#### INPHARMATION UPDATE

Canadian Society of Hospital Pharmacists Alberta Branch



Société canadienne des pharmaciens d'hôpitaux



# November 2022

Issue 58

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# President's Message



Dear members and supporters,

Welcome to the 2022-2023 year with CSHP Alberta Branch.

I'd like to first recognize and acknowledge the pharmacists, technicians, and assistants that have worked so hard over the last 3 years during the pandemic. Patients are better off because of your dedication and efforts.

Last year we were able to deliver a fantastic Together Conference on a virtual platform for a huge number of pharmacists and technicians. Thanks to our Education Committee we were also able to deliver CABS and other well-received educational events. The Communications Committee continued to showcase pharmacists and residents through social media and the newsletter. The Student Committee members delivered wonderful events virtually and were able to garner great support for CSHP.

This year will be full of activities dedicated to increasing the profile of pharmacists and technicians, providing up-to-date educational events and celebrating our successes. Working with other external organizations we will continue to collaborate and represent hospital pharmacists at a provincial level. The Together Conference is back and I'm excited as we move to our first hybrid event in 3 years. We will continue to develop outstanding education dedicated to topics of interest from you, the membership. Should you have an idea please reach out the members of the Education Committee.

The Awards Committee is already looking at ways to increase recognition of pharmacists and technicians. Keep your eyes peeled for these as they are announced.

Some of the focus during our meetings this year will be looking at ways to educate ourselves about the findings of the Truth and Reconciliation Report, integrate its principles into what we do and support and promote the Indigenous Pharmacy Professionals of Canada as they grow.

I'd like to take a moment to recognize Josh Torrance and Lesley Beique for their leadership and support and also Ginny Cummings and Mary Gunther for working with me this year. Thank you for your continued support of CSHP.

President, Vision Portfolio CSHP Alberta Branch

Catherine.Biggs@albertahealthservices.ca

# Meet the new CSHP-AB Branch Council

We asked CSHP-AB Council Members, "Why are you part of CSHP?"



**President** Cathy Biggs

I am part of CSHP to continue on the work of this organization, promote the work of hospital pharmacists and technicians and to work alongside the great pharmacists who are part of Council this year.



**President-Elect** Ginny Cummings

I am part of CSHP because I believe that hospital pharmacy needs a strong national voice to advocate for all the amazing work that we do every day. I love the opportunities that CSHP provides me to develop my leadership skills through volunteering and education, as well as all the chances to connect and network with amazing people!



**Past-President** Joshua Torrance

I am part of CSHP because I want to help build a community for pharmacists and technicians where we can collaborate and achieve excellence together; CSHP provides that opportunity to connect with colleagues across Canada and together we can advocate for our patients and the profession of pharmacy. CSHP has also given me numerous opportunities to develop myself as a pharmacist and leader over the years and it has provided countless opportunities to now pay that back to others in the profession.



## **U of A Student Rep**

Karanvir Deol

I am part of CSHP because it's an excellent opportunity to get to know your future colleagues and build lasting relationships within the profession. The various initiatives and programs hosted by the CSHP allow students such as myself an opportunity to enrich their clinical knowledge and learn more about the many roles of a pharmacist in a collaborative healthcare setting. Being part of an organization that advocates for the profession is empowering and I look forward to inspiring my fellow students to follow suit!

# Meet the new CSHP-AB Branch Council

We asked CSHP-AB Council Members, "Why are you part of CSHP?"



# **Communications Chair**

Caitlyn Rozmahel

I am part of CSHP because of the sense of community it fosters. It provides opportunities to develop relationships with like-minded members of our profession. Working together with colleagues from across Alberta to advocate for the important work that we do is extremely rewarding!



#### **Education Chair**

Kim Taube

I volunteer with CSHP because I love working with my pharmacy colleagues! I love the challenge of working on education projects and learning innovative things from passionate individuals in all kinds of cool practice settings. It is a great way to meet new people, to get to know colleagues personally and professionally, and most importantly to promote all of the amazing pharmacy work you all do - go pharmacy nerds!



## **PAM/Membership Co-Chair**

Pawan Gill

I enjoy being part of CSHP and advocating for our profession as there is this incredible untapped potential to explore! The sense of collaboration and support is incredible within the organization which I feel fortunate to be part of.



