# New Member MINIBIOs



#### Sabrin Albeituni, PhD

Postdoctoral Fellow Vice-chair Diversity- Postdoctoral Leadership Council St. Jude Children's Research Hospital Memphis, USA

I received my PhD training at the University of Louisville, in Louisville, Kentucky. Through my graduate studies, I became very interested in the mechanisms by which myeloid cells function in the tumor microenvironment. I decided to dedicate my postdoctoral training to studying myeloid cells more generally and their roles in other diseases. Currently, I am a post-doctoral research fellow in the lab of Dr. Kim Nichols at St. Jude Children's Research Hospital in Memphis, Tennessee. My research focuses in understanding the mechanisms of T cell regulation by myeloid cells in hemophagocytic lymphohistiocytosis (HLH), a fatal cytokine syndrome that is often triggered by infection. I am also investigating the therapeutic effects and underlying mechanisms of action of ruxolitinib, a potent JAK1/2 inhibitor, in dampening inflammation and promoting survival in HLH.



**Connor Gavin George Bamford, Ph.D** Postdoctoral Research Assistant MRC-University of Glasgow Centre for Virus Research Glasgow, Scotland, UK

Dr Connor Bamford is a postdoctoral research assistant in the laboratory of Professor John McLauchlan at the Medical Research Council – University of Glasgow Centre for Virus Research in Scotland, UK. He completed his PhD at Queen's University Belfast in the group of Professor Paul Duprex and Professor Bert Rima working on developing and characterising novel recombinant mumps viruses that produce fluorescent proteins to track the spread of infection in cell culture and animal models. Dr Bamford began his postdoctoral training in the McLauchlan lab in Glasgow focusing on how host cell proteins, such as interferons and the genes they induce, control hepatitis C virus infection. It was here that Connor developed an interest in how evolution and genetic diversity has – and continues to - shape interferon biology and his work revealed species-specific changes in the antiviral potential of interferon genes that could have negative consequences for viral hosts. Connor wishes to use this approach to understand disease and apply it to inform new therapeutic and preventative measures.



#### Dr Rami Bechara

Postodoctoral fellow in the Gaffen Lab, Division of Rheumatology and Clinical Immunology, Pittsburgh, USA.

Dr Rami Bechara is currently investigating the mechanisms of molecular signal transduction mediated by IL-17 and its receptor driving pathogenesis of autoimmunity. Dr Bechara got his Pharm.D from Saint-Joseph University and did his PhD in Immunology in Inserm 996-France under the supervision of Prof. Marc Pallardy. During his PhD, Dr Bechara investigated the interaction between dendritic cells and T-cells in drug and chemical allergy. His work contributed to a better understanding of allergic reactions, on one hand, by studying the fine regulation of the IL-12 cytokines family in dendritic cells and on the other hand, by clarifying the mechanisms of patients immunization against drugs and chemicals.



Ya-Shan Chen Ph.D. candidate Graduate Institute of Biomedical Sciences, Division of Biotechnology Chang Gung University, Taiwan, ROC

My research projects focus on the roles of inflammatory cytokines and their receptors in cancer development. I have investigated the effects of Interleukin 17 on tumor stroma and consequently immune suppressors within tumor microenvironment. Interleukin 17 (IL-17), correlating with advanced stage or poor prognosis of cancer patients, appears to contribute to tumor progression. Thus, I have also been interested in the role of IL-17 on the tumor growth and behaviors of tumor itself though the interference of IL-17/IL-17R signaling. Finally, I have been working on development of a potential gene therapy or vaccine for treating cancers. The recent findings demonstrate that the strategy of blockade against IL-17 successfully reduced tumor development, indicating IL-17/IL-17R is a potential target in cancer therapy.



