

# IL-10 and IL-1B genetic polymorphism in cervical cancer

---

Wagner, J; Danolic, D; Stibi, S; Selak, N; Heffer, M

*Source / Izvornik:* **The Eleventh ISABS Conference on Forensic and Anthropologic Genetics and Mayo Clinic Lectures in Individualized Medicine: Program and abstracts, 2019, 347 - 347**

**Conference paper / Rad u zborniku**

*Publication status / Verzija rada:* **Published version / Objavljena verzija rada (izdavačev PDF)**

*Permanent link / Trajna poveznica:* <https://um.nsk.hr/um:nbn:hr:220:056190>

*Rights / Prava:* [In copyright](#)/[Zaštićeno autorskim pravom.](#)

*Download date / Datum preuzimanja:* **2024-10-01**



*Repository / Repozitorij:*

[Repository of the Sestre milosrdnice University Hospital Center - KBCSM Repository](#)

**PROGRAM AND ABSTRACTS**

The Eleventh ISABS Conference  
on Forensic and Anthropologic Genetics  
and Mayo Clinic Lectures in Individualized Medicine

June 17-22, 2019, Split, Croatia

*Publisher:*

International Society for Applied Biological Sciences (ISABS)  
Hondlova 2/11, Zagreb, Croatia

*Editors:*

Dragan Primorac, Moses Schanfield, Stanimir Vuk–Pavlović  
Manfred Kayser, Tamás Ördög

*Assistant Editors:*

Luka Bočkor, Miran Čoklo, Ivan Dolanc, Gordan Lauc, Damir Marjanović, Saša Missoni,  
Damir Primorac, Petar Projić, Andrea Skelin, Jelena Šarac, Vedrana Škaro

*Prepress:*

Luka Bočkor, Miran Čoklo, Ivan Dolanc, Nives Fuchs, Natalija Novokmet, Jelena Šarac

*Printed by:*

Printera Grupa d.o.o.

*Circulation:*

750 copies

ISBN 978-953-57695-3-8

A CIP catalogue record for this book is available in the Online Catalogue of the National and University Library in Zagreb as 001031150.

Video and/or audio-taping of any session is not permitted without prior approval from the speakers and Scientific Committee of the 11th ISABS Conference on Forensic and Anthropologic Genetics and Mayo Clinic Lectures in Individualized Medicine

© Copyright ISABS 2019

Zagreb, 2019.



# PROGRAM AND ABSTRACTS

THE ELEVENTH ISABS CONFERENCE  
ON FORENSIC AND ANTHROPOLOGIC GENETICS  
AND MAYO CLINIC LECTURES IN INDIVIDUALIZED MEDICINE

JUNE 17-22, 2019  
Le Méridien Lav Hotel  
Split  
CROATIA

Presentation number: CSHG 5

## IL10 AND IL-1B GENETIC POLYMORPHISM IN CERVICAL CANCER

**Wagner J<sup>1</sup>**, Danolic D<sup>2</sup>, Stibi S<sup>1</sup>, Selak N<sup>1</sup>, Heffer M<sup>1</sup>

<sup>1</sup>University of Osijek, Faculty of Medicine, Department of medical biology and genetics, Medical genetics laboratory, Josipa Huttlera 4, 31000 Osijek, Croatia, <sup>2</sup>University clinic for tumours, Department for gynaecology and oncology surgery, Ilica 197, 10000 Zagreb, Croatia

**Introduction:** Cervical cancer is the fourth most common type of cancer for women worldwide. Human papillomavirus (HPV) is found in about 99% of cervical cancers. By the age of 50, approximately 80% of women have been infected with some type of HPV. The majority of women infected with the HPV virus do not develop cervical cancer. A small number of women do not clear the HPV virus and are considered to have a persistent infection. Disordered inflammation and immune response is an acknowledged risk factor for cervical cancer development. Recent investigations showed that interaction between HPV and IL10 can lead to immunosuppressive environment in cervix, while T alel of IL-1B gene is correlated with chronic inflammation and persistent infection with HPV16/18. **Objectives:** In this study, we aimed to evaluate the relationships between IL-10 (rs16944) and IL-2B (rs1800896) genetic polymorphisms and cervical cancer risk in a cohort of women from Croatia. **Participants and methods:** A case-control study of 81 women with invasive cervical carcinoma and 80 age matched healthy controls (women with at least 3 normal recent cytological examinations) was performed. We collected peripheral blood samples, extracted DNA and analysed two SNPs (rs16944 and rs1800896) using Taqman assays and real time PCR. We investigated a possible association between two cytokines genetic polymorphism and occurrence of cervical carcinoma. **Results:** There was no significant difference between the frequency of IL-10 and IL-1B genotypes between the patients and the controls ( $\chi^2$  test,  $P < 0,05$ ). There were no statistically significant associations of IL-10 and IL-1B polymorphism and age of onset of cervical cancer (Mann-Whitney U test,  $P < 0,05$ ) **Conclusion:** In this study, no association was found between IL-10 and IL-1B genetic polymorphism and cervical cancer development.

**Keywords:** cervical cancer, cytokines, genetic polymorphism, il-10, il-1b