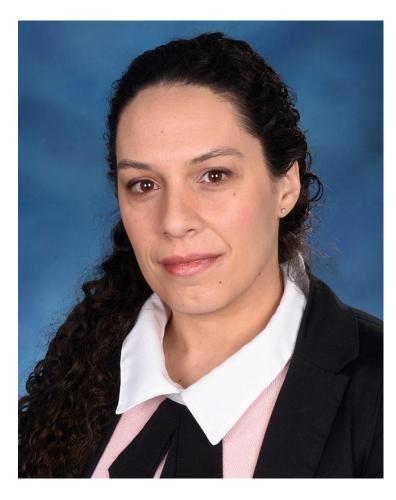
Ambassador of the Month - 2024

June 2024

Alejandra Urioste is a biochemist and pharmacist who graduated from the University of Buenos Aires (Universidad de Buenos Aires, Facultad de Farmacia y Bioquimica), Argentina. During residency in Clinical Immunology and her PhD project, she worked mostly on the immune response against HIV and HCV. Alejandra is currently at Histocompatibility Laboratory at the "Carlos Durand" General G. Hospital where she works



on alloimmune response and kidney transplantation. The Histocompatibility Laboratory is the only public laboratory in the City of Buenos Aires involved in the National Transplantation Program.

We would love to hear more about your ongoing research. What projects are you currently working on and how do they impact the field?

I worked on the immune mechanism of tissue-resident kidney macrophages. Recently, my interests have been in biomarkers on kidney transplantation and HLA (Human Leukocyte Antigens)-related diseases.

There are many areas of science and immunology is quite broad and complex. What inspired you to choose this branch of science over others?

I have always been interested in the transplantation field for personal reasons AND it is a field not fully developed, with many questions still to be answered, both in the clinical and research areas.

What specifically stood out about Immunopaedia that made you want to be an ambassador?

I would love to spread Transplantation Immunology knowledge and Immunopaedia is the perfect place to do this. Students need to find information on immunology, as it is unlikely that they will be interested in a field that they don't know about. That is why I believe in creating a communication channel for immunology — and Immunopaedia is doing that!

Based on your own experience, what one piece of advice would you give someone who wants to study/research immunology?

It is easy to feel confused with all the information when you study immunology... lots of molecules... and immune cells with specific functions...it is easy to become confused. Don't become anxious, rather take your time and try to understand. Don't try to learn everything all at once. Immunology is a long but fantastic trip, with many areas that you can work in. Just be patient and you will find your passion in the field.

If not immunology, then what? Which other field(s) would have benefited from your contribution and why?

Immunology is related to other fields that I love: Genetics and Molecular Biology. Understanding the genetic mechanisms in immunology is critical for the diagnosis and treatment of diseases, and molecular biology is one of the key techniques. For example, in transplantation, the histocompatibility study includes the genotypic characterization of the HLA antigens between donors and recipients.

What has been a moment of unexpected joy or surprise in your

scientific career that has stayed with you?

After years of hard work, I felt incredibly happy when I received recognition for my research work in my residency and PhD from different scientific societies in Argentina. It all happened all at once, and after that, I had the chance to work abroad and start my journey in the transplantation field. I feel so lucky for that opportunity, and I hope I can move forward with my scientific career, while not leaving behind my passion for clinical work and teaching.

To have a better understanding of where your input lies in immunology, may we please have your most recent publications?

Urioste A, Capecce E, Holoveski L, Cantisano C, Balbaryski J, Gaddi E. "Prevalence and characteristics of hypergammaglobulinemias in a pediatric population". Revista Pediátrica Elizalde; 7 (1): 17— 21. 2016. (in Spanish).

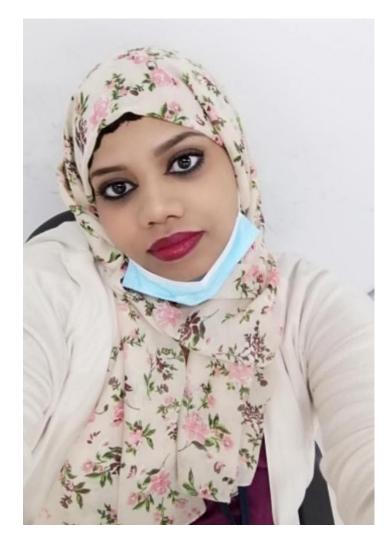
Barboni G, Balbaryski J, **Urioste A**, Candi M, Laucella S, Gaddi E. "Restoration of recent thymic emigrant CD4+ T cells is associated with sustained adherence to antiretroviral treatment in HIV-infected children". Scand J Immunol.;00:e12838. 2019.

