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# New Member MINIBIOs

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**Igor E. Brodsky**

Associate Professor of Pathobiology  
Vice-chair, Immunology Graduate Group  
University of Pennsylvania  
Philadelphia, USA

Igor E. Brodsky is an Associate Professor of Pathobiology at the University of Pennsylvania School of Veterinary Medicine, and the Vice-Chair of the Immunology Graduate Group at Penn. His lab studies innate immune recognition of pathogenic bacteria, with a specific focus on discovering mechanisms of inflammasome activation and regulation of cell death pathways in response to pathogen virulence activities. Dr. Brodsky obtained his A.B. in Molecular Biology from Princeton University, where he performed undergraduate thesis research on herpes virology with Lynn Enquist. He pursued his PhD training at Stanford University in the laboratory of Dr. Stanley Falkow, where he studied mechanisms of Salmonella resistance to anti-microbial peptides. These studies led to his interest in the area of innate immune recognition of pathogens, which led him to pursue post-doctoral research with Dr. Ruslan Medzhitov at Yale University, where he investigated mechanisms of inflammasome activation and evasion by gram-negative bacterial pathogens. Ongoing work in the Brodsky lab is investigating cross-talk between different cell death pathways and their roles in anti-bacterial host defense, as well as understanding the regulation of inflammatory cytokine gene expression by components of the cell-extrinsic death pathway. The overarching goal of the Brodsky lab is to uncover fundamental mechanisms that govern innate immune recognition of pathogens and corresponding pathogen evasion strategies in order to identify novel areas for therapeutic intervention in the setting of infectious disease. Dr. Brodsky is a recipient of the Burroughs Wellcome Pathogenesis of Infectious Disease award and a Zoetis Award for Veterinary Research Excellence.



**Ben Croker Ph.D.**

Associate Professor  
Division of Allergy | Immunology | Rheumatology  
Department of Pediatrics, School of Medicine  
UC San Diego  
La Jolla, USA  
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Ben Croker is an Associate Professor at UC San Diego in the Department of Pediatrics where he directs a research program on neutrophil biology, inflammatory cell death, and negative regulation of cytokine signaling. He completed a Ph.D. at The Walter and Eliza Hall Institute of Medical Research in Australia studying the role of SOCS3 in regulation of IL-6 and G-CSF signaling. His postdoctoral studies at The Scripps Research Institute with Professor Bruce Beutler identified an ion channel preventing cardiac arrhythmia and sudden death following pathogen recognition. Dr. Croker was appointed as Assistant Professor at Boston Children's Hospital and Harvard Medical School in 2013, and he joined the Immunology Program at Harvard Medical School in 2014. His lab continues to study genetic regulators of innate immunity and inflammatory cell death in mice and humans.



**Sandra Jukić**

PhD candidate  
Infection Immunology  
Research Center Borstel, Germany

I obtained my Bachelor of Science in Biotechnology at the HS Furtwangen University in Villingen-Schwenningen, Germany and my Master's degree in Biology (focused on Biochemistry and Genetics) at the Justus-Liebig-University in Gießen, Germany. Currently I am working on my PhD thesis in the laboratory of Dr. Christoph Hölscher, in the Department of Infection Immunology at the Research Center Borstel, Germany, studying the inflammatory role of Interleukin (IL)-17 cytokines in an autoimmune blistering skin disease. My Project aim is to investigate the exact roles of IL-17A and IL-17F in the pathogenesis of Epidermolysis bullosa acquisita (EBA), using a systemic mouse model to elucidate the function of these cytokines in EBA.

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# New Member MINIBIOs *Continued*

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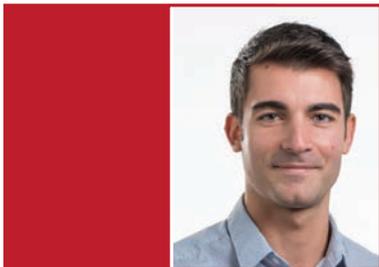
## **Amanda (Büchau) MacLeod, MD**

Associate Professor of Dermatology  
Assistant Professor of Immunology  
Assistant Professor of Molecular Genetics and Microbiology  
Associate Residency Program Director for Research  
Member of the Center for Host-Microbiome Interactions  
Member of the Center for Microbiome  
Member of the Duke Cancer Center  
Affiliate of the Regeneration Next Initiative  
Duke University, Durham, USA

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Dr. Amanda MacLeod received her MD from Heinrich-Heine University in Düsseldorf, Germany and postdoctoral training at the University of California San Diego and The Scripps Research Institute. She joined the faculty at Duke University as an Assistant Professor in September 2014 before being promoted in March 2019. She is a nationally and internationally recognized translational dermatologist with expertise in the regulation of innate antimicrobial immunity in the context of host-pathogen/microbiome interactions, inflammation, injury, and cancer in the skin. Specifically, her research focus lies in understanding the immunobiology and regulation of cutaneous innate antimicrobial peptides and proteins, specifically antiviral proteins, in the context of perturbed skin barrier function and wound healing. Her laboratory discovered that IL-27 activates cutaneous wound healing responses and activation of innate immunity genes. She and her team also recently identified novel regulators of host defense proteins and identified functional non-classical roles for these host defense effectors in the skin. My lab also investigates how innate immune cells and their products play critical roles in allergy and perturbed barrier function (such as eczema, non-healing wounds, hidradenitis suppurativa) and their most recent work has led to identifying effector molecules and pathways of the neuro-immune axis of cutaneous innate antimicrobial (dys-)regulation. Dr. MacLeod is currently funded by the NIH through R01 and R21 grants and has received multiple awards, including those from NIH (K08 Award), Dermatology Foundation, Duke Pinnell Center for Investigative Dermatology, the Duke Physician-Scientist Award and others. She also serves as an Associate Review Editor for *Frontiers in Immunology*, on the review board (ad hoc or standing) for the NIH, Leo Foundation, and other national and international grant agencies. She is a member of the Education Committee of the Society for Investigative Dermatology, Wound Healing Society, American Association for Immunologists, American Association for the Advancement of Science, and the Women's Dermatological Society. She also works as a consultant for Silab.

