



PATHOLOGY DAY 2019

ABSTRACT BOOK 2019



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 www.pathology.ubc.ca



Message from the Head

Pathology Day is a significant event in the departmental calendar as it serves as a time to showcase the broad spectrum of scholarly activities performed by our trainees and, by extension, our faculty. This gathering also allows us to recognize outstanding contributions in service and research by members of the department. Pathology Day serves another very important function as well. It is an opportunity to get together to socialize and learn more about one another as well as gain an appreciation and understanding for the breadth of scholarly activities that take place in our geographically dispersed department. As for last year, a few members of our department will present a brief overview of their work as a way to facilitate this.

We have again invited two outstanding individuals to participate in the program this year, highlighting academic excellence and continuing in the tradition of having leaders in their disciplines speak at Pathology Day. Dr. Blake Gilks will give the James Hogg Lecture, while Dr. Andrew Beck is our Keynote Speaker.

I wish to extend my sincere thanks to members of the committee responsible for organizing the event, including Dr. Corree Laule, Dr. Tony Ng, Dr. Sophia Wong, Dr. Will Lockwood, Dr. Fatemeh Derakhshan, Lise Matzke, Brennan Wadsworth, Cristina Low, and Adeline Chan, as well as all the other individuals whose efforts make the day a success.
Hoping you have a wonderful Pathology Day!

Dr. Don Brooks
Interim Department Head

Acknowledgements

Pathology Day is a team effort and we would like to extend our thanks to everyone who contributed to the 2019 edition.

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Cristina Low and Adeline Chan have been instrumental in handling the administrative and practical details of Pathology Day. Debbie Bertanjoli designed the website and managed the website tools in addition to preparing the abstract book. We also wish to express our gratitude to the many department members who contributed their time and expertise to reviewing abstracts, moderating the oral sessions, and judging the oral and poster presentations.

○ This year these include:

Agatha Jassem	Inna Sekirov	Meng Wang
Aleksandra Stefanovic	Jacquie Quandt	Miguel Imperial
Amal El Naggari	Jeff Terry	Muhammad Morshed
Anuli Uzozie	Karina Rodriguez-Capote	Nevio Cimolai
Ayesha Vawda	Karla Bretherick	Peter Schubert
Blake Gilks	Katherine Serrano	Peter van den Elzen
Bojana Rakic	Lauren Tindale	Ramesh Saeedi
Bradley Coe	Lenka Allan	Renata Scopim Ribeiro
Bruce Verchere	Lien Hoang	Serena Singh
David Farnell	Lik Hang Lee	Shazia Masud
David Schaeffer	Linda Hoang	Suzanne Vercauteren
Ed Prydzial	Mari DeMarco	Tyler Smith
Emily Thompson	Maria Issa	Vicky Monsalve
Gerry Krystal	Martin Wale	Wan Lam
Hamid Masoudi	Mateus De Camargo Barros	William Schreiber
Helene Cote		
Honglin Luo		

We would also like to thank our student and resident volunteers:

Amy Nagelberg, Anam Liu, Anna Wilhelm, Basile Tessier-Cloutier, Forouh Kalantari, Guangze Zhao, Haisle Moon, Julia Naso, Lisa Decotret, Mike Steel and Muntadhar Al Moosawi.

Finally, sincere thanks to the staff who kindly assisted with technical and administrative support throughout the day and our photographer: Aileen To, Debbie Bertanjoli, Heather Cheadle, Jennifer Xenakis, Joanne Wouterse, Julie Ho, Mayumi Shimada and Tamsin Tarling.

