

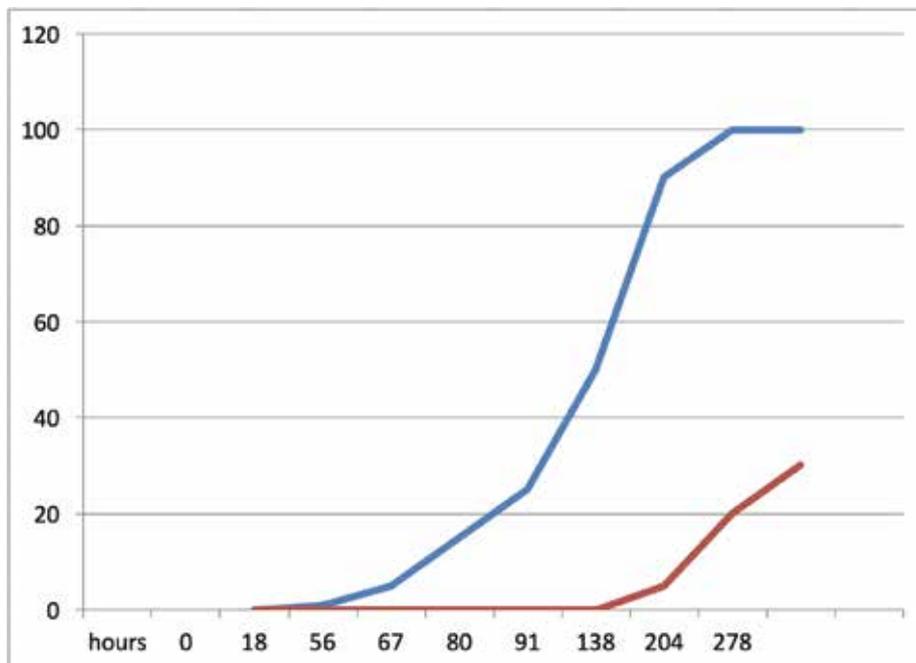
Lycostent™ – new class of molecules for prevention of restenosis of endovascular stents and vascular scaffolding

Lycostent™

Restenosis is the main cause of the failure of endovascular stents and vascular scaffolding. Neoatherosclerosis is the process behind it. The build up of cholesterol crystals in atherosclerotic tissue is the key factor leading to such complications as plaque rupture and thrombosis.

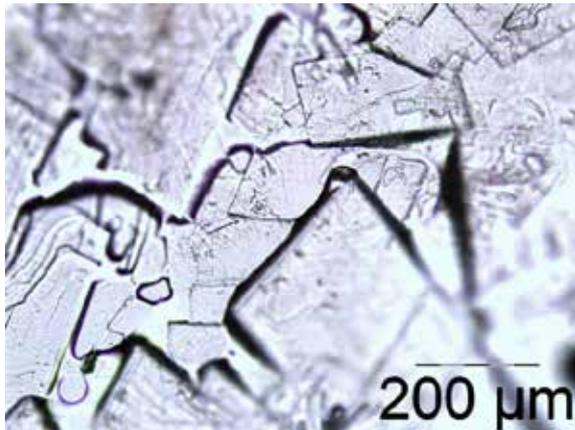
Lycostent™ is representative of a new class of molecules, which can disrupt cholesterol crystal folding and prevent or slow down their growth. In *in vitro* experiments this molecule delayed the point of initiation of cholesterol crystallisation by 8 fold, the rate of this process by 5 fold and reduced the cholesterol mass involved into crystallisation by 60%, fig. 1.

Fig. 1 Percentage of cholesterol mass involved in crystallisation – kinetics of crystal growth
blue – control intact cholesterol, red - in presence of 0.1% of Lycostent™

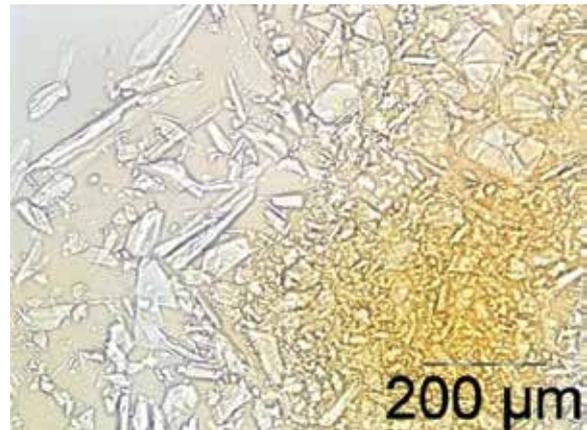


Even when the cholesterol crystals were formed, with the presence of Lycostent™, their size was significantly smaller than when the crystals grew undisturbed, fig. 2.

Fig. 2 Size of cholesterol crystals reduced by LycoStent™
in vitro - light microscopy



Control crystals



+LycoStent

In the *ex vivo* experiments it was demonstrated that LycoStent™ could disrupt already formed cholesterol crystals in human atherosclerotic arterial wall, fig. 3.

Fig. 3 Disruption of cholesterol crystals by LycoStent™ in the human abdominal aorta *ex vivo*



Cholesterol crystals in aorta before experiment



After exposure to LycoStent™ for 12 days

Applications and Regulatory

LycoStent™ can be used as a component of drug-eluting stents, vascular scaffolding and other vascular devices or grafts to prevent their restenosis. By slowing down or preventing cholesterol crystallisation therein, LycoStent™ can not only reduce the severity of neoatherosclerosis but also minimise developments of its main complications - the rupture of atherosclerotic plaque and thrombosis.

LycoStent™ is a slow and fully metabolised molecule. It is thermo-resistant, retains its properties after sterilisation and is safe for humans in a broad range of effective concentrations.

Lycotec is now seeking partnership with and to license out LycoStent™ to Medical Device Companies.

For more information and enquiries please contact: info@lycotec.com

www.lycotec.com