

## Aleksandra Inic-Kanada

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**LANGUAGES** English, Serbo-Croatian, German

**CHILDREN** Three

## MAIN AREA OF RESEARCH

*innate and acquired resistance to infection; chlamydial infection; mucosal immunity; tolerance and mucosal vaccination; development of novel needle-free vaccine strategies; vaccine development; obesity and immune responses (allergy, tolerance, vaccination)*

## EDUCATION

**2019** **Habilitation in Immunology and Vaccinology**  
Medical University of Vienna, Vienna, Austria

**2009** **PhD in Biochemistry, the field of Immunology**  
Belgrade University – Faculty of Chemistry, Belgrade, Serbia

**1999** **MSc in Biochemistry, the field of Immunochemistry**  
Belgrade University – Faculty of Chemistry, Belgrade, Serbia

**1996** **Dipl. Biochemist (equivalent to Magistra der Naturwissenschaften in Austria),** Belgrade University – Faculty of Chemistry, Belgrade, Serbia

## CAREER HISTORY

since 2019 Senior Lecturer and Principal Investigator at the Institute of Specific Prophylaxis and Tropical Medicine at MedUni Vienna (*permanent position*)

2016–2019 Lecturer, Institute of Specific Prophylaxis and Tropical Medicine at MedUni Vienna (*half-time job*)

2014–2019 Univ.-Ass. Postdoc (Ersatzkraft), Institute of Specific Prophylaxis and Tropical Medicine at MedUni Vienna (*half-time job*)

2014–2018 Team leader and Deputy Scientific Director, Laura Bassi Centre of Expertise OCUVAC, Institute of Specific Prophylaxis and Tropical Medicine, Center of Pathophysiology, Infectiology & Immunology, Medical University of Vienna (*half-time job*)

2011–2013 Postdoc/Senior Scientist, LBCE OCUVAC, Institute of Specific Prophylaxis and Tropical Medicine, Center of Pathophysiology, Infectiology & Immunology, Medical University of Vienna (*half-time job*)

2010–2011 Assistant Professor, Ministry of Science, University of Belgrade, at the Institute of Virology, Vaccines and Sera, Belgrade, Serbia

09/2008–12/2010 Maternity Leave (Konstantin Kanada, born 30.09.2008)

10/2005–10/2006 Maternity Leave (Lara Kanada, born 05.10.2005)

12/2001–12/2002 Maternity Leave (Lucija Kanada, born 25.12.2001)

05/2001–2009 Senior Scientist, Institute of Virology, Vaccines and Sera, Belgrade, Serbia, (*permanent position*)

10/1999–04/2001 Admin Assistant, The Organization for Security and Co-operation in Europe (OSCE), Priština, Kosovo (*non-scientific position*)

07/1996–09/1999 Research Associate, Immunology Research Center “Branislav Janković”, Belgrade, Serbia

## PATENT

*Vaccine formulation for ocular immunization,*

EU Patent Office, patent number: 10709778, US Patent Office, patent number: 2988777,

Assignee: MEDIZINISCHE UNIVERSITÄT WIEN

Inventors: Talin Barisani-Asenbauer and Aleksandra Inic-Kanada

## FELLOWSHIPS

September 2004 Environment and Immunology: from allergic to infectious diseases in Eastern Europe, University of Rome "Tor Vergata", Frascati, Italy

March 2004 In vitro production of Monoclonal Antibodies, Bilthoven, The Netherlands, European Centre for the validation of alternative methods and The Netherlands Vaccine Institute, Bilthoven, The Netherlands

February 2004 New Approaches of QC of Vaccines, Bilthoven, The Netherlands European Centre for the validation of alternative methods and The Netherlands Vaccine Institute, Bilthoven, The Netherlands

## MEMBERSHIPS

Austrian Society for Vaccinology

Austrian Society for Immunology and Allergology

Chlamydia Basic Research Society

Serbian Society of Immunology

Serbian Proteomics Society

## PROJECTS

- Vaccination efficacy in elderly: a protein-energy malnutrition model in old mice cohort (2023-2024)
- Guinea pig infection model: primary and repeated infections with *C. caviae* – infection treatment with wIRA, Erwin Brown Foundation - Switzerland, 2016-2020

## EDITORIAL AND REVIEWER ACTIVITIES

Frontiers in Microbiology, Immunology Letters, Journal of Immunology Research, PLOS One, Vaccine, *npj Vaccines*, Journal of Infectious Diseases, Frontiers in Immunology, Animals, PeerJ, Immunologic Research, Frontiers in Public Health, PLOS NTD

## 10 MOST IMPORTANT PUBLICATIONS

1. Frohns, A., Stojanovic, M., Barisani-Asenbauer, T., Kuratli, J., Borel, N., **Inic-Kanada, A.** Effects of water-filtered infrared A and visible light (wIRA/VIS) radiation on heat- and stress-responsive proteins in the retina and cornea of guinea pigs. (2021) J Photochem Photobiol B, 224: 112306. doi:10.1016/j.jphotobiol.2021.112306
2. **Inic-Kanada, A.**, Stojanovic, M., Miljkovic, R., Stein, E., Filipovic, A., Frohns, A., Zöller, N., Kuratli, J., Barisani-Asenbauer, T., Borel, N. Water-filtered Infrared A and visible light (wIRA/VIS) treatment reduces Chlamydia caviae-induced ocular inflammation and infectious load in a Guinea pig model of inclusion conjunctivitis. (2020) J Photochem Photobiol B, 209: 111953. doi:10.1016/j.jphotobiol.2020.111953  
***In papers 1 and 2, our results indicate that wIRA/VIS is a safe method and shows promising efficacy in reducing chlamydial infectivity in vivo without causing irradiation-related pathologies in the follow-up period.***
3. Stojanovic, M., Lukic, I., Marinkovic, E., Kovacevic, A., Miljkovic, R., Tobias, J., Schabussova, I., Zlatović, M., Barisani-Asenbauer, T., Wiedermann, U., **Inic-Kanada, A.** Cross-Reactive

