Together Towards a Better Tomorrow

Kidney Research Centre
Centre de recherche sur les maladies du rein

Kidney Research Centre 2013-2014 Annual Report

About the KRC

The Kidney Research Center (KRC) was established in 2000 at The Ottawa Hospital Research Institute, University of Ottawa, and is the first centre of its kind in Canada devoted exclusively to the prevention, diagnosis and treatment of kidney disease. The KRC team consists of laboratory scientists, clinician investigators, students and research trainees, technologists, research coordinators, research managers, and clerical and administrative staff. Since 2000, the KRC has experienced significant growth in the size of its team of researchers, and in the scope of the research being conducted.

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Cover: Dr. Greg Knoll:
Professor and Director of
Renal Transplantation, and
KRC Scientist, OHRI

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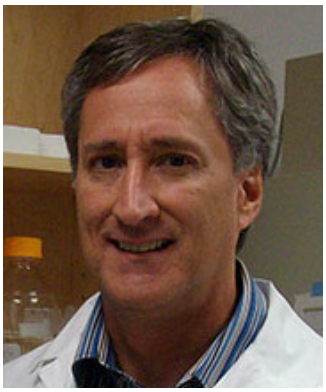


Kidney Research Centre 2013-2014 Annual Report

Executive Summary

The Kidney Research Centre (KRC) was established in the year 2000 at the Ottawa Hospital Research Institute (OHRI, Chronic Disease Program), University of Ottawa, and is dedicated to the prevention, early detection, and treatment of kidney disease. Since 2000, there has been a steady growth in research output from the KRC, and indeed the year 2013-14 was a remarkably productive one, with more than 100 manuscripts published by investigators and staff. The scope of research was broad, ranging from basic science focused on the biology of the glomerular podocyte, to translational studies involving urinary biomarker discovery, to health-outcomes research examining dialysis practice in Canada, and strategies to enhance organ donation. On the basic research side, key publications appeared in the Journal of the American Society of Nephrology from Drs. Chris Kennedy and Richard Hébert and colleagues at the KRC. One of these studies was led by Dr. Dylan Burger (appointed in July 2014 as a Scientist at KRC, OHRI), who described how urinary podocyte microparticles may be the earliest evidence of diabetic nephropathy in animal models, appearing before the development of albuminuria. If confirmed in humans, this exciting finding could lead to improved detection methods for early diabetic kidney disease.

One of the highlights of the year was the recruitment of the Jindal Research Chair for the Prevention of Kidney Disease – Dr. Manish Sood. Dr. Sood arrived from the University of Manitoba, where he developed expertise in the use of administrative databases to answer important questions influencing Nephrology clinical practice across Canada and internationally. Dr. Sood has been appointed as an Associate Scientist at the OHRI, and is pursuing graduate training in Epidemiology at the University of Ottawa. He is also the Founder and Deputy Editor-in-Chief of the recently launched Canadian Journal of Kidney Health and Disease, the first Nephrology-based journal in Canada. The arrival of Dr. Sood represents an important landmark for the Division of Nephrology and the KRC as we strive to improve clinical practice and ultimately prevent kidney disease.

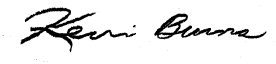
Funding for health research from peer review agencies is at critically low levels on the national scale, and remains highly competitive. In 2013-14, KRC investigators maintained their track record of success in obtaining operating grant support from peer review agencies, a benchmark of research performance. Particularly worthy of note was the announcement in 2013 of a major grant

from the Canadian Institutes of Health Research (CIHR) to KRC Scientist and Director of Kidney Transplantation, Dr. Greg Knoll and colleagues, for a Canadian National Transplant Research Program. Supported by >$2.7 M / year in funding, this program will work to increase organ donation and improve transplant patient outcomes across Canada.

In March 2014, the KRC Clinical Research Manager Ms. Judy Cheesman retired after more than 30 years of exceptional service at The Ottawa Hospital (TOH) and the OHRI. The KRC is pleased to welcome her successor, Ms. Gigi van den Hoef, who arrived with more than 15 years of experience in clinical trials and industry-sponsored research. Gigi leads a group of talented and experienced clinical coordinators and administrative staff who, along with investigators, run approximately 20 clinical trials in nephrology at any one time.

The KRC is fortunate to receive donations through TOH Foundation, from the private sector, community events, and individual donors. These funds are directed at our research programs and allow us to purchase key equipment items, maintain laboratory operations, and run clinical research trials. We thank the TOH Foundation for its invaluable assistance and organization at our fundraising events, and the OHRI and University of Ottawa for their support. We are also thankful for the Alive to Strive Fitness project, led by Ms. Marie-Eve Chainey, which raised over $9,000 for the KRC at its annual race event in April 2014. The 30th annual Serata Italian Night Dinner in March 2014 raised more than $50,000 for the KRC, and we are very grateful to the Italian Night Committee for this ongoing support. In addition, with the backing of the Kidney Foundation of Canada, Research Scholarships were granted to two KRC trainees at this event (Mr. Ramzi Hassouneh from Dr. Hebert's lab, and Dr. Tayze Antunes, from Dr. Touyz' lab). We are also very proud to announce that the Walls and Ceilings Contractors Association (WACCA) selected the KRC as recipient of $85,000 in funds raised at its 31st annual charitable golf tournament, held in September 2014 at the Kanata Golf and Country Club.

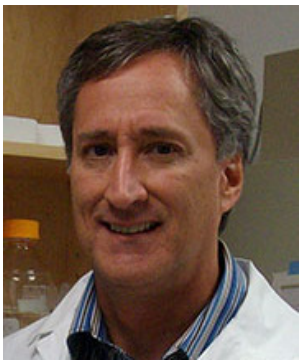
The KRC has changed the format of its annual report this year, to include stories and features that will be of interest to people affected by kidney disease, or the lay public in general. More detailed information about the KRC's activities in 2013-14 (including a complete list of publications) can be found in the appendix section. I would like to thank Ms. Gaby Cherton-Horvat (KRC Lab Manager) and Ms. Pauline Messier (KRC Administrative Assistant) for their hard work and expertise in assembling the information for the report. We hope that you enjoy this new version, and we look forward to another successful year in kidney research.



Kevin D. Burns MD CM, FRCP

Professor of Medicine, Division of Nephrology, Dept. of Medicine

Director, KRC



Centre de recherche sur les maladies du rein – Rapport annuel 2013-2014

Sommaire

Le Centre de recherche sur les maladies du rein (CRMR) a été mis sur pied en 2000 à l'Institut de recherche de l'Hôpital d'Ottawa (IRHO, Programme des maladies chroniques). L'Université d'Ottawa consacre à la prévention, à la détection précoce et au traitement des maladies du rein. Depuis 2000, les retombées de la recherche menée au CRMR n'ont cessé d'augmenter. D'ailleurs, 2013-2014 a été une année remarquablement productive, puisque les chercheurs et le personnel ont publié plus d'une centaine de manuscrits. La recherche est vaste allant de la science fondamentale centrée sur la biologie des podocytes glomérulaires, aux études translationnelles sur la découverte des biomarqueurs urinaires, en passant par les stratégies d'amélioration des dons d'organes et par la pratique de la dialyse au Canada et ses résultats pour la santé. Du côté de la recherche scientifique, les Drs Chris Kennedy et Richard Hébert et leurs collègues du CRMR ont fait paraître de très importantes publications dans le Journal of the American Society of Nephrology. Une de ces études, dirigée par le Dr Dylan Burger (nommé scientifique au CRMR, IRHO, en juillet 2014), décrivait comment les microparticules des podocytes urinaires pourraient être les premiers indices d'une néphropathie diabétique chez des modèles animaux, avant le développement de la protéinurie. Si cela est confirmé chez l'humain, cette intéressante découverte pourrait mener à l'amélioration des méthodes de détection de la néphropathie diabétique précoce.

Un des points saillants de l'année est le recrutement du Dr Manish Sood, Chaire de recherche Jindal pour la prévention des maladies du rein. Le Dr Sood est arrivé de l'Université du Manitoba, où il a acquis des connaissances spécialisées sur le recours à des bases de données administratives pour répondre à d'importantes questions ayant une influence sur la pratique clinique de la néphrologie partout au Canada et à l'échelle internationale. Le Dr Sood a été nommé chercheur associé à l'IRHO et poursuit une formation supérieure en épidémiologie à l'Université d'Ottawa. Il est aussi fondateur et rédacteur en chef délégué de la première revue canadienne de néphrologie récemment lancée, le Journal canadien de la santé et de la maladie rénale. L'arrivée du Dr Sood représente un important jalon pour la Division de néphrologie et pour le CRMR, puisque nous tentons d'améliorer la pratique clinique et, en fin de compte, de prévenir les maladies du rein.

