CANADIAN SKIN RESEARCH CONFERENCE 2024





Skin Investigation Network of Canada

Réseau Canadien de Recherche sur la Peau



Canadian Skin Patient Alliance Alliance canadienne des patients en dermatologie







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Welcome esteemed members and guests,

We are pleased to extend a warm welcome to the joint Canadian Skin Research Conference, co-organized by SkIN Canada, SRGC, CSID, CDF and CSPA, five renowned organizations focused on skin health in Canada. This national event has gathered top skin researchers, dermatologists, surgeons, trainees and patient advocates from across Canada to showcase clinical, basic, and translational research on inflammatory skin disease, skin cancer, and wound healing/scarring. This year we are excited to offer sessions focusing on research in skin of colour, rare skin diseases and clinical trials. We have selected world-renowned speakers to deliver keynote lectures that would be of interest to clinicians and researchers alike. Moreover, the conference will feature outstanding presentations by trainees that exemplify excellence in skin research.

Enclosed in this booklet please find the program, in addition to a map of the facility. Our specific objectives are to ascertain patient and industry needs and develop key partnerships to jump-start joint translational studies/projects targeting critical questions to improve the diagnosis and treatment of skin diseases.

Enjoy your conference!



Dr. An-Wen Chan MD, DPhil (Oxon), FRCPC
Managing Director, SkIN Canada
Phelan Senior Scientist,
Women's College Research Institute;
Professor, Dept of Medicine, University of Toronto
Mohs surgeon & dermatologist (cutaneous oncology), Women's College Hospital



Dr. Lucie Germain, PhDPresident, Skin Research Group of Canada

Canada Research Chair on Stem Cells and Tissue Engineering

Professor, Department of Surgery, Faculty of Medicine, Université Laval

Director LOEX



Dr. Jan DutzPresident of the Canadian Society of investigative Dermatology,
Co-Director, SkIN Canada
Head, Department of Dermatology & Skin Science



Dr. Youwen Zhou, MD, PhDPresident of the Canadian Dermatology Foundation

Professor, Department of Dermatology and Skin Science,
University of British Columbia



Mimma Spagnolo Chair Canadian Skin Patient Alliance

Dear Colleagues and Friends,

On behalf of the Scientific Organizing Committee, we are delighted to welcome you to the Joint Canadian Skin Research Conference co-organized by the Canadian Skin Research Group of Canada (SRGC), Canadian Skin Investigation Network of Canada (SkIN Canada), Canadian Sciety of Investigative Dermatology (CSID), Canadian Dermatology Foundation (CDF) and Canadian Skin Patient Alliance (CSPA).

This conference serves as a platform for skin researchers across the nation to advance skin research, foster collaboration, engage with individuals affected by skin conditions, and support the next generation of skin scientists. Along with presentations from outstanding faculty members and trainees from across Canada, we have an exciting array of keynote speeches and state-of-the-art lectures pertaining to different aspects of mechanisms underlying skin diseases and innovative therapeutics. During the first day, we are fortunate to welcome Drs. Laurent Bozec and Katie Cockburn as state-of-the-art speakers and Dr Ian Watson as our keynote speaker. The highlights of our second day will be the keynote speech by Dr. Christopher McCulloch and a state-of-the-art lecture by Dr Liren Tang. It is also exciting to note that we have a trainee workshop focused on 'From Graduate School to Job Market' on day 1 led by Dr David Mendes da Silva. The educational second workshop will be held on day 2 for which we welcome renowned Canadian dermatologists Drs Rachel Asiniwasisi, Reetesh Bose and Youwen Zhou as speakers. The next generation of Canadian skin scientists who showcase their research at the meeting will be recognized through best presentation awards, and ravel awards.

The objectives and anticipated impact of the conference are:

- To improve the skin health of Canadians by stimulating knowledge exchange
- To facilitate the interaction of basic- and clinician-scientists
- To enhance the interaction between scientists, patient groups and industry partners.

We take this opportunity to thank our highly talented coordinators of this conference Mbarka Bchetnia, Josephine Salib and Kenneth Finnson for their dedication.

