



## The 24<sup>th</sup> Canadian Connective Tissue Conference

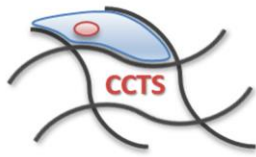
Wednesday May 23-Friday May 25, 2018

### SCIENTIFIC PROGRAM

#### **Day 1: Wednesday May 23, 2018**

Earth Sciences Centre, University of Toronto  
5 Bancroft Avenue, Toronto, ON M5S 3J1

<b>5:15 – 6:15pm</b>	CCTS Board Meeting
<b>6:00 – 9:00pm</b>	<b>Registration &amp; Opening Reception</b>
<b>6:00 – 6:30pm</b>	Registration <i>Location: Auditorium Lobby</i>
<b>6:30 – 6:45pm</b>	Opening Remarks: <b>Lisbet Haglund</b>
<b>6:45 – 7:15pm</b>	Invited Speaker: <b>Sandeep (Sonny) Kohli</b> <i>The future of health care delivery: the convergence of exponential technologies</i>
<b>7:15 – 9:00pm</b>	<b>Reception: Food and Drinks</b>
<b>End of Day 1</b>	

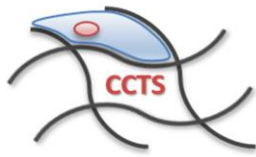


**SCIENTIFIC PROGRAM**

**Day 2: Thursday May 24, 2018**

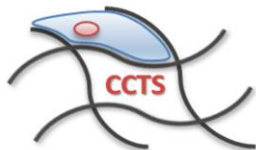
Location: Auditorium & lobby

<b>7:45 – 8:30am</b>	<b>Breakfast</b> <i>Location: Auditorium Lobby</i>
<b>8:30 – 8:45am</b>	Welcome Remarks
<b><u>Session I: Skin and Matrix Biology - Health and Disease</u></b> <i>Co-chairs: Anie Philip and Afsaneh Alavi</i>	
<b>8:45 – 9:15am</b>	Invited Speaker: <b>Vincent Piguet</b> <i>Dendritic Cells in Skin Diseases</i>
<b>9:15 – 10:10am</b>	Selected abstracts for oral presentation
<b>9:15am</b>	Invited Abstract: <b>Aziz Ghahary</b> <i>Trans-differentiation of Immune Cells into Skin Cells in Large Skin Injuries</i>
<b>9:30am</b>	<b>Heena Kumra:</b> <i>Molecular interaction between elastogenic proteins impacting matrix assembly and function</i>
<b>9:40am</b>	<b>Maria Zena Miranda:</b> <i>Regulation of TAZ expression by chemical and mechanical fibrogenic stimuli</i>
<b>9:50am</b>	<b>Shruthi Venugopal:</b> <i>Pro-fibrotic cytokines induce the RhoA exchange factor GEF-H1 through a cytoskeleton-dependent self-regulatory cycle: possible role in epithelial-mesenchymal transition</i>
<b>10:00am</b>	<b>Nazihah Bakhtyar:</b> <i>Exosomes Enriched In The Wharton's Jelly Of The Human Umbilical Cord Enhances Skin Wound Healing</i>
<b>10:10 – 10:25am</b>	<b>Coffee Break</b> <i>Location: Auditorium Lobby</i>
<b><u>Session II: Bone and Developmental Biology - Health and Disease</u></b> <i>Co-chairs: Morris Manolson and Marc Grynbas</i>	
<b>10:25 – 10:55am</b>	Invited Speaker: <b>Jeffrey Dixon</b> <i>Unraveling the complex network of purinergic signaling in bone</i>
<b>10:55 – 11:35am</b>	Selected abstracts for oral presentation
<b>10:55am</b>	<b>Lina Saad:</b> <i>Osteoclastogenesis is modulated by the phosphatase Inpp4b through the PKC<math>\beta</math>/GSK3<math>\beta</math>/Nfatc1 pathway</i>
<b>11:05am</b>	<b>Elie Akoury:</b> <i>Zoledronic acid-loaded silica nanoparticles to treat cancer-induced bone metastasis</i>
<b>11:15am</b>	<b>Iris Boraschi-Diaz:</b> <i>Mechanisms underlying increased osteoclastogenesis in the mouse model of osteogenesis imperfecta due to mutation in collagen type I</i>
<b>11:25am</b>	<b>Garthiga Manickam:</b> <i>The role of SMPD3 in skeletal tissues during fracture</i>