#### Christina Cho, PhD Postdoctoral Researcher University of Pennsylvania School of Veterinary Medicine

I was born and raised in Southern California by my supermom who always encouraged a sense of curiosity. I was first introduced to the fields of immunology and cell biology as an undergraduate at the University of California-Los Angeles, where I majored in Microbiology, Immunology, and Molecular Genetics. During my tenure at UCLA, I met one of the most influential people in my life, Dr. Sherilyn Gordon Burroughs. Dr. Gordon was a transplant surgeon with whom I did research for over a year. Not only was she an excellent surgeon, she was also a great mentor and exceptional role model. She encouraged me to apply for graduate school and continued to mentor me throughout my graduate career. I obtained my Doctor of Philosophy in the Biomedical Sciences at Albany Medical College. My primary research project aimed to delineate the biophysical and biochemical properties of the extracellular matrix protein, Fibronectin (FN), by utilizing a recombinant peptide which recapitulated a stable, unfolded intermediate of FN. Specifically, my project involved identifying the mechanism by which unfolded FN promoted chemoresistance in non-small cell lung cancer. Currently, I am a postdoctoral researcher at the University of Pennsylvania, where I conduct research under the mentorship of Dr. Serge Fuchs, a leader in the field of type I interferon-mediated signaling and ubiquitin-regulated pathways. My projects include investigating the role of type I interferon receptor in the development and metastatic progression of pancreatic and colorectal cancer.



#### Min-Kyung Choo, PhD

Instructor, Cutaneous Biology Research Center Massachusetts General Hospital and Harvard Medical School Charlestown, USA

Min-Kyung Choo has been working on cancer biology since a graduate student. She studied molecular mechanisms of inflammationassociated cancer for her PhD, and found that TNF-induced TAK1 signaling promoted cancer metastasis. During her postdoctoral training at MGH, she continued to investigate the role of cytokine-activated protein kinase signaling pathways in cancer, microbial infection, and skin diseases. Her findings of cell type-specific NF- B functions in melanoma chemotherapy and type I interferon-mediated immune evasion in anthrax were published in Cancer Discovery and J Exp Med, respectively. Her study aimed at revealing the mechanism of p38MAPKregulated skin stem cell homeostasis was supported by an NIH Dermatology training grant. She is currently an Instructor at MGH/HMS and investigates the interactions between epithelial cells and immune cells in the context of inflammatory diseases.

# New Member MINIBIOs continued



#### Ellen M. Gravallese M.D.

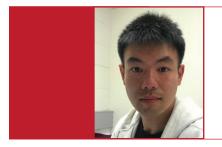
Chief, Division of Rheumatology And Program Coordinator, Rheumatology Fellowship University of Massachusetts Medical School Worcester, USA

Ellen M. Gravallese, M.D. is a tenured Professor of Medicine and holds the Myles J. McDonough Chair in Rheumatology at the University of Massachusetts Medical School. She serves as Chief of the Division of Rheumatology and Director of Translational Research for the Musculoskeletal Center of Excellence. Her laboratory investigates the fundamental mechanisms of inflammation and joint destruction in arthritis and has identified key pathways by which inflammation impacts bone in the rheumatic diseases. Her laboratory identified osteoclasts as the cell type responsible for bone destruction in RA, and RANKL as a critical cytokine produced by RA synovial tissues that drives osteoclastogenesis. In addition, work in her laboratory has identified the production of inhibitors of osteoblast function that prevent repair of bone loss in RA. Her current studies are directed at understanding innate immune mechanisms in inflammation and bone loss and formation in rheumatic disease. Dr. Gravallese has served on the Board of Directors of the American College of Rheumatology (ACR) and as Chair of the ACR Journal Publications Committee. She will serve as President of the ACR in 2019 and currently also serves as an Associate Editor for the New England Journal of Medicine. Dr. Gravallese is a member of the Henry Kunkel Society and is the recipient of the Sandoz Award for medical research, the Marion Ropes Award from the Arthritis Foundation, the Physician Achievement Award from the University of Massachusetts and the Steven Krane Award from ASBMR (2017). She lectures nationally and internationally.