Again, welcome to the Joint Canadian Skin Research Conference, 2024.

Sincerely, Scientific Co-Chairs

Dr. Mélanie LaurinAssistant professor
Faculty of Medicine, Université – Laval
CHU de Québec – Université Laval Research Center
SRGC Board member



Dr. Anie PhilipProfessor, Department of Surgery, McGill University
Director, Plastic Surgery Research, McGill University
SRGC Board member, Past President
Co-Director, SkIN Canada



MEETING COORDINATORS



Josephine Salib, MSc SkIN Canada coordinator josephine.salib@wchospital.ca skincanada.org



Kenneth Finnson, PhD SkIN Canada coordinator kenneth.finnson@gmail.com <u>skincanada.org</u>



Mbarka Bchetnia, PhD SRGC coordinator Mbarka.Bchetnia@crchudequebec.ulaval.ca srgcanada.org

CODE OF CONDUCT FOR ALL PARTICIPANTS OF THE CANADIAN SKIN RESEARCH CONFERENCE 2024

Members of the Canadian Skin Research Conference community are committed to providing a welcoming, safe, and inclusive environment where every participant can grow and reach their full potential, regardless of age, ethnicity, gender, religion, disability, sexuality and/or socio-economic status. This community is committed to maintaining a zero-tolerance policy against harassment and discriminatory behavior at its events. Participants must show respect and consideration for each other and the local community. It is therefore expected of all participants that they respect this code of conduct. Violations of this code of conduct policy must be reported to the organizers.

KEYNOTE



Dr. Christopher McCulloch, DDS, PhD, FRCD (C), FCAHS; Professor

University of Toronto

Chris McCulloch is professor of dentistry at the University of Toronto and since 1984 has contributed 335 papers, 150 presentations and 4 patents that relate to matrix biology and associated diseases of matrix disorders that affect human health. He uses animal models and cultured cells to examine and define fundamental regulatory circuits that define the function and mechanics of connective tissue matrices, particularly in the context of periodontal diseases. As a principal investigator on > 25 MRC/CIHR research grants, he has developed and employed high resolution tools to define the contribution of fibroblasts in matrix remodeling in soft connective tissues. He has established a network of collaborators and trainees along with industrial partners to provide optimal support, know-how and reagents for the conduct of research focusing on how cell-matrix interactions help to define how inflammatory diseases contribute to matrix pathology.

KEYNOTE

Dr. lan Watson, PhD



Associate Professor, Rosalind and Morris Goodman Cancer Institute, Research Institute McGill University Health Centre, McGill University

Dr. Ian Watson is a member of the Goodman Cancer Institute (GCI), an investigator at the Research Institute of the McGill University Health Centre (MUHC), and an Associate Professor in the Department of Biochemistry at McGill University. He is a Canadian Research Chair II in functional genomics of melanoma, the Co-Chair for the melanoma disease working group for the Canadian Cancer Trials Group (CCTG) and the former Co-Chair for The Cancer Genome Atlas (TCGA) melanoma project. In 2018, he co-led a successful Terry Fox Research Institute (TFRI) Marathon of Hope Cancer Centre Network (MoHCCN) pilot project that brough together investigators from seven research institutes in Montreal to study mechanisms of immune therapy resistance. The TFRI MoHCCN program has since expanded into a national initiative bringing together clinicians and scientists across the country with the goal of leveraging big data breakthroughs to advance our understanding, diagnosis, and treatment of cancer to significantly impact patient outcomes. Dr. Watson's research program focuses on understanding targeted and immune therapy response mechanisms in melanoma. His lab utilizes an interdisciplinary approach combining molecular characterization of melanomas and circulating immune cells, functional genomics, and bioinformatic approaches.

