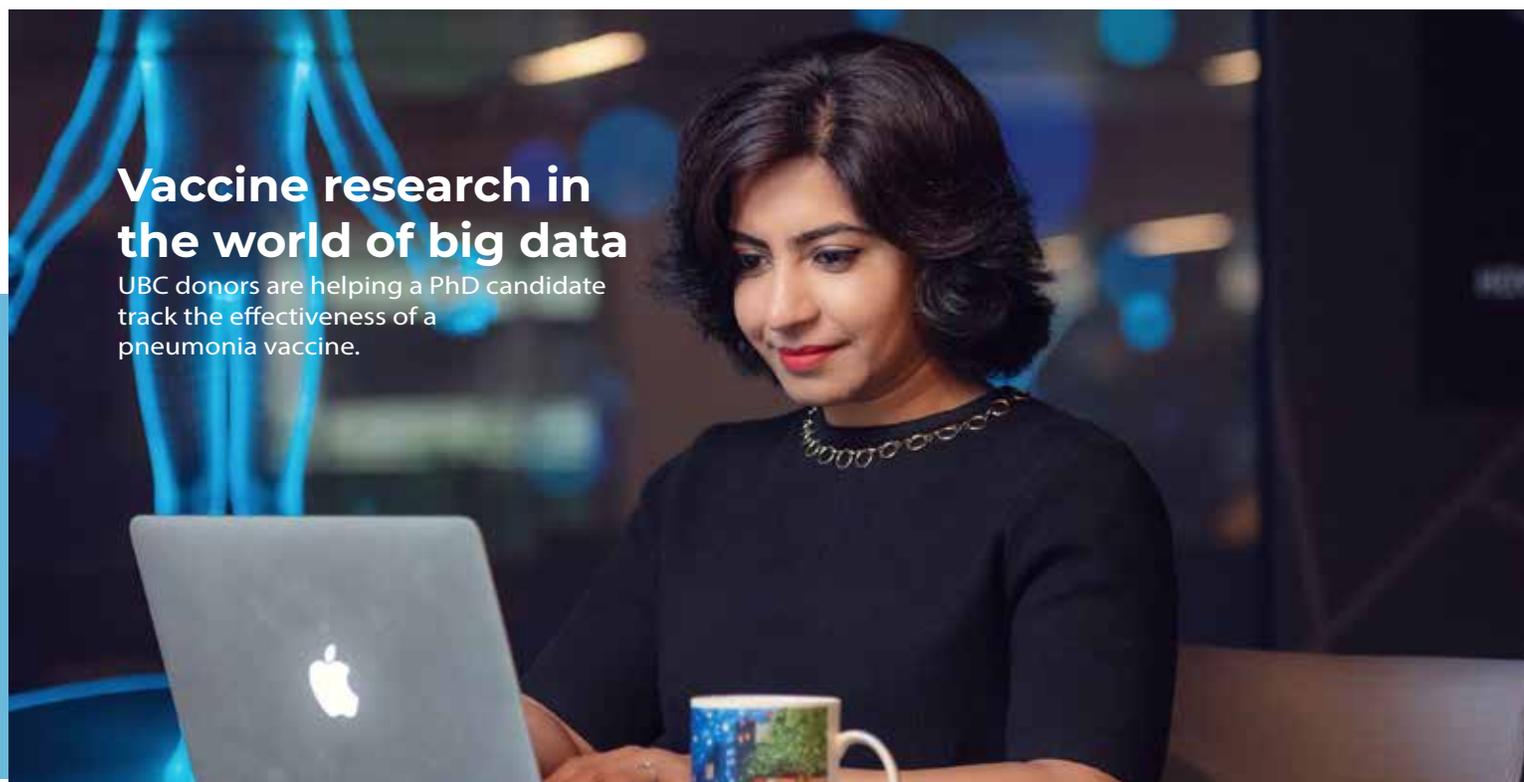
Funding

(New grants and contracts awarded to CORE Faculty as Principal Investigator/Applicant)

Source	Project Title	Total
		Amount to CORE
British Columbia Academic Health Sciences Network / SUPPORT Unit	Incorporating patient preferences into the design of health technologies	\$52,500
Canadian Foundation for Innovation	Programmable Interface for Statistical & Simulation Models (PRISM)	\$235,080
Canadian Initiative for Outcomes in Rheumatology cAre (CIORA)	Perspectives on the implementation of a multidisciplinary conference fee code for community-based patients with rheumatic disease in BC (RHEUM-NURSE)	\$66,665
Canadian Institutes of Health Research Project Grant	Appropriateness of antibiotic use in BC and Ontario	\$350,000
CIHR Catalyst Grant: Secondary Analysis of CLSA data	Gender, social ties and cardiometabolic biomarkers of longevity in Canadian older adults	\$69,972
Canadian Initiative for Outcomes in Rheumatology Care	Making medication decisions for family planning and pregnancy among women with rheumatoid arthritis (MOTHERS)	\$58,238
Canadian Immunization Research Network - Canadian Institutes of Health Research	Invasive pneumococcal disease incidence in BC and Ontario	\$150,000
GlycoNet Collaborative Team Cycle II	The EARLY study: Economic evaluation of a novel pRostate cancer gLYcan-based diagnostic tool	\$157,520

Vaccine research in the world of big data

UBC donors are helping a PhD candidate track the effectiveness of a pneumonia vaccine.



