



Prof. Vincenzo Summa, Ph.D.



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 Nationality: Italian

 Date of birth: 06 Apr 1964

RESEARCH AND PROFESSIONAL SYNOPSIS

Vincenzo Summa is internationally recognized as expert medicinal chemist in drug discovery, mainly in the antiviral field due to the discovery of two blockbuster antiviral drugs: Raltegravir (Isentress™) and Grazoprevir.

He joined Merck Research Laboratory in Italy (IRBM), in 1996 as Senior Research Chemist and subsequently took on positions of increasing responsibility including Director in the Medicinal Chemistry department. Vincenzo led the chemistry team that discovered Isentress™, the first in class HIV integrase inhibitor approved for the treatment of HIV/AIDS patients, and Grazoprevir, a pangenotype HCV protease inhibitor approved by FDA with "Breakthrough Therapy Designation" for HCV interferon free therapy to cure the HCV patients. Isentress™ was awarded the Prize Galien USA and EU for the best pharmaceutical agent in 2008. Vincenzo was awarded as Heroes of Chemistry from American Chemical Society in 2013 for the discovery of Isentress™ and in 2017 for the discovery of Grazoprevir. He was leading several drug discovery projects not only aimed at the treatment of HIV infection or the cure of HCV but also to fight cancer, or rare and neglected diseases.

During the Merck period, he was a member of the Drug Discovery division in the Early Development Team (EDT) and in the Product Development Team (PDT). EDT was responsible to develop the approved preclinical candidates up to Phase 1b clinical trial, coordinating all activities involved in the process. PDT was responsible to develop the compounds coming out from the EDT that successfully achieved the POC in Ph1b to the final approval and market, similarly to the previous team, it was responsible to coordinate

all function and teams involved in the processes. The HIV integrase program was the pilot program to investigate this new paradigm in Merck, the success obtained by the two teams led to the fasted approved Drug (Isentress™) within Merck and the concept to have EDT and PDT to handle the compounds in the development became the routine process for the development in the company.

In 2009, Vincenzo became a cofounder of IRBM Science Park, the spinoff of the Merck Research Lab in Italy, where he was Vice President of Drug Discovery. The new company was initially structured as drug discovery CRO, a few years later initiated the internal research program. Vincenzo was initially responsible of all activities of the med chem, peptide chemistry, drug metabolism in vitro and in vivo departments in IRBM and Promidis (IRBM subsidiary in Milan). From 2006 to 2009 he was responsible of all operations and research activities of the company, including the research site in Naples and Milan, Promidis. In 2019 he left IRBM to become full professor of Medicinal Chemistry at the Federico II University of Naples, in the Department of Pharmacy, School of Medicine and Surgery. He continued his research activities in a number of projects on viral infections, including SARS-CoV-2, rare and tropical diseases, cancer and innovative approaches to deliver therapeutic agents. Vincenzo is author of many peer reviewed published papers in the medicinal chemistry and organic chemistry fields, he is inventor on 52 patents. He presented extensively at international and national conferences. Furthermore, he is consultant for virtual companies, biotech and middle size companies.

PROFESSIONAL EXPERIENCE

2019 - present Full Professor of Medicinal Chemistry, Department of Pharmacy, School of Medicine and Surgery, University of Naples Federico II.

2016 - present Consultant for virtual companies, biotech and middle size companies and legal IP firm

Position held:

2016-2019 Vice President Drug Discovery IRBM spa, IRBM Science Park and Promomidis

2010-2015 Senior Executive Director IRBM spa, IRBM Science Park and Promomidis

2009 Cofounder IRBM Science Park – IRBM spa

- 2006 – 2009** Director Medicinal Chemistry, Merck Research Laboratory Italy (MRL- Pomezia I.R.B.M.)
- 2004 – 2006** Senior Investigator, Merck Research Laboratory Italy (MRL- Pomezia I.R.B.M.)
- 2000 – 2004** Senior Research Fellow, Merck Research Laboratory Italy (MRL- Pomezia I.R.B.M.)
- 1998 – 2000** Research Fellow, Merck Research Laboratory Italy (MRL- Pomezia I.R.B.M.)
- 1998** Research Fellow, Merck Research Laboratory, Rahway, New Jersey, USA.
- 1996 -1998** Senior Research Chemist, Medicinal Chemistry Department, Merck Research Laboratory Italy (MRL- Pomezia I.R.B.M.)
- 1995-1996** Fellow, Istituto Superiore di Sanita' "AIDS Research Fellowship Program"
- 1994** Ph.D. Fellow, Boston University Massachusetts (USA)
- 1992-1994** Menarini Ricerche Fellowship Ph.D. student University of Siena
- 1991-1992** Italfarmaco Fellow University of Rome "la Sapienza"
- 1991** Fellow Università of Turin - Italfarmaco

EDUCATION

PhD in Organic Chemistry (1999)

University of Wuppertal (Germany)

M.S. in Industrial Chemistry (110/110 cum laude) (1991)

University of Rome, "la Sapienza" (Italy).

HONORS AND AWARDS

2017 Heroes of Chemistry 2017 from the American Chemical Society. Motivation: "The American Chemical Society honors scientists from Merck for the invention of ZEPATIER®, a once-daily, fixed-dose combination tablet containing the NS5A inhibitor Elbasvir and the NS3/4a protease inhibitor Grazoprevir for the treatment of chronic Hepatitis C Virus infection."

2013 Heroes of Chemistry 2013 from the American Chemical Society. Motivation "the discovery of first medicine approved in a class of antiretroviral drugs called ISENTRESS the

integrase inhibitors for the treatment of HIV-1 infection. HIV, the virus that causes AIDS, infects 70 million people".

2008 Merck & Co, USA. **Key Innovator Award**, (HCV-Protease Program) for the discovery of MK-5172 (**Grazoprevir**)

2005 Merck & Co, USA. **Key Innovator Award**, (HIV-Integrase Program) for the discovery of MK-0396

2005 Merck & Co, USA. **Key Innovator Award**, (HIV-Integrase Program) for the discovery of MK-0518 (**Raltegravir- Isentress**)

2004 Merck & Co, USA. **Key Innovator Award**, (HIV-Integrase Program) for the discovery of MK-0796

2003 Merck & Co, USA. **Key Innovator Award**, (HIV-Integrase Program) for the discovery of L-870810

ARTICLES AND PATENTS

Vincenzo Summa is (co)author of >100 publications in peer-reviewed journals, several book chapters.

Inventor of 52 international patents/patent applications

He presented extensively to national and international conference

Full list of patents and articles is available on request

Sincerely,

Prof Vincenzo Summa, Ph.D.

04th January 2022