STATE-OF-THE-ART

Dr. Laurent Bozec, Professor, DUT, BSc (Hons), PhD, FRMA



Faculty of Dentistry, University of Toronto

Dr. Laurent Bozec, a distinguished biophysicist, a full professor in the Faculty of Dentistry at the University of Toronto. He runs the Matrix Functionalization and Phenotyping Lab (MFP-Lab (or Bozec-lab)), which explores the relationship between collagen's structural and biomechanical properties at the nanoscale in health and diseases. The MFP-Lab has developed unique expertise worldwide to study the biophysics of connective tissue disorders and collagen engineering using primarily atomic force microscopy (AFM). The lab is currently leading an effort to define nanoscale structural biomarkers for collagen-specific connective tissue such as Ehlers-Danlos but has prior expertise in skin aging and glycation. Early in his career, he was the first microscopist to resolve the collagen triple helical structure with AFM. From modeling the collagen fibrils as a nanoscale rope to exploring the advantageous role of glycation for tissue engineering, Dr. Bozec has managed to bridge the biophysics of collagen with clinical and tissue engineering applications for over 20 years. Among his more peculiar research interests is his long-standing expertise in parchment-based research (animal skin) for Cultural Heritage applications, for which the MFP - Lab is developing the field of conservation histology.

Dr. Laurent Bozec earned his Ph.D. from Lancaster University, UK, with a pioneering thesis on "Near-field Photothermal Fourier-Transform Microspectroscopy", where he combined an Atomic Force Microscope with an Infrared Spectrometer for the first time. To follow his aspiration of working closely with clinicians, he transitioned his physics training to the Faculty of Medicine at UCL before settling permanently in Dentistry.

STATE-OF-THE-ART

Dr. Kathie Cockburn, PhD



Assistant Professor, Department of Biochemistry & Goodman Cancer Institute McGill University

Kathie received her PhD in Developmental Biology from the University of Toronto and did her postdoc with Dr. Valentina Greco at Yale University, where she developed intravital imaging approaches to track cell fate decisions in epidermal stem cells. In 2022, she started her independent group in the Department of Biochemistry at McGill. The Cockburn lab aims to understand how epidermal stem cells balance and pattern their fates during homeostatic tissue turnover and in response to environmental stress and injury.

STATE-OF-THE-ART

Dr. LIREN TANG, PhD



Resolvex Pharmaceuticals, Inc

Dr. Liren Tang, received his PhD in 1995 in cell biology from University of British Columbia and was an associate scientist in skin research at the Department of Dermatology and Skin Science at UBC from 1998-2006. He joined Welichem, a Burnaby BC Canada – based biotech company in 2006 to lead its dermatologic therapeutics research program on the lead compound WBI1001 (also known as tapinarof, an aryl hydrocarbon receptor agonist). Under Dr. Tang's leadership, Welichem completed four Phase I-II clinical trials (psoriasis and atopic dermatitis) and forged a strategic licensing agreement with GSK in 2021. Tapinarof received FDA approval in 2022 and has been used by psoriasis patients worldwide. In 2016, Dr. Tang founded Resolvex Pharmaceuticals, Inc, where he continues to this date to develop novel therapeutics for the treatment of inflammatory diseases affecting the skin and other organ systems. His research focuses on novel stillben derivatives and the next generation of AHR agonists.

WORKSHOP I – FROM GRADUATE SCHOOL TO JOB MARKET





Dr. David Mendes da Silva

The 2nd Lab

Dr. David Mendes da Silva is a speaker, facilitator, and host of the Papa PhD Podcast. He holds a PhD in cell biology from the University of Coimbra (2003-2010) and has over 10 years of experience in medical and science communication within the pharma and health sciences sectors. Currently, he provides language services in the scientific and biomedical fields. In July 2019, he launched Papa PhD, a podcast focused on career paths after graduate school, which has since gained a global audience. He is passionate about science communication and creating multimedia projects centered around science and the scientific community.

WORKSHOP II - SKIN OF COLOR RESEARCH



Dr. Rachel Asiniwasis, MD MS(HS) FRCPC FAA

Origins Dermatology Centre

Dr. Rachel Asiniwasis is a dermatologist and early career clinician researcher based in western Canada (her hometown of Regina, Saskatchewan). She is the founder of Origins Dermatology Centre, a combined multidisciplinary model that services both

the general population and provides outreach clinics (in-person and virtual care) for underserviced remote and rural Indigenous (First Nation and Metis) communities. Rachel is of Plains Cree, Saulteaux and English background. She carries a Master of Science in Health Science in clinical and translational research and has special interest in common inflammatory dermatoses (atopic dermatitis, psoriasis), virtual care, underserviced areas, holistic impact of skin disease, medical education, and translational interpretation and implementation of research with the ultimate goal of tangible health outcomes. She currently has active educational and research projects ongoing in the areas of inflammatory skin disease, virtual care, and Indigenous and rural health in western Canada.



