HPV and Cervical Cancer
Franco Borruto • Marc De Ridder
Editors

HPV and Cervical Cancer

Achievements in Prevention
and Future Prospects

Springer
It is with immense pleasure that I present the book of Professors Franco Borruto and Marc De Ridder. The book is a sum of the current available information on HPV, given by world experts in this scientific field. I shall nonetheless mention the Editors Marc de Ridder, internationally reknown immunologist whose scientific contribution on HPV is of absolute value, and Franco Borruto, whose academic curriculum was already appreciated by my teacher Professor G.B. Candiani. Professor Franco Borruto, a dear friend and collaborator, was assigned to me as co-worker at the University of Verona. He is now part of Montecarlo’s Medical Association and has joined the Professor A. Treisser’s team at the Princess Grace of Monaco Hospital. He was one of the advocates for the HPV vaccination in the Principality of Monaco and is actively involved in a governmental campaign of the Princeier Palace for the prevention of cervical cancer.

I am pleased to present this book, which will have its well-deserved success, and will represent an important instrument for the enthusiasts of this discipline and of this specific subject.

Milan, Italy

L. Fedele
The Greek philosopher and mathematician Pythagoras (580–495 BC) developed the idea that the resonance of the harmony of the world resides in numbers: “everything is numbers, numbers are harmony”. Indeed, if one analyses *a posteriori* the diverse elements of our life, each of them are linked to precise or presumed dates and therefore to numbers.

Results of scientific research are often expressed in quantitative data and therefore in numbers. Again, events or encounters that changed the course of each of our lives is frequently associated to single points in time and therefore to a number.

In 1979, before a congress in Tokyo, Japan, I (FB) met professor H. zur Hausen. This encounter dramatically changed my perception and concepts of oncogenesis and of the viral origin of cancer in women. It completely reoriented my professional and scientific practice. During this very same trip to Tokyo, I travelled with professor De Broux. Thanks to this memorable trip we became good friends. After my Tokyo experience, I decided to go abroad and practiced in different countries.

Many years later, Dr. J. Monsonego created the Eurogyn Conference and the Human Papilloma Virus (HPV) community and is now considered an important congress. The authors are linked by the friendship of this HPV community and by the heritage of professor H. zur Hausen.

My co-editor, M. De Ridder and I met at a HPV Pan European Advisory Board in September 2007. A brotherly friendship was born during this meeting and the idea rose between us to help the transmission of knowledge on HPV to the scientific community worldwide.

His scientific input and his extraordinary personality was a gift for me: without him, this book would never have been realized. He also helped me in taking important decisions in my life. From the beginning I felt the need to honor special people, including women in my profession, they asked me for help. In a sense, they have contributed to my personal life and my career. They are in me, a part of me, they changed me, and invited me to do the same with those who were my students and that I could pass on what I knew.
I thank the president of the “Ordre des Médecins” of the Principality of Monaco, professor A. Treisser and my colleagues of Princess Grace Hospital who welcomed me and where I’m now living.

HPV infections and their clinical consequences are a major disease burden.

This book aims to provide an updated comprehensive summary of the available data in this multidisciplinary field. The editors received a flattering esteem on this book from professor H. zur Hausen.

The different contributing experts have managed to pull together the most recent information, updated in depth reviews on different aspects of HPV infections:

- Infection and cervical cancer: an old fact with a recent solution
- Human papillomavirus: natural history of a viral infection in the genesis of cancer
- The immunobiology of human papillomavirus – associated oncogenesis
- The epidemiology of cervical cancer
- The Basic Elements of a Correct Diagnosis: from cytohistopathology to screening
- Human papillomavirus DNA testing: What, How, When
- Colposcopic appearance of HPV infection
- Multiple aspects of human papillomavirus infections
- Prevention of HPV- associated diseases in the United States
- Immunogenicity, efficacy, effectiveness and overall Impact of HPV vaccines
- Treatment, follow-Up, and prevention of human papillomavirus infection and cervical cancer
- Therapeutic vaccines for HPV infection
- Perspectives on therapeutic HPV vaccines: Where are we now?

The reader will discover how fast interesting new data has been generated recently not only on the immune-biology of this infection, but also on the more clinical aspects like the diagnostic approaches and techniques, the success of primary and secondary prevention, the follow-up in vaccinated cohorts or individuals and the various treatment options. Experienced clinicians will appreciate our wish to give them the most up-to-date trial data results for the clinical management of their patients. Last but not least, two reviews on summarizing the data and future prospects for therapeutic HPV vaccination.

All over the world scientists and clinicians will continue to inform the public and health officials highlighting the importance of preventive medicine as a “best choice” to preserve health, and reduce suffering, hence defending the largest possible access to preventive medicine.

We want to express our sincere gratitude to the authors for their contribution to the understanding of diagnosis, treatment and prevention of HPV infections and also for raising the awareness on the importance of preventive medicine.

This book is dedicated to all the women and girls around the world and in particular the ones who entered our lives for professional or sentimental reasons.

Franco Borruto and Marc De Ridder
In the mid 1970s, he published his article on HPV presence in cervical cancer which at time was not considered credible… (many believed it was Herpes simplex). In 2008 he received the Nobel prize in Physiology or Medicine for his discovery on HPV viruses being capable of inducing cervical cancer.

The discoveries of the three Nobel Laureates in Physiology or Medicine 2011 – Bruce A. Beutler, Jules A. Hoffmann and Ralph M. Steinman – have revealed how the innate and adaptive phases of the immune response are activated and thereby provided novel insights into disease mechanisms. Their work has opened up new avenues for the development of prevention and therapy against infections, cancer, and inflammatory diseases.
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