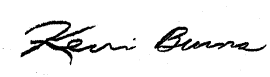
À l'échelle nationale, le faible financement de la recherche en santé provenant des organismes d'examen par les pairs a atteint des niveaux critiques et le milieu demeure hautement compétitif. En 2013-2014, les chercheurs du CRMR ont pourtant maintenu leur bon rendement pour ce qui est d'obtenir le soutien des organismes d'examen par les pairs au moyen des subventions d'exploitation; un point de référence au chapitre du rendement en matière de recherche. Il est particulièrement intéressant de souligner l'annonce, en 2013, d'une subvention majeure par les Instituts de recherche en santé du Canada (IRSC) au Dr Greg Knoll, chercheur du CRMR et directeur des greffes de reins, et à ses collègues pour un Programme national de recherche en

transplantation du Canada. Recevant un financement annuel de plus de 2,7 M$, ce programme contribuera à augmenter les dons d'organes et à améliorer les résultats pour les patients greffés partout au Canada.

En mars 2014, Mme Judy Cheesman, gestionnaire de la recherche clinique au CRMR, a pris sa retraite après plus de 30 ans de services exceptionnels à L'Hôpital d'Ottawa (L'HO) et à l'IRHO. Le CRMR est heureux d'accueillir Mme Gigi van den Hoef, qui lui succède et qui mettra à profit plus de 15 ans d'expérience dans le domaine des essais cliniques et de la recherche commanditée par l'industrie. Mme van den Hoef dirige un groupe de coordonnateurs cliniques talentueux, expérimentés et le personnel administratif qui, de concert avec les chercheurs, s'occupent en tout temps de la réalisation d'une vingtaine d'essais cliniques en néphrologie.

Le CRMR a la chance de recevoir des dons provenant de la Fondation de l'Hôpital d'Ottawa, du secteur privé, d'événements communautaires et de donateurs individuels. Ces fonds sont dirigés vers nos programmes de recherche et nous permettent d'acheter des pièces d'équipement clés, d'assurer le maintien des activités du laboratoire et de mener des essais cliniques dans le cadre de la recherche. Nous remercions la Fondation de l'Hôpital d'Ottawa pour son assistance inestimable et pour l'organisation de nos activités de collecte de fonds, de même que l'IRHO et l'Université d'Ottawa pour leur soutien. Nous sommes aussi reconnaissants pour l'initiative "Vivre ses défis", dirigée par Mme Marie-Eve Chainey, qui a permis d'amasser plus de 9 000 $ pour le CRMR dans le cadre de sa course annuelle tenue en avril 2014. La 30e soirée italienne annuelle tenue en mars 2014 a pour sa part permis de recueillir plus de 50 000 $ pour le CRMR. Nous exprimons toute notre reconnaissance au comité organisateur de cette activité pour son appui continu. En outre, grâce au soutien de la Fondation canadienne du rein, des bourses de recherche ont été octroyées à deux stagiaires du CRMR dans le cadre de cet événement (M. Ramzi Hassouneh du laboratoire du Dr Hébert et Dr Tayze Antunes du laboratoire du Dr Touyz). Nous sommes aussi très fiers d'annoncer que la WACCA (Walls and Ceilings Contractors Association) a choisi le CRMR à titre de récipiendaire des 85 000 $ amassés lors de son 31e tournoi de golf annuel de bienfaisance tenu en septembre 2014, au Kanata Golf and Country Club.

Cette année, le CRMR a changé la présentation de son rapport annuel pour y inclure des histoires et des articles vedettes qui intéresseront les personnes touchées par les maladies du rein et le public en général. Vous trouverez de l'information plus détaillée sur les activités du CRMR en 2013-2014 (dont la liste complète des publications) en annexes. Je désire remercier Mme Gaby Cherton-Horvat (gestionnaire de laboratoire, CRMR) et Mme Pauline Messier (adjointe administrative, CRMR) pour leur bon travail et pour les compétences dont elles ont fait preuve pour rassembler l'information nécessaire à la préparation du présent rapport. Nous espérons que vous apprécierez cette nouvelle version et nous allons de l'avant en espérant une autre année de réussite au chapitre de la recherche sur les reins.



Kevin D. Burns MD CM, FRCP

Professeur de médecine, Division de néphrologie, département de médecine

Directeur du CRMR

The KRC welcomes Dylan Burger, PhD

Micro-sized particles: Macro-sized potential

One would not immediately associate the word 'micro' with Dylan Burger, PhD. Indeed at 6'5" and wearing a size 13 shoe, 'macro' would be more apt. Yet apart from physical stature, Dr. Burger stands tall amongst those in the emerging field of microvesicle biology. As a basic science researcher at the KRC, Dylan studies a little understood, yet fascinating phenomenon whereby thousands of microscopic fragments of less than one micron in diameter, are shed from cells within the body – essentially, tiny parts of their own surface pinch off in response to injury brought about by diseases such as hypertension and diabetes. The effect of this small scale process may have big consequences for many parts of the body, including the kidney. Think of those hundreds of dandelion flowers that have gone to seed in your own yard. After a stiff breeze catches them, your neighbor surely won't appreciate the sudden appearance of the new yellow flowered weeds on her lawn later that summer. One can imagine a similar thing happening when cells shed microvesicles. These fragments cause problems for their neighbors too - traveling next door where they attach to the outer surface of cells, triggering reactions inside that can lead to damage and further fueling the disease process. As Dr. Burger describes, "it's like taking an already bad situation and making it worse".

In fact, one of Dylan's most recent discoveries, and one he lists as his biggest finding to date showed us that specialized cells called podocytes, which form the kidney's filter, release microvesicles when exposed to stressful conditions encountered in hypertension and diabetes. Once released from the podocytes, such fragments attach themselves to other segments of the kidney that are responsible for forming urine called tubular cells, where they may induce injury. While this is certainly remarkable, the most immediately applicable

Profile at a glance:

Dr. Dylan Burger is a Scientist at the Ottawa Hospital Research Institute (OHRI), and an Assistant Professor in the Department of Cellular and Molecular Medicine at the University of Ottawa. He first joined the KRC as a postdoctoral fellow in February 2009. He joined the KRC as a Scientist in July 2014.

finding of this work is that Dylan found these microparticles in the urine of diabetic mice and they appeared before other 'biomarkers' of disease could be detected. This important discovery opens the door to the possibility that podocyte microparticles could eventually identify people suspected of, or at risk for developing kidney disease so that treatments could be implemented at the earliest phases of disease to slow or even stop progression. No more dandelions in the neighborhood?

Dr. Burger officially began his independent career when he opened his own lab at the KRC in July 2014. As the newest recruit to the KRC, within the Chronic Disease Program at the OHRI, Dylan has enjoyed excellent training in preparation for a career as an independent investigator. He initially studied as a graduate student in the laboratory of his admitted scientific role model, Professor Qingping Feng at the University of Western Ontario, obtaining his PhD in Physiology and Pharmacology in 2008. His work examined the role of nitric oxide, a gas that opens up blood vessels in response to the hormone erythropoietin to protect the heart. From 2009 to 2014, Dr. Burger gained experience as a postdoctoral fellow under the supervision of Drs. Rhian Touyz and Kevin Burns here at the KRC. As with any successful young scientist, under the guidance of Drs. Touyz and Burns, Dylan quickly developed his own area of research, asking whether microparticles derived from blood vessel walls play a role by further inducing damage in conditions such as hypertension, a leading cause of kidney disease. The idea first occurred to Dylan when studying for an exam during his graduate work. He was researching how cells die, a process called apoptosis, when he stumbled across the microvesicle world. It dawned on him that the microvesicle forming process would be perfectly applicable to blood vessels, as they experience significant stress in conditions such as high blood pressure and diabetes. This made the move to the Touyz lab a natural fit.

Dylan's scientific interests are likely inherited and were nurtured as he grew up in Peterborough, Ontario. His father, a psychologist, and mother, a nurse, raised an inquisitive son who loved the exposure to science and as Dylan puts it "that joy of understanding, for the first time, how things work". In fact, had he not become a research scientist, he insists that he would have followed in his father's footsteps and gone into psychology. The KRC is fortunate that he chose the former path as we look forward to seeing Dr. Burger make additional breakthroughs in a field where micro-sized particles are quickly becoming macro-sized news.

Dr. Burger's Five "Faves":

Sport: Baseball

Team: Toronto Blue Jays

Hobbies: Cooking

Best Dish: Duck legs, Crab Cakes

Favourite Vacation Spot: Newfoundland

KRC Appoints Prestigious Kidney Research Chair

With the growing prevalence of kidney disease in Canada there is an increasing focus not just on treatment, but on prevention of the disease. In October 2013, Dr. Manish Sood was recruited to the KRC as the first Jindal Chair for the Prevention of Kidney Disease. The Research Chair was made possible by a combination of a generous $1 million donation by Dr. Shiv Jindal and his family, along with contributions from the Division of Nephrology, and community fundraising through The Ottawa Hospital Foundation.