# **Treasurer &** PAM/Membership Co-Chair

Alex Bartman

I am a part of CSHP because I enjoy volunteering with and learning from fellow pharmacists across the province. I am excited to share more information about pharmacy practice in Alberta through the PAM/Membership committee this year!

# Meet the new CSHP-AB Branch Council

We asked CSHP-AB Council Members, "Why are you part of CSHP?"



**Banff Chair** Chloe McMillan

I joined CSHP as a first year student many years ago. Over the next decade I was inspired by my CSHP colleagues and keen to push the scope of hospital pharmacy practice! CSHP allowed me to learn, grow, reflect and be inspired. I've attended many Banff seminars and AGM's over the years, I spoke at Banff myself and then became a volunteer. I'm grateful to CSHP for the numerous opportunities they've given me. CSHP has pushed me to step outside my comfort zone, has supported me through challenging times, and has created a social network of likeminded practitioners who inspire me to be better.



Secretary Nicole Funk

I joined CSHP to collaborate with other pharmacy professionals and to advocate for the profession. I am looking forward to learning from my peers as we work together. I am also looking forward to advancing the profession for both pharmacists and pharmacy technicians. so we can improve the level of care patients receive in the hospital setting. I am excited to see what can be accomplished for the rest of my term and beyond!



**Branch Delegate** Mary Gunther

I always learn so much talking to colleagues from other parts of the country. We have so many of the same challenges, and it's great to hear what different solutions they've come up with, and be able to share what Alberta's experience has been.



Research Chair

**Emily Cowley** 

I am part of CSHP because it supports members through advocacy, promotion of continued education and has created a community for hospital pharmacists and technicians across the country. My involvement with CSHP has enriched my pharmacy career with numerous opportunities and provided me with lifelong friends!



**Awards Chair** Kaitlin Rafuse

I am a part of CSHP to offer representation for rural hospital practitioners, to build engagement within hospital practitioners (pharmacists and technicians alike), and to make connections with other practitioners on the committees.



# CABS 2022: PharmFest Review

We were pleased to have a great turnout for the CSHP Alberta Branch Symposium (CABS) on October 1st. Our hybrid education event hosted CSHP member attendees from across the country for the morning virtual event, followed by our in-person Paladin sponsored dinner with Dr. Rita Dhami speaking on Targeting Antimicrobial Treatment to Patients, This was followed by a CSHP-AB awards ceremony and networking event with music, games, trivia, costume contest and a feature cocktail: it was 'Just What the Pharmacist Ordered'.



Freddy Mercury, David Bowie, Weird Al, and Tina Turner

We are looking forward to meeting again in person, as well as offering CSHP Alberta Branch members complimentary virtual education sessions throughout 2023; stay tuned for announcement of our events!

- The Education Committee -

The morning's conference was jam-packed full of two concurrent streams of speakers. In addition to engaging topics on Suicide Prevention Awareness. Alcohol Withdrawal Complications, Keeping Current with Scientific Literature, Top Trials of 2022, Top Pallative Trials, our virtual format also allowed for poster presentations from members of our local research community, as well as sponsorship stretch breaks. Keeping with this year's conference music festival theme "PharmFest 2022", we were inspired by keynote speaker Matt Day to adopt lessons from the world of music and music therapy in refocus, refresh and recharge our pharmacy practice. If you missed the conference, watch the CSHP-AB website links to speaker handouts and recordings will be posted there soon.



CSHP-AB gratefully acknowledges our Sponsors for their continued financial support of our events:

Platinum sponsors: Paladin Labs, HLS **Therapeutics** 

Gold sponsors: Teva, Sterinova, GSK

Silver sponsors: Sterimax Inc., Fresenius Kabi



# **CSHP AB Branch Award Winners**

Past President Award Sponsored by Fresenius Kabi

Joshua Torrance

The 2021-2022 CSHP AB Branch Council would like to thank Josh for being such a welcoming and inclusive president during his term. Josh has great ability to understand complex issues, develop solutions and implement changes that are effective and easy for others to use. His direction as President was always clear, concise and proactively focused. He skillfully guides us through meetings and strategic planning keeping us on task and time - with patience and humor.





#### **Mentorship Award**

Jennifer Jupp

The purpose of this award is to recognize members who have made significant contributions to the profession of pharmacy through teaching or mentorship in hospital practice. Jennifer is currently working on the operational readiness team for Connect Care but has previously worked both as a frontline pharmacist and a Clinical Practice Leader. She has always actively worked towards fostering mentorship and learning opportunities for her colleagues, students, and pharmacists that she supports.