**SCIENTIFIC PROGRAM**

	healing
<b>Session III: Bridging Translational Research in Canada</b> <i>Chair: Svetlana Komarova</i>	
<b>11:35am - 12:05pm</b>	Invited Speaker: <b>James Jaquith</b> <i>Zucara Therapeutics: Centre For Drug Research and Development (CDRD)/MaRS Innovation</i>
<b>12:05 - 1:20pm</b>	<b>Lunch and Poster Presentation Session 1</b> <i>Lunch Location: Auditorium Lobby</i> <i>Poster Presentations will take place from 12:45-1:15 in lobby</i>
<b>12:20 - 1:20pm</b>	CCTS Board Meeting
<b>Session IV: Cartilage and Intervertebral Disc Biology - Health and Disease</b> <i>Co-chairs: Frank Beier and Stephane Roy</i>	
<b>1:20 - 1:50pm</b>	Invited Speaker: <b>Frank Barry</b> <i>Stromal Cell Therapy for Arthritic Diseases: Progress and Obstacles</i>
<b>1:50 - 2:30pm</b>	Selected abstracts for oral presentation
<b>1:50pm</b>	<b>Fackson Mwale:</b> <i>Link N retards disease progression in a rabbit model of osteoarthritis</i>
<b>2:00pm</b>	<b>Daniel G. Bisson:</b> <i>Role of Toll-like receptor 2 in degenerating articular cartilage</i>
<b>2:10pm</b>	<b>Mable Chan:</b> <i>Modulation of inflammation and cartilage degradation using ex vivo polarized monocytes/macrophages within a human osteoarthritic joint explant model</i>
<b>2:20pm</b>	<b>Michael P. Grant:</b> <i>Tungsten accumulation in the intervertebral disc regulates degeneration and markers of discogenic pain</i>
<b>Session V: Novel Therapeutic Strategies in Connective Tissue Disease</b> <i>Chair: Peter Kannu</i>	
<b>2:30 - 3:00pm</b>	Invited Speaker: <b>Rita Kandel</b> <i>Biological intervertebral disc replacement: advancing towards a new treatment option</i>
<b>3:00 - 4:00pm</b>	<b>Coffee + Poster Presentations Session 2</b> <i>Coffee Location: Auditorium Lobby</i> <i>Poster Presentation Location: Lobby</i>
<b>3 Minute Elevator Pitch - Session A</b> <i>Chair: Jason Rockel</i>	
<b>4:00 - 4:45pm</b>	Selected abstracts for 3 minute elevator pitch



## SCIENTIFIC PROGRAM

**Boaz Wong:** *Myofibroblasts attract macrophages in fibrillar collagen*

**Nuno M. Coelho:** *Major vault protein holds the key for DDR1-β1 integrin interaction*

**Nina Noskovičová:** *CUB Domain Containing Protein 1 (CDCP1) is a novel negative regulator of TGFβ signaling and myofibroblast differentiation*

**Pardis Pakshir:** *Mechanisms Of Macrophage Mechanosensation In Collagen Matrix*

**Mohammadali Sheikholeslam:** *Engineering And Basic Science Meet Clinic: Dermal Skin Substitute For Burn Patients*

**Jose Ramirez-GarciaLuna:** *Impact of non-steroidal anti-inflammatory drugs on mast cells during bone repair*

**Xueting Mei:** *Microfluidic Platform for Investigation of Mechanoregulation of Breast Cancer Bone Metastasis*

**Sotcheadt Sim:** *BMP-2 Revealed Enhanced Healing in Fractured Mouse Tibia using Micro-CT and Torsion Test*

**Zeeshan Sheikh:** *A new approach for reversing osteoporotic bone loss with a conjugated drug (C3) in an ovariectomized (OVX) rat model*

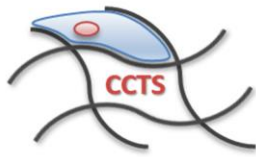
**Rayan Fairag:** *Low-cost 3D printed biodegradable scaffolds, a potential graft substitute materials*

