

Cell-penetrating antagomir for acute myocardial infarction (non-clinical study)

RegenInnopharm Inc

Disease Area	Cardiovascular disease																																																							
Product Type	ASO-antagomir																																																							
Indication	Acute myocardial infarction																																																							
Target	miR 145																																																							
Mechanism of Action	Protect myocardium, inhibit inflammation & fibrosis, promote regeneration																																																							
Competitiveness	<ul style="list-style-type: none">Recover heart function (LVEF%) within 4 days after onset to >90% of normal state in pig infarction model.The recovered heart function (>90%) is maintained up to 12 month of FU in pig.Safety(No arrythmia, no cytokine release storm, no adverse effects at doses 20-40 folds higher than clinical dose) (GLP-DRF)logistics: Lyophilized powder, stable during storage and transport handlingEasy use: injected during PCI, no additional process for drug delivery																																																							
Development Stage	Pre-clinical																																																							
Route of Administration	Intra-coronary artery (during PCI)																																																							
Key Data	<div><div>>90% recovery of LVEF within 4 days of post-MI and long-term maintenance</div><div><table><caption>LVEF % change from baseline</caption><thead><tr><th>Time (Weeks)</th><th>Control</th><th>Tx protocol-1</th><th>Tx protocol-2</th><th>Tx protocol-3</th></tr></thead><tbody><tr><td>Base</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>24hr</td><td>-12</td><td>-18</td><td>-18</td><td>-18</td></tr><tr><td>D4</td><td>-15</td><td>-2</td><td>-2</td><td>-2</td></tr><tr><td>1</td><td>-15</td><td>-2</td><td>2</td><td>0</td></tr><tr><td>2</td><td>-18</td><td>-4</td><td>2</td><td>0</td></tr><tr><td>4</td><td>-20</td><td>-4</td><td>2</td><td>-2</td></tr><tr><td>6</td><td>73.7%</td><td>-4</td><td>0</td><td>-2</td></tr><tr><td>8</td><td></td><td>-6</td><td>0</td><td>-2</td></tr><tr><td>10</td><td></td><td>-4</td><td></td><td></td></tr><tr><td>12</td><td></td><td>-6</td><td></td><td></td></tr></tbody></table></div><div><div>Inhibition of fibrotic Remodeling after MI</div><div><div>controlRH001</div></div><div><div>No ventricular arrrhythmia (28 days F-U)</div><div><div>Day 06hrsDay 1Day 3Day 14Day 28</div></div></div></div></div>	Time (Weeks)	Control	Tx protocol-1	Tx protocol-2	Tx protocol-3	Base	0	0	0	0	24hr	-12	-18	-18	-18	D4	-15	-2	-2	-2	1	-15	-2	2	0	2	-18	-4	2	0	4	-20	-4	2	-2	6	73.7%	-4	0	-2	8		-6	0	-2	10		-4			12		-6		
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IP	Patent pending in USA, EU, China, Japan																																																							