**Emily Hemann, Ph.D.** Postdoctoral Fellow Department of Immunology University of Washington

Dr. Emily Hemann is a postdoctoral fellow in the laboratory of Dr. Michael Gale, Jr. at the University of Washington. She received her Ph.D. in Immunology from the University of Iowa in 2014 where she investigated adaptive immune responses to influenza virus vaccines in the laboratory of Dr. Kevin Legge. Dr. Hemann is supported by an American Heart Association Postdoctoral Fellowship and is currently a Public Policy Fellow for the American Association of Immunologists. Her research seeks to understand how innate immune signaling regulates adaptive immunity, and is currently focused on the contribution of IFN to the generation of adaptive immune responses against respiratory viral infections.



Ming-Chin Lee, PhD Department of Medicine The University of Melbourne The Royal Melbourne Hospital Royal parade, Parkville, Australia

Dr Ming-Chin Lee is currently conducting academic research as a postdoctoral researcher at the University of Melbourne since 2015. His major research focus has been on investigating roles of inflammatory cytokines, in particular the colony stimulating factor (CSF) family, in arthritis and arthritic pain development. He specializes in animal models of inflammation and inflammatory arthritis, having worked in the field for more than 5 years. His Ph.D. research focuses on the role of granulocyte-macrophage CSF (GM-CSF) in inflammation and inflammatory arthritic pain and disease. Most recently his interests have included understanding the role of a chemokine, CCL17, which was shown previously to be downstream of GM-CSF during inflammatory arthritis, on the development of osteoarthritis (OA).



Jose Ordovas-Montanes, PhD HHMI Damon Runyon Postdoctoral Fellow MIT, the Ragon Institute, the Broad Institute and Boston Children's Hospital

Jose is a Damon Runyon Cancer Research Foundation HHMI Postdoctoral Fellow in the laboratory of Dr. Alex Shalek at MIT, the Ragon Institute, and the Broad Institute. His overarching scientific goals are to elucidate the organizing principles of how cytokines alter the homeostatic set point of human barrier tissues, with a specific focus on the concept of inflammatory memory. His recent work has uncovered how allergic inflammatory memory in human respiratory progenitor cells may contribute to the chronicity of disease.

His PhD thesis aimed to characterize the interactions between the sensory nervous system and how it controls immune responses in skin under the mentorship of Dr. Ulrich von Andrian. The key discovery from his work positioned heat-sensing nociceptors as a required cell type for robust IL-23/IL-17 axis cutaneous inflammatory responses by driving IL-23 production from dermal dendritic cells. His findings have led to further exploration by other investigators, many of which are members of the ICIS, of the communication modalities between these two systems.

Jose's work has been recognized with a Goldwater Scholarship, an NIH pre-doctoral Fellowship, the Jeffrey Modell Prize in Immunology at Harvard Medical School, and the MIT Outstanding Undergraduate Research Opportunities Program Direct Mentor award.



**Dr. Orna Ernst Rabinovich** Postdoctoral Visiting Fellow Signaling Systems Section Laboratory of Immune System Biology National Institute of Allergy and Infectious Diseases

Dr. Orna Ernst Rabinovich is a postdoctoral visiting fellow in the Signaling Systems Section at the Laboratory of Immune System Biology, the National Institute of Allergy and Infectious Diseases, NIH, USA. She is a member of the American Association of Immunologists. She received her Ph.D. in Biochemistry from Tel Aviv University, Israel, in 2014. Her Ph.D. research focused on the cAMP-mediated regulation of the innate immune response during infection. Her current research aims to identify novel regulators of the non-canonical inflammasome which detects cytosolic LPS and leads to pyroptotic cell death. She is also studying the signaling pathways which regulate the metabolic reprograming of macrophages during inflammation.