### End of Day 2

6:00 – 9:00pm

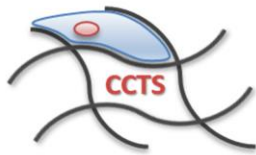
**Gala Dinner**

*Location: BMO Education & Conference Centre, 60 Leonard Avenue, Toronto*



**SCIENTIFIC PROGRAM**

<p><b>Day 3: Friday May 25, 2018</b> Location: Auditorium</p>	
<b>8:00 – 8:30am</b>	<p><b>Breakfast</b> <i>Location: Auditorium Lobby</i></p>
<p><b><u>Session VI: Bioengineering</u></b> <i>Chair: Craig Simmons</i></p>	
<b>8:30 – 9:00am</b>	<p>Invited Speaker: <b>Cari Whyne</b> <i>The impact of metastatic disease on vertebral bone quality</i></p>
<p><b><u>Session VII: Artificial Intelligence and Computational Biology</u></b> <i>Co-Chairs: Dieter Reinhardt and Christopher McCulloch</i></p>	
<b>9:00 – 9:30am</b>	<p>Invited Guest Speaker: <b>Igor Jurisica</b> <i>Precision medicine - from data to models to insights and treatments</i></p>
<b>9:30 – 9:50am</b>	<p>Selected abstracts for oral presentation</p>
<b>9:30am</b>	<p><b>Christie Costello:</b> <i>Metabolomics signature for non-responders to total joint replacement therapy in primary osteoarthritis patients</i></p>
<b>9:40am</b>	<p><b>Anne-Christin Hauschild:</b> <i>Influence of subtype and gender on disease progression and treatment response in osteoarthritis</i></p>
<p><b><u>Session VIII: High-throughput Screening</u></b> <i>Chair: Guangju Zhai and Aziz Ghahary</i></p>	
<b>9:50 – 10:20am</b>	<p>Invited Guest Speaker: <b>David Andrews</b> <i>High Content Analysis to redefine subcellular organization</i></p>
<b>10:20 – 10:40am</b>	<p>Selected abstracts for oral presentation</p>
<b>10:20am</b>	<p><b>Supinder Kour Bali:</b> <i>RNA-SEQ Transcriptome Profiling To Investigate The Role of Glycogen Synthase Kinase 3 Signaling in Cartilage Biology</i></p>
<b>10:30am</b>	<p><b>Shabana Amanda Ali:</b> <i>Next generation sequencing as a tool for microRNA discovery in knee osteoarthritis</i></p>
<b>10:40 – 10:50am</b>	<p><b>Coffee Break</b> <i>Location: Auditorium Lobby</i></p>
<p><b><u>3 Minute Elevator Pitch - Session B</u></b> <i>Chair: Casimiro Gerarduzzi</i></p>	



**SCIENTIFIC PROGRAM**

<p><b>10:50 - 11:20am</b></p>	<p>Selected abstracts for 3 minute elevator pitch</p> <p><b>Helal Endisha:</b> <i>microRNA-34a: Role In The Development Of Osteoarthritis During Obesity</i></p> <p><b>Alejandro Gómez-Aristizábal:</b> <i>Monocyte/macrophages in osteoarthritic synovial fluid are correlated with patient-reported outcomes</i></p> <p><b>Margaret Man-Ger Sun:</b> <i>Investigating The Role Of Retinoid X Receptor In Cartilage Development And Homeostasis</i></p> <p><b>Akihiro Nakamura:</b> <i>Intra-articular injection of microRNA-181a-5p inhibitor attenuates cartilage degeneration in both facet and knee osteoarthritis animal models</i></p> <p><b>Abhinav Parashar:</b> <i>A mechanistic study to understand vascular calcification caused by MGP deficiency</i></p> <p><b>Rongmo Zhang:</b> <i>Fibrillin-1-mediated regulation of microRNA signaling and cell function</i></p> <p><b>Hélène Mathieu:</b> <i>Identification of candidate genes potentially involved in Adolescent Idiopathic Scoliosis</i></p> <p><b>Gyu-Tae Kim:</b> <i>High-Throughput Drug-Screening Using Human Cardiomyocytes In Mechanically Controlled Environments</i></p>
<p><b>11:20-11:50</b></p>	<p><b>CCTS General Assembly</b></p>
<p align="center"><b><u>Session IX: Tissue Fibrosis: Mechanisms and Therapeutic Targets</u></b> <i>Chair: Carl Richards</i></p>	
<p><b>11:50 - 12:20am</b></p>	<p>Invited Guest Speaker: <b>David Lagares</b> <i>New Therapeutics for Fibrotic Diseases: from Biology to Targeted Therapy</i></p>
<p><b>12:20am - 12:50pm</b></p>	<p>Invited Guest Speaker: <b>Andras Kapus</b> <i>Mechanosensitive transcription factors: regulation and prominent roles in organ fibrosis</i></p>
<p><b>12:50 - 1:15pm</b></p>	<p>Awards Presentation &amp; Concluding Remarks: <b>Robin Poole</b></p>
<p align="center"><b>End of Conference</b></p>	