Committee 2019



**Corree
Laule**



**Donald
Brooks**



**William
Lockwood**



**Tony
Ng**



**Sophia
Wong**



**Lise
Matzke**



**Brennan
Wadsworth**



**Fatemeh
Derakhshan**



KEYNOTE SPEAKER

ANDREW H. BECK, MD PHD

Co-Founder & CEO, PathAI

TITLE: "Artificial Intelligence for Pathology: from Discovery to AI-Powered Companion Diagnostics"

Pathology Day will take place on **Friday, May 24, 2019**. Oral presentations and guest speakers will be at the **Paetzold Auditorium & Atrium, 1st Floor, Jim Pattison Pavilion**, Vancouver General Hospital while the poster session and awards reception will be at **ICORD, Blusson Spinal Cord Centre, 818 West 10th Ave.**



JAMES HOGG LECTURER

DR. BLAKE GILKS, MD

TITLE: "Being wrong: lessons learned from research, teaching, clinical service and administration"



DR. PETER WATSON MB BCHIR

TITLE: "Solutions to improve the research biobanking pipeline"



GUEST SPEAKER

DR. MARIANNE SADAR, PHD

TITLE: "From the bench to the bedside: the journey to developing a new therapy"



DR. SHO C, PDF

TITLE: "Granzyme B: A novel target for pemphigoid diseases"

PATHOLOGY DAY 2019

MAY 24, 2019



CONFERENCE OUTLINE

7:45 am	BREAKFAST				
7:55 am	OPENING REMARKS – DR. DON BROOKS, INTERIM DEPT HEAD				
+ ORAL PRESENTATIONS BY STUDENTS & RESIDENTS					
GRAD STUDENTS Paetzold Lecture Theatre		RESIDENTS Multipurpose Room		RESIDENTS JPPN 1411 Taylor Fidler	
8:10 am – 8:25 am	Derek Wong	8:10 am – 8:25 am	Muntadhar Al Moosawi	8:10 am – 8:25 am	Kyra Berg
8:25 am – 8:40 am	Emily Button	8:25 am – 8:40 am	Bhupinder Johal	8:25 am – 8:40 am	Ellen Cai
8:40 am – 8:55 am	Jessica Pilsworth	8:40 am – 8:55 am	Eric McGinnis		
9:00 am – 9:20 am	GUEST SPEAKER: DR. MARIANNE SADAR Paetzold Lecture Theatre "From the Bench to the Bedside: the Journey to Developing a New Therapy"				
9:20 am – 9:50 am	POSTER POWER PITCH SESSION Paetzold Lecture Theatre				
9:50 am – 10:05 am	BREAK (ATRIUM)				
10:05 am – 11:05 am	JAMES HOGG LECTURE: DR. BLAKE GILKS Paetzold Lecture Theatre "Being Wrong: Lessons Learned From Research, Teaching, Clinical Service and Administration"				
+ ORAL PRESENTATIONS BY STUDENTS & RESIDENTS					
GRAD STUDENTS Paetzold Lecture Theatre		RESIDENTS Multipurpose Room		RESIDENTS JPPN 1411 Taylor Fidler	
11:15 am – 11:30 am	Amy Nagelberg	11:15 am – 11:30 am	Lynne Li	11:15 am – 11:30 am	Raymond Yip
11:30 am – 11:45 am	Emily Kamma	11:30 am – 11:45 am	Victor Yuen	11:30 am – 11:45 am	Basile Tessier-Cloutier
11:45 am – 12:00 pm	Rachel Cederberg	11:45 am – 12:00 pm	Adrian Levine	11:45 am – 12:00 pm	Mike Steel
12:10 pm – 2:10 pm	POSTER SESSION & LUNCH ICORD				
2:20 pm – 2:40 pm	GUEST SPEAKER: DR. PETER WATSON Paetzold Lecture Theatre "Solutions to Improve the Research Biobanking Pipeline"				
+ ORAL PRESENTATIONS BY STUDENTS & RESIDENTS					
GRAD STUDENTS Paetzold Lecture Theatre		RESIDENTS Multipurpose Room		RESIDENTS JPPN 1411 Taylor Fidler	
2:50 pm – 3:05 pm	Austin Taylor	2:50 pm – 3:05 pm	Jennifer Pors	2:50 pm – 3:05 pm	Sam Au
3:05 pm – 3:20 pm	Alberto Delaidelli	3:05 pm – 3:20 pm	Fatemeh Derakhshan	3:05 pm – 3:20 pm	Lisa Borretta
3:20 pm – 3:35 pm	Yasir Mohamud	3:20 pm – 3:35 pm	Jenny Chu- cancelled	3:20 pm – 3:35 pm	Julia Naso
3:35 pm – 3:50 pm	Angela Mo	3:35 pm – 3:50 pm			
3:55 pm – 4:15 pm	PDF GUEST SPEAKER: DR. SHO HIROYASU (DR. GRANVILLE'S LAB) Paetzold Lecture Theatre "Granzyme B: a Novel Target for Pemphigoid Diseases"				
4:15 pm – 4:30 pm	BREAK (ATRIUM)				
4:30 pm – 5:30 pm	KEYNOTE SPEAKER: DR. ANDREW BECK Paetzold Lecture Theatre "Artificial Intelligence for Pathology: from Discovery to AI-Powered Companion Diagnostics"				
5:45 pm – 6:00 pm	COCKTAILS AND CANAPÉS ICORD				
6:00 pm – 8:30 pm	AWARDS ICORD (evening event closes at 8:30 pm)				

