Dear Friends & Colleagues!

Thank you for all your tremendous efforts and endurance over the last couple of weeks and months working on the validation and implementation of Connect Care. All of us clearly feel the significant additional workload and stress this causes but we know that it is the right thing to do for our patients, to improve quality of care, achieve better access to research data, and enable utilization of health care resources in a more nimble and efficient way. I have witnessed tremendous teamwork, exceptional collegial support, and great accomplishments arising as part of this project – we are a great department with fantastic people and can all be very proud!

We are now on the final stretch before Connect Care goes live on November 03. After that big day, we will need to continue working together and support each other in accustoming to the new system and to fully capitalize on its benefits potential. Hang in there!

Despite the enormous pressures due to Connect Care, our faculty and learners were again very productive over the last quarter as you can see browsing through this issue of the Chair’s Report. I would like to highlight Dr. Jason Acker for his exceptional achievement in being introduced as a Fellow of the Society for Cryobiology; only four Canadians have been named Fellows in the 55-year history of the Society. Also very impressive is our success in the recent Kaye Competition of the University Hospital Foundation. Six investigators from our department secured close to $500,000 in funding for clinical translational research projects with a strong focus on laboratory and pathology diagnostics – Congratulations! In addition our faculty members received national and international awards (page 6), secured external grants (page 7), were appointed to leading professional organizations (page 8), and presented and published numerous papers (page 11-17).

Please also see our Spotlight on Research. In this issue Dr. Ben Adam is providing insights into his research focused using the NanoString nCounter technology for translating new molecular signatures into clinical application. Dr. Adam was one of the first to apply this new technology in the area of organ transplantation and has successfully built a local and international network of collaborators leading the field.

Continued ...
Letter from the Chair (cont’d)

On July 12th, we had our first departmental Graduation Party with close to 100 learners, preceptors, friends and families celebrating the major milestone in completing one of our training programs. We had a lot of fun as you can see from the pictures (page 18-19) and we are already planning for the 2020 Graduation Party!

The next couple of weeks, at least until Christmas will be busy, stressful, and challenging – so be mindful to yourself, ask for help and offer help! But, there is a highlight coming – the first ever APL Christmas Party on November 23rd at the Polish Hall, 6 pm. You can buy tickets at your local site or online: APLHolidayParty-North@albertapubliclabs.ca before Nov. 09 – see poster on page 20.

Looking forward to seeing you all at the Party!

Sincerely,

Dr. Michael Mengel, MD
Professor and Chair
Department of Laboratory Medicine & Pathology, University of Alberta
North Sector Medical Director, Alberta Public Laboratories
Dr. Benjamin Adam is an Anatomical Pathologist at the University of Alberta Hospital and Assistant Professor in the Department of Laboratory Medicine and Pathology. His research team is primarily focused on the use of cutting-edge gene expression technologies to develop more precise diagnostic and prognostic tools that will facilitate the delivery of personalized medicine.

Most of our research explores novel applications of a unique gene expression platform called the NanoString nCounter Analysis System. This system allows for reliable quantitative gene expression analysis of formalin-fixed paraffin-embedded (FFPE) tissue, which has revolutionized the field by unlocking vast global archives of clinical tissue samples for retrospective molecular testing. This allows for immediate access to long-term follow-up data for clinical and translational research, more efficient use of precious tissue samples, and the opportunity for direct molecular-histologic correlation. We have utilized this technology to improve the diagnosis and assessment of transplant rejection, infection, and ex vivo perfusion-related injury and repair (for which we were profiled on Global News Health Matters in November 2018). We have also been working to develop novel molecular risk prediction tools for diseases such as crescentic glomerulonephritis and BK polyomavirus associated nephropathy.

The majority of the bench research work conducted by our team is performed in the LMP Pathology Core Lab on the third floor of the Li Ka Shing Centre for Health Research Innovation. Through this facility we are fortunate to be supported by an outstanding team of technologists led by Shalawny Miller and Kim Formenti. Our growing research group consists of a diverse collection of trainees including graduate students (Silas Rotich), pathology residents (Peter Dromparis), fellows (Graeme Reid) and undergraduate students (Katie Du, Ruqaya Jasim, Nicole Herbers).