Dr. Sood's research uses information stored in large medical databases to better understand the effectiveness of medical decisions, and how kidney care may be improved across the country. Dr. Sood believes that this approach can have a dramatic and immediate impact on patient care. "Big data has the potential to improve care across kidney disease and in advance of kidney disease" he says.

Dr. Sood is one of the country's foremost experts in this field having built his research program at the University of Manitoba over the previous seven years. The Jindal Chair allows Dr. Sood to further expand his research while working with some of the top nephrologists in the country.

Since his arrival Dr. Sood has been extremely productive. He recently concluded a major study of more than 22,000 patients that examined whether a new laboratory method to calculate kidney function (called "eGFR") has influenced decisions by nephrologists to start patients on dialysis. Reassuringly, Dr. Sood's research found that this new test alone did not influence when patients start dialysis and that other factors (such as patient symptoms) may be more important. The study was published in the prestigious Journal of the American Society of Nephrology, the leading medical journal for kidney research.

Profile at a glance

Dr. Manish Sood is a nephrologist at The Ottawa Hospital, Associate Scientist at the Ottawa Hospital Research Institute (OHRI), and the first Jindal Chair for the Prevention of Kidney Disease. He joined the KRC in October 2013.

The research environment wasn't the only attraction for Dr. Sood. Appointment at the KRC represents a "coming home" of sorts. Born in Toronto, he grew up in Kanata from the age of seven and obtained his undergraduate degree in Science at Carleton University. Dr. Sood completed

his medical training in Toronto before moving to Winnipeg, although his parents remained in the Ottawa area. Returning to his roots therefore represented an appealing opportunity for the father of two.

Dr. Sood's Five "Faves":

Food: Steak, Oysters

Subject in School: Math

Actor: Daniel Day Lewis

Song: Everything in its right place – Radiohead

Movie: The Color Purple

Outside of the laboratory Dr. Sood enjoys spending time with his family and remains active at the gym, running, and swimming. He describes his ideal vacation as "a beach resort where he can wake up, workout, golf, and fall asleep on the beach" and lists Turks and Caicos as a preferred destination. He considers himself a person who likes to challenge conventional thinking and lists Dr. John Ioannidis of Stanford University (who once authored an essay entitled "Why most published research findings are false") as a role model and would choose Winston Churchill as a preferred dinner companion.

Amongst his numerous accomplishments, Dr. Sood also counts an uncredited appearance in the blockbuster film John Q. "It was filmed in Toronto while I was in medical school and a friend and I happened to be passing by the set when they were filming a scene. We joined in a crowd that was standing around the set and the director chose the two of us out of the crowd. We were taken to makeup and I was 'given a girlfriend' and the two of us served as faces in the crowd."

These days Dr. Sood has little time for a film career. In addition to conducting his own research, Dr. Sood contributes to the Canadian Society of Nephrology Clinical Practice Guidelines and is Deputy Editor for the new Canadian Journal of Kidney Health and Disease (an open journal that is free to read for patients and their families- http://www.cjkhd.org/).

The KRC looks forward to exciting contributions from Dr. Sood in the coming years.

Dr. Manish Sood formally accepts the Jindal Research "Chair" in Kidney Disease Prevention (Dec 2013). Pictured (L-R): Dr. Kevin Burns (KRC Director), Dr. Manish Sood, Dr. Peter Magner (Head of the Division of Nephrology), Dr. Duncan Stewart (Scientific Director of the OHRI), and Dr. Shiv Jindal.

KRC welcomes new Clinical Research Manager

Profile at a glance

Gigi van den Hoef is a Clinical Research Program Manager at The Ottawa Hospital, Division of Nephrology. She joined the KRC in March 2014.

The goal of all biomedical research is to improve the health and wellness of everyone. Critical to this process are clinical trials: research studies that seek to determine if medical treatments or strategies are safe and effective. As a major academic research centre, the KRC is involved in several clinical trials aimed at better understanding how to treat kidney disease at all stages. The successful completion of these trials requires but is not limited to: protocol and budget development and oversight; ethics submission and approval; training; subject pre-screening, informed consent, recruitment and follow up visits; monitoring, data cleaning, analysis and reporting. At the heart of all of these areas is a skilled clinical trials manager. In March 2014, Gigi van den Hoef joined the KRC as Clinical Research Program Manager where she oversees the entire portfolio of clinical trials. Having previously worked at the Children's Hospital of Eastern Ontario, CSL Behring, and Baxter Healthcare, Gigi brings a strong background in both industry and investigator initiated research along with strong organizational and management skills. With more than 20 currently active trials the job requires strong organizational and leadership skills which Gigi finds extremely rewarding.

Part of the appeal of working at the KRC was the opportunity for increased patient interaction. Gigi, a registered nurse, had more recently served as a Medical Science Liaison and Clinical Consultant. As Gigi describes "I knew that I wanted the opportunity to work in a hospital setting again. I interviewed for the position and was excited about a challenging opportunity that allowed me to grow professionally ".

The KRC is looking forward to the successful completion of many major clinical trials under Gigi's guidance.

Gigi van den Hoef's Five "Faves":

TV Show: Criminal Minds

Subject in School: Math

City: Rome

Book: 1421 The Year China Discovered the World– Gavin Menzies

Movie: Star Trek

WACCA Golf Tournament Benefits the KRC

Each year the Walls and Ceilings Contractors Association (WACCA) organizes a fund-raising golf tournament for its members and partners in an effort to give back to the community. For the 31st annual event the organizers elected to have the proceeds go to support research at the KRC. The event, which was held at the Kanata Golf and Country Club on September 15th, was a tremendous success raising more than $85,000. The KRC would like to sincerely thank Mr. Albert Lefebvre (head organizer) and the rest of the WACCA organizing committee for their efforts in organizing the event as well as all of the golfers and sponsors of the tournament.

Pictured (L-R): Mr. David Gibson, Dr. Kevin Burns (KRC Director), Ms. Jennifer van Noort (TOH Foundation), Mr. Albert Lefebvre, Mr. Donald Sutherland.

Serata Italian Night Fundraiser Celebrates 30th Year

Since 1984 the Serata Italian Night Dinner has been a staple in the Ottawa social and cultural scene. Over the previous 29 years the event has raised more than $800,000 for kidney research, patient services, awareness initiatives and scholarships. The 30th anniversary of the event was held on March 1 at the Sala San Marco and was an evening of great food, networking, and entertainment. The highly successful event raised over $50,000 for research at the KRC.

The KRC is thankful for the tireless efforts of the Italian Night Organizing Committee in support of research destined to improve the lives of people affected by kidney disease.

Mark Saturday **March 7, 2015** in your calendar for next year's Italian Night Dinner and Gala which is sure to be another spectacular event.

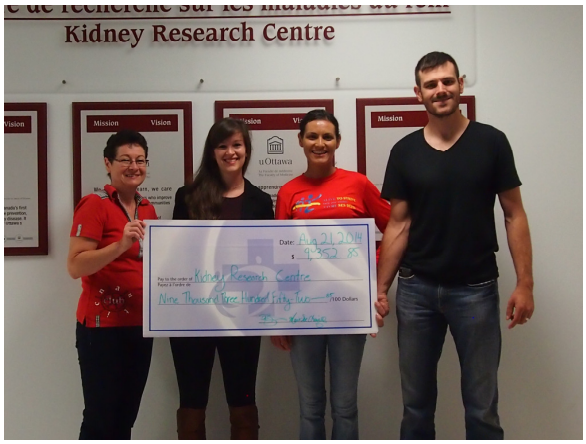
Dr. Burns accepts a cheque from the Italian Night Organizing Committee. Pictured (L-R): Dr. Kevin Burns (KRC Director), Mario Frangione (Chair, Organizing Committee), Laura Frangione (Member, Organizing Committee), Bruce Hill (Kidney Foundation of Canada)

Alive to Strive Race Raises Funds and Awareness for Kidney Disease

In April, the Alive to Strive Kidney Fitness Project hosted its 4th annual race, which promotes awareness and raises funds for fitness grants directed at individuals living with chronic kidney disease. This year more than 850 individuals took part in the race.

The KRC continued its annual participation with a race team and an information booth where participants could learn about kidney disease. In addition to the funds raised for kidney fitness grants, race participants raised over $9,500 for the KRC. We are grateful for the efforts of the Alive to Strive Organizing Committee and all race participants.

KRC runners and volunteers at the 2014 Alive to Strive Kidney Fitness Project Race. Pictured (L-R): CJ Kennedy, Dr. Christopher Kennedy, Ramzi Hassouneh, Dr. Alex Gutsol, J. F. Thibodeau, Naomi Read, Dr. Chet Holterman.



