

## Editorial

## Introduction to the Special Issue dedicated to Prof. Erik De Clercq for reaching the Professor Emeritus status at the Katholieke Universiteit Leuven

This special issue of Antiviral Research consists of thirty-nine mini-reviews written by renowned scientists active in the field of antiviral chemotherapy, and covers an updated state-of-the-art on the chemotherapy of a broad variety of virus infections. Attention is given, not only to different viruses or families of viruses, that are a serious threat to human health, but also to different classes of antiviral drugs, and different antiviral targets for therapeutic intervention. Although these different aspects are all covered in this issue, our ambition was not to provide an exhaustive overview of the entire antiviral field. We rather wanted to bring together contributors that have two characteristics in common: they are all highly reputed and internationally recognized authorities in their research field, and they share a tremendous appreciation for the same man! A man that is nowadays active in the antiviral field for almost 40 years during which he has made remarkable contributions to this field.

His name: Erik De Clercq, born in Dendermonde, Belgium, on March 28, 1941. Erik followed High School in the same city, where his bright and ambitious mind already became evident: he finished his 6-year studies as *primus perpetuus*. After College, he went to the Katholieke Universiteit Leuven (K.U. Leuven), where he graduated in 1966 as a Medical Doctor with *summa cum laude*, followed by a Ph.D. degree in 1972 with a thesis focussing on the “Mechanism of antiviral activity of synthetic polyanions”. Before Erik entered his exceptionally fruitful academic career and obtained a permanent position in 1972, he spent two years at Stanford University Medical School under the guidance of Tom C. Merigan, at that time involved in interferon research. After becoming Full Professor in 1977 at the Faculty of Medicine of the K.U. Leuven, being one of the youngest full-professors at this University ever, he served several terms as chairman of the Department of Microbiology and Immunology. One year, after the decease of his mentor, Prof. Pieter De Somer, Erik became Chairman of the Directory Board of the Rega Institute (K.U. Leuven), a position that he is still in charge of, as of today, 20 years later. Meanwhile, he built-up the Laboratory of Virology and Chemotherapy at the Rega Institute, now containing a total of about 50 members. During his career Erik

established an extensive international network of collaborations with (mainly) medicinal chemists, which allowed to evaluate a wide variety of novel molecules against a wide variety of viruses. This resulted, after so many years, in a unique and extensive collection of structurally diverse molecules, and a wide variety of viral assays and test models developed at the Rega Institute. Erik’s view “where chemistry meets virology” and the generous collaborative efforts of many chemists resulted in the discovery of a number of remarkable new antiviral drug leads at the Rega Institute.

Erik De Clercq is gifted with two extraordinary capacities: he is an outstanding scientist as well as an excellent teacher. He is one of the rare university professors who succeeds to successfully combine excellent teaching (the past year at an intensity of 9 h per week to more than 600 students in total) with an astonishing scientific output (more than 2000 peer-reviewed papers, and currently the highest number of citations at the K.U. Leuven). In addition, Erik has an intensive travelling schedule to be a keynote speaker at international conferences, or an invited lecturer at institutes, universities or pharmaceutical companies.

Erik’s major achievements in the antiviral field are undoubtedly an impressive number of co-discoveries of drug leads, several of which reached approval for clinical use. Among them, we should mention valaciclovir (Valtrex<sup>®</sup>, Zelitrex<sup>®</sup>) for the treatment of herpesvirus infections, BVDU (Brivudin, Zostex<sup>®</sup>, Brivirac<sup>®</sup>) for the treatment of herpes zoster, HPMPC (cidofovir, Vistide<sup>®</sup>) for the treatment of cytomegalovirus infections in AIDS patients, (R)-PMPA (tenofovir disoproxil, Viread<sup>®</sup>) for the treatment of HIV infections and PMEA (adefovir dipivoxil, Hepsera<sup>®</sup>) for the treatment of hepatitis B virus infections. For his outstanding contributions, Erik received numerous prestigious national and international prizes and awards, including the Otto Kraymer Award for Pharmacology, the Hamao Umezawa Memorial Award from the International Society of Chemotherapy, the Gertrude Elion Distinguished Lecture Award at the HIV DART 2004 meeting on “Frontiers in Drug Development for Antiretroviral Therapies”, and the 2005 Gertrude Elion

Award from the International Society for Antiviral Research. Erik also received a Doctor Honoris causa degree from several universities.

Erik is, together with Hugh J. Field, George J. Galasso, Earl R. Kern and Richard J. Whitley the co-founder of the International Society for Antiviral Research. He served as President of the Society between 1990 and 1992, and later on for many years as member of the Directory Board of this Society. Erik also acts, since its very start, as Editor-in-Chief of the Society Journal "Antiviral Research". He is also a member of the Editorial Board of several prestigious scientific journals.

This year Erik reached the age of 65, and thus, he will retire by September 2006, as obligatory at the universities in Belgium. We all feel that we cannot better express our deep appreciation for Erik's achievements than by contributing to this special issue that is entirely devoted and dedicated to Erik, for reaching the Professor-Emeritus status at the K.U. Leuven and for his outstanding contributions to the Society of Antiviral Research, to the journal "Antiviral Research" and to the antiviral field in general. We know that he will continue to inspire his collaborators, and continue to write excellent scientific papers that are instructive to insiders in the field as well as to many scientists outside the field. We are sure that we and others will be able to further account on his expertise, advice and insights in drug lead structures and antiviral therapeutics.

Erik, on behalf of all the contributors of this special issue of Antiviral Research, we wish to thank you for your outstanding input and contribution to the antiviral field that you are devoted to since so many years and for the opportunities that you have given to many young scientists to achieve their goals in an optimal scientific environment. We hope you will enjoy reading this special issue.

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