Our lab currently enjoys fruitful collaborations with more than 20 research groups both on and off-campus. Local colleagues include Michael Mengel, Iyare Izevbaye, Frank van Landeghem, Jason Ack er and Andrei Drabovich from the Department of Laboratory Medicine and Pathology, Darren Freed, Jayan Nagendran and Jeevan Nagendran from the Department of Surgery, and Allan Murray, Kevin Wen and Daniel Kim from the Department of Medicine, among others. We have also established ongoing collaborations with colleagues from around the world, including Vancouver, Toronto, Boston, Pittsburgh, the United Kingdom, the Netherlands, France, and Austria.

Continued ...
Spotlight on Research (cont’d)

We have been fortunate to receive research funding from the Canada Foundation for Innovation, Canadian Donation and Transplantation Research Program, University of Alberta Hospital Foundation, and Heart and Stroke Foundation of Alberta, NWT & Nunavut. Our students have been supported by stipends from Alberta Innovates, the Undergraduate Research Initiative, Alberta Health Services Respiratory Health Strategic Clinical Network, and the Department of Laboratory Medicine and Pathology.

Adam Lab, September 2019
Left to right: Shalawny Miller, Katie Du, Benjamin Adam, Graeme Reid, Silas Rotich, Kim Formenti.

Dr. Adam discussing “Lungs in a Box” research on Global News Health Matters, November 8, 2018.
Awards & Honours

Our Department is proud to announce the following recipients of the 2018 Kaye Competition from the University Hospital Foundation and Alberta Health Services which grants individual awards ranging from $25,000 to $250,000. Their bold projects will help transform the face of patient care through quality improvement and research innovation at the University of Alberta Hospital and Kaye Edmonton Clinic. (See full details).

- Dr. Benjamin Adam
- Dr. Carmen Charlton
- Dr. Iyare Izevbaye
- Dr. Remegio Maglantay
- Dr. Albert Tsui
- Dr. Frank van Landeghem

Fellow of the Society for Cryobiology

Dr. Jason Acker was inducted as a Fellow of the Society for Cryobiology at the 2019 Annual Meeting of the Society for Cryobiology in San Diego, CA. July 23, 2019. The Society for Cryobiology recognizes members of the Society and individuals from the cryobiology community-at-large who have had an outstanding impact on the field. Fellows are presented with the prestigious Basile J. Luyet medal at the Society's awards ceremony.

NOTE

Only 27 individuals (4 Canadians) have been named Fellows to the Society for Cryobiology in the 55-year history of the Society.

Drs. Janet Elliott, Locksley McGann, Jason Acker … THREE (3) Society of Cryobiology Fellows from the same University! No other University in the world can claim this!!
Awards & Honours (cont’d)

Ms. Anne Halpin received the following awards:


♦ *American Society of Transplantation (AST) Transplant Diagnostics Community of Practice Case Study Competition Award*. Pediatric Heart Transplant Immunologic Risk Assessment May Hampered by Protein-Losing Enteropathy. June 4th, 2019, Boston, MA, USA

Ms. Anne Halpin’s daughter, Madeline Miller, submitted an HLA Elevator Pitch for the Annual ASHI meeting and won first prize in the competition. Click here to see her video

Dr. Xing-Fang Li was recently awarded the *Canada Research Chair (Tier 1) in Analytical and Environmental Toxicology*. This award includes $1,400,000 from the Canada Research Chairs program, payable over seven years to the University of Alberta. The news of CRC has been shared by the Faculty of Medicine & Dentistry (click here for details) and the University of Alberta (click here for details).

By using innovative technologies to identify and monitor chemical and microbial contaminants in water, Dr. Li is working to improve water treatment strategies and ensure that people around the world have access to clean, safe drinking water. Dr. Li is also working to better identify potentially harmful byproducts of current water disinfection processes in order to advise on and develop better disinfection strategies.

Dr. Jelena Holovati received the *Patty Bakkestad-Legare Award* for best laboratory abstract at the 2019 Cell Therapy Transplant Canada Annual Conference.