#### Zia Rahman, MD, PhD

Associate Professor of Microbiology and Immunology, and Medicine Penn State University College of Medicine Hershey Medical Center Hershey, PA 17033

Dr. Rahman is a tenured Associate Professor leading the autoimmunity research in the department of Microbiology and Immunology at Penn State University College of Medicine. His research interest is focused on understanding the mechanisms by which altered regulation of the germinal center, a major peripheral B cell tolerance checkpoint, drives autoantibody production, an essential initial step required for the development of systemic autoimmune disease SLE. For this purpose, he has developed several spontaneous mouse models of SLE in which he studies the regulation of spontaneously developed germinal centers (designated spontaneous germinal centers) in autoantibody production, and subsequent development of SLE. His laboratory has pioneered in investigating the regulation of spontaneous germinal centers in the context of SLE. Recent data from his laboratory suggest that innate signaling through the pattern recognition toll like (TLR) and interferon (both type I and II IFN) receptors are responsible for altering the germinal center pathway leading to high titers of autoantibody production. Studies are underway in his laboratory to further investigate the possible crosstalk between TLR and IFN signaling in driving the formation of spontaneous germinal centers and subsequent development of SLE. His lab is interested in determining the cell-type specific roles of STAT (Signal Transducer and Activator of Transcription) molecules in the initiation and maintenance of spontaneous germinal centers and the development of SLE; and studying these pathways in human B cells and myeloid cells in SLE patients. He is an active member of the American College of Rheumatology (ACR). Recently, he has become a member of the International Cytokine & Interferon Society.

# New Member MINIBIOs continued



### Manu Rangachari

Associate Professor Department of Medicine of Laval University, Quebec City, and in the Department of Neurosciences at the Quebec City University Hospital Research Center, Canada

My lab works on understanding the contribution of T lymphocytes to disease processes in secondary progressive multiple sclerosis. We are particularly interested in how plasticity in the cytokine secretion profile of effector T cells can affect outcomes in disease. To study this, we have developed a new animal model in which the disease pattern closely recapitulates the most common form of human MS. In a parallel line of investigation, we are interested in studying the specific molecular cues that can drive T cell exhaustion. I held the EMD Serono Canada/endMS Network Translational Career Development Award from 2011-2016 and am a scholar of the Fonds de Recherche de Québec – Santé. The lab is funded by operating grants from the Canadian Institutes of Health Research (CIHR), Natural Sciences and Engineering Research Council of Canada (NSERC) and the MS Society of Canada.



Nupur Raychaudhuri, PhD Michigan State University Ann Arbor, United States Nupur Raychaudhuri, PhD Michigan State University Ann Arbor, United States

I am presently working as a Senior Research Associate, Michigan State University, East Lansing, MI. My research interests range widely, from studying the effect of perinatal metabolic perturbations on the adult phenotype, regulation of gene expression, extracellular matrix, cell signaling, and inflammation and cytokine action in the context of various diseased conditions. My specific interests lie in identifying potentially attractive cohorts of therapeutic targets for modulating the development and progress of disease.



#### **Deanna Santer, PhD**

Research Scientist Houghton Laboratory Li Ka Shing Institute of Virology University of Alberta, Alberta, Canada

Dr. Deanna Santer is a research scientist in the Department of Medical Microbiology and Immunology at the University of Alberta, Canada working with Dr. Michael Houghton. In each phase of her career thus far, she has focused on human immunology with projects encompassing all three families of interferons. She received her Ph.D degree in Immunology from the University of Washington working in the lab of Dr. Keith Elkon. Her Ph.D research focused on the role of IFN-alpha in lupus pathogenesis and how the complement protein C1q inhibits IFN-alpha induction by immune complexes. Her current research focuses on understanding how type III IFNs regulate human immune cell responses.



**Celee Spidel, PhD** Amarillo Biosciences, Inc. Amarillo, United States

Hello I'm Celee Spidel. My undergraduate studies were in Sports Medicine at Pepperdine University and my PhD is in Pharmaceutical Sciences with doctoral dissertation in Cancer Biology. I am currently working as a research analyst for Amarillo Biosciences, Inc. and am especially interested in Interferon-alpha signaling and therapeutic potential. I have 6 children and enjoy running, cycling, swimming, hiking, and reading in my spare time.



