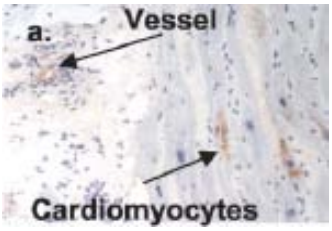
SOPARTEC

Technology Transfer Company of the Université catholique de Louvain

A NEW THERAPEUTIC STRATEGY FOR CARDIOVASCULAR DISEASES

Sopartec, the technology transfer company of the Université catholique de Louvain (UCL), presents a new therapeutic strategy for the treatment or prevention of cardiovascular conditions associated with metabolic syndrome or ischemic diseases by using a combination of β3-adrenoceptors agonists and classic β1, β2 blockers.

Immunohistochemical staining for β3-adrenoceptors in human cardiac tissue



Technology Keywords

- β3-adrenoceptors; β1, β2 blockers
- Cardiovascular diseases
- Organ perfusion

Technology Market : Cardiovascular diseases

The conditions classified as Cardiovascular Diseases include hypertension, atherosclerosis, and heart diseases such as coronary heart disease, all of which often are clustered in the metabolic syndrome. These conditions eventually lead to angina, heart attack, heart failure or death. Improved perfusion of the heart muscle preserves its integrity and function but these aspects are incompletely taken care of by the conventional use of β1, β2 blockers.

The UCL invention

Researchers at the *Unit of Pharmacology and Therapeutics* have discovered that compounds having a β3-adrenoceptor agonistic effect mediate relaxation (vasodilatation) leading to improved coronary circulation and promote angiogenesis. Moreover, when these compounds are administered in combination with one or more compounds having a β1, β2-adrenoceptor antagonistic effect, such combination provides a double effect : an improvement of perfusion of the heart muscle (vasodilatation mediated by the β3-adrenoceptor agonist effect) and a reduction of the oxygen consumption of the cardiac muscle (mediated by the β1, β2 adrenoceptor antagonistic activity). The invention proposes therefore the use of a β3-adrenoceptor agonist with a β1, β2-blocker as a combined preparation for simultaneous, separate or sequential use, to treat or prevent cardiovascular diseases.

Technology Status

This work is the subject of a patent application : PCT patent application filed on 08/08/2005 and published under No. WO 2006/015830.
(internal file reference number : SOP-189).

Representative References

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2. Balligand J.L 2009 J Am Coll Cardiol.;53(17):1539-42.
3. Dessy et al. 2005. Circulation, 112(8):1198-205.
4. Moniotte S et al, 2001 , J Mol Cell Cardiol; 33(12):2121-33.

Sopartec would like to talk to companies interested in developing and commercializing this opportunity.

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