Dr. Reetesh Bose, MD FRCP

University of Ottawa, The Ottawa Hospital, Carleton Place and District Memorial Hospital, Children's Hospital of Eastern Ontario

Dr. Bose is a Canadian, Board-certified dermatologist. He is an active faculty member with the division of Dermatology, University of Ottawa, and The Ottawa Hospital. He completed his Dermatology residency at the University of Ottawa. He

is the director and founder of the Ottawa Skin of Colour **Dermatology** Clinic, one of the first in Canada, which runs out of the Civic Hospital in Ottawa and has been servicing the greater Ottawa community since December 2021. He has a special interest in Skin of Color Dermatology and Vitiligo. He is a committee member for the Canadian Dermatology Association and The Ottawa Hospital, EDI committees.



Dr. Youwen Zhou, MD, PhD

University of British Columbia, President of the Canadian Dermatology Foundation

Dr Youwen Zhou is a dermatologist scientist and the Director of Research at the Department of Dermatology and Skin Science at University of British Columbia. A board-certified dermatologist in Canada and US, Dr Zhou received his MD from

University of Toronto and PhD from Downstate Medical Center in New York. He serves on the editorial board of JAAD and Journal of Cutaneous Medicine and Surgery. He is the President of Canadian Dermatology Foundation and the past president of Canadian Society of Investigative Dermatology. Dr Zhou practices in Vancouver General Hospital where he specializes in the treatment and translational research of inflammatory, pigmentary, and malignant skin diseases.

SCHEDULE OVERVIEW

	anadian Skin Research Conference - 2024 Tuesday,	Wednesday,	Thursday,
	JUNE 25 th	JUNE 26 th	JUNE 27 th
7:00	Registration	Registration	
7:30			
8:00	State-of-the-art	State-of-the-art	
	Dr. Laurent Bozec, University of Toronto	Dr. Liren Tang, Resolvex Pharmaceuticals, Inc	CDA
8:30	Plenary Session I	Plenary Session III	
9:00	From selected abstracts	From selected abstracts	
	(8 short talks; 10 min talk + 5 min question)	(10 flash talks; 3 min talk + 2 min question)	
9:30		Coffee Break	
10:00		Keynote	
10:30	Coffee Break	Dr. Chris McCulloch, U of Toronto	
11:00	Keynote	Workshop II - Skin of Color Research	
11:30	Dr. Ian Watson, McGill University	Dr. Rachel Asiniwasis, Origins Derm	
12:00		Dr. Reetesh Bose, U of Ottawa Dr. Youwen Zhou, UBC	
12:30	Poster Session I	Award ceremony	
13:00	with Lunch		
13:30			Clinical Trials Primer
14:00	State-of-the-art		Dr. M. Gooderham
	Dr. Katie Cockburn, McGill University	CDA	Dr. Z. Taher Dr. Chan
14:30	Plenary Session II		Dr. V. Moulin Dr. L. Tang
15:00	From selected abstracts		Di. L. Talig
4 =			
15:30	(8 short talks; 10 min talk + 5 min question)		
15:30	(8 short talks; 10 min talk + 5 min question)		
	(8 short talks; 10 min talk + 5 min question) Coffee Break		
16:00	Coffee Break Workshop I – From Graduate School to Job		
16:00 16:30	Coffee Break		
16:00 16:30 17:00	Coffee Break Workshop I – From Graduate School to Job Market Dr. David Mendes da Silva - The 2 nd		
16:00 16:30 17:00 17:30	Coffee Break Workshop I – From Graduate School to Job Market Dr. David Mendes da Silva - The 2 nd Lab		
16:00 16:30 17:00 17:30 18:00	Coffee Break Workshop I – From Graduate School to Job Market Dr. David Mendes da Silva - The 2 nd Lab Poster Session II		