Polo ML, Ghiglione Y, Salido J, **Urioste A**, Poblete G, Sisto A, Martinez A, Rolón MJ, Ojeda D, Cahn P, Turk G, Laufer N. "Liver cirrhosis in HIV/HCV-coinfected individuals is related to NK cell dysfunction and exhaustion, but not to an impaired NK cell modulation by CD4+ T-cells". J Int AIDS Soc.; 22(9): e25375. 2019.

May 2024

Naffesa Abdul Munim Al Sheikh wears multiple hats medical i n the and scientific community - she is a medical lab scientist, researcher, histotechnologist, lecturer, and proud to be an Immunopaedia ambassador. Nafessa is originally from Sudan, but now calls Oman home. Her scientific journey has been one of exploration dedication a n d to understanding the complexities of human health, particularly in the realm of immunology. Whether it is conducting research, teaching future scientists,

diseases.



or advocating for immunology education, Nafessa is passionate about making a difference in the world of healthcare.

We would love to hear more about your ongoing research. What projects are you working on and how do they impact the field? My research focuses on systemic lupus erythematosus (SLE) with a focus on lupus nephritis, post-kala-azar dermal leishmaniasis (PKDL), and COVID-19. I'm also interested in studying regulatory T cells (Tregs) and their role in these

What specifically stood out about Immunopaedia that made you want to be an ambassador?

Several aspects of Immunopaedia stood out to me and fuelled my desire to become an ambassador. First, Immunopaedia's commitment to advancing global immunology education through accessible, high-quality resources aligns perfectly with my

passion for education and public outreach. The comprehensive content provided by Immunopaedia offers a wide audience—from students to seasoned professionals— immunology knowledge.

Additionally, Immunopaedia's focus on fostering a global community of immunologists is particularly inspiring. I am deeply motivated by the opportunity to collaborate with and learn from colleagues worldwide, which not only broadens my perspectives but also enhances the collective knowledge and innovation within the field.

Immunopaedia published critical information during the COVID-19 pandemic which highlighted its impact and relevance in real-time public health crises. I found this inspiring as a researcher.

Being an Immunopaedia Ambassador allows me to contribute to a mission I am passionate about—promoting immunology education.

There are many areas of science and immunology is quite broad and complex. What inspired you to choose this branch of science over others?

I chose immunology as it intersects with multiple areas of biomedical science and immune responses are key to the development of many common diseases and malignancy treatments. I feel most scientists would be able to find an area of immunology that would suit their curiosity or interests.

Based on your own experience, what one piece of advice would you give someone who wants to study/research immunology?

Dive deep into the literature and stay curious. Immunology is a rapidly evolving field, so staying up-to-date and asking questions is the key to success.

If not immunology, then what? Which other field(s) would have benefited from your contribution and why?

Human rights! My background in immunology can contribute significantly to human rights work, especially in areas like health equity and access to healthcare. Understanding the

intersection of health and human rights is crucial, and my expertise can provide valuable insights into developing policies and initiatives to improve healthcare access for marginalized communities.

What has been a moment of unexpected joy or surprise in your scientific career that has stayed with you?

Although my main major was in histopathology and cytology, I've found myself increasingly drawn to the interdisciplinary nature of immunology. Exploring immunology has opened new avenues and has allowed me to approach health and disease from a broader perspective. This shift has been both unexpected and rewarding, I now have new passions and opportunities for growth.

To have a better understanding of where your input lies in immunology, may we have your most recent publications?

Al. Kharusi, M.; Al Sheikh, N.; Alhajri, M.; Al. Mandhri, S.A.; Khafagy, E.-S.; Moglad, E.H.; Alotaibi, H.F.; Hegazy, W.A.H. A Prospective Cohort Study of COVID-19: Evaluation of the Early Role of IL-1 and IL-6 Antagonists in Improving the Outcome of the Illness and Reduction in the Risk of Death. Healthcare 2023, 11, 1025. https://doi.org/10.3390/healthcare11071025

April 2024

Eugenio Contreras Castillo is a biologist and a PhD student at the National Autonomous University of Mexico. He works at the Paula Licona-Limón Lab in the Institute of Cellular Physiology. Eugenio has a deep passion for Immunology and everything related to it. In recent years he has focused on understanding how T cells work.



