Drug discovery a history of a pharmacognostic approach

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Abstract

Since the ancient Romans and ancient Greek used medical herbs, the pharmacognostic profiles of medicinal herbs guaranteed cures and remedies for minor daily health problems. Over the centuries, the tradition of medical herbs has allowed many simple therapies and complex diseases treatment. This gave birth to a part of modern pharmaceutical chemistry at the end of the 19th century. It started by the extraction of active ingredients from medicinal herbs. During the twentieth century, chemical modification led natural molecules to it characterises the discovery of new molecules. They were improving their pharmacodynamic and pharmacokinetic profile. Both the research and discovery of herbal medicine came from tradition. Even though their study ran into nefarious errors. During my pharmacologist career, I combined endogenous pharmacological modulation systems looking for new therapies. The discovery of many drugs derives from pharmacognostic research and the ethnobotanical tradition. There is no doubt that the chemistry of pharmacognostic products leads to the extraction of complex structures sometimes. Indeed, the most fascinating part is the historical testimonies on herbs studied over the centuries by those who practiced them. The oriental medicine, as well as the ancient Aesculapius, Galen, Paracelsus and Hippocrates, used herbal medicine. Its uses still leave some surprises to those who practice Drug Discovery in this sense.

Recent Publications

1 "Cannabidiol in inflammatory bowel diseases: a brief overview."
Esposito G, Filippis DD, Cirillo C, Iuvone T, Capoccia E, Scuderi C, Steardo A, Cuomo R, Steardo L.
Phytother Res. 2013 May; 27(5):633-6. doi: 10.1002/ptr.4781. Epub 2012 Jul 20. PMID: 22815234 Review.

2 "Cannabidiol in medicine: a review of its therapeutic potential in CNS disorders."
Scuderi C, Filippis DD, Iuvone T, Blasio A, Steardo A, Esposito G.
Phytother Res. 2009 May; 23(5):597-602. doi: 10.1002/ptr.2625.

3 "Differential cannabinoid receptor expression during reactive gliosis: a possible implication for a no psychotropic neuroprotection."
De Filippis D, Steardo A, D'Amico A, Scuderi C, Cipriano M, Esposito G, Iuvone T.
Scientific World Journal. 2009 Mar 31; 9:229-35. doi: 10.1100/tsw.2009.31.
PMID: 19347234 Review.

4 "Palmitoylethanolamide improves colon inflammation through an enteric glia/toll like receptor 4-dependent PPAR-α activation."
Esposito G, Capoccia E, Turco F, Palumbo I, Lu J, Steardo A, Cuomo R, Sarnelli G, Steardo L.
Gut. 2014 Aug;63(8):1300-12. doi: 10.1136/gutjnl-2013-305005. Epub 2013 Sep 30. PMID: 24082036 Review.

5 "Neurotensin as Modulator of Basal Ganglia- Thalamocortical Motor Circuit – Emerging Evidence for Neurotensin NTS1 Receptor as a Potential Target in Parkinson's Disease."
By Luca Ferraro, Tiziana Antonelli, Sarah Beggiato, Maria Cristina Tomasini, Antonio Steardo, Kjell Fuxe and Sergio Tanganelli
Submitted: November 11th 2010 Reviewed: June 16th 2011 Published: February 8th 2012 DOI: 10.5772/21128
https://www.intechopen.com/chapters/27864



Biography

Doctor Antonio Steardo specialized in Pharmacology and graduated in Pharmacy and Pharmaceutical Chemist. He has now gained years of experience since 2002 in the pharmaceutical products trade sector as he could have been behind the counter of the Steardo pharmacy from an early age. Already in elementary school, the curiosity for chemistry manifests itself during his games and continues lectures at the department of science at the University of Salerno. Therefore during the cycle of studies, he prefers biochemistry and biochemistry of drug action, graduating in July 2007 with a thesis on the functioning of the endocannabinoid system on Alzheimer's disease in pharmacology. Following the beginning of his pharmaceutical chemistry studies, he stopped for a competition as a postgraduate in pharmacology at the University of Rome La Sapienza in July 2014. Expecting constant improvement as a professional update, he enrolled in the continuing professional training department at the University of Oxford to follow courses in experimental and translation therapy and on medical research. His desire to improve leads him to attend international conferences and seminars.

Notes/Comments:

Aim to demonstrate how herbal medicine has been a valid lead to discover new therapies during passed decades.