**Dr. Yunhao Tan** Boston Children's Hospital, Harvard Medical School Boston, USA

I completed my Ph.D. study in the laboratory of Dr. Zhao-Qing Luo at Purdue University, where I used yeast genetic and biochemical approaches to characterize the molecular mechanisms of bacterial virulence factors that manipulate host cellular processes. As a Jane Coffin Childs postdoctoral fellow in Dr. Jonathan Kagan's laboratory at Harvard Medical School, I am excited to interrogate the regulatory mechanisms of diverse receptor proximal events triggered by the activation of Pattern Recognition Receptors (PRRs). These events occur immediately upon microbial encounters, prior to host transcriptional responses, and therefore serve as critical regulatory gauges for host inflammatory cytokine and chemokine production. In particular, I study the assembly and cell biological functions of various macromolecular protein complexes in the innate immune system. Known as supramolecular organizing centers (SMOCs), these protein complexes represent unique "signaling organelles" that integrates diverse signaling cascades. Furthermore, via synthetic biology approaches, I leverage the modularity of innate immune pathways and develop programmable "nano-machines" to control cytokine production. Aberrant innate immune signaling has been implicated in the pathogenesis of cancer and autoinflammatory diseases. Therefore, I envision that elucidating the regulatory mechanism of SMOCs will advance our understanding of innate immune signaling and the molecular mechanisms of host immunopathologies.



Sharat J. Vayttaden, Ph.D. Research Fellow Signaling Systems Section Laboratory of Immune System Biology National Institute of Allergy and Infectious Diseases

Dr. Sharat J. Vayttaden is a Research Fellow in the Signaling Systems Section of the Laboratory of Immune System Biology at the National Institute of Allergy and Infectious Diseases, USA. He is a member of the American Association of Immunologists. He received his PhD in Cell Biology from the University of Texas Health Science Center at Houston, TX USA in 2012. His PhD research was on computational modeling of 2 adrenergic receptor desensitization mechanisms. His current research focuses on how overlapping TLR pathways organize and respond differently to multi- vs. single-TLR signaling in macrophages since a coherent immune response involves crosstalk among multiple host pathogen response signaling pathways. Particularly, he is working on how multi-TLR stimulation causes an Interleukin-1 receptor-associated kinase 1 (IRAK1) containing supramolecular organizing center (SMOC) to form that is distinct from previously described myddosomes or putative trifosomes and mediates a non-transcriptional priming link between TLR signaling and inflammasome activation.

# New Member MINIBIOs continued



#### Stephanie S Watowich, PhD

Professor, Immunology Co-Director, Center for Inflammation and Cancer The University of Texas MD Anderson Cancer Center Houston, USA

Stephanie S. Watowich, PhD is Professor of Immunology and Co-Director of the Center for Inflammation and Cancer at The University of Texas MD Anderson Cancer Center. Her laboratory studies transcriptional control of innate immunity, with a specific focus on discovering roles for the cytokine-activated signal transducer and activator of transcription (STAT) factors in innate cell development and function. Dr. Watowich obtained her B.A. in Biology from Carleton College. Carleton's unique environment fostered Dr. Watowich's longstanding interest in multidisciplinary approaches in research as well as a desire to teach and mentor the next generation of scientists. Dr. Watowich earned her PhD at Northwestern University under Dr. Rick Morimoto's mentorship. Her work focused on heat shock gene transcription and contributed to early understanding of the protein unfolding response. Dr. Watowich's postdoctoral work with Dr. Harvey Lodish at the Whitehead Institute of Biomedical Research revealed the critical role for dimerization in erythropoietin receptor activation, contributing to the paradigm of cytokine receptor signaling initiation upon ligand-induced receptor oligomerization. Currently, major projects in Dr. Watowich's laboratory focus on mechanisms by which STATs regulate myeloid and dendritic cell activity, and the anti-inflammatory activity of STAT3 in the hematopoietic system. The overarching goal of Dr. Watowich's work is to discover fundamental immunological mechanisms and use this knowledge to improve human disease outcomes. Dr. Watowich has been recognized with the MD Anderson Faculty Achievement Award in Education, the John P. McGovern Outstanding Teacher Award and induction into the UT Kenneth I. Shine Academy of Health Science Education.