The Alive to Strive Organizing Committee present the KRC with a cheque of funds raised for kidney research at the 2014 race. Pictured (L-R): Lise Desrochers, Danielle Zimmerman, Marie-Eve Chainey, Marc-Andre Chainey

Appendix

1. Staff List
2. Publications 2013-14
3. KRC Funding Summary 2013-14
4. Awards and Distinctions
5. Visiting Scholars

KRC STAFFING 2013-14

POST-DOCTORAL RESEARCH FELLOWS - BASIC SCIENCE

Name	Project Title	Supervisor
Dr. Tayze Antunes	Vascular (patho) biology of TRPM7 chanzymes in hypertension	Dr. R. Touyz
Dr. Dylan Burger	Podocyte microparticles in diabetic nephropathy	Dr. K. Burns
Dr. Chet Holterman	NADPH oxidase (NOX5) in diabetic nephropathy	Dr. C. Kennedy
Dr. Harold Majane	Nox5 derived reactive oxygen species in vascular and renal injury during hypertension	Dr. C. Kennedy

CLINICAL SCHOLARS, TRAINEES AND FELLOWS

Name	Title
Dr. Mahendra Atlanti	Clinical Fellow
Dr. Gavin Harman	Nephrology Trainee (RCPSC)
Dr. Houssam Itani	Clinical Fellow
Dr. John Paul Harmon	Nephrology Trainee (RCPSC)
Dr. Teerath Kumar	Clinical Fellow
Dr. Amit Langote	Renal Transplant Clinical Fellow
Dr. Limesh Marisiddappa	Clinical Fellow
Dr. Andrea Mazarova	Clinical Fellow
Dr. Amber Molnar	Nephrology Trainee (RCPSC)
Dr. Partha Shetty	Renal Transplant Clinical Fellow

RESEARCH PERSONNEL

MEMBERS OF THE DIVISION OF NEPHROLOGY / KIDNEY RESEARCH CENTRE

Name	Title	Scientific Rank
Dr. Ayub Akbari	Assistant Professor Division of Nephrology	Associate Investigator, OHRI
Dr. Robert Bell	Associate Professor Division of Nephrology	
Dr. Mohan Biyani	Assistant Professor Division of Nephrology	Clinical Investigator, OHRI
Dr. Pierre Antoine Brown	Assistant Professor Division of Nephrology	Clinical Investigator, OHRI
Dr. Ann Bugeja	Assistant Professor Division of Nephrology	
Dr. Kevin D. Burns	Professor of Medicine Division of Nephrology Director of Kidney Research Centre	Senior Scientist, OHRI

RESEARCH PERSONNEL

MEMBERS OF THE DIVISION OF NEPHROLOGY / KIDNEY RESEARCH CENTRE

Name	Title	Scientific Rank
Dr. Edward Clark	Lecturer, Division of Nephrology, University of Ottawa	
Dr. Janet Davis	Assistant Professor Division of Nephrology	
Dr. Cedric Edwards	Assistant Professor Division of Nephrology	
Dr. Todd Fairhead	Assistant Professor Division of Nephrology	Associate Scientist, OHRI
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PUBLICATIONS

1. Abujrad H, Mayne J, **Ruzicka M,** Cousins M, Raymond A, Cheesman J, Taljaard M, Sorisky A, **Burns KD** and Ooi, TC. Chronic kidney disease on hemodialysis is associated with decreased serum PCSK9 Levels. Atherosclerosis. 233(1):123-129, 2014.

2. **Akbari A**. Hypertensive Disorders of Pregnancy Predict Chronic Kidney Disease and End-Stage Renal Disease. Evid Based Med. Dec; 18(6), 2013.

3. **Akbari A**, Fergusson D, Kokolo M, Ramsay T, Beck A, Ducharme R, **Ruzicka M**, Grant-Orser A, White C, **Knoll GA**. Spot urine protein measurements in kidney transplantation: a systematic review of diagnostic accuracy. Nephrol Dial Transplant, Apr; 29(4): 919-26, 2014.

4. Bello AK, Stenvinkel P, Lin M, Hemmelgarn B, Thadhani R, Klarenbach S, Chan C, **Zimmerman D**, Cembrowski G, Strippoli G, Carrero JJ, Tonelli M. Serum Testosterone Levels and Clinical Outcomes in Male Hemodialysis Patients. Am J. Kidney Dis, 63(2): 268-275, 2013.

5. Bohn E, Tangri N, Gali B, Henderson B, **Sood MM**, Komenda P, Rigatto C. Predicting mortality risk in dialysis patients: Prognostic value of a simple chest X-ray. BMC Nephrology. Oct 22;14:228, 2013.

6. Bose B, Badve SV, **Hiremath SS**, Boudville N, Brown FG, Cass A, de Zoysa JR, Fassett RG, Faull R, Harris DC, Hawley CM, Kanellis J, Palmer SC, Perkovic V, Pascoe EM, Rangan GK, Walker RJ, Walters G, Johnson DW. Effects of uric acid-lowering therapy on renal outcomes: a systematic review and meta-analysis. Nephrol Dial Transplant. Feb;29(2):406-13, 2014.

7. Bruder-Nascimento T, Chinnasamy P, Riascos-Bernal DF, Cau SB, Callera GE, **Touyz RM**, Tostes RC, Sibinga NE. Angiotensin II induces Fat1 expression/activation and vascular smooth muscle cell migration via Nox1-dependent reactive oxygen species generation. J Mol Cell Cardiol. 66:18-26, 2014.

8. Bueti J, Tangri N, Mandelzweig K, Xu Y, Hiebert B, Nickerson P, Rush D, **Sood MM**, Komenda P, Rigatto C. Effect of time on dialysis and renal transplantation on endothelial function: A longitudinal analysis. Transplantation. May 2014.

9. **Burger D**, Reudelhuber TL, Mahajan A, Chibale K, **Touyz RM**, Sturrock ED (2014) Effects of a domain selective ACE inhibitor in a mouse model of chronic angiotensin II-dependent hypertension. Clin Sci (Lond). 127(1):57-63, 2014.

10. **Burger D**, Thibodeau JF, Holterman C, **Burns KD, Touyz R** and **Kennedy C**. Urinary podocyte microparticles identify prealbuminuric diabetic glomerular injury. J Am Soc Nephrol. 7:1401-1407, 2014.

11. **Burger D**, Veerabhadrappa P, Charchar F, Schutte AE, Tomaszewski M (2014) "Report of the 3rd Annual International Society of Hypertension New Investigator Symposium". J Hypertens. Feb 32(2):448-449, 2014.

12. Chassé M, English S, McIntyre L, **Knoll G**, Shehata N, Forster A, Wilson K, van Walraven C, Tinmouth A, Fergusson D. Effect of blood donor characteristics on transfusion outcomes: a protocol for systematic review and meta-analysis. Systematic Reviews. Mar 20, 3:28, 2014.

13. Chassé M, Glen P, Doyle MA, McIntyre L, English SW, **Knoll G**, Lizé JF, Shemie SD, Martin C, Turgeon AF, Lauzier F, Fergusson DA. Ancillary testing for diagnosis of brain death: a protocol for a systematic review and meta-analysis. Systematic Reviews. Nov 9; 2(1):100, 2013.

14. Chen L, Advani S, Thai K, Kabir M, **Sood MM**, Gibson I, Yuen D, Connelly K, Marsden P, Gilbert R, Advani A. SDF-1/CXCR4 preserves microvascular integrity and renal function in chronic kidney disease. PLOS one. Mar 17;9(3):e92227, 2014.

15. Cherney DZ, Perkins BA, Soleymanlou N, Xiao F, Zimpelmann J, Woerle HJ, Johansen OE, Broedl UC, von Eynatten M and **Burns KD**. Sodium Glucose Cotransport-2 Inhibition and Intrarenal RAS Activity in People with Type 1 Diabetes. Letter to the Editor – Kidney Int (In Press)

16. Cherney DZ, Xiao F, Zimpelmann J, Har RL, Lai V, Scholey JW, Reich HN and **Burns KD.** Urinary ACE2 in Healthy Adults and Patients with Uncomplicated Type 1 Diabetes. Can J Physiol Pharmacol. 2014 Aug;92(8):703-6, 2014.

17. Cherney DZ, Zinman B, **Kennedy CRJ**, Moineddin R, Lai V, Yang S, Miller JA, Prokopec SD, Boutros PC, Scholey JW and Reich HN. Long-term hemodynamic and molecular effects persist after discontinued renin-angiotensin system blockade in patients with type 1 diabetes mellitus. Kidney Int. 84: 1246-1253, 2013.

18. **Clark E**, Bagshaw SM. Long-term risk of sepsis among survivors of acute kidney injury. Crit Care. Jan 24;18(1):103, 2014

19. **Clark EG**, Barsuk JH. Temporary hemodialysis catheters: recent advances. Kidney Int. May 7, 2014.

20. **Clark E**, **Edwards C**. In reply to 'training can be cost-effective in reducing morbidity associated with temporary hemodialysis catheter insertion'. Am J Kidney Dis. Feb; 63(2):346-7, 2014.

