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## Album

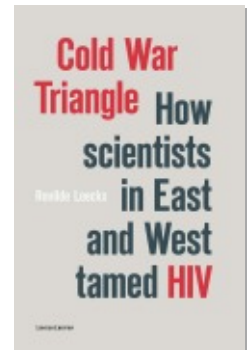
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sign an agreement with the Medicines Patent Pool (MPP), an international organization that expands access to medicines through the sharing of drug patents.

As a next step, Gilead pursued a market-based strategy to provide access in developing countries to every patient who needs treatment. As long as Gilead's products were more expensive, the WHO guidelines favored d4T and it remained the drug of choice for a long time. This was especially painful since d4T was associated with greater toxicities, a higher level of patient discontinuation, hospitalisations and deaths due to AIDS. Fortunately things eventually changed. As of November 2016, more than 10 million people in low-and middle-income countries are now receiving Gilead HIV drugs, better suited for leading longer and healthier lives.

John Martin's "collaborative commercialization" strategy, finetuned by Gregg Alton, was what turned the tables around. The extension of non-exclusive licenses to multiple manufacturers promoted competition to produce large volumes of high-quality drugs and lowered the prices dramatically. It was this strategy, which enabled the sustained flow of drugs in the most efficient manner, that saved millions of lives. The World Health Organization estimates that new infections fell by 35% by 2015 and AIDS related deaths fell by 28%. The WHO aims to put an end to the epidemic by 2030.<sup>5</sup>

This ambitious goal is based on the fact that a new generation of Gilead's drugs is becoming available to low and middle income countries. The drugs still get their potency from the Tenofovir component albeit with a lower dosage.

Gilead is still a relatively small company with only 8.000 employees worldwide and very few brick and mortar assets in third world countries. Notwithstanding its size, it has given humankind the know-how to develop the acyclic nucleoside phosphonates, otherwise called acyclic nucleotides. These compounds were created by the unique collaboration between Tony Holý and Erik De Clercq. But it was John Martin who recognized the extraordinary capability of acyclic nucleotides and led a remarkable team of scientists who developed them into highly effective drugs. This breakthrough achievement has enabled more than 90 % of HIV patients in the western world and a growing majority of patients in developing countries to lead normal lives. Thanks to the powerful desire to succeed

## OF SCIENTISTS AND CRUSADERS

by John C. Martin and his colleagues, more than eight million lives have already been saved. The new generation of drugs that they developed will continue saving many more lives around the world and promises to serve as the world's greatest hope in bringing an end to the HIV epidemic.

## COLD WAR TRIANGLE



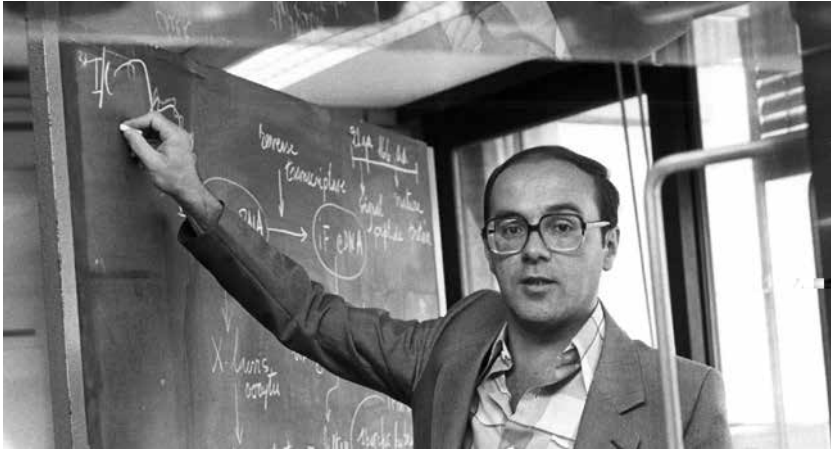
**Tony Holý with self-made canisters around 1970. His laboratory was very sparse and many reagents were homemade (Photo courtesy of Dana Holà archives).**

## ALBUM



**Tony Holý and his technicians in his laboratory around 1980. The tall lady in the background, Bela Novakova, taught him many skills and remained very devoted to him all along his career (Photo courtesy of Dana Holà archives).**

## COLD WAR TRIANGLE



**Erik De Clercq, teaching biochemistry on the campus of KU Leuven in Kortrijk, around 1980 (Photo courtesy of Erik De Clercq archives).**

## ALBUM



Symposium of a group of chemists in Kyoto around 1982. Nobel Prize laureate Gobind Khorana seated in second row, third from left. Last row: Richard (Dick) Walker (fifth from the right), Tony Holý (third from right) and Erik De Clercq (second from right) (Photo courtesy of Erik De Clercq archives).