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Derek Wong¹, Kohl Lounsbury², Amy Lum³, Veronique LeBlanc⁴, Jungeon Song⁴, Susanna Chan⁴, Suganthi Chittaranjan⁴, Marco Marra⁴, and Stephen Yip¹

2 EMILY BUTTON

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Emily B. Button^{1,2}, Guilaine K. Boyce³, Anna Wilkinson^{1,2}, Sophie K. Stukas^{1,2}, Arooj Hayat¹, Jianjia Fan^{1,2}, Brennan J. Wadsworth², Jerome Robert^{1,2}, Kris M. Martens⁴, and Cheryl L. Wellington^{1,2}

3 JESSICA PILSWORTH

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Jessica Pilsworth^{1,2}, Dawn Cochrane², Samantha Neilson², Bahar Moussavi², Anniina Färkkilä^{3,4}, Hugo Horlings², Satoshi Yanagida⁵, Yi Kan Wang², Ali Bashashati², Winnie Yang², Janine Senz², Jacqueline Keul⁶, Adele Wong⁷, Esther Oliva⁷, Stefan Kommoss⁸, Friedrich Kommoss⁸, Sohrab Shah⁹, David Huntsman^{2,10}

4 MUNTADHAR AL MOOSAWI

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Muntadhar Al Moosawi¹, Grace van der Gugten³, Andre Mattman²

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Bhupinder Johal¹, Ann Tran¹, Lawrence Sham², Monika Hudoba¹, Andrew Shih¹

6 ERIC MCGINNIS

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Eric McGinnis¹, Steven K.W. Wong², and Tyler W. Smith³

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Kyra B. Berg¹, Jennifer J. Telford², Laura Gentile³, and David F. Schaeffer⁴

8 ELLEN CAI

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Anthony Y.Y. Hsieh^{1,2}, Beheroz Sattha¹, Nicole Bernard³, Cecile L. Tremblay^{4,5}, Hélène C.F. Côté^{1,2} for the CIHR Team on Cellular Aging and HIV Comorbidities in Women and Children (CARMA)

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Michael Yu Li^{1,2}, Shannon Healy², and Christian Steidl^{1,2}

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55 MADELINE MASON [graduate student]

ESTABLISHING THE IMMUNE PROFILE OF THE OVARIAN MICROENVIRONMENT IN ENDOMETRIOSIS-ASSOCIATED OVARIAN CANCER

Madeline Mason¹, Tayyeb Nazeran², Bronwyn Gibson-Wright³, Katy Milne³, Julie Ho, Janine Senz, David Huntsman^{1,2}, Brad Nelson^{3,4}, Michael Anglesio^{1,2}