21. **Clark E**, **Molnar AO**, Joannes-Boyau O, Honore PM, Sikora L, Bagshaw SM. High-volume hemofiltration for septic acute kidney injury: a systematic review and meta-analysis. Crit Care. Jan 8;18(1):R7, 2014.

22. Cuerrier CM, Chen YX, Tremblay D, Rayner K, McNulty M, Zhao X, **Kennedy CR**, de BelleRoche J, Pelling AE and O'Brien ER. Chronic over-expression of heat shock protein 27 attenuates atherogenesis and enhances plaque remodeling: a combined histological and mechanical assessment of aortic lesions. PLoS One 8(2):e55867, 2013.

23. Cybulsky AV, Walsh M, **Knoll G**, Hladunewich M, Bargman J, Reich H, Humar A, Samuel S, Bitzan M, Zapitelli M, Dart A, Mammen C, Pinsk M, Muirhead N. Canadian Society of Nephrology Commentary on the 2012 KDIGO Clinical Practice Guideline for Glomerulonephritis: Management of Glomerulonephritis in Adults. Am J Kidney Dis. Mar;63(3):354-62, 2014.

24. Dahlan R, **Biyani M**, **McCormick BB**. High mortality following gastrostomy tube insertion in adult peritoneal dialysis patients: case report and literature review. Endoscopy. 45 Suppl 2, 2013.

25. Dahlan R, **Lavoie S**, **Biyani M**, **Zimmerman D**, **McCormick BB**. A high serum vancomycin level is associated with lower relapse rates in coagulase-negative staphylococcal peritonitis. Perit Dial Int. Mar-Apr;34(2):232-5;63(6):869-87, 2014.

26. Dahlan R, **McCormick BB**, Alkhattabi M, Gallo K, Clark WF, Rock G. Patients' quality of life after stopping plasma exchange: A pilot study. Transfus Apher Sci. May 15. pii: S1473-0502(14)00103-7, 2014.

27. Dasgupta K, Quinn RR, Zarnke KB, Rabi DM, Ravani P, Daskalopoulou SS, Rabkin SW, Trudeau L, Feldman RD, Cloutier L, Prebtani A, Herman RJ, Bacon SL, Gilbert RE, **Ruzicka M**, McKay DW, Campbell TS, Grover S, Honos G, Schiffrin EL, Bolli P, Wilson TW, Lindsay P, Hill MD, Coutts SB, Gubitz G, Gelfer M, Vallée M, Prasad GV, Lebel M, McLean D, Arnold J Malcolm, Moe GW, Howlett JG, Boulanger JM, Larochelle P, Leiter LA, Jones C, Ogilvie RI, Woo V, Kaczorowski J, **Burns KD**, Petrella RJ, Hiremath S, Milot A, Stone JA, Drouin D, Lavoie KL, Clamrre-Cliché M, Tremblay G, Hamet P, Fodor G, Carruthers SG, Pylypchuk GB, Burgess E, Lewanczuk R, Dresser GK, Penner SB, Hegele RA, McFarlane PA, Khara M, Pipe A, Oh P, Selby P, Sharma M, Reid D, Tobe SW, Padwal RS and Poirier L for the Canadian Hypertension Education Program. The 2014 Canadian Hypertension Education Program (CHEP) Recommendations for Blood Pressure Measurement, Diagnosis, Assessment of Risk, Prevention and Treatment of Hypertension. Can J Cardiol. May:30(5) 485-501, 2014.

28. Dipchand AI, White M, Manlhiot C, Pollock S, Rooney TA, West L, He Y, **Touyz RM**. Myocyte growth, repair, and oxidative stress following pediatric heart transplantation. Pediatr Transplant. Nov;18(7):764-70, 2014.

29. **Edwards C**, **Hiremath S**, Gupta A, **McCormick BB**, **Ruzicka M**. BpTRUth: do automated blood pressure monitors outperform mercury? J Am Soc Hypertens. Nov-Dec;7(6):448-53, 2013.

30. Feber J, **Ruzicka M**, Geier P, Litwin M. Autonomic Nervous System Dysregulation in Pediatric Hypertension. Curr Hypertens Rep. 16:426-433, 2014.

31. Friesen T, Jassal DS, Zhu M, Eng F, Rigatto C, Tangri N, **Sood MM**, Karlstedt E, Premecz S, Komenda P. Cardiovascular remodeling during long-term nocturnal home hemodialysis. Clin Exp Nephrol, June 2014.

32. Froeschl MPV, Hadziomerovic A, **Ruzicka M**. Percutaneous Renal Sympathetic Denervation: 2013 and Beyond. Can J Cardiol. 30:64-74, 2014.

33. Gill J, Klarenbach S, Barnieh L, Caulfield T, **Knoll G**, Levin A, Cole E. Financial Incentives to Increase Canadian Organ Donation: Quick Fix or Fallacy? Am J Kidney Dis. 63(1):133-40, 2014.

34. Gonzaga NA, Callera GE, Yogi A, Mecawi AS, Antunes-Rodrigues J, Queiroz RH, **Touyz RM**, Tirapelli CR. Acute ethanol intake induces mitogen-activated protein kinase activation, platelet-derived growth factor receptor phosphorylation, and oxidative stress in resistance arteries. J Physiol Biochem. 70(2):509-23, 2014.

35. Harmon JP, **Zimmerman D**, Zimmerman DL, Anticoagulant and Antiplatelet Therapy in Patients with Chronic Kidney Disease: Risks Versus Benefits Review. Curr Opin Nephrol Hypertens. Nov;22(6):624-8, 2013.

36. Hesketh CC, **Knoll GA**, **Molnar A**, Tsampalieros A, Zimmerman DL. Vitamin D and Kidney Transplant Outcomes: A Protocol for a Systematic Review and Meta-Analysis. Systematic Reviews. Jun 14; 3(1): 64, 2014

37. **Hiremath S**, **Akbari A**. Calcium-based phosphate binders and chronic kidney disease. Lancet. Jan 18; 383(9913):216, 2014.

38. **Hiremath S**, **Edwards C**, **McCormick BB**, **Ruzicka M**. Reply to Dr Myers' Commentary on the Use of Automated Blood Pressure Machines in Office Blood Pressure Measurements. J Clin Hypertens (Greenwich). Jul;16(7):540, 2014

39. **Hiremath S**, Froeschl M, **Ruzicka M**. Catheter-based Renal Sympathetic Denervation: Limitations to and Gaps in the Evidence. Curr Opin Cardiol. 29;336-343, 2014.

40. **Hiremath S**, **Ruzicka M**, Nagaraju SP, **McCormick BB**. Clinical hypotension with co-prescription of macrolide antibiotics and calcium-channel blockers in haemodialysis patients: a retrospective chart review. Drug Saf. Oct;36(10):989-93, 2013.

41. **Hiremath S**, Slivar S, **Magner P**. Phosphate balance with continuous renal replacement therapy: a simple solution. Am J Kidney Dis. Sep;62(3):644, 2013.

42. Holterman CE, Thibodeau JF, Towaij C, Gutsol A, Montezano AC, Parks RJ, Cooper ME, **Touyz RM** and **Kennedy CRJ**. Nephropathy and Elevated BP in Mice with Podocyte-Specific NADPH Oxidase 5 Expression. J Am Soc Nephrol. 25:784-797, 2014.

43. Honkanen E, Hazel I, **Zimmerman D**. High-dose hemodialysis: Time for a change. Hemodial Int. 18(1):3-6, 2014.

44. Humar A, Gill J, Johnston O, Fergusson D, House A, Lebel L, Cockfield S, Kim SJ, Zaltzman J, Cantarovich M, **Karpinski M**, Ramsay T, **Knoll GA**. Quinolone prophylaxis for the prevention of BK virus infection in kidney transplantation: study protocol for a randomized controlled trial. Trials. Jun 21;14:185, 2013.

45. Hutton B, Joseph L, Yazdi F, Tetzlaff J, Hersi M, Kokolo M, Fergusson N, Bennett A, Buenaventura C, Fergusson D, Tricco A, Strauss S, Moher D, **Knoll G**. Checking whether there is an increased risk of post-transplant lymphoproliferative disorder and other cancers with specific modern immunosuppression regimens in renal transplantation: Protocol for a network meta-analysis of randomized and observational studies. Syst Rev. Feb 22; 3: 16, 2014.

46. Kayibanda JF, **Hiremath S**, **Knoll GA**, Fergusson D, Chow BJW, Shabana, W, **Akbari A**. Does Intravenous Contrast-Enhanced Computed Tomography Cause Acute Kidney Injury? Protocol of a Systematic Review of the Evidence. Syst Rev. 3:94, 2014.

47. Klarenbach S, Gill J, **Knoll G**, Caulfield T, Boudville N, Prasad GVR, **Karpinski M**, Storsley L, Treleaven D, Arnold J, Cuerden M, Jacobs P, Garg A. Economic consequences incurred by living kidney donors: A Canadian multi-centre prospective study. Am J Transpl. 14(4): 916-22, April 2014.

