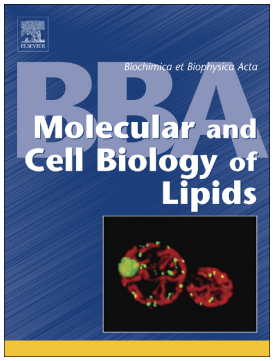

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PII: S1388-1981(17)30201-9
DOI: doi: 10.1016/j.bbalip.2017.09.008
Reference: BBAMCB 58206

To appear in:

Received date: 14 March 2017
Revised date: 31 August 2017
Accepted date: 18 September 2017

Please cite this article as: Martina Zandl-Lang, Elham Fanaee-Danesh, Yidan Sun, Igor Čančar, Chaitanya Chakravarthi Gali, Alexandra Kober, Nicole M. Albrecher, Carmen Tam-Amersdorfer, Anika Stracke, Steffen Storck, Ahmed Saeed, Jasminka Stefulj, Claus Pietrzik, Mark R. Wilson, Ingemar Björkhem, Ute Panzenboeck , Regulatory effects of simvastatin and apoJ on APP processing and amyloid-β clearance in blood-brain barrier endothelial cells, (2017), doi: 10.1016/j.bbalip.2017.09.008

Regulatory effects of simvastatin and apoJ on APP processing and amyloid-β clearance in blood-brain barrier endothelial cells

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Highlights:

- Simvastatin shifts APP processing towards the non-amyloidogenic pathway in pBCEC
- Inhibition of cholesterol synthesis by simvastatin up-regulates apoJ in pBCEC
- Both, simvastatin and apoJ increase expression of APP and reduce Aβ uptake in pBCEC
- Increased Aβ and simvastatin induce LRP1 and apoJ levels *in vitro* and *in vivo*
- Thereby clearance of Aβ across the blood-brain barrier is facilitated

Keywords: Alzheimer disease, amyloid-beta (Aβ), endothelium, cholesterol metabolism, blood-brain barrier, clusterin/apoJ