(New grants and contracts awarded to CORE Faculty as Principal Investigator/Applicant)

Source	Project Title	Total
		Amount to CORE
International Collaboration on Repair Discoveries (ICORD)	SCI Pharmacovigilance: a pilot platform to assess neurologic drug safety in acute spinal cord injury	\$20,000
Michael Smith Foundation for Health Research	Building partnerships for implementing a decentralized eHealth collaborative gout care model (BRIDGE)	\$14,977
Michael Smith Foundation for Health Research	Matched funding for The EARLY study: Economic evaluation of a novel prostate cancer gLYcan-based diagnostic tool	\$99,972
Michael Smith Foundation for Health Research	Value judgements in health economics modeling for primary care: Towards patient and public partnership in BC	\$41,500
Optimum Patient Care Global Ltd.	The effect of biologic use in severe asthma	\$99,980
The Arthritis Society	Mapping the epidemiology and the role of treatments in mental health complications in inflammatory arthritis (MATTERS)	\$206,946



Publications

A

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“

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”

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21.5

IMPACT
FACTOR

P

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“

Venous thromboembolism (VTE), including pulmonary embolism (PE) and deep venous thrombosis (DVT), can be life threatening. An increased frequency of VTE has been found in inflammatory conditions. To date, evidence assessing whether this risk is also greater in patients with ankylosing spondylitis (AS) is scarce.

”

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12.38

IMPACT
FACTOR

Collaborations



Teaching

Undergraduate Courses

PHRM 100 - Foundations of Pharmacy: Patients, Pharmacists and Society Module

PHRM 111 - Medication Management I

PHRM 131 - Study Design & Interpretation I

PHRM 211 - Medication Management II

PHRM 212 - Medication Management III

PHRM 231 - Study Design and Interpretation II

PHRM 311 - Medication Management IV

PHRM 312 - Medication Management V

PHRM 450K - Leadership Experience Applied to Pharmacy

PHRM 456 - Applied Pharmacoeconomics

PHRM 450 - Pharm.D. Selected Topics

PHRM 453 - Directed Studies

PHRM 463 - Pharmacotherapeutics 3 - Cardiovascular

Graduate Courses

PHAR 548/648 - M.Sc. Seminar/ Seminar for Ph.D. Students

PHAR 560/SPPH549 - Advanced Economic Evaluation in Health Care

PHAR 591 - Scholarly Integrity and Research Ethics.

Annual Retreat



Another Success!

One of the 2019 highlights was holding the inaugural CORE Annual Retreat at UBC's Golf Course. In the morning session, a mixture of staff and students conducted 3 minute thesis rounds and poster presentations which showcased the breadth of CORE's research.

Shortly after the presentations, we were joined by our guest speaker, Lori Last, the Director, Marketing & Communications at the Michael Smith Foundation for Health Research (MSFHR) who gave an introduction to the MSFHR - BC's provincial health research funding agency. Dr. Larry Lynd then followed with presentation on CORE: Past, Present and Future.

The day concluded with a team building activity at Grandview Lanes where the CORE team went bowling.

Topics Discussed

3 Minute Thesis

Topics

Evaluating strategies for early detection of COPD
 CONNECT survey on information needs of CRC
 Medication Adherence in SLE
 Cost-effectiveness of implementing objective diagnostic testing for asthma in the United States
 Participant perspectives of a pharmacist-led CVD prevention program
 Impact of 13-valent pneumococcal conjugate vaccine in BC
 Medication decision making during pregnancy in women with RA

Student/Staff

Kate Johnson
 Hallie Dau
 Ross Duncan
 Mohsen Yaghoubi
 Anita Kapanen
 Nirma Vadlamudi
 Nevena Rebic

Poster Presentations

Topics

Atrial fibrillation patients' real world persistence with oral anticoagulants: A retrospective Canadian cohort study
 Risk factors for yCRC
 The projected economic and health burden of uncontrolled asthma in the United States
 Can routinely collected administrative health data be used to identify individuals at risk of imminent severe exacerbation of COPD?
 Modelling on the cloud
 The prevalence, incidence, and determinants of depression and anxiety in less common systemic autoimmune rheumatic diseases: A systematic review and meta-analysis
 A patient-oriented approach to inform the design of clinical studies: methodological insights on approaching people with scleroderma in British Columbia
 Projected Economic Burden Of COPD in Canada by 2030
 Management of Pregnancy Hypertension: Patient Preferences and Decisional Needs
 Utilization of Clinical Genetics Services in High-Income Countries: A Scoping Review

Student/Staff

Shahzad Salmasi
 Genevieve Breau
 Mohsen Yaghoubi
 Hamid Tavakoli
 Amin Adibi
 Alyssa Howren
 Magda Aguiar
 Amir Khakban
 Rebecca Metcalfe
 Kennedy Borle & Nicola Kopac

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