48. Komenda P, Ferguson T, Rigatto C, Koolage C, **Sood MM**, Tangri N. The cost effectiveness of primary screening for chronic kidney disease: A Systematic review and meta-analysis. Am J Kidney Dis. May;63(5):789-97, 2014.

49. Law, AY, **Hebert, RL**, Nasrallah, R, Langenbach, R, Wong, CKC, Wagner, GF. Cyclooxygenase-2 mediates induction of the renal stanniocalcin-1 gene by arginine-vasopressin. Mol Cell Endocrinol. Vol. 381: pp. 210 – 219, 2013.

50. Levin A, Clase C, **Sood MM**, Dicks E, Fortin M, Hartwig S, Holden R, Lafrance JP, Molzahn A, Rosenblum N, Samuel S, Soroka S. Canadian Journal of Kidney Health And Disease: A unique launch of a unique journal. The Canadian Journal of Health and Kidney Disease. April 2014.

51. Li A, Dixon S, Prakash V, Kim SJ, **Knoll GA**, Lam NN, Garg A. Physician Registration for Deceased Organ Donation. JAMA. Jul 16;312(3):291-3, 2014.

52. Li A, Kim SJ, Rangrej J, Scales DC, Shariff S, Redelmeier D, **Knoll G**, Young A, Garg A. Validity of physician billing claims to identify deceased organ donors in large healthcare databases. PLoS One. Aug 14;8(8):e70825, 2013.

53. Lloyd A, Tangri N, Rigatto C, Shafer LA, Perl J, Komenda P, **Sood MM**. The risk of peritonitis after an exit site infection: A time-matched, case-control study. Nephrol Dial Transplant. Jul;28(7):1915-21, 2013.

54. Mailloux RJ, Xuan JY, McBride S, Maharsy W, Thorn S, Holterman CE, **Kennedy CR**, Rippstein P, Dekemp R, Da Silva J, M Nemer, Lou M and Harper ME. Glutaredoxin-2 is Required to Control Oxidative Phosphorylation in Cardiac Muscle by Mediating Deglutathionylation Reactions. J Biol Chem. 289(21): 14812-14828, 2014.

55. Mann BS, Manns BJ, Dart A, Kappel J, Naimark D, Nessim S, Soroka S, **Sood MM**. An assessment of practice patterns and dialysis provider's attitudes towards timing of dialysis initiation in Canada (CANN-NET). Canadian Journal of Kidney Health and Disease. **1**:3, April 2014.

56. **McCormick B**, **Hiremath S, Ruzicka M**. Lower blood pressure target in non-diabetic proteinuric chronic kidney disease is not justified. Kidney Int. 86,855, 2014..

57. **McCormick B**, **Zimmerman D**, **Lavoie DS**, **Biyani M,** Dahlan, R. A High Serum Vancomycin Level is Associated With Lower Relapse Rates of Coagulase Negative Staphylococcal Peritonitis. Perit Dial Int. Mar-Apr, 34(2): 232-235, 2014.

58. Miller LM, Vercaigne L, Moist L, Lok CE, Tangri N, Komenda P, Rigatto C, Mojica J, **Sood MM**. Residential distance to dialysis facility and likelihood of central venous catheter usage in end stage kidney disease. BMC Nephrology. Feb 27; 15:40, 2014.

59. Moist LM, Troyanov S, White CT, Wazny LD, Wilson J, **Sood MM**, Bass A, McFarlane P, Soroka S, Klarenback S, Hemmelgarn B, Mann BJ. Canadian Society of Nephrology Commentary on the 2012 Kidney Disease Improving Global Outcomes (KDIGO) Clinical Practice Guidelines for Anemia and Chronic Kidney Disease. Am J Kidney Dis. Nov ;62(5):860-73, 2013.

60. **Molnar AO**, Parikh CR, Coca SG, Thiessen-Philbrook H, Koyner JL, Shlipak MG, Lee Myers M, Garg AX; TRIBE-AKI Consortium. Association between preoperative statin use and acute kidney injury biomarkers in cardiac surgical procedures. Ann Thorac Surg. Jun;97(6):2081-7, 2014.

61. Moorthi R, Tangri N, Lam A, **Sood MM**, Wagner M, Alam A. Predictors of publication of randomized control trials presented at a Nephrology Conference. Clin Nephrol. Oct;80(4):280-5, 2013.

62. Mustafa R, Levin A, **Akbari A**, Foster B, **Zimmerman D**, Nesrallah G, **Knoll GA**, Rioux JP, Barton J, **Ruzicka M**, Muirhead N, Moist L, Pannu N, McFarlane P, Klarenbach S, Samuel S, Clark WF, Hemmelgarn BR. The Canadian society of nephrology methods in developing and adapting clinical practice guidelines: a review. Canadian Journal of Kidney Health and Disease. 1:5, (May), 2014.

63. Mustafa RA, **Zimmerman D**, Rioux JP, Suri RS, Gangji A, Steele A, Macrae J, Pauly RP, Perkins DN, Chan CT, Copland M, Komenda P, McFarlane PA, Lindsay R, Pierratos A. Vascular Access for Intensive Maintenance Hemodialysis: A Systematic Review for a Canadian Society of Nephrology Clinical Practice Guidelines. Am J. Kidney Dis. July;62(1):112-31, 2013.

64. Nagaraju SP, Gupta A, **McCormick B**. Oxalate nephropathy: An important cause of renal failure after bariatric surgery. Indian J Nephrol. Jul;23(4):316-8, 2013.

65. Nasrallah, R, Hassouneh, R, **Hebert, RL**. Chronic kidney disease: Targeting prostaglandin E_2 receptors. Am. J. Physiol. Vol. 307: (3), F243 – F250, 2014.

66. Nayak-Rao S, **McCormick B**. Erythropoietin use in CKD patients with cancer: to tread with caution? J Nephrol. 2013 Sep-Oct;26(5):829-35.

67. Nesrallah GE, Clark WF, Mustafa RA, Bass A, Barnieh L, Hemmelgarn B, Klarenbach S, Quinn R, **Hiremath S**, Ravani P, **Sood MM**, Moist LM. Canadian Society of Nephrology 2012 Clinical Practice Guideline for Timing of Dialysis Initiation. Canadian Medical Association Journal. Feb 2014.

68. Nesrallah GE, Mustafa RA, Clark WF, Bass A, Barnieh L, Hemmelgarn BR, Klarenbach S, Quinn RR, Hiremath S, Ravani P, **Sood MM**, Moist LM. Canadian Society of Nephrology. 2014 Clinical Practice guideline for timing the initiation of chronic dialysis. CMAJ. Feb 4;186(2):112-7, 2014.

69. Nguyen Dinh Cat A, Montezano AC, Burger D, **Touyz RM**. Angiotensin II, NADPH Oxidase, and Redox Signaling in the Vasculature. Antioxid Redox Signal. Oct 1;19(10):1110-20, 2013.

70. Owen RJ, **Hiremath S**, Myers A, Fraser-Hill M, Barrett BJ. Canadian Association of Radiologists consensus guidelines for the prevention of contrast-induced nephropathy: update 2012. Can Assoc Radiol J. May;65(2):96-105, 2014.

71. Patrick C, Wang GS, Lefebvre DE, Crookshank JA, Sonier B, Eberhard C, Mojibian M, **Kennedy CR**, Brooks SP, Kalmokoff ML, Maglio M, Troncone R, Poussier P and Scott FW. Promotion of autoimmune diabetes by cereal diet in the presence or absence of microbes associated with gut immune activation, regulatory imbalance, and altered cathelicidin antimicrobial Peptide. Diabetes. Jun;62:2036-47, 2013.

72. Pauly RP, Komenda P, Chan CT, Copland M, Azim G, Hirsh D, Lindsay R, MacKinnon M, MacRae JM, McFarlane P, Nesrallah G, Pierratos A, Plaisance M, Reintjes F, Rioux JP, Shik J, Steele A, Stryker R, Wu G, **Zimmerman D**. Programmatic Variation in Home Hemodialysis in Canada: Results from a Nationwide Survey of Practice Patterns. CJKD. 1:11, DOI: 10.1186/2054-3581-1-11, 2014.

73. Read NC, Gutsol A, Holterman CE, Carter, Coulombe AJ, Gray DA, and **Kennedy CR**. Ubiquitin C-terminal hydrolase L1 deletion ameliorates glomerular injury in mice with ACTN4-associated focal segmental glomerulosclerosis. Biochim Biophys Acta. 1842(7): 1028-1040, 2014.

74. Rizkallah J, **Sood MM**, Reslerova M, Cordova F, Malik A, Sathianathan C, Estrella E, Zieroth S. Reduced hospitalizations in severe, refractory congestive heart failure with peritoneal dialysis: A consecutive case series. Clin Nephrol. Nov;80(5):334-41, 2013.

