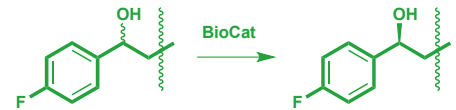
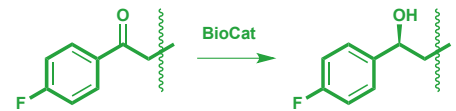
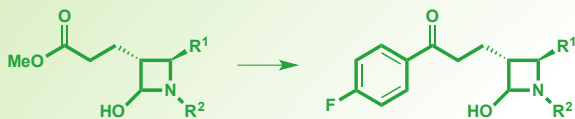
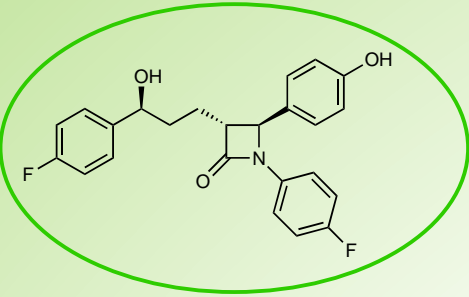




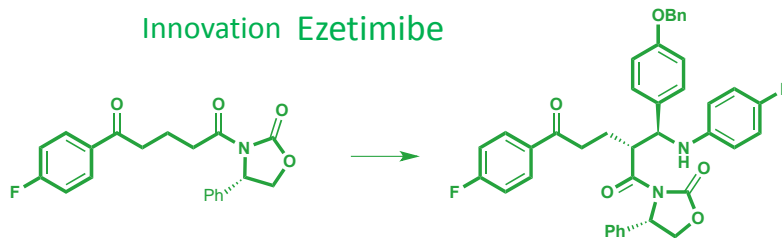
# PATENT ANALYSIS ON EZETIMIBE: SYNTHESIS AND PHARMACEUTICAL FORMULATIONS

Ezetimibe is an anti-cholesterolemic commercially available drug, whose IP rights will expire shortly.

Ca. 200 patents (covering 1995-2015) have been evaluated, and results categorized – to facilitate reader's global vision –, providing an inventory of firms and research groups active in the different fields, from synthetic approaches for ezetimibe to its pharmaceutical formulations. Links to all patents are provided as well.



Mannich Chiral oxazolidinone  
Cyclization Negishi Imine Organometallics  
Granulates Ketoreductases Grignard Tablets  
Enantioselectivity Palladium Nitron Azetidinone  
Glutaric anhydride Benzylic alcohol Weinreb amide  
Alkenylation Chiral lactones Boranes Fungi  
Innovation Ezetimibe



## This report is aimed to:

- Management looking for a concise Competitive Intelligence assessment on ezetimibe.
- Researchers needing a worldwide analysis of innovation activities on ezetimibe.
- Firms in the quest of potential partners for synthetic or for pharmaceutical formulations.
- Academic research groups looking for inspiration for novel research projects.



## About the authors:



**Dr. habil. Pablo Domínguez de María** holds BSc's in Pharmacy and Chemistry, and a PhD in Biocatalysis (2002). He worked in industry during 6.5 years (2003-2009, two years at Evonik AG, in Germany, and 4.5 years at AkzoNobel BV in the Netherlands) being involved in different projects regarding sustainable chemistry, organocatalysis, neoteric solvents and white biotechnology. In 2009 he joined RWTH Aachen University in Germany (Technical Chemistry Department, ITMC) as Group Leader. In 2015 he successfully defended his Habilitation (Thesis: Bio-based catalysis for petroleum-free biorefineries and fine chemicals). Since 2014 he is the Founder, CSO and CEO of Sustainable Momentum, SL., a consultancy firm providing technical support and Competitive Intelligence reporting on Sustainable Chemistry. He has co-authored over 90 scientific publications and book chapters (*h*-index 27, > 2400 citations), and several patents and books.



**Dr. Jorge Solana González** holds a BSc in Chemistry by the University of Granada and a MSc in Chemical and Pharmaceutical Industry Research by "Instituto Univ. de Ciencia y Tecnología" from Barcelona. He spent two years working in industry (2008-2011, at Inkemia in Barcelona for one year and another year at GSK Spain in Madrid) as a medicinal chemist developing new drugs for CNS's diseases and Malaria. In 2011 he joined Professor Hon Wai Lam's group at the University of Edinburgh where he performed his PhD in Organic Chemistry (Thesis: Copper and Iridium Conjugated Addition – Cyclisation Processes; Domino Reactions). He is currently Associate Consultant at Sustainable Momentum, SL., working on Competitive Intelligence reports for the pharmaceutical industry.

**About Sustainable Momentum, SL:** Sustainable Momentum, SL is a consultancy firm specialized in Sustainable Chemistry, White Biotechnology and Catalysis. We provide technical support and advice on economic & sustainable industrial chemistry, both at Industry and Academia. We draft market-based and scientific documents, monographs, patent reports and edit technical books. We also work on a bilateral level for on demand projects.

Our interdisciplinary "whole-picture" expertise covers:

- Biotransformations | Biocatalysis | White Biotechnology
- (Organo)catalysis
- Lignocellulose processing for biofuels, bio-commodities, etc., within Biorefineries
- Pharmaceutical Chemistry
- Consultancy | Advisory | Project supervision | On demand Brainstorming | NetWorking