Nominators: Krista McKinnon & Nikki Blosser

# **Practitioner Award**

Sponsored by Fresenius Kabi

Joshua Torrance

This award is presented to a pharmacist in recognition of significant contributions to hospital pharmacy practice through exceptional patient care. Josh is currently a Subject Matter and Operational Readiness Expert (SMORE) for the Connect Care implementation. Prior to that role, as a Clinical Practice Leader, he supported many pharmacists in the central zone in working to their full scope and continually developing their skills. He coordinated the central zone residency program and led numerous initiatives within the Practice Portfolio related to antimicrobial stewardship, infectious disease, and general clinical program development.

Nominated by: Taciana Pereira, Jennifer Jupp, Kirsten George-Phillips & Deonne Dersch-Mills

# **CSHP AB Branch Award Winners**

## **Donna Pipa Meritorious Service Award**

Sponsored by Fresenius Kabi

#### Deonne Dersch Mills

This award is presented to a member of the CSHP AB Branch in recognition of exceptional contributions to CSHP at the branch level. Deonne's research guidance and advisor role has strengthened pharmacy research and allowed others to become more involved in it as well. She has become a pharmacy role model who is always professional and positive. She has previously been the Presidential Officer for CSHP-AB; she injects an enthusiasm, humor and levity into work and discussions that make it really fun to work with her. When she was on Council, she brought a fresh perspective to the discussions and created a space where the team could be themselves. Her contributions have been significant - having worked on the Banff Committee as a committee member for several years, then being Banff Chair in 2011 and Membership Chair in 2016, finally serving as presidential officer starting in 2017 for three years. Even when she wasn't serving on Council or in a committee, Deonne's role as a Research Coordinator has benefited the Alberta Branch by mentoring our Pharmacy resident members.



Nominators: Lesley Beigue & Cheryl Hill



#### **Pharmacy Practice Residency Research Award** Sponsored by Pfizer

Sarah Drost

The Pharmacy Practice Residency Award is awarded to a hospital pharmacy resident, whose major project is judged to be the most deserving in terms of representing a significant innovation, practical application and/or development in an institutional pharmacy practice setting. This year the award goes to Sarah Drost for her project "Shorter and Sweeter? Seven-day versus >7 days antibiotic treatment for gram-negative bacteremia: single institution retrospective study"

#### **CSHP Future Professional Award**

Daniel Martino

This award recognizes one pharmacy student from each of the Western Branch Faculties of Pharmacy, who displays student professionalism and is viewed as a future leader. Daniel is part of the class of 2023 at the University of Alberta. Daniel pushes the boundaries in pharmacy practice by being extremely accessible to patients, especially those with high barriers to access care. Daniel collaborates with pharmacists and ID specialists to break down barriers to treatment (medical workup, treatment prescribing, coverage approval, adherence monitoring) which historically made Hepatitis C elimination difficult amongst the vulnerable population.



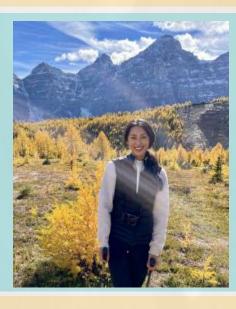
# **CSHP AB Branch Award Winners**

Residents of the Year

Sponsored by Fresenius Kabi

This award recognizes the top residents based upon the residents' overall year's work.

Winners: Lisa Zhang and Teagan Zeggil



**Residency Preceptors of the Year** 

Sponsored by Fresenius Kabi



This award recognizes pharmacy residency preceptors, who have served as role models and excelled in the training of residents.

Winners: Daniel Leung, Rahul Sahajpal, Cheryl Hill, Darlene Korn, Alexandra Charlton











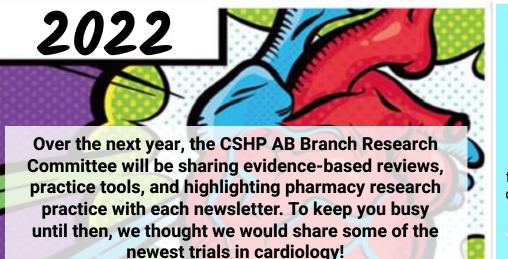
2022 Pharmacy Technician Society of **Alberta Award Winners** 

**Professionalism Award** Heather Snook

# Late Breaking Clinical Trials

Highlighting what's new in cardiology

Click on the titles for direct links to access the papers!