75. **Ruzicka M**, **Hiremath S**, Steiner G, Helis E, Szczotka A, Baker P, Fodor G. What is the feasibility of implementing effective sodium reduction strategies to treat hypertension in primary care settings? A systematic review. J Hypertens. Jul; 32:1388-1394. 2014.

76. **Ruzicka M**, **McCormick B**, Leenen FH, Froeschl M, **Hiremath S**. Adherence to blood pressure-lowering drugs and resistant hypertension: should trial of direct observation therapy be part of pre-assessment for renal denervation? Can J Cardiol. Dec;29(12):1741.e1-3, 2013.

77. **Ruzicka M**, Quinn RR, McFarlane P, Hemmelgarn B, Ramesh Prasad GV, Feber J, Nesrallah G, MacKinnon M, Tangri N, **McCormick B**, Tobe S, Blydt-Hansen TD, **Hiremath S**. Canadian Society of Nephrology commentary on the 2012 KDIGO clinical practice guideline for the management of blood pressure in CKD. Am J Kidney Dis. Jun;63(6):869-87, 2014.

78. Samuel S, Bitzan M, Zappitelli M, Dart A, Mammen C, Pinsk M, Cybulsky AV, Walsh M, **Knoll G**, Hladunewich M, Bargman J, Reich H, Humar A, Muirhead N. Canadian Society of Nephrology Commentary on the 2012 KDIGO Clinical Practice Guideline for Glomerulonephritis: Management of Nephrotic Syndrome in Children. Am J Kidney Dis. Jan 11. pii: S0272-6386(13)01556-4, 2014.

79. Schachter M, Bargman JM, Copland M, Hladunewich M, Tennankore KK, Levin A, Oliver M, Pauly R, Perl J, **Zimmerman D**, Chan CT. Rational for a Home Dialysis Virtual Ward: Design and Implementation. BMC Nephrol;15(1):33, 2014.

80. Schock SC, Edrissi H, **Burger D**, Cadonic R, Hakim A, Thompson C. Microparticles generated during chronic cerebral ischemia deliver proapoptotic signals to cultured endothelial cells. Biochem Biophys Res Commun. Jul 18;450(1):912-7, 2014.

81. Sedeek M, Nasrallah R, **Touyz RM**, **Hebert RL**. NADPH oxidases, Reactive oxygen species and the kidney: Friend and Foe. J. Am. Soc. Nephrol. 24: (10), pp.1512 – 1518, 2013.

82. Shah M, Jain AK, Brunelli SM, Coca SG, Devereaux PJ, James MT, Luo J, **Molnar AO**, Mrkobrada M, Pannu N, Parikh CR, Paterson M, Shariff S, Wald R, Walsh M, Whitlock R, Wijeysundera DN, Garg AX. Association between angiotensin converting enzyme inhibitor or angiotensin receptor blocker use prior to major elective surgery and the risk of acute dialysis. BMC Nephrol. Apr 2;15:53. doi: 10.1186/1471-2369-15-53, 2014.

83. Shannon CP, Balshaw R, Ng RT, Wilson-McManus JE, Keown P, McMaster R, McManus B, Landsberg D, Isbel NM, **Knoll G**. Tebbutt SJ. Two-Stage, In Silico Deconvolution of the Lymphocyte Compartment of the Peripheral Whole Blood Transcriptome in the Context of Acute Kidney Allograft Rejection. PLOS One. (9)4: e95224. Published April 14. doi:10.1371/journal.pone.0095224, 2014.

84. Shaw J, Shetty P, **Burns KD** and **Knoll G**. The therapeutic potential of C-peptide in kidney disease: a protocol for a systematic review and meta-analysis. Syst Rev. May 2;3:43, 2014.

85. Shin H, Günther O, Hollander Z, Wilson-McManus J, Ng R, Balshaw R, Keown P, McMaster R, McManus B, Isbel N, **Knoll G**, Tebbutt S. Longitudinal Analysis of Whole Blood Transcriptomes to Explore Molecular Signatures Associated With Acute Renal Allograft Rejection. Bioinform Biol Insights. Jan 22;8:17-33, 2014.

86. Smith OM, Wald R, Adhikari NK, Pope K, Weir MA, Bagshaw SM, Canadian Critical Care Trials Group. Standard versus accelerated initiation of renal replacement therapy in acute kidney injury (STARRT-AKI): study protocol for a randomized controlled trial. Trials. Oct 5;14:320., 2013.

87. **Sood MM,** Manns B, Nesrallah, G. Using the knowledge to action framework to guide the timing of dialysis initiation. Curr Opin Nephrol Hypertens. May:23(3):321-7, 2014.

88. **Sood MM**, Tangri N, Komenda P, Rigatto C, Khojah S, Hiebert B, Menkis A, Tam J, Arora R. Incidence, secular trends and outcomes of cardiac surgery in Aboriginal Peoples. Can J Cardiol. Dec; 29(12):1629-36, 2013.

89. Squires JE, Grimshaw JM, Taljaard M, Linklater S, Chassé M, Shemie SD**, Knoll GA**. Design, Implementation, and Evaluation of a Knowledge Translation Intervention to Increase Organ Donation after Cardiocirculatory Death in Canada: A Study Protocol. Implement Sci. Jun 20; 9:80, : DOI: 10.1186/1748-5908-9-80, 2014.

90. Thibodeau JF, Nasrallah R, Carter A, He Y**, Touyz R**, **Hebert RL** and **Kennedy CR**. PTGER1 Deletion Attenuates Renal Injury in Diabetic Mouse Models. Am J Pathol. 183(6): 1789-802, 2013.

91. Thomas SM, Lam N, Huang A, Nash DM, Prasad GVR, **Knoll GA**, Koval JJ, Lentine KL, Kim SJ, Alam A, Lok CE, Treleaven DJ, Garg AX for the Donor Nephrectomy Outcomes Research (DONOR) Network. Risk of serious gastrointestinal bleeding in living kidney donors. Clin Transplant. May; 28(5): 530-9, 2014.

92. Thomas SM, Lam NN, Welk BK, Nguan C, Huang A, Nash D, Prasad GVR, **Knoll GA**, Koval JJ, Lentine K, Kim SJ, Lok CE, Garg AX. Risk of kidney stones with surgical intervention in living kidney donors. Am J Transplant. 13(11):2935-44, 2013.

93. van Walraven C, Manuel D, **Knoll GA**. Survival Trends in End-Stage Renal Disease Patients Compared to the General Population in the United States. Am J Kidney Dis. 2014 Mar; 63(3): 491-9, 2014.

94. Walker S, Gill K, MacDonald K, Komenda P, Rigatto C, **Sood MM**, Bohm C, Storsley L, Tangri N. Association of frailty and physical function in patients with non-dialysis CKD: A systematic review. BMC Nephrology. Oct 22;14:228, 2013.

95. Walsh M, Srinathan SK, McAuley DF, Mrkobrada M, Levine O, Ribic C, **Molnar AO**, Dattani ND, Burke A, Guyatt G, Thabane L, Walter SD, Pogue J, Devereaux PJ. The statistical significance of randomized controlled trial results is frequently fragile: a case for a Fragility Index. J Clin Epidemiol. Jun;67(6):622-8, 2014.

96. Wong B, **Zimmerman D,** Reintjes F, Courtney M, Klarenbach S, Dowling G, Pauly RP. Procedure-Related Serious Adverse Events Among Home Hemodialysis Patients: A Quality Assurance Perspective. Am J Kidney Dis. 63(2): 251-258, 2013.

97. Wysocki J, Garcia-Halpin L, Ye M, Maier C, Sowers K, **Burns KD** and Batlle D. Regulation of Urinary ACE2 in Diabetic Mice. Am J Physiol Renal Physiol. 305(4):F600-11, 2013.

98. Xiao F, Zimpelmann J, Agaybi S, Gurley SB, Puente L, **Burns KD**. Characterization of angiotensin-converting enzyme 2 ectodomain shedding from mouse proximal tubular cells. PLoS One. Jan 15;9(1), 2014.

99. Young A, Kim SJ, Garg AX, Huang A, **Knoll G**, Prasad GVR, Treleaven D, Lok CE. Living Kidney Donor Estimated Glomerular Filtration Rate and Recipient Graft Survival. Nephrol Dial Transplant. 2014 Jan;29(1):188-95, 2014.

100. Yogi A, Callera GE, O'Connor S, Antunes TT, Valinsky W, Miquel P, Montezano ACI, Perraud AL, Schmitz C, Shrier A, **Touyz RM**. Aldosterone signaling through transient receptor potential melastatin 7 cation channel (TRPM7) and its α-kinase domain. Cell Signal. Nov 25(11):2163-75, 2013.

101. **Zimmerman D**, Nesrallah GE, Lindsay RM. In reply to "Dialysate Calcium Concentration and Mineral Metabolism in long and long frequent Hemodialysis". Am J Kidney Dis. 62(5):1019-20, 2013.