FULL SCHEDULE

DAY 1 - TUESDAY JUNE 25th, 2024

7:00 - 7:50 Registration

(Central break area)

7:50 – 8:00 Welcome Remarks by Dr. Anie Philip and Dr. Mélanie Laurin, Scientific co-chairs

(Aurora room)

8:00 – 8:30 State-of-the-art

(Aurora room)

Session Chair: Dr. Anie Philip, McGill University

• Dr. Laurent Bozec, University of Toronto

Nanoscale dermal collagen morphometry in health and disease.

8:30 – 10:30 Plenary Session I - Selected from submitted abstracts.

(Aurora room)

10 minutes presentation + 5 minutes of question

Session Chair: Dr. Julie Fradette, Université Laval

• Investigating the Role of Notch Ligands Regulating Epidermal Stem Cell Differentiation.

Vandana Nathan, McGill University

• Increased TGF- β receptor levels and fibrotic signaling is linked to impaired TGF- β receptor internalization and decreased TGF- β receptor II-caveolin-1 interaction in scleroderma fibroblasts.

Saniya Pamnani, McGill University

- Cancer-associated Fibroblast-specific Expression of the Matricellular Protein CCN1
 Coordinates Neovascularization and Stroma Deposition in Melanoma Metastasis.
 John Nguyen, University of Saskatchewan
- Implication of mitochondrial transfer in UVR-induced apoptosis of skin cells. Sophie Amouret, Université Laval
- Soluble CD109 is an important regulator of EGFR signaling in squamous cell carcinoma.

Varsha Reddy Durgempudi, McGill University

• Characterizing the Translational and Mutational Landscape of Periocular Basal Cell Carcinoma.

Sarah Ghezelbash, McGill University

- Unravelling the role of ARHGEF3 during hair follicle morphogenesis. Krithika Kalyanakrishnan, Université Laval
- Role of Kindlin-1 in Cutaneous Squamous Cell Carcinoma Cytoskeletal Organization Alejandra Varela, Université of Western Ontario

10:30 - 11:00 Coffee break

(Central break area)

11:00 – 12:00 Keynote Lecture

(Aurora room)

Session Chair: Dr. Mélanie Laurin, Université Laval

• Dr. Ian Watson, McGill University

Translating the melanoma genome: implications for targeted and immune therapy responses

12:00 - 14:00 Poster Session I with lunch - ODD NUMBERS

Evaluation by judges will start at 13:00 (5 min presentation per poster)

(Dawn room)

14:00 - 14:30 State-of-the-art

(Aurora room)

Session chair: Dr. Mélanie Laurin, Université Laval

• Dr. Katie Cockburn, McGill University

Keeping up with the neighbors: understanding stem cell decisions in the skin through intravital imaging

14:30 – 16:30 Plenary Session II - Selected from submitted abstracts.

(Aurora room)

10 minutes presentation + 5 minutes of question

Session Chair: Dr. Andrew Leask, University of Saskatchewan

• Chitosan-based treatment for diabetic wound healing in rats: histological and mechanical characterization.

Laura Ahunon, Polytechnique Montréal

- Inhibition of tissue resident memory T-cells as a therapy for contact hypersensitivity.
 Touraj Khosravi, University of British Columbia
- Comorbidities in Pediatric Patients with Hidradenitis Suppurativa: A Systematic Review.

Samiha Mohsen, University of Toronto

• Association of countries' atopic dermatitis burden and sociodemographic index with dupilumab and tralokinumab utilization.

Arbie Sofia Merilleno, University of Toronto

• Long-term outcomes of juvenile dermatomyositis at a Canadian pediatric quaternary care centre.

Valerie Hladky, Université de Montréal

- Genetic syndromes with paediatric alopecia areata: A systematic review. Megan Park, University of Toronto
- Treatment Of Hidradenitis Suppurativa with Janus Kinus Inhibitors A Systematic Review.

Beenu Bajwa, University of British Columbia

• Effect of botulinum toxin type A on muscular temporomandibular disorder: A systematic review and meta-analysis of randomized controlled trials.