#### **INVICTUS**

Rivaroxaban falls short to warfarin for rheumatic heart disease-associated atrial fibrillation



#### PROACT Xa

Another DOAC fails in the setting of mechanical heart



valves



**DELIVER** 

#### **EMPULSE**

In addition to chronic heart failure. empagliflozin also benefits those hospitalized for acute heart failure



**EMPEROR-**

**Preserved** 

Read the latest evidence supporting dapagliflozin and empagliflozin in heart failure with preserved ejection fraction and their benefits across a broad range of patients with heart failure

#### **ADVOR**

Acetazolamide as an add-on diuretic for acute decompensated heart failure with volume overload



Meta-analysis of

**SGLT2** inhibitors

in heart failure

#### **FOURIER-OLE**

Long-term treatment with evolocumab results in more benefit compared to delaying treatment



## **PACIFIC-AF** PACIFIC-AMI PACIFIC-STOKE

Factor XIa inhibitors - hope or hype?



# **Advocacy Update**

Continued to support National through communication and engagement with external stakeholders, including RxA and PTSA

Collaborated with CSHP National to renew CSHP's support of the Applied Pharmaceutical Innovation initiative which aims to address drug shortage issues in Canada



Attended numerous inperson events hosted by the Faculty of Pharmacy (Class of 2024 & 2025 White Coat Ceremony, 2022 Graduation)



PAM committee had another successful year with the distribution of pharmacy badge pull-strings, magnets, stickers, 6 PAM mini-grants and media coverage through Global News Edmonton, promotional video, and an interview with J & J podcast





National was involved in National stakeholder meetings and thinktanks on COVID implications in hospitals



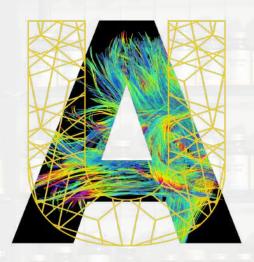


Franca Brodett, '12 BCom, assistant dean of development for the Faculty of Pharmacy and Pharmaceutical Sciences, recently had the once-in-a-lifetime opportunity to be a contestant on The Amazing Race Canada. She and her sister Nella competed as Team Franella, taking part in challenges across Canada for season eight.

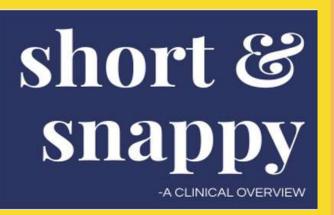


For the first time, all of the Colleges of Health Science have women as leaders. This includes Pharmacy, Medicine and Dentistry, Public Health, Nursing, Kinesiology and Physical Education, Rehabilitation Medicine and the College of Health Sciences itself.

The committee in charge of finding a new dean for the Faculty has been ratified.



Students are enjoying in person classes this year and CSHP activities have commenced as well.



# Cloxacillin vs. Cefazolin for Treatment of Methicillin-**Susceptible Staphylococcus** aureus (MSSA) Bacteremia

Prepared by: Kaitlyn Krahn Pharmacy Resident, Edmonton Zone

#### Case:

- 74 y.o. male with MSSA bacteremia secondary to pacemaker pocket infection.
- Currently on cefazolin 2g IV Q8H.
- Planned for device removal.

#### **Clinical Question:**

In adult patients with MSSA bacteremia, is cefazolin superior to cloxacillin (or antistaphylococcal penicillins) in terms of improving efficacy and safety outcomes?

First line antibiotics for MSSA bacteremia include [1.2]: Antistaphylococcal penicillin (cloxacillin available in Canada) OR cefazolin (1st generation cephalosporin) ID consultation is recommended for treatment of S. aureus bacteremia and is associated with improved patient outcomes and reduction in mortality [3,4].