## COLD WAR TRIANGLE



**Rudi Pauwels, who started the first AIDS laboratory at the Rega Institute in 1986. His system was copied in laboratories all over the world for more than twenty years. He was still a student at the pharmaceutical faculty at that time and obtained his Ph. D. in 1990 with the highest honors (Photo courtesy of Erik De Clercq archives).**



## ALBUM



Two Japanese doctoral fellows at the Rega Institute: Masanori Baba on the left discovered antiviral activity in Piet Herdewijn's compounds and was instrumental in other discoveries together with Rudi Pauwels. Takashi Sakuma, on the right, discovered the anti-vzv activity in the very first acyclic nucleoside phosphonates (Photo courtesy of Erik De Clercq archives).

## COLD WAR TRIANGLE



**In a Brussels restaurant around 1992. From left to right: John C. Martin, then Head of Research at Gilead Sciences, Etienne (Stevie) Davignon, Member of the Board of Directors of Gilead Sciences, Norbert Bischofberger, then Head of Development at Gilead Sciences, Michael Riordan, founder and first CEO of Gilead Sciences, and Erik De Clercq, Head of the Rega Foundation and Head of the Institute (Photo courtesy of Erik De Clercq archives).**

## ALBUM



Photo taken at Gilead Sciences in 1992. From left to right:  
Erik De Clercq, John C. Martin, Tony Holý (Photo courtesy of Gilead Sciences).

## COLD WAR TRIANGLE



Gilead Sciences maintained close contacts with the Rega Institute all through the 1990's into the new Millennium. Here John C. Martin on one of his regular visits to Leuven around 1995. From left to right: Johan Neyts, then a postdoctoral fellow working on the potential of Cidofovir analogues to fight smallpox. Robert Snoeck was the clinician for most testings. He investigated the potential of cidofovir on viruses including the CMV virus. Lieve Naessens worked with Gilead Sciences on the development of the prodrug of Tenofovir. Jan Desmyter, then the head of clinical virology in the university hospital, was a vital supporter of the AIDS laboratories in the virology department of the Rega Institute. John C. Martin, then CEO of Gilead Sciences and Norbert Bischofberger, then the Head of Research at Gilead Sciences, Erik De Clercq then head of the Rega Foundation and head of the Institute, Graciela Andrei, who was instrumental in the discovery of the antiviral action of Cidofovir in papilloma viruses (Photo courtesy of Erik De Clercq archives).

ALBUM



***Launching of VISTIDE®  
by Gilead Sciences on 27 June 1996***

The launching of “Vistide” in 1996, the first commercial product of Gilead Sciences. The company had fewer than 200 employees at that time. Today Gilead is still a relatively small pharmaceutical company with 8,000 employees worldwide (Photo courtesy of Gilead Sciences).

COLD WAR TRIANGLE



第9回国際抗ウイルス学会議  
Ninth International Conference on Antiviral Research  
May. 21. 1996 Ura-bandai

**Ninth International Conference on Antiviral Research (ICAR), May 21 1996, in Ura-bandai, Northern district of Fukushima. First row (seating) from right to left: John C. Martin, Erik De Clercq, Mrs Chikako Shigeta, Shiro Shigeta, Earl Kern, Hugh Field, George Galasso, Rich Whitley. Towering above the whole scene: Raymond Schinazi and Naoki Yamamoto on third row far left (Photo courtesy of Erik De Clercq archives).**

## ALBUM



**From left to right: Tony Holý at a meeting in Atlanta in 1997, Mick Hitchcock who tested many compounds at Bristol-Myers and later at Gilead to determine which compounds to develop; Piet Herdewijn, presently Head of Medicinal Chemistry at the Rega Institute who synthesized d4T and many other nucleosides that are now part of Gilead Sciences's library (Photo courtesy of Erik De Clercq archives).**

## COLD WAR TRIANGLE



**Tenth International Conference on Antiviral Research (ICAR), April 1997, in Atlanta, Georgia. First row from left to right: George Galasso, Mrs. J. Galasso, Bill Prusoff, Earl Kern, Raymond Schinazi, John C. Martin, Nobel Prize laureate Gertrude (Trudy) Elion, Rich Whitley and Hugh Field (Photo courtesy of Erik of De Clercq archives).**



ALBUM



**Tony Holý receiving the State Medal of Merit from the hands of president Vaclav Havel in 2002 (Photo courtesy Dana Holà archives).**

## COLD WAR TRIANGLE



**Tony Holý, revered as a great Czech scientist, points to a Czech invention, the sugar cube. Czech inventiveness was one of the themes to promote the Czech presidency of the Council of the European Union in 2009 on posters throughout the Czech Republic (Photo by Vladimír Kopal).**

## ALBUM



**Erik De Clercq and Tony Holý receiving honorary doctorates on 4th June, 2009, at the University of Southern Bohemia. Professor and later rector, Libor Grubhoffer, in their midst; John C. Martin, then CEO of Gilead Sciences at the left, Zdenek Havlas who became Tony Holý's successor as director of the IOCB on the right (Photo courtesy of Dana Holà archives).**

## COLD WAR TRIANGLE



**Erik De Clercq and Donald Rumsfeld in 2000. Rumsfeld's last meeting of the board of directors at Gilead Sciences prior to his nomination as Secretary of Defense (Photo courtesy of Gilead sciences).**