56 SARAH MORRIS [graduate student]

INVESTIGATING QUANTITATIVE BIOMARKERS IN POST-MORTEM HUMAN SPINAL CORD INJURY TISSUE USING ADVANCED MAGNETIC RESONANCE IMAGING AND HISTOPATHOLOGICAL TECHNIQUES

Sarah R. Morris^{1,2,3}, Valentin Prevost^{1,2}, Piotr Kozlowski^{1,2,3,4}, Andrew Yung^{1,2,4}, Andrew Bauman^{1,2,4}, Zahra Samadi B.^{1,5}, Caron Fournier^{1,5}, Allan Aludino^{1,6}, Lisa Parker⁷, Kevin Dong¹, Femke Streijger¹, G. R. Wayne Moore^{1,5,8}, Brian Kwon^{1,6}, Cornelia Laule^{1,2,3,5}

57 AMY NGUYEN [graduate student]

PRE-ANALYTICAL AND ANALYTICAL CONSIDERATIONS FOR QUANTIFICATION OF AMYLOID-BETA IN CEREBROSPINAL FLUID BY LIQUID CHROMATOGRAPHY TANDEM MASS SPECTROMETRY

Amy Nguyen¹, J. Grace van der Gugten², and Mari L. DeMarco^{1,2}

58 LORENZ NIERVES [graduate student]

OPTIMIZING A PROTEOMIC WORKFLOW FOR THE ISOLATION OF CELL SURFACE PROTEINS AND TERMINI

Lorenz Nieves^{1,2} & Philipp Lange^{1,2}

59 TAYLOR POBRAN [graduate student]

TDP-43 ENRICHMENT USING A HIGH AFFINITY RNA APTAMER

Taylor Pobran¹, Junyan Shi¹ and Mari L. DeMarco^{1,2}

60 KATLYN RICHARDSON [graduate student]

INVESTIGATING THE ROLE OF GRANZYME K IN PSORIASIS

Katlyn C. Richardson^{1,3}, Christopher T. Turner^{1,3}, Sho Hiroyasu^{1,3}, Matthew R. Zeglinski^{1,3}, Richard I. Crawford^{1,2}, Angela Burleigh^{1,2}, David J. Granville^{1,3,4}

POSTER PRESENTATIONS CONT.

61 MARIE-SOLEIL SMITH [graduate student]

PRELIMINARY EVIDENCE THAT DOLUTEGRAVIR REDUCES CELL PROLIFERATION, INCREASES MITOCHONDRIAL DNA CONTENT, AND INDUCES DIFFERENTIATION IN A HUMAN EMBRYONIC STEM CELL LINE

Marie-Soleil Smith^{1,2}, Abhinav Ajay Kumar^{1,2}, Anthony Y.Y. Hsieh^{1,2}, Izabella Gadawska^{1,2}, Hélène C.F. Côte^{1,2}