	Efficacy/Safety Results	Considerations
Bidell et al 2018 [5] Meta-analysis	<b>Efficacy</b> : significantly decreased mortality (90-day) with cefazolin vs. ASPs for MSSA bacteremia, no difference in clinical failure observed <b>Safety</b> : less discontinuation due to adverse effects in cefazolin vs. ASPs	All studies included were non-randomized and vast majority retrospective  Studies included various sources and severity of infections including bone, joint, SSTI, catheter, respiratory.
Weis et al 2019 [6] Meta-analysis	Efficacy: no significant reduction in 90 day mortality with cefazolin vs ASP for MSSA bacteremia, cefazolin at least as effective as ASP, cefazolin was not associated with increased mortality in patients with high pathogen load (eg, IE, abscesses)  Safety: cefazolin may be associated with less nephrotoxicity	
Lee et al 2018 [3] Meta-analysis	<b>Efficacy</b> : significant reduction in treatment failure and mortality with cefazolin vs. ASPs, cefazolin was not associated with worse outcomes in those with high-burden source of infection or those with high predictive mortality <b>Safety</b> : less risk of adverse drug reactions in cefazolin group	endocarditis, etc.  Inconsistent reporting of source control across studies

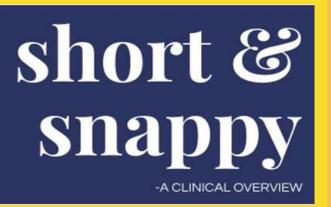
Abbreviations: ASPs = antistaphylococcal penicillins, MSSA = methicillin susceptible Staphylococcus aureus, IE = infective endocarditis, SSTI = skin and soft tissue infection

#### **Bottom Line:**

Recent evidence available from several meta-analyses supports the use of cefazolin as a 1st line agent for patients with MSSA bacteremia, including those with high pathogen load infections. Furthermore, studies suggest less treatment-associated adverse drug reactions and nephrotoxicity with cefazolin versus ASPs. While the current literature shows that cefazolin is at least as effective as ASPs, with potentially improved efficacy and safety, this evidence comes from non-randomized and mainly retrospective studies. Further research is required to confirm the findings of these studies.

<sup>1.</sup> DynaMed [Internet]. Staphylococcus aureus Bacteremia. EBSCO Information Services. Accessed June 22, 2022. https://www-dynamed-com.ahs.idm.oclc.org/condition/staphylococcus-aureus-bacteremia 2. Baddour LM, Epstein AE, Erickson CC, et al. Update on cardiovascular implantable electronic device infections and their management: a scientific statement from the America Heart Association. Circulation 2010; 121:458 3. Lee BJ, Wang SK, Constantino-Corpuz JK, Apolinario K, Nadler B, McDanel JS, et al. Cefazolin vs. anti-staphylococcal penicillins for treatment of methicillin-susceptible Staphylococcus aureus bloodstream infections in acutely ill adult patients: Results of a systematic review and meta-analysis. Vol. 53, International Journal of Antimicrobial Agents. Elsevier B.V.; 2019. p. 225–33

<sup>4.</sup> Gudiol C, Cuervo G, Shaw E, Pujol M, Carratalà J. Pharmacotherapeutic options for treating Staphylococcus aureus bacteremia. Vol. 18, Expert Opinion on Pharmacotherapy. Taylor and Francis Ltd; 2017. p. 1947–63
5. Bidell MR, Patel NJ, O'Donnell N. Optimal treatment of MSSA bacteraemias: A meta-analysis of cefazolin versus antistaphylococcal penicillins. Journal of Antimicrobial Chemotherapy. 2018 Oct 1;73 (10):2643–51.
6. Weis S, Kesselmeier M, Davis JS, Morris AM, Lee S, Scherag A, et al. Cefazolin versus anti-staphylococcal penicillins for the treatment of patients with Staphylococcus aureus bacteraemia. Vol. 25, Clinical Microbiology and Infection. Elsevier B.V.; 2019.p. 818-27.



# Tolvaptan use in **CHF-related** hyponatremia

Prepared by: Elizer Erpilla Pharmacy Resident, Calgary Zone

#### Case:

66M hospitalized for HF, was given furosemide bolus and infusion, sodium has fallen to 116.

#### **Clinical Question:**

In an older male with CHF and diureticinduced hyponatremia, is tolvaptan effective for correcting hyponatremia?

#### **Clinical Pearl:**

Tolvaptan is the opposite of vasopressin, which is a V2-receptor agonist that facilitates increased water reabsorption from the collecting duct.

#### Mechanism of Action:

Selective vasopressin V2-receptor antagonist, which works to decrease water reabsorption from the collecting duct, which leads to aguaresis (water loss without sodium loss).