Effects of Vaccines: Heterologous Immunity between Tetanus and Chlamydia. (2020)  
Vaccines, 8. doi: 10.3390/vaccines8040719

***Our data provide insights that tetanus immunization generates antibodies that induce heterologous chlamydial immunity and promote protection beyond the intended target pathogen.***

4. Lukic I., Filipovic A., **Inic-Kanada A.**, Marinkovic E., Miljkovic R., Stojanovic M. Cooperative binding of anti-tetanus toxin monoclonal antibodies: Implications for designing an efficient bivalent preparation to prevent tetanus toxin intoxication. *Vaccine*. (2018) Jun 18;36(26):3764-3771. doi: 10.1016/j.vaccine.2018.05.058.
5. **Inic-Kanada A.**, Stein E., Stojanovic M., Schuerer N., Ghasemian E., Filipovic A., Marinkovic E., Kosanovic D., Barisani-Asenbauer T. *Effects of Iota-Carrageenan on ocular Chlamydia trachomatis infection in vitro and in vivo*. (2018) *J Appl Phycol*. 2018;30(4):2601-2610. doi: 10.1007/s10811-018-1435-0. Epub 2018 Mar 13.
6. Rajić, J.\*, **Inic-Kanada, A.\***, Stein, E., Dinić, S., Schuerer, N., Uskoković, A., Ghasemian, E., Mihailović, M., Vidaković, M., Grdović, N., Barisani-Asenbauer, T. Chlamydia trachomatis infection is associated with E-Cadherin promoter methylation, downregulation of E-Cadherin expression, and increased expression of fibronectin and  $\alpha$ -SMA—implications for epithelial-mesenchymal transition. (2017) *Frontiers in Cellular and Infection Microbiology*, 7 (JUN), art. no. 253, p. 253. DOI: 10.3389/fcimb.2017.00253 (**\*equally contributed first author**)  
***Here we showed for the first time that chlamydial infection of conjunctival epithelial cells induces EMT-like changes that go along with modification of the methylation profile of the E-cadherin promoter and could, as one of the earliest events, contribute to processes triggering conjunctival scarring.***
7. **Inic-Kanada, A.\***, Stojanovic, M. \*, Marinkovic, E., Becker, E., Stein, E., Lukic, I., Djokic, R., Schuerer, N., Hegemann, J.H., Barisani-Asenbauer, T. *A probiotic adjuvant lactobacillus rhamnosus enhances specific immune responses after ocular mucosal immunization with chlamydial polymorphic membrane protein C*. (2016) *PLoS ONE*, 11 (9), art. no. e0157875. DOI: 10.1371/journal.pone.0157875 (**\*equally contributed first author**)
8. **Inic-Kanada, A.**, Stojanovic, M., Schlacher, S., Stein, E., Belij-Rammerstorfer, S., Marinkovic, E., Lukic, I., Montanaro, J., Schuerer, N., Bintner, N., Kovacevic-Jovanovic, V., Krnjaja, O., Mayr, U.B., Lubitz, W., Barisani-Asenbauer, T. *Delivery of a chlamydial adhesin N-PmpC subunit vaccine to the ocular mucosa using particulate carriers*. (2015) *PLoS ONE*, 10 (12), art. no. e0144380. DOI: 10.1371/journal.pone.0144380  
***In papers 7 and 8, we showed that the immunization via the conjunctiva may have significance not only for the prevention / treatment of ocular infections, but also infections at other mucosal surfaces, for example, for the prevention of a genital Ct infection.***
9. Barisani-Asenbauer, T.\*, **Inic-Kanada, A.\***, Belij, S. Marinkovic, E., Stojicevic, I., Montanaro, J., Stein, E., Bintner, N., Stojanovic, M. (2013) 'The Ocular Conjunctiva as a Mucosal Immunization Route: A Profile of the Immune Response to the Model Antigen Tetanus Toxoid', *PLOS ONE*, 8: e60682. (**\*equally contributed first author**)  
***In this paper, we showed that the conjunctival immunization route, together with an adjuvant that is corpuscular by nature and / or capable to engage innate immunity, could tailor the immune response to fight intracellular bacteria or viruses more effectively.***
10. **Inic-Kanada, A.**, Stojanovic, M., Zivkovic, I., Kosec, D., Micic, M., Petrusic, V., Zivancevic-Simonovic, S., Dimitrijevic, L. *Murine monoclonal antibody 26 raised against tetanus toxoid cross-reacts with  $\beta$ 2-glycoprotein I: Its characteristics and role in molecular mimicry*. (2009) *American Journal of Reproductive Immunology*, 61 (1), pp. 39-51. DOI: 10.1111/j.1600-0897.2008.00660.x