also incubated with anti-B activating factor-receptor (BAFF-R) antibodies, B-cell maturation antigen (BCMA) and transmembrane activator and calcium modulator and cyclophilin ligand (CAML) interactor (TACI), then analysed by cytofluorimetry. The number of EPC colonies in patients was lower than in controls; moreover, colonies were poorly organised compared to controls; BLM incubation restored the structure of the colonies. After 6 hours of incubation, BlyS (20 ng/ml) induced apoptosis of EPC and EA.hy926; co-incubation with BLM inhibited the apoptotic effect. Both EPCs and EA.hy926 expressed BAFF-R (MFI=3.8 and 1.5 respectively) and BCMA (MFI=1.25 and 1.15); EPCs also express TACI (MFI=1.4).

The results of this study showed:

1. a quantitative and qualitative alteration of colonies in patients, restored after ex vivo and in vitro BLM treatment;
2. the apoptotic effect of BlyS on EPC and endothelial cells inhibited by BLM and
3. the preferential expression of BAFF–R on the surface of EPC and EA.hy926.