CCS HF Guidelines 2017 suggest that for acute heart failure, tolvaptan can be considered for patients with volume overload, hyponatremia (<130 mmol/L), and symptoms of hyponatremia for short-term correction. What does the evidence say about Tolvaptan use in CHF-related hyponatremia? [1]

#### Efficacy:

	Design	Regimen	Na Effects	Weight/Response	Morbidity/Mortality
[2]	Meta-analysis of 8 double blinded RCTs In 5385 patients hospitalized with CHF**	Tolvaptan Vs. Placebo	5 studies N = 691 Mean difference of 2.78 mEQ/L (95% CI: 1.35-4.21)	6 Studies N = 4488 Weight: Mean Difference -0.88 kg from day 1 to 54 weeks	3 studies, N = 4531 NSS overall for CHF mortality or CHF hospitalization
[3]	SALT-1 N=205, SALT-2 N=243 30-day, double-blind, multicentre, 31% with CHF	Tolvaptan Vs. Placebo	Mean difference +3.71 meq/L day 4 (95% CI: 3.24-4.2) +4.56 meq/L day 30 (95% CI: 3.9-5.21)	Response: Lower rate of non-responders at day 4 in patients with baseline Na <130 mEq/L. RR 0.31 (95% CI 0.21-0.45)	No evidence for overall rates of mortality or hospitalization

Safety: Common side effects of tolvaptan include: increased thirst (12-64%), dry mouth (7-16%), and fatigue (14%). Rare side effects include: iatrogenic osmotic demyelination syndrome (when correction is too rapid), and liver dysfunction (after prolonged use, i.e., >30 days).

Case Resolution: Patient was prescribed Tolvaptan 15mg po daily x 10 days

Bottom Line: Studies have shown that tolvaptan can help increase [Na+] in hyponatremic CHF patients. However, tolvaptan has not been proven to improve mortality or morbidity outcomes for CHF. Due to cost and lack of hospitalization/mortality evidence, tolvaptan may be considered and applied for through STEDT in CHF patients who require [Na+] correction refractory to other therapy

https://ccs.ca/eguidelines/Content/Topics/HeartFailure/74%20Acute%20Heart%20Failure.htm [2] Tolvaptan for Heart Failure, Systematic Review and Meta-Analysis of Trials E. Alskaf, MD, MRCP, A. Tridente, DMS, MScCT, MRCP, EDIC, FICM,† and A. Al-Mohammad, MD, FRCP (Lond), FRCP (Edin), FESC‡

[3] Schrier RW, Gross P, Gheorghiade M, Berl T, Verbalis JG, Czerwiec FS, Orlandi C; SALT Investigators. Tolvaptan, a selective oral vasopressin V2-receptor antagonist, for hyponatremia. N Engl J Med. 2006 Nov 16;355(20):2099-112. doi: 10.1056/NEJMoa065181. Epub 2006 Nov 14. PMID: 17105757.

<sup>\*\*</sup>Follow-up Duration ranged from 12 hours to 55 weeks, 4133 of the patients were followed up for 10 months,

<sup>[1] 7.4</sup> Acute Heart Failure. CCS Heart Failure Guidelines 2017. (2017). Retrieved February 3, 2022, from

Canadian Society of Hospital Pharmacists Alberta Branch



Société canadienne des pharmaciens d'hôpitaux

# **Advanced (Year 2) Residency in Cardiology**

#### Contact:

Sheri Koshman (Coordinator) sheri.koshman@ualberta.ca 780-407-1888

#### **Program Aims:**

- With a focus in cardiovascular care, to enable residents to practice to full scope, at an advanced level, in the province of Alberta
- Develop skills in teaching, leadership and research
- Skills and knowledge gained as part of this residency will be transferable to other practice environments

**Application Deadline:** January 15, 2023 Start Date: July 4, 2023

For more detailed information, click here.

# **Advanced (Year 2) Residency in Antimicrobial** Stewardship and Infectious Diseases



#### Contact:

Irina Rajakumar (Coordinator) irina.rajakumar@ahs.ca 403-944-8170

#### **Program Goals:**

- Enable residents to practice to full scope at an advanced level in the focused area of infectious diseases and antimicrobial stewardship
- Develop skills in research, leadership and
- Skills and knowledge gained as part of this residency will be transferable to other practice environments

**Application Deadline:** January 15, 2023 Start Date: July 3, 2023 (Negotiable)

For more detailed information, click here.

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