Dr. Kathleen Wong was nominated for the Royal College of Physicians and Surgeons 2019 Program Director of the Year award. This award was established to recognize a program director who has demonstrated a commitment to enhancing residency education as evidenced by innovation and impact beyond his/her program.
Grants

Dr. Jason Acker:

Dr. Benjamin Adams:

Dr. Carmen Charlton:
1. MSI Foundation, $70,210. “Improving diagnosis and linkage to care for patients infected with Hepatitis C in the prenatal population of Alberta”, 2 year term, PI
2. University Hospital Foundation (Kaye Fund Competition). - $249,000. “Human pegivirus-associated neurological diseases: epidemiological, clinical and therapeutic aspects” - Co-Lead with Dr. Chris Power and Dr. Frank van Landeghem, 2 year term

Drs. Janet Elliott & Locksley McGann:

Ms. Anne Halpin:
Canadian Donation and Transplantation Research Program (CDTRP)/Alberta Transplant Innovation Fund (ATIF) Project: “Knowing the unknown: adding an HLA-specific memory B cell assay to the toolbox”. $30,000. May 2019-November 2020

Drs. Iyare Izevbaye & Remegio Maglantay
Iyare Izevbaye (PI) and Remegio Maglantay (CoPI). University Hospital Foundation (Kaye Fund Competition). “Evaluation of a Molecular Classification of Thyroid Nodules with Indeterminate Cytology” ($80,000).

Dr. Albert Tsui:
University Hospital Foundation (Kaye Fund Competition). “Evaluation of an accelerated diagnostic chest pain protocol in Emergency Department with next generation high sensitivity troponin I assay”. $115,962, 2 year term. Lead and Co-lead investigators: Dr. Albert Tsui & Dr. Brian Rowe

Dr. Frank van Landeghem
University Hospital Foundation (Kaye Fund Competition). Drs. C. Power (Neurology), F. van Landeghem and C. Charlton. “Human pegivirus-associated neurological diseases: epidemiological, clinical and therapeutic aspects”. $249,000 for 2 years term (July 1, 2019-June 30, 2021)
New Appointments

Dr. Jason Acker:
- Was appointed as the Academic Lead for the Postdoctoral Fellows/Office/Academic Visitors Office for a three-year term beginning September 1, 2019.
- Reappointed, Member, University of Alberta, Faculty of Medicine & Dentistry Alumni Advisory Council, reappointed to 2-year term (ending Sep 30, 2021).
- Elected Vice-Chair of the General Faculties Council Academic Planning Committee
- Appointed as GFC Representative to the University Senate for 3 year term (Jul 1, 2019 - Jun 30 - 2022)

Ms. Anne Halpin was appointed:
- Co-Chair of the American Society for Histocompatibility and Immunogenetics (ASHI) Marketing Task Force
- Member of the 45th Annual ASHI Meeting Program Planning Committee (joint annual meeting with the Banff Foundation)

The Department welcomes:
- Dr. Esme (Illona Esmeralda) Dijke – Assistant Professor / Associate Director, Histocompatibility, Laboratory, University of Alberta Hospital
- Dr. Kristalee Watson – Clinical Lecturer / Anatomical Pathologist, University of Alberta Hospital
- Ms. Vanessa Wolan – Clinical Lecturer / Lab Scientist, Newborn Metabolic Screening and Biochemical Genetics, University of Alberta Hospital
Dr. Kinga Kowalewska-Grochowska
Educator of the Year Award

Dr. Kinga Kowalewska-Grochowska served as Medical Microbiology Residency Program Director for 19 years. She has been integral in shaping the education landscape for microbiologists across western Canada. This award is presented to the microbiologist who best exemplifies her teaching spirit.

The 2019 Dr. Kinga Kowalewska-Grochowska Teacher of the year Award was awarded to Dr. Hong Yuan Zhou.

Medical Microbiology Residency Program welcomes Dr. Sivanthini Palanivetpillai & Dr. Lindsay Rollick

Dr. Sivanthini Palanivetpillai

Dr. Lindsay Rollick

autumn carries more gold in its pocket than all the other seasons
Graduate Studies

Milestones

We are proud to announce that the following students have completed their programs:

Doctoral

Chengsen Chai
(supervisors, Roger Leng and Michael Hendzel). His thesis is titled “The regulation of tumor suppressor PTEN by microRNAs in breast cancer.”

Master’s

Moinul Haque (supervisor, Raymond Lai) completed his Master’s program. His thesis is titled “Role of the oncprotein FOXM1 in NPM-ALK+ anaplastic large cell lymphoma.”

Pathologists’ Assistant Program

Richelle Edwards completed her Pathologists’ Assistant (MSc) program.

Sara Fontes completed her Pathologists’ Assistant (MSc) program.

Awards

Congratulations to these students who received awards acknowledging their research/supporting their graduate programs:

- Nicholas Wawryk and Janet Zhou each received a University of Alberta Doctoral Recruitment Scholarship.
- Huyan Xiao received a China Scholarship Council Scholarship.