62 LILY TAKEUCHI [graduate student]

DEVELOPMENT OF A CARDIAC-TARGETED MACROMOLECULAR IRON CHELATION SYSTEM FOR THE TREATMENT OF TRANSITIONAL IRON OVERLOAD

Lily E. Takeuchi, Srinivas Abbina, Usama Abbasi, Jayachandran N. Kizhakkedathu

63 SIMON TESKEY [graduate student]

TARGETING THE NFE2 PATHWAY TO ENHANCE THE THERAPEUTIC EFFICACY OF TREATMENTS FOR ADVANCED PROSTATE CANCER

Simon J.L. Teskey^{1,2}, Nasrin R. Mawji², Marianne D. Sadar^{1,2}

64 BRENNAN WADSWORTH [graduate student]

THE LIFETIME OF PERFUSION-LIMITED HYPOXIC TUMOUR CELLS IN SOLID TUMOUR XENOGRAFTS

Brennan J Wadsworth^{1,2}, Kevin L Bennewith^{1,2}

65 SAMUEL SHAO HUAN WENG [graduate student]

SENSITIVE IDENTIFICATION OF PROTEOLYTIC PROTEOFORMS IN LIMITED SAMPLES

Samuel S. H. Weng^{1,2,5}, Fatih Demir^{3,5}, Enes K. Ergin^{1,2}, Sabrina Dirnberger³, Anuli Uozzie^{1,2}, Domenic Tuscher³, Lorenz Nierves^{1,2}, Janice Tsui^{1,2}, Pitter F. Husegen^{3,4}, Philipp F. Lange^{1,2}

Tsui^{1,2}, Pitter F. Husegen^{3,4}, Philipp F. Lange^{1,2}

66 ANNA-CATHARINA WILHELM [graduate student]

THE EFFECT OF GRANZYME B-CLEAVED THROMBOSPONDIN 2 ON ENDOTHELIAL CELL PHENOTYPE AND FUNCTION

Anna-Catharina Wilhelm^{1,2}, Matt Zeglinski^{1,2}, David Granville^{1,2}

67 DAPHNE WU [graduate student]

IDENTIFICATION OF BIOMARKERS TO PREDICT PLATELET TRANSFUSION OUTCOME

Daphne Wu^{1,2}, Dana Devin^{1,2}

68 TIM XUE [graduate student]

ENTEROVIRAL INFECTION IN MOUSE BRAIN LEADS TO AMYOTROPHIC LATERAL SCLEROSIS-RELATED PROTEIN PATHOLOGIES AND MOTOR DYSFUNCTION

Yuan Chao Xue^{1,2}, Gabriel Fung^{1,2}, Yasir Mohamud^{1,2}, Eric Deng^{1,2}, Huitao Liu^{2,3}, Jingchun Zhang^{1,2}, Ralph Feuer⁴, Neil Cashman⁵, Honglin Luo^{1,2}

69 JOYCE ZHANG [graduate student]

MODELLING INITIATION EVENTS OF SEROUS OVARIAN CANCERS WITH ORGANOID CULTURES AND SINGLE CELL SEQUENCING

Joyce Zhang^{1,2}, Dawn Cochrane¹, Kieran Campbell¹, James Hopkins¹, Genny Trigo¹, Germain Ho¹, Winnie Yang¹, Maya DeGrood¹, Sorab Shah^{1,2}, David Huntsman^{1,2}

70 GUANGZE ZHAO [graduate student]

COXSACKIEVIRUS B3-INDUCED CLEAVAGE OF DESMOSOME PROTEINS ENHANCES DEGRADATION OF GAMMA-CATENIN AND BENEFITS WNT/BETA-CATENIN SIGNALING PATHWAY

Guangze Zhao^{1,2}, Huifang M. Zhang^{1,2}, Ye Qiu^{1,2}, and Decheng Yang^{1,2}

71 HANQI (WAYNE) ZHAO [graduate student]

CHARACTERIZATION OF COLD-STORED PLATELETS IN VITRO

Hangi (Wayne) Zhao^{1,2}, Katherine Serrano^{1,2,3}, Peter Schubert^{1,2,3}, Elena Levin^{2,3}, Brankica Culibrk^{2,3}, Zhongming Chen^{2,3}, and Dana V.Devine^{1,2,3}

72 ADAM ZIADA [graduate student]

PROPOSAL TO INVESTIGATE THE EFFECTS OF INTERRUPTIONS IN HIV THERAPY ON MITOCHONDRIAL AGING

Adam S. Ziada^{1,2}, Nancy Yang^{1,2}, Beheroze Sattha^{1,2}, Hélène C.F. Côté^{1,2,3}, and The CIHR Team Grant on Cellular Aging and HIV Comorbidities in Women and Children (CARMA)

73 JOHN AIRD [postdoctoral fellow]

MISMATCH REPAIR PROTEIN IMMUNOHISTOCHEMISTRY IN CASES OF RECURRENT GYNECOLOGIC AND GASTROINTESTINAL MALIGNANCIES: IS THERE A NEED FOR REPEAT STAINING?