Kaiyang Li, McGill University

16:30 - 17:00 Coffee break

(Central break room)

17:00 – 18:00 Workshop I – From Graduate School to Job Market.

(Aurora room)

Session chair: Dr. Anie Philip, McGill University

• Dr. David Mendes da Silva, The 2nd Lab

18:00 - 20:00 Poster Session II with networking reception - EVEN NUMBERS

Evaluation by judges will start at 19:00 (5 min presentation per poster)

(Down room)

WEDNESDAY JUNE 26th, 2024 DAY 2

7:00 - 8:00 Registration

(Central break room)

8:00 - 8:30 State-of-the-art

(Aurora room)

Session chair: Dr. Youwen Zhou, University of British Columbia

Dr. Liren Tang, Resolvex Pharmaceuticals, Inc.

Developing the world's first AHR Agonist therapy for inflammatory skin diseases – a Canadian success story – (Canadian Skin Innovation Achievement Award Lecture)

8:30 – 9:30 Plenary Session III – Selected from submitted abstracts.

(Aurora room)

3 minutes presentation + 2 minutes of question

Session chair: Dr. Véronique Moulin, Université Laval

- Clinical, Dermoscopic and Molecular Features of Acantholytic Cutaneous Squamous Cell Carcinoma: A Systematic Review.
 Catherine Zhu, McGill University
- Efficacy of treatments in reducing inflammatory lesion count in rosacea: A systematic review.

Ryan Geng, University of Toronto

• Reporting quality of noninferiority randomized controlled trials for skin disease: a meta-epidemiological study.

Kevin Kim, McMaster University

- Clinical Characteristics and Treatment Outcomes of Linear IgA Bullous Dermatosis.
 Kristie Mar, University of Ottawa
- CD109 knockout in mice leads to increased fibrotic and inflammatory responses in the skin and lung.

Setareh Garousi, McGill University

• Investigating mechanisms of non-professional efferocytosis in the mammalian interfollicular epidermis.

Michael Mouradian, McGill University

- Tumor-Specific Gene Fusions in Basal Cell Carcinoma: Implications for Pathogenesis and Clinical Significance.
 - Bonika Nallanathan, McGill University
- Role of Kindlin 2 in Epidermal Cell Proliferation and Migration.

Anamika Dutta, Western University

- Effects of Citrullination on Fibulin-5 and Elastogenesis. Ramshaa Mahalingam, McGill University
- Mechanisms involved in the toxic synergy between pollution and ultraviolet for skin.
 Eloïse Larnac, Centre de recherche du CHU de Québec Université Laval

9:30 - 10:00 Coffee Break

(Central break room)

10:00 - 11:00 Keynote Lecture

(Aurora room)

Session chair: Dr. Anie Philip, McGill University

• Dr. Christopher McCulloch, University of Toronto
Targeting Cytokine Receptors for Control of Inflammation

11:00 - 12:30 Workshop II - Skin of Color

(Aurora room)

Session chair: Dr. An-Wen Chan, University of Toronto

- Dr. Rachel Asiniwasis, Origins Derm
- Dr. Reetesh Bose, University of Ottawa
- Dr. Youwen Zhou, University of British Columbia

12:30 - 13:00 Award ceremony

(Aurora room)

THURSDAY JUNE 27th, 2024 DAY 3

13:40 - 16:00 Clinical Trials Primer

Learn about:

- Fundamental RCT methods
- Conducting trials in community clinics
- Translating lab discoveries to patient
- o Getting your research published



Dr. Melinda Gooderham SKiN Centre for Dermatology



Dr. Zaki Taher Lucere Dermatology

SkIN Canada-CSID-CDF subspecialty session at CDA/Canadian Skin Research Conference



Dr An-Wen (

Dr. An-Wen Chan University of Toronto

THURSDAY JUNE 27, 2024 1:40 PM - 4:00 PM

CDA ANNUAL CONFERENCE, WESTIN OTTAWA HOTEL



Dr. Veronique Moulin LOEX Center











Dr. Liren Tang
Resolvex Pharmaceuticals, INC