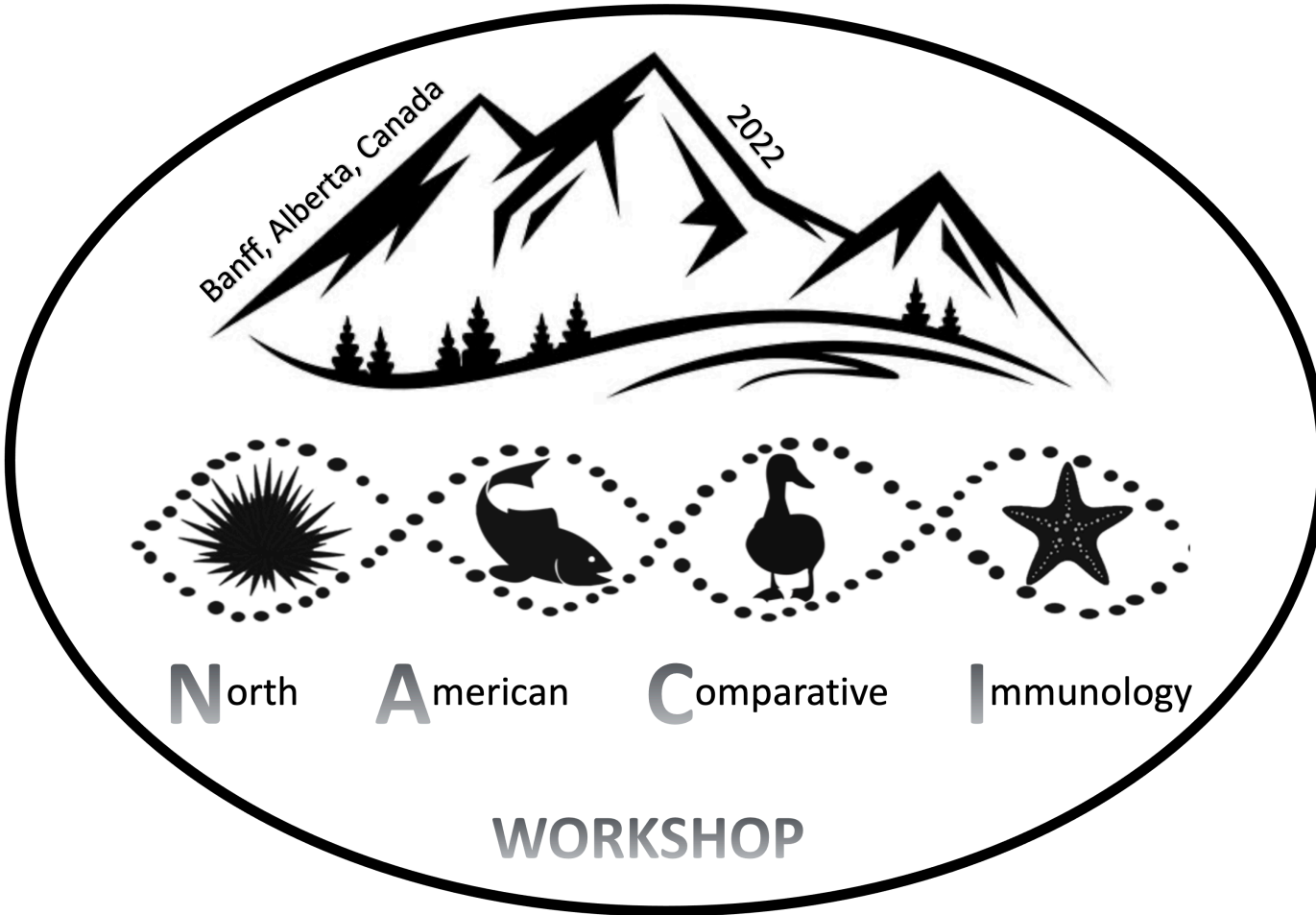


# 12th North American Comparative Immunology Workshop

June 5th to 8th, 2022

Program and Abstract Book



DAY 1					
Sunday June 5th, 2022					
EVENT	ROOM	TIME	SPEAKER		
Opening Remarks	KC 103	6:00-6:15pm	NACI 2022 Organizers	Opening Remarks, New Investigator Plenary, and Welcome Reception	
New Investigator Plenary	KC 103	6:15-7:00pm	Kate Buckley		Analysis of cellular immune responses in sea urchins reveals deep conservation within the deuterostomes
Welcome Reception	KC 105	7:00-11:00pm			
DAY 2					
Monday June 6th, 2022					
EVENT	ROOM	TIME			
BREAKFAST available	VISTA Dining	7:00am-9:30am			
ORAL SESSION 1A	KC 103	8:15am-8:30am	Benjamin Garcia	SESSION 1A Discovery of lymphocyte aggregates in the nasal cavity of rainbow trout and their role in immune responses to nasal vaccines Germline stem cell competition in chimeras of the colonial tunicate Botryllus schlosseri – a mechanism of natural selection Pituitary Adenylate Cyclase-Activating Polypeptide and double stranded (ds)RNA treatment by ventral sinus injection induces a cellular and humoral immune response in crayfish Public B cell responses as conserved key components of antiviral specific immunity	
		8:30am-8:45am	Tom Levy		
		8:45am-9:00am	Emma Monod		
		9:00am-9:15am	Pierre Boudinot (PI)		
COFFEE BREAK	KC 103	9:30-10:00am			
ORAL SESSION 1B	KC 103	10:00am-10:15am	Louise Rollins-Smith (PI)	SESSION 1B Enhanced survival in Eastern Newts after a 1st and 2nd exposure to Batrachochytrium salamandrivorans Carassius auratus Leukocyte immune-type receptors (CaLITRs) exhibit differential expression patterns during goldfish primary kidney macrophage development and in mixed leukocyte cultures of the goldfish Transcriptome annotation reveals reduced immunogenetic diversity among Wyoming toads, Anaxyrus baxteri Structure and immune function of the African lungfish cocoon Immune stimulating nucleic acid delivery by different classes of nanoparticle carriers enhance immune responses in cancer cells in vitro Profiling the Transcriptome Responses of Atlantic salmon Skin to Moritella viscosa	
		10:15am-10:30am	Jiahui Wang		
		10:30am-10:45am	Kara Carlson		
		10:45am-11:00am	Irene Salinas (PI)		
		11:00am-11:15am	Sarah Poynter (PI)		
		11:15am-11:30am	Khalil Eslamloo		
LUNCH	VISTA Dining	11:45pm-1:00pm			
ORAL SESSION 2A	KC 103	1:15pm-1:30pm	Matthieu Paiola (PI)	SESSION 2A Co-evolution of fFlt3 and its ligand as regulators of Dendritic-like cells in the allotetraploid Xenopus laevis Climate change and infectious salmon anemia (ISA): How will the Atlantic salmon (Salmo salar) immune system defend against the ISA virus with increasing ocean temperatures? Complex of Biomphalaria glabrata humoral immune factors significantly affect Shistosoma mansoni infection outcome Predicted Novel Antimicrobial Peptides from the North American Wood Frog (Rana sylvatica) Viral dsRNA: a double-edged immune modulator Functional Characterization of Toll-Like Receptors (TLRs) in Channel catfish, Ictalurus punctatus	