Tell us a bit about the current research that you are part of. Currently, my research focuses on unravelling the molecular mechanisms by which the TGF signalling pathway controls the function and suppressive abilities of regulatory T cells (Tregs). Specifically, our primary efforts are aimed at understanding how TIF1g, a protein involved in this signalling pathway, bestows Treg identity and prevents their conversion to proinflammatory Th subsets.

What made you choose the field of Immunology over others?

As an undergrad, I was very interested in understanding cancer biology, and the strategies to control this disease. When reading about this topic I discovered that it is difficult to understand the immune system. It was a new world. At first, I took this as a challenge but later I found it so fascinating that I got sucked in, and here I am years later very happy with my choice.

What drove you to Immunopedia?

I heard about Immunopaedia last year when I applied to the IUIS-ALACI-SMI-ASOCHIN Immuno-Chile 2023 Congress.

What advice do you have for fellow researchers who are interested in Immunology?

Always be curious, don't be afraid to ask questions! In research, it is always important to look at a problem from different perspectives.

If you were not involved in Immunology, what other scientific fields do you see yourself contributing to?

Sociology or conservation biology.

If you could learn and perform the assay/laboratory technique of your dreams, which one would it be and why?

I guess it would be some spatial transcriptomics as it has huge potential to help understand the immune interactions in the tissue in a more detailed manner.

If anyone was visiting Mexico for the first time, what do you feel are the top 5 things they must not leave without experiencing?

I recommend visiting the National Art Museum, exploring my alma mater, UNAM, touring colonial cities such as Queretaro, Puebla, or Oaxaca, sampling local cuisine, and savouring "tacos al pastor."

Recent publication:

Eugenio Contreras-Castillo, Verónica Yutsil García-Rasilla, María Guadalupe García-Patiño, Paula Licona-Limón, Stability and plasticity of regulatory T cells in health and disease, *Journal of Leukocyte Biology*, 2024;, qiae049, https://doi.org/10.1093/jleuko/qiae049

Immuno-Chile 2023 Interviews

March 2024



Oscar Medina-Contreras is an immunologist who works on the regulation of intestinal immune responses. He has a B.S. in Biology, a Ph.D. in Molecular Biomedicine, and completed a postdoctoral fellowship in the School of Medicine and the Emory Children's Center at Emory University. He was also a Research Associate in the Center for Inflammation, Immunity & Infection at the Institute for Biomedical Sciences at Georgia State University. Since 2015, Dr. Medina has been a Medical Sciences Researcher in the Immunology & Proteomics and the Epidemiology, Endocrinology & Nutrition Research Units at the Mexico Children's Hospital.

Tell us a bit about the current research work that you are part of?

My main area of research is to thoroughly characterize the intestinal lamina propria macrophage populations and their unique anti-inflammatory signature, as they may promote differentiation of T regulatory cells and tolerance in the mucosa. I also study the family of inflammatory cytokines IL-36, in various models of intestinal inflammation, ulcerative colitis or Crohn's disease, obesity, and cancer. I am particularly interested in studying the intercommunication that exists between the cells of the immune system and the intestinal epithelium, and the modulation that these cell

populations have with the commensal microbiota.

What made you choose the field of Immunology over others?

Throughout my academic career, I have maintained a profound interest in the intricate mechanisms governing organismal function. The complexity of immune regulation has particularly captivated my attention. I am convinced that the field of immunology offers an unparalleled lens through which to attain a comprehensive understanding of biological systems from a systems biology perspective.

What drew you to Immunopaedia?

Immunopaedia's aim to share immunological knowledge for both students and clinicians, in several developing countries.

What advice do you have for fellow researchers that are interested in Immunology?

Be prepared, sometimes you will get wonderful results. While moments of success are gratifying, it is essential to acknowledge that frustration will be a frequent companion. Therefore, cultivating a high threshold for frustration is crucial for sustained progress and resilience.

If you were not involved in Immunology, what other scientific fields do you see yourself contributing to? Astrophysics.

If you could learn and perform the assay/laboratory technique of your dreams, which one would that be and why?

I've done most of the techniques I wanted to do. However, the rapid development of novel methodologies necessitates frequent updates to the experimental repertoire. The capacity to monitor phenotypic and metabolic alterations in vivo and in real time would be great as it would significantly enhance research capabilities.

