

# Generation of spike- extracellular vesicles (S-EVs) as a tool to mimic SARS-CoV-2 interaction with host cells

Roberta Verta<sup>1</sup>, Cristina Grange<sup>2</sup>, Renata Skovronova<sup>1</sup>, Adele Tanzi<sup>1</sup>, Licia Peruzzi<sup>3</sup>, Maria Chiara Deregibus<sup>4</sup>, Giovanni Camussi<sup>5</sup> and Benedetta Bussolati<sup>1,\*</sup>

1 Department of Molecular Biotechnology and Health Sciences, University of Turin, Via Nizza 52, 10126 Turin, Italy; roberta.verta@unito.it (R.V.); renata.skovronova@unito.it (R.S.); benedetta.bussolati@unito.it (B.B.)

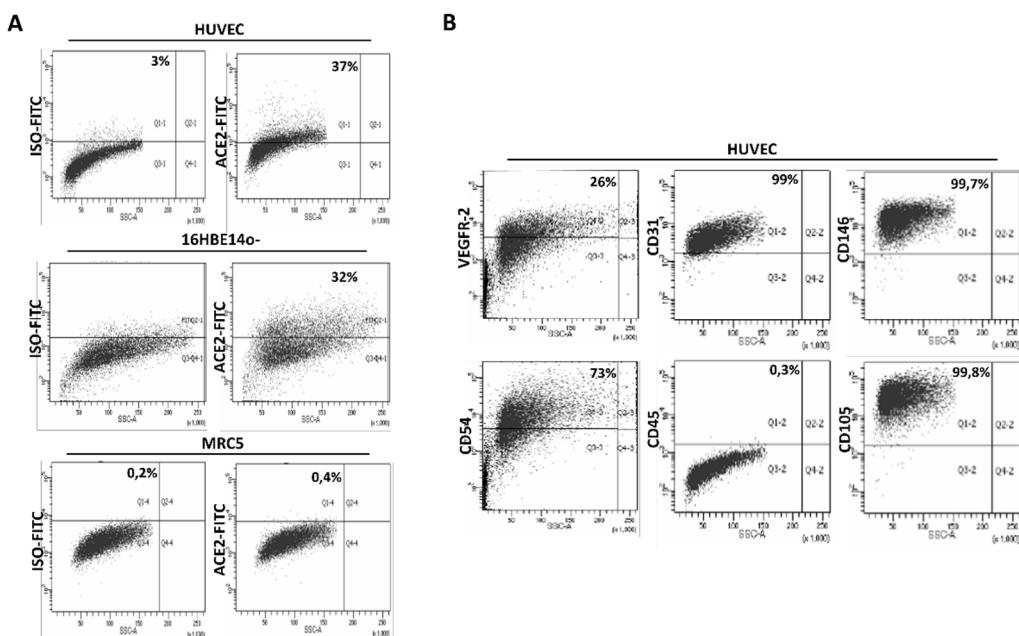
2 Department of Medical Science; University of Turin, Via Nizza 52, 10126 Turin, Italy; cristina.grange@unito.it (C.G.)

3 Pediatric Nephrology Unit, Regina Margherita Children's Hospital, Città della Salute e della Scienza di Torino, Turin, Italy; licia.peruzzi@unito.it (L.P.)

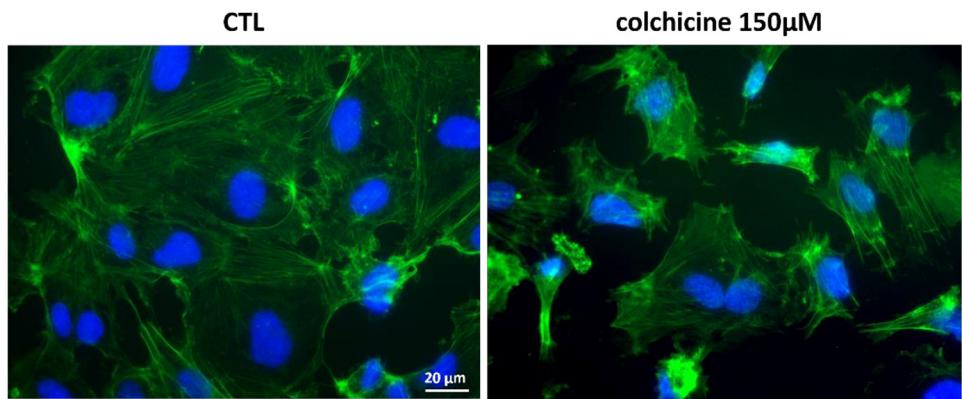
4 2i3T Business Incubator and Technology Transfer; University of Turin, 10126 Turin, Italy; mariachiara.deregibus@unito.it (M.C.D.)

5 Department of Medical Sciences, University of Turin, Corso Dogliotti 14, 10126 Turin, Italy; giovan-ni.camussi@unito.it (G.C.)

## Supplementary figures



**Supplementary Figure S1.** Analysis of ACE2 expression and HUVEC characterization. (A) Representative flow cytometry analysis of human umbilical vein endothelial cells (HUVEC), normal human bronchial epithelial cells (16HBE14o-) and human lung fibroblast cells (MRC5) showing the negative staining of a control isotype (ISO-FITC) in both type cells and the positive expression of ACE2 (ACE2-FITC) on HUVEC (37%) and 16HBE14o- cells (24%) respect to the negative control MRC5 (0,4%). (B) Characterization of HUVEC for the positive endothelial markers VEGFR, CD31, CD146, CD54, CD45 and CD105 negative.



**Supplementary Figure S2.** Colchicine effect on HUVEC. Representative immunofluorescence images of HUVEC stained with phalloidin (green), nuclear stain DAPI (blue) in normal condition (CTL) and after 2 hours of colchicine treatment (colchicine 150 $\mu$ M), magnification 40 $\times$ .