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## **Alessio Mylonas, Ph.D.**

Post-doctoral fellow  
EPFLausanne, Switzerland  
<https://www.linkedin.com/in/alessio-mylonas/>

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I earned my PhD from the department of Dermatology at the University Hospital of Lausanne, under the mentorship of Professors Curdin Conrad and Michel Gilliet. There, I worked on the immuno-pathological mechanism of a side-effect of anti-TNF therapies called paradoxical psoriasis. By establishing a unique mouse model, we could identify plasmacytoid dendritic cell activation and type-I interferons as key drivers of skin inflammation. During a short postdoc, my interests shifted to the pathogenesis of a debilitating skin disease called rosacea, and we described how the skin microbiome activates a pathological cascade during flares of the disease. Work supported by three competitive grants awarded to Prof. Conrad and myself, elucidates fundamental components of the pathogenic pathway, and provides novel actionable targets for the treatment of this disease. Currently, I am fascinated by the role of the microbiome in the induction of inflammation during the pathogenesis of Alzheimer's disease, in work that I am undertaking at the Swiss Federal Institute of Technology (EPF) Lausanne, under the European Union's Horizon 2020 ad-gut.eu framework.

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**Richard Siegel, M.D., Ph.D.**

Global Head, Translational Medicine  
Co-Head, Translational Research  
Autoimmunity, Transplantation and Inflammation

Novartis Institutes for BioMedical Research  
Basel, Switzerland

Richard Siegel, MD, PhD is Global Head, Translational Medicine Discovery and Profiling, for the Autoimmunity, Transplantation and Inflammation disease area in the Novartis Institutes of Biomedical Research in Basel, Switzerland. Richard joined Novartis in 2018 after 20 years in the NIH intramural research program where he was Chief of the Autoimmunity Branch, conducting basic and translational research in cytokine biology focused on the TNF superfamily of cytokines and their receptors. Since 2010 he was also Clinical Director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases, overseeing the clinical activities and research program that encompasses interventional and natural history studies of genetic autoimmune and inflammatory syndromes and more common rheumatologic and dermatologic diseases. He was involved in discoveries of pathogenesis and treatments of multiple syndromes, including ALPS, TRAPS, and CAPS, and also somatic mutations in the bone overgrowth condition Melorheostosis. Richard obtained his bachelor's degree at Yale, his MD and PhD at the University of Pennsylvania School of Medicine and trained in Internal Medicine and Rheumatology at the Hospital of the University of Pennsylvania. He has received numerous honors including election to the American Society of Clinical Investigation and American Association of Physicians, and has authored more than 150 publications. Maintaining a presence in laboratory research, Richard also co-leads the Translational Research group in the ATI division of NIBR, and is committed to bridging the gap between laboratory and clinical research to discover new treatments and improve the lives of patients with autoimmune and inflammatory disease.



**Le (Christy) Ying, Ph.D.**

Postdoctoral Researcher  
Centre for Innate Immunity and Infectious Diseases  
Hudson Institute of Medical Research, Australia

Dr. Le (Christy) Ying is a postdoctoral researcher in the laboratory of Prof. Richard Ferrero at Hudson Institute of Medical Research, Melbourne, Australia. She completed her PhD in Tea Science at University of Zhejiang University, China, in 2018. During her PhD study, Dr Ying focused on the potential role of bioactive compounds from tea extracts in cancer prevention. Then she came to the laboratory of Prof. Bryan Williams at Hudson Institute, as a PhD visiting student from Sep 2016 to April 2018. There, she started the new research projects in cancer immunology, and she developed a novel strategy to stratify gastric cancer patients for treatment and determined prognosis using the integration of several immune markers, including Programmed Death-Ligand 1 (PD-L1). After that, Dr Ying moved to the laboratory of Prof. Richard Ferrero, as her first position after PhD. Her current project is on and defining the potential role of Nod-like receptor family member-NLRC5 in gastric MALT lymphoma during Helicobacter infection.



**Elina Zuniga**

UCSD  
La Jolla, United States

Elina Zuniga received her Ph.D. in Biochemistry from the National University of Cordoba, Argentina. She conducted postdoctoral research at The Scripps Research Institute where she held two post-doctoral fellowships from Antorchas Foundation and PEW Charitable Trust, respectively. After joining UCSD in 2007 she has received a Hellman Foundation Scholar Award, The Vilcek Finalist Prize for Creative Promise, the Leukemia and Lymphoma Society Scholar Award and the American Cancer Society Scholar Award (a lifetime honor). In 2018, the American Association of Immunologists also recognized her scientific achievements and exemplary career with the Vanguard Lecture.