New Students

This September, we welcomed four new students:

- Jordon Chan joined our Pathologists’ Assistant master’s program
- Yasmine Rais (supervisor, Andrei Drabovich) and Alexa Thompson (supervisor, Carmen Charlton) joined our thesis-based master’s program
- Huyan Xiao (supervisor, Hongquan Zhang) joined our doctoral program
Presentations

Dr. Jason Acker:
2. 2019 Annual Meeting of the Society for Cryobiology, San Diego, Jul 22-25, 2019
   - Acker, J.P. “Small molecule ice recrystallization inhibitors control ice and protect cells during freezing and thawing”. Invited Oral.
   - Lautner, L., Ben, R.N., Acker, J.P., Nagendran, J. “The use of ice recrystallization inhibitors (IRIs) in pneumocyte monolayer cryopreservation to reduce cryoprotectant toxicity, control intracellular ice growth and improve post-thaw survival”. Oral
3. CSTM Annual Conference, Calgary, AB, May 30 – June 2, 2019
   - Almizraq, R. and Acker, J.P. “Platelet vesicles are potent inflammatory mediators and washing red blood cell products with automated cell processor reducing the inflammatory phenotype”. Top Oral Presentation

Dr. Benjamin Adam:
American Society for Histocompatibility and Immunogenetics/Banff Joint Scientific Meeting, Banff Workshop: Lung, Pittsburgh PA, September 24, 2019
   - “Nanostring & Molecular Diagnostics: Update”
   - “BKVAN With and Without Rejection: How to Move Towards Specific Diagnosis”

Dr. Will Chen:

Dr. Matthew Croxen:
Abstracts
OPTIONS X for the Control of Influenza Conference; 2019 August 28-September 1; Suntec City, Singapore

Dr. Sumit Das:
Presentations (cont’d)

Dr. Andy De Souza:
“Newborn Metabolic Screening in Alberta: Past, Present, and Future”. Alberta Society of Clinical Chemists Scientific Symposium and Annual General Meeting. Edmonton; September 20th, 2019

Dr. Mathew Diggle:
“Real-time PCR implementation for simultaneous detection of Neisseria meningitidis, Haemophilus influenzae and Streptococcus pneumoniae and identification of 21 capsular serotypes of Streptococcus pneumoniae”. The XVIII Latin American Congress of Pediatric Infection.

Dr. Esmé Dijke:
Esmé Dijke, Tess Ellis, Ingrid Larsen, Ivan Rebeyka, Darren Freed, Mohammed Alaklabi, Megan Levings, Lori West. “Expansion conditions affect human leukocyte antigen (HLA) class II expression on thymic regulatory T cells (Tregs)”. ASHI/Banff Joint Scientific Meetin, Pittsburgh, PA, September 24, 2019

Dr. Tanis Dingle:
Abstracts

Dr. Andrei Drabovich:
Oral presentations
1. “Mapping functional interactions of testis germ cell-specific proteins with proteogenomic assays”, 18th Human Proteome Organization World Congress (HUPO2019), Adelaide, SA, Australia. 2019-09-17


Drs. Janet Elliott & Locksley McGann:
4. 56th Annual Meeting of The Society of Cryobiology, San Diego, California, July 22-25, 2019)
   – Kezhou Wu*, Leila Laour, Nadia Shardt, Janet A. W. Elliott, Nadir M. Jomha. “Surrounding vitrification solution is not required for vitrification of articular cartilage”. Selected as BEST POSTER Presentation
Presentations (cont’d)

Ms. Anne Halpin:

Dr. Judith Hannon:

Dr. Jelena Holovati:

Dr. Chris Le:
   - “Arsenic α-caricinogenes through inhibition of DNA repair” Keynote Speaker.
   - “Recent advances and perspectives of environmental sciences”.

Dr. Nausherwan Mahmood:

Dr. Michael Mengel:

Invited lectures:
1. 56th ERA EDTA Congress (June 13-16.) 2019, Budapest, Hungary: “Molecular targets in renal transplantation-reality or fiction”
2. Canadian Association of Pathologists, Annual Meeting (June 22-26.) 2019, Niagara Falls, Canada: “Renal Pathology Workshop – Transplantation Pathology”
Presentations (cont’d)

Dr. Joshua Raizman:
Canadian Society of Clinical Chemists annual meeting, June 2-5, 2019
- Steven V. Dang, Albert K. Tsui, Joshua E. Raizman, “Wine colored samples? Development of laboratory reporting guidelines for hydroxocobalamin (OHCoH) interference in patients pulled from house fires”. Eposter.