#### **Monika Wolkers**

Associate Professor, Department of Hematopoiesis Sanquin Landsteiner Laboratory for Blood Cell Research Amsterdam, the Netherlands

Monika Wolkers earned her PhD at the Netherlands Cancer Institute, Amsterdam in 2003, mentored by Ton Schumacher. With an Irvington Institute fellowship she joined Stephen Schoenberger's lab at the La Jolla Institute to dissect the molecular imprinting of CD4+ T cell help to CD8+ T cells. She then moved to the Netherlands to the Academic Medical Center, University of Amsterdam to further unravel the role of TRAIL in the effector function of innate immune cells. In 2010, she became an independent group leader at Sanquin. Her research group studies the regulation of T cell effector function in human and mice. Recent highlights include the identification of post-transcriptional mechanisms that govern cytokine production in effector and in memory T cells.

# Boston's 6 must-have foods and where to get them

No matter what city you're traveling to, each one is famous for certain kinds of foods or has a specialty dish that it's known for. Other cities may try and replicate the famous foods, but everyone knows they taste the best when eaten in their native city. Boston is no different. When you travel to the capital of Massachusetts, there are six foods you should sample. But in order to truly enjoy Boston's best, you must taste each of these foods at a specific place.

## 1. Boston Cream Pie

Head on over to Mike's Pastry to eat a sweet slice of Boston cream pie. Located in Boston's North End, this bakery lets you purchase the famous Boston dessert (which is actually a cake) by the slice or the entire cake.



# Samuel Adams

The pub known as Cheers was the inspiration behind the hit TV show and is also one of Boston's biggest attractions. While here, be sure to have a bottle or draft of the smooth Samuel Adams. You can even get a souvenir Cheers mug if you're a big fan of the show.





Jacob S. Yount, PhD Assistant Professor The Ohio State University Department of Microbial Infection and Immunity Columbus, OH, USA

Dr. Jacob Yount is an Assistant Professor in the Department of Microbial Infection and Immunity at the Ohio State University College of Medicine. He completed his doctoral training at the Mount Sinai School of Medicine in the laboratories of Dr. Thomas Moran and Dr. Carolina Lopez, where he studied the role of viral defective interfering genomes in activating interferon and cytokine production by dendritic cells. As a postdoctoral fellow in the laboratory of Dr. Howard Hang at the Rockefeller University, Dr. Yount utilized chemical probes to identify and characterize lipid posttranslational modifications that control the activity of innate immunity proteins. This work identified the palmitoylation-dependent anti-influenza virus activity of the interferon-induced transmembrane proteins (IFITMs). In his independent laboratory, Dr. Yount focuses on the IFITMs and other interferon effector proteins in terms of their mechanisms of action, mechanisms of posttranslational regulation, and physiological roles during infections.

## **ICIS MEMBERSHIP APPLICATION**

The role of and effect of cytokines in every aspect of human health will continue to be identified and characterized and the use of cytokines themselves or antibodies to cytokines will become even more important tools in the arsenal of clinicians. **Thus, the importance of the ICIS as a focal point for cytokine research will only continue to grow.** 

Become a part of the world-wide community of scientists devoted to research in the fields of interferon, cytokine & chemokine cell biology, molecular biology and biochemistry

Join ONLINE: www.cytokinesociety.org

## 3. Clam Chowder

For some of the best Boston clam chowder you'll eversip (or slurp) from your spoon, go to Neptune Oyster. This restaurant is open every day, giving you plenty of opportunities to try this Boston specialty.

### 5. Boston Baked Beans

Marliave has been in business since 1875 serving up tasty lunch and dinner options. This restaurant also serves up perfectly seasoned Boston baked beans — another food Boston is famous for that just tastes better when eaten here.

### 4. Fenway Franks

Every baseball fan knows you need to have a delicious hotdog when at the home of the Boston RedSox for a game. Fenway Park provides some of the juiciest you'll ever have with their Fenway Franks.

### 6. Lobster

When you go to Neptune Oyster, be sure to arrive hungry. Not only do you need to try the clam chowder, their lobster dishes are also to die for. Go on a Monday because Lobster Spaghetti is usually the featured dish.