		1:30pm-1:45pm	Laura Groves		
		1:45pm-2:00pm	Jacob Hambrook		
		2:00pm-2:15pm	Alex Douglas		
		2:15pm-2:30pm	Stephanie deWitte-Orr (PI)		
		2:45pm-3:15pm	Kristianne Felch		
COFFEE BREAK	KC 103	3:15pm-3:45pm			

<b>ORAL SESSION 2B</b>	KC 103	3:45pm-4:00pm	<b>SPEAKER</b> Emily Albers	<b>SESSION 2B</b> Antipyretics disrupt natural control of antimicrobial mechanisms and bacterial clearance during behavioural fever Double-stranded RNA-phytoglycogen nanoparticles enhance ovarian cancer cell death and innate immune responses in vitro Stem Cell Isolation and Transplantation in Hexacorallians; Toward Cell-Therapy for corals A critical role of IgM in microbiome and metabolic homeostasis: Lessons from fish Recombinant SpTransformer proteins bound to beads augment phagocytosis by coelomocytes from sea urchins.
		4:00pm-4:15pm	Nicholas Jadaa	
		4:15pm-4:30pm	Benjamin Rosental (PI)	
		4:30pm-4:45pm	Oriol Sunyer	
		4:45pm-5:00pm	Ryley Crow	
<b>DAY 3</b> Tuesday June 7th, 2022				
<b>EVENT</b>	<b>ROOM</b>	<b>TIME</b>		
<b>BREAKFAST available</b>	VISTA Dining	7:00am-9:30am		
<b>ORAL SESSION 3B</b>	KC 103	8:00am-8:15am	<b>SPEAKER</b> Kayla Samms	<b>SESSION 3A</b> Sequence Specific dsRNA Complexed with Phytoglycogen Nanoparticles as an Innate Immune Stimulate in Crustaceans Acute and persiting T cell development deficiency induced by exposure to Thyroid Disrupting Chemicals in Xenopus Antimicrobial peptide defenses of the iconic coqui frogs of Puerto Rico against Batrachochytrium dendrobatidis Investigating the role of long dsRNA in the innate immune response in invertebrates and vertebrates Immune responses of Flavobacterium columnare-infected Nile tilapia (Oreochromis niloticus) to two forms of PACAP-38 (pituitary adenylate cyclase-activating polypeptide)
		8:15am-8:30am	Jacques Robert (PI)	
		8:30am-8:45am	Laura Reinert	
		8:45am-9:00am	Sarah Au	
		9:00am-9:15am	Eyesun Fajei	
<b>COFFEE BREAK</b>	KC 103	9:15-10:00am		
<b>ORAL SESSION 3B</b>	KC 103	10:00am-10:15am	<b>SPEAKER</b> Kathy Magor (PI)	<b>SESSION 3B</b> Tissue specific transcriptome changes upon influenza A virus replication in the duck. Batrachochytrium dendrobatidis and Batrachochytrium salamandrivorans cell-free supernatants are cytotoxic to amphibian skin epithelial-like cell lines and have differential impacts on amphibian immune responses. Antibody affinity maturation in fish: immunoglobulin somatic hypermutation patterns The novel use of long dsRNAi as an antiviral therapy in interferon-competent mammalian cells. A perspective into the relationships between amphibian (Xenopus laevis) myeloid cell subsets Bald sea urchin disease progression and recovery in the sea urchin, Strongylocentrotus purpuratus, and a characterization of the pathogenic microbiome.
		10:15am-10:30am	Lauren Todd	
		10:30am-10:45am	Doaa Waly	
		10:45am-11:00am	Shawna Semple	
		11:00am-11:15am	Riad Hossainey	
		11.15am-11.30am	Chloe Shaw	
<b>LUNCH</b>	VISTA Dining	11:30pm-1:00pm		