If anyone was visiting Mexico for the first time, what do you feel are top things they must experience?

Mexican food is a must. Museums, colonial architecture,

February 2024



Dr. Margaret Oluwatoyin Japhet is an Associate Professor of Virology at the Department of Microbiology, Obafemi Awolowo University, Nigeria. She completed her undergraduate and master's studies in Microbiology and Virology respectively, from the University of Ibadan, Nigeria. Dr Japhet completed her doctorate study in Microbiology at Ekiti State University, Nigeria, and Robert Koch Institute, Berlin, Germany, where the molecular aspect of the work was carried out. She is a fellow of the EDCTP (European and Developing Countries Clinical Trial Partnership) and New York Academy of Science, being awarded different grants for viral studies by both organizations. In addition, she is a faculty member as a visiting Professor in the Faculty of Pharmacy, Howard University, USA. Dr Japhet's research focus is on immunology of viral infections, diagnosis, and control.

Tell us a bit about the current research work that you are

part of?

I am currently involved in the development of nanoparticle-based immunoassay kit for detection of rotavirus diarrhoea using cotton swab, rotavirus antigen, monoclonal antibody and nanobeads. Group A rotavirus (RVA) is the most common cause of severe diarrhoea in infants and young children worldwide, accounting for about 60% of all diarrheal episodes in developing countries, yet its routine diagnosis is scarce in developing counties due to cost, equipment and need for trained personnel. Our study is on development of a rapid, sensitive, simple, and equipment-free rotavirus kit, suitable for use in low-income areas with limited access to laboratory facilities and trained personnel.

What made you choose the field of Immunology over others?

My immunology study is attached to virology. Immunology is core to viral studies and virology cannot be complete without immunology. There is the need to know how viruses affect the body and how the immune system reacts to fight these infections. This is the basis of vaccinology/control of viral infections.

What drew you to Immunopaedia?

I became aware of Immunopaedia during the Immuno-Gambia course which held at Banjul, the Gambia in 2016. I enjoyed the training, and I was invited to become an Immunopaedia Ambassador amongst all the Nigeria participants. I have since been involved in writing "Breaking News," creating videos on immunology, and recently, I assisted in the preparation of pre-course material.

What advice do you have for fellow researchers that are interested in Immunology?

Interest, passion, and determination! They should not give up on an initial challenge in comprehension. They can get basic knowledge from the Immunopaedia website for a start.

If you were not involved in Immunology, what other scientific

fields do you see yourself contributing to?

I can't think of any!

If you could learn and perform the assay/laboratory technique of your dreams, which one would that be and why?

Whole genome sequencing and next generation sequencing, because this could help to detect both known and novel viral transcripts.

If anyone was visiting *Ile-Ife, Osun State, Nigeria* for the first time, what do you feel are top 5 things they must not leave without experiencing?

- Visiting the Obafemi Awolowo University Campus, Africa most beautiful Institution with architectural master pieces
- Visiting the Oni of Ife Palace, the ancient Yoruba heritage
- Ife Grant Resort Centre
- Ojaja Mall
- Country Kitchen Eatery for sumptuous meals and drinks

Recent Publications:

Adesina, O.A., Akanbi, O.A., Opaleye, O.O., **Japhet M.O.**, Wang, B., Oluyege, A.O., Klink P., Bock, C.T. (2021). <u>Detection of Q129H Immune Escape Mutation in Apparently Healthy Hepatitis B Virus Carriers in Southwestern Nigeria</u>. *Viruses*. 29;13(7):1273 pgs 1-14. —

Omotade, T.I., Babalola, T.E., Anyabolu, C.H., **Japhet, M.O.** (2023). Rotavirus and Bacterial Diarrhoea Among Children in Ile-Ife, Nigeria: Burden, Risk Factors and Seasonality. PLOS ONE.18(9):1-16.

Japhet, M.O., Adama, T.U., Oyewale, A.P., Omotade, T. I., Awe, A., Elujoba S. O. (2023). High Prevalence of Hepatitis E IgM Antibody among pregnant women in their Second and Third Trimester in Southwest Nigeria. Pan African Journal of Life sciences (PAJOLS). 7(3): 699-705

January 2024

In January we showcased some interviews from the participants of the Immuno-India course in late 2023.