102. **Zimmerman DL**, **Ruzicka M**, Hebert P, Fergusson D, **Touyz RH**, **Burns KD**. Short Daily versus Conventional Hemodialysis for Hypertensive Patients: A Randomized Cross-Over Study. PLoS One. May 29; 9(5) e97135, 2014.

BOOK CHAPTERS

Akbari A and **Knoll GA**. Post-Transplant Proteinuria: Differential Diagnosis and Management (Chapter 29) in Kidney Transplantation: A Practical Guide to Medical Management, Editors: Matt Weir and Edgar Lerma, Springer, New York, 2014

KRC FUNDING 2013-14

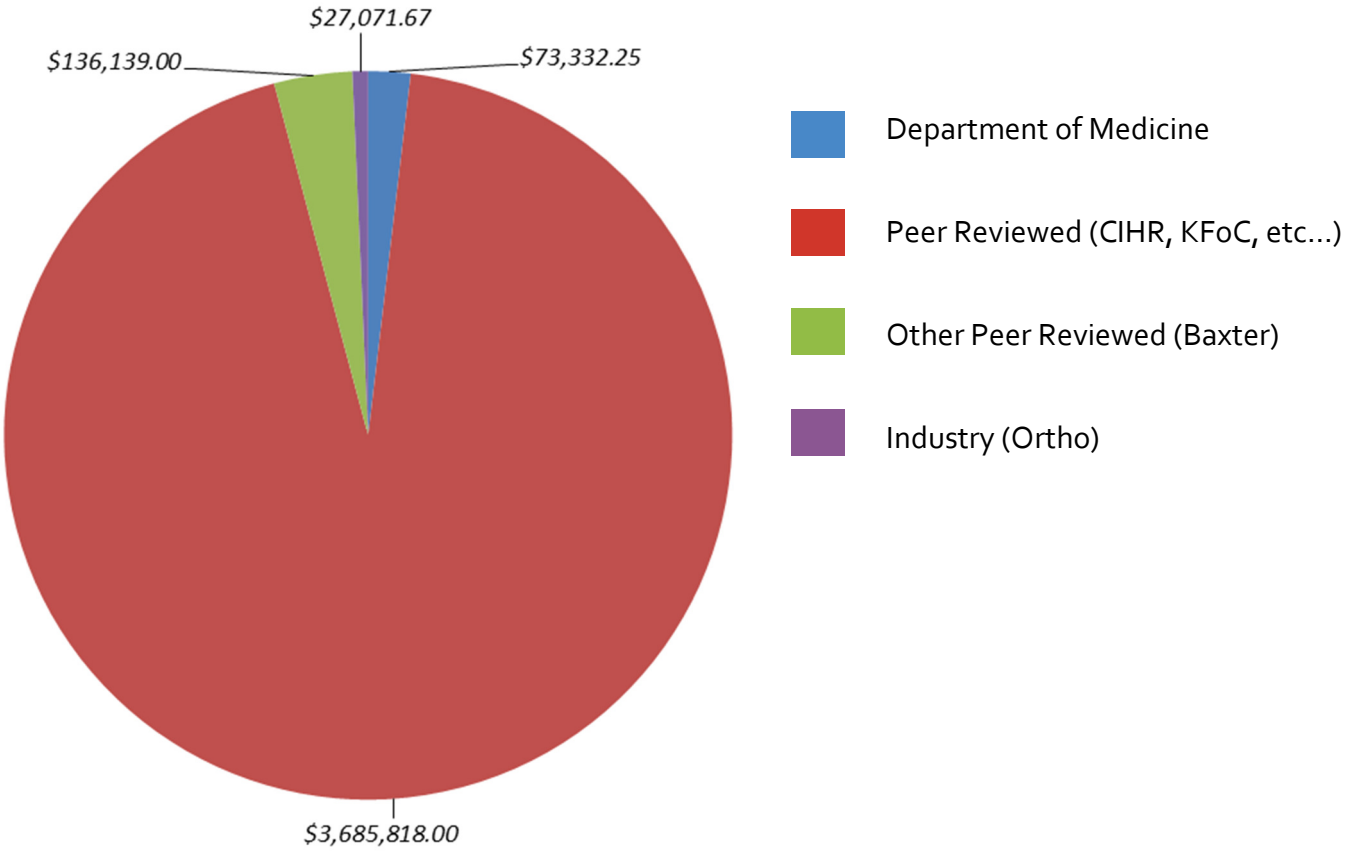

Chart shows KRC Funding for Research Grants in 2013-14 where the KRC Scientist is the Principal Investigator

CIHR: Canadian Institutes of Health Research
KFOC: Kidney Foundation of Canada

AWARDS / DISTINCTIONS 2013-14

Recipient	Year	Award
Dr. D. Burger	2013	Canadian Hypertension Congress Travel Award. Hypertension Canada.
	2013	American Heart Association Kidney Council New Investigator Travel Award. American Heart Association.
	2013	American Society of Nephrology Advances in Research Travel Award. American Society of Nephrology.
Dr. K. Burns	2013	Department of Medicine Vision Award
	2014	Editorial Board, The Canadian Journal of Kidney Health and Disease
Dr. C. Kennedy	2014	Appointed as a CIHR Institute of Nutrition Metabolism and Diabetes Advisory Board Member
Dr. G. Knoll	2013	Appointed Associate Editor, American Journal of Transplantation
	2014	Appointed Editorial Board, Canadian Journal of Kidney Health and Disease
	2014	Appointed to 2nd 3-year term Editorial Board, *Clinical Journal of the American Society of Nephrology*
	2014	Appointed to 2nd 3-year term Editorial Board, American Journal of Kidney Diseases
Dr. A. Molnar	2013	University of Ottawa Department of Medicine Research Fellowship Award ($40, 000 per year for 2 years. Started July 2013)
	2013	Krescent Post Doctoral Fellowship Award $65, 000 per year (Half of this amount contributed by the University of Ottawa Department of Medicine; started July 2013)
Dr. M. Sood	2013	Jindal Research Chair for Prevention of Kidney Disease (75 % research, 5-year term), University of Ottawa / Associate Scientist, OHRI
	2013	Deputy Editor and Founder of 'The Canadian Journal of Kidney Health and Disease'
Dr. R. Touyz	2013	Fellow of the Royal Society of Edinburgh – (FRSE)
	2013	Dr K.G. Nair Oration 2013 – Indian Society of Hypertension
	2014	RD Wright Lecture Award of the High Blood Pressure Research Council of Australia

VISITING SCHOLARS 2013-14

Date	Scholar	Title of Presentation	Seminar
10sep2013	**Dr. David Cherney, MD, PhD, FRCPC** Assistant Professor, Department of Medicine, Division of Nephrology, University of Toronto, Clinician Scientist, University Health Network	Hyperfiltration, Nephropathy, and SGLT2 Inhibition	Nephrology Grand Rounds
08oct2013	**Dr. Norman Muirhead, MB, ChB, MD, FRCPC** Professor of Medicine, Division of Nephrology, University of Western Ontario, London, Ontario	What's New in the Management of Glomerular Disease?	Nephrology Grand Rounds
04feb2014	**Dr. Robert Quinn, MD, PhD, FRCPC** Assistant Professor, Faculty of Medicine, Division of Nephrology, University of Calgary	A Randomized Trial Comparing Catheters to Fistulas in Elderly Patients Starting Dialysis (ACCESS)	Nephrology Grand Rounds
13feb2014	**Dr. Jan Wysocki, MD, PhD** Research Assistant Professor, Northwestern University, Feinberg School of Medicine, Division of Nephrology / Hypertension	Lessons from Amplifying ACE2	KRC Journal Club
24apr2014	**Dr. Lyne Gagnon, PhD** Director, Research and Development, Therapeutics, ProMetic Biosciences Inc., Laval, QC	Oral Treatment with PBI-4050, a Novel Anti-Fibrotic Drug, Reduces Kidney, Lung, Heart and Liver Fibrosis	KRC Journal Club
29apr2014	**Dr. Mohsen Agharazii, MD, FRCPC** Associate Professor of Medicine, Division of Nephrology, Université Laval, Québec	Alteration of Arterial Function in Dialysis Patients	Nephrology Grand Rounds
12jun2014	**Dr. Richard C. Austin, PhD** Professor and Career Investigator of the Heart and Stroke Foundation of Ontario, Amgen Canada Research Chair in Nephrology, McMaster University and St. Joseph's Healthcare, Hamilton, ON	TDAG51 As a Modulator of Atherosclerosis and Vascular Calcification: An Ossuary Box of Possibilities	KRC Journal Club
19jun2014	**Dr. Sandra Turcotte, PhD** Canadian Cancer Society Research Chair, Assistant Professor, Department of Chemistry and Biochemistry, Université de Moncton, Researcher in Residency, Atlantic Cancer Research Institute	Synthetic Lethality in Kidney Cancer for Targeted Therapy'	KRC Journal Club