Dr. Elona Turley:

Dr. Harry Vinters:
1. Invited speaker, U of Calgary Neurology Department, June, 2019. “Cerebral microvascular disease”
2. Invited speaker, Euro-CNS CME Course on leukoencephalopathies, Amsterdam, Netherlands, June, 2019. Four presentations:
   - Encephalitis 1
   - Encephalitis 2
   - Hereditary vascular leukodystrophies
   - Acquired vascular leukodystrophies

Recent Publications

Dr. Jason Acker:

Dr. Benjamin Adam:
Peer-reviewed papers
Recent Publications Cont’d …

Dr. Benjamin Adam (cont’d):


Abstracts


Dr. Thambirajah Balachandra:


Dr. Carmen Charlton:


Dr. Will Chen:


Dr. Matthew Croxen:


Dr. Sumit Das:


Dr. Mathew Diggle:


2. “Alcohol Gels: Causing More Harm Than We Thought”. American Journal of Biomedical Science & Research
Recent Publications Cont’d ...

Dr. Mathew Diggle (cont’d):

Dr. Tanis Dingle:

Dr. Andrei Drabovich:
Peer reviewed publications

Ms. Anne Halpin:
Publications:

Abstracts:
2. American Society of Histocompatibility and Immunogenetics (ASHI) Annual meeting, Pittsburgh, PA, Sept 24, 2019

Dr. Chris Le:

Dr. Michael Mengel:
Peer-reviewed publications
Recent Publications cont’d ...

Dr. Michael Mengel (cont’d):

Dr. Consolato Sergi:

Dr. Harry Vinters:
Graduation Celebration, July 12, 2019

Dr. Joseph Andrews, graduating AP Resident
(presented by Dr. Will Chen)

Dr. Kristalee Watson (with family)
gradiating AP Resident
(presented by Dr. Will Chen)

Dr. Joy Adekanmbi, graduating GP Resident
(presented by Dr. Andrea Macyk-Davey)

Graduating Residents not present
(photos not available)

Dr. Klaudia Nowak
AP Resident

Dr. Luiz Lisboa
Medical Microbiology Resident
Graduation Celebration, July 12, 2019

Dr. Brian Chui, AP Teacher of The Year
(presented by Dr. Peter Dromparis, Chief Resident)

Dr. Mathew Estey, GP Teacher of The Year
(presented by Dr. Peter Dromparis, Chief Resident)

Ms. Pauline Tomlin
2019 Joyce Rushton Memorial Technologist Educator of the Year Award
(presented by Dr. Clayton MacDonald, Chief Resident 2018-2019)

Joyce Rushton was a senior microbiology technologist who worked at the Alberta Provincial Laboratory for Public Health for 39 years. Her devotion to hands-on laboratory teaching assisted many residents as they developed into microbiologists. This award is presented to the technologist who continues her legacy of excellent bench education.

Pathologists’ Assistant Program

Front left to right: Dr. Erin Chapman (Program Director), Fatema Dhalla (PA Clinical Instructor), Richelle Edwards (Graduating PA student), Sara Fontes (Graduating PA student), Marla Beach (PA Clinical Instructor)

Back left to right: Vanessa Schiewe (PA Clinical Instructor), Anali Darwish (PA), Michael Gerling (PA Clinical Instructor)
ALBERTA PUBLIC
LABORATORIES
Christmas Party
23 November 2019
Location: Polish Hall, 10960 104 St NW
Cocktails: 5:00 to 6:00 pm  (cash only bar)
Dinner: 6:00pm
Door Prizes, Photo Booth & DJ Dance to follow

Ticket Price: $40.00 (staff) $50.00 (medical/scientific staff)
18+ only. Limited ticket sales. Max 2 tickets per person

Menu:
Roast Turkey with Stuffing or Vegetarian Lasagna
Baked Rolls & Butter
Caesar Salad. Cooked Vegetables
Mashed Potatoes with gravy. Perogies
Dessert

*Please notify us when purchasing tickets of any dietary restrictions or gluten free requests*

To purchase tickets see Lori or Jennifer (rm 5001-1 DTC)

To purchase tickets online: "APLHolidayParty-North@albertapubliclabs.ca"

Deadline for tickets: Friday, November 8, 2019 **CASH only**
# 2020

**SAVE THE DATES....**

## April 2020

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*Banff Pathology Course*