<b>POSTER SESSION</b>	KC 103	1:15pm-3:00pm	<b>PRESENTERS</b>	<b>POSTER SESSION</b>
Coffee Available. (2-3pm)			1 Benjamin Rosental (PI) 2 Bertand Collett (PI) 3 Melanie Wilson (PI) 4 Abdullah A Gharamah 5 Tania Rodriguez Ramos 6 Hussain Al-Rikabi 7 Amelia Williams 8 Megan Hudgell 9 Xiaoqing Dang 10 Maureen Latimer 11 Matt Michnik 12 Rikus Niemand	Functional characterization of Hexacorallian phagocytic cells, and their response in heat stress Genome editing in fish cells – a robust functional genomic platform A subset of leukocyte immune-type receptors (LITR) regulates phagocytosis in channel catfish ( <i>Ictalurus punctatus</i> ) leukocytes Single cell RNAseq profiling of individual <i>Biomphalaria glabrata</i> immune cells with a focus on immunologically relevant transcripts Developing assays to evaluate Cold Inducible RNA-Binding Protein (CIRBP) as a stress and health marker in fish. Functional Characterization of goldfish ( <i>Carassius auratus</i> ) leukocyte immune-type receptors: examining the effects of cytoplasmic tail region splicing events Characterizing the role of copper in host defense in the larval stage of the purple sea urchin A Flow Cytometry Based Approach To Identify Distinct Coelomocyte Subsets of the Purple Sea Urchin, <i>Strongylocentrotus purpuratus</i> Development of Diagnostic Strategies for Salmonid Diseases Based on <i>Oncorhynchus mykiss</i> Freshwater Samples Effect of Corn Starch Probiotic Encapsulation Strategy on Growth and Immune Response in Chinook Salmon ( <i>Oncorhynchus tshawytscha</i> ) An invitro analysis of <i>Tenacibaculum maritimum</i> soluble product Examination of zebrafish Immune-Type Receptors Reveal Possible Requirement of Opposing Signaling Mechanisms in Controlling Vertebrate Innate Immunity
<b>NACI EDI Workshop</b>	KC 103	3:15pm-5.00pm		
<b>CLOSING RECEPTION</b>	KC 105	7:00pm-11:00pm		
<b>DAY 4</b> <b>Wednesday</b> <b>June 8th,</b> <b>2022</b>				
<b>EVENT</b>	<b>ROOM</b>	<b>TIME</b>		
<b>BREAKFAST available</b>	VISTA Dining	7:00am-9:30am		
<b>ORAL SESSION 4</b>	KC 103	9.30am-9:45am	<b>SPEAKER</b> Ayelet Voskoboynik (PI)	<b>SESSION 4</b>
		9:45am-10:00am	Eric Ignatz	Two distinct evolutionary conserved neural degeneration pathways characterized in a colonial chordate The Effects of Supplemental Dietary Cholesterol on the Innate Anti-Bacterial and Anti-Viral Immune Responses of Female Triploid Atlantic Salmon Reared at High Temperatures
		10:15am-10:30am	Farah Haddad	Fish exert custom fever responses against pathogens
		10:45am-11:00am	Valentina Wong-Benito	Association of ERp57 and Calreticulin as part of the peptide loading complex in Rainbow trout ( <i>Oncorhynchus mykiss</i> )
		11:00am-11:15am	Jeannine A Ott	Evolution of SLC and PTCRA in tetrapods and the relationship between lengths of CDRH3 and VpreB tails
		11.30-12.00pm	Brian Dixon	NACIW Business meeting/Student Awards