John Aird^{1,2}, Mike Steel¹, Robert Wolber^{2,3}, Lien Hoang^{1,2}, David Schaeffer^{1,2}

POSTER PRESENTATIONS CONT.

74 JOHN AIRD [postdoctoral fellow]

PROGNOSTIC ASSESSMENT OF IMMUNOGENICITY IN AMPULLARY CARCINOMA POINTS TOWARDS AN IMMUNOMODULATORY THERAPEUTIC OPTION

John Aird^{1,2,3}, Steve Kalloger^{2,3}, Christine Chow², Daniel Renouf^{3,4}, and David Schaeffer^{1,2,3}

75 WAI HANG (TOM) CHENG [postdoctoral fellow]

CHIMERA REPETITIVE MILD TRAUMATIC BRAIN INJURY INDUCES CHRONIC BEHAVIORAL AND NEUROPATHOLOGICAL PHENOTYPES IN WILD-TYPE AND APP/PS1 MICE

Wai Hang Cheng¹, Kris M. Martens¹, Asma Bashir¹, Honor Cheung¹, Sophie Stukas¹, Ebrima Gibbs², Dhananjay R. Namjoshi¹, Emily B. Button¹, Anna Wilkinson¹, Carlos J. Barron¹, Neil R. Cashman², Peter A. Cipton³, Cheryl L. Wellington¹

76 SHO HIROYASU [postdoctoral fellow] ORAL PRESENTATION

GRANZYME B: A NOVEL TARGET FOR PEMPHIGOID DISEASES

Sho Hiroyasu^{1,2,3}, Valerio Russo^{1,2,3}, Matthew R. Zeglinski^{1,2,3}, Hongyan Zhao^{1,2,3}, Yoan Machado^{4,5}, Anika Kasprick⁶, Chiharu Tateishi⁷, Wataru Nishie⁸, Angela Burleigh⁹, Peter A. Lennox¹⁰, Nancy Van Laeken¹⁰, Nick J. Carr¹⁰, Richard I. Crawford^{2,9}, Hiroshi Shimizu⁸, Daisuke Tsuruta⁷, Christopher M. Overall^{4,5}, Ralf J. Ludwig⁶, and David J. Granville^{1,2,3}

77 ANULI UZOZIE [postdoctoral fellow]

INTEGRATED PROTEOME, PHOSPHO-PROTEOME AND N TERMINOME CHARACTERIZATION OF PEDIATRIC PATIENT AND MATCHED ENGRAFTED LEUKEMIA

Anuli Uzozie^{1,3}, Janice Tsui¹, Christopher Maxwell^{2,3}, James Lim^{2,3}, Gregor Reid^{2,3}, Philipp Lange^{1,3}

78 MATTHEW MASOUDI [research associate]

TRANSLATING RESEARCH INTO PRACTICE: INVESTIGATING THE IMPACT OF ALZHEIMER'S DIAGNOSTICS IN CANADA (IMPACT-AD)

Mari L. DeMarco^{1,2}, Matthew Masoudi³, Colleen Chamber⁴, Robin Hsiung⁵, Howard Feldman^{5,6}, John R. Best⁶, Howard Chertkow⁷, Serge Gauthier⁸, Jason Karlawish⁹

79 VEENA LIN [undergraduate student - poster without presenter, Al Rohet Hossain will bring in the poster]

DIFFERENTIAL EXPRESSION OF NUP98-ERBB4-PSEN1-NRG1 (NEPN) SIGNALING AXIS AS POTENTIAL BLOOD-BASED BIOMARKERS FOR VIRAL MYOCARDITIS

Veena Lin, Paul J. Hanson^{1,2}, Bruce M. McManus^{1,2}
