

1 *Supporting information*

2 **Setting the Basis to Use Hyaluronic Acid-Decorated**
3 **Liposomes for Lung Fibrotic Disorders**

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Table S1. Characteristics of Liposomal Formulations (means \pm SD; n=3).

Formulation	Mean particle size (nm)	Polydispersity index	Zeta potential (mV)
LIP	207 \pm 2.3	0.112	-27.2 \pm 2.9
LIP-HA4800	221 \pm 1.4	0.172	-10.1 \pm 1.3
LIP-HA14800	245 \pm 1.9	0.175	-24.6 \pm 3.9

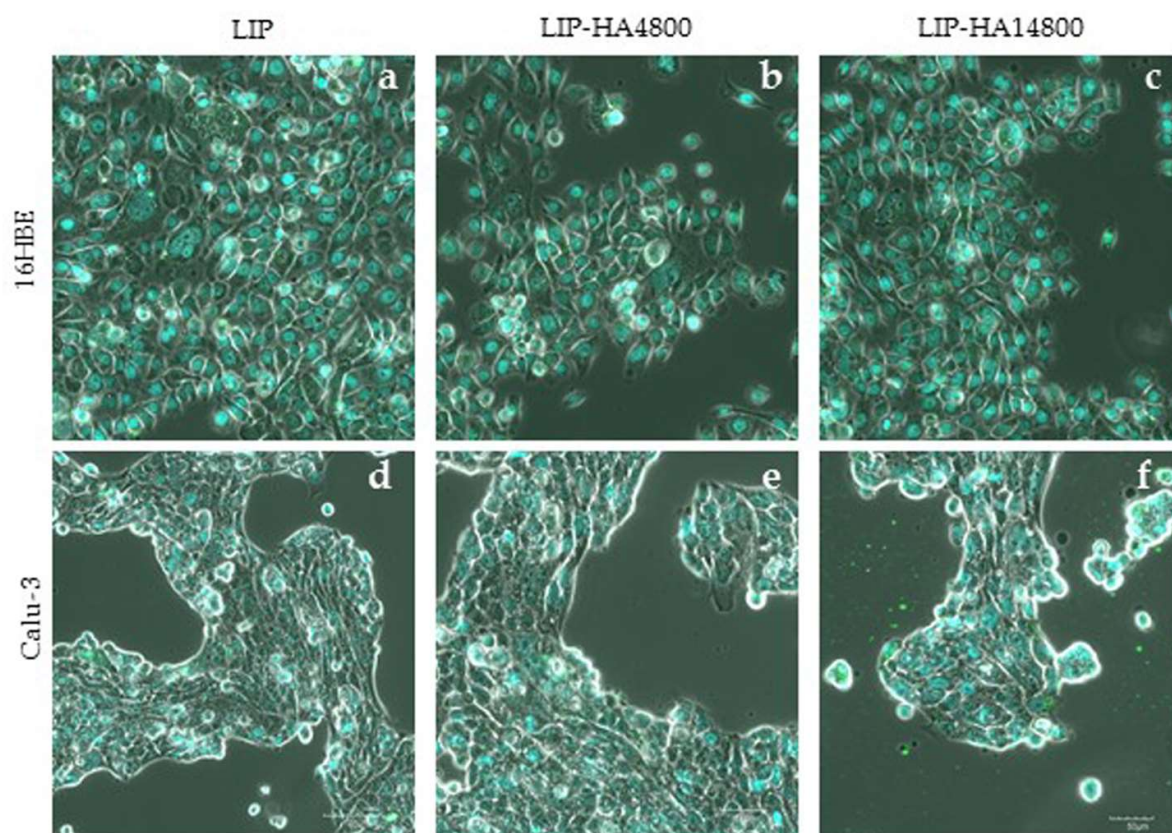
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Table S2. Mean Fluorescence Intensity (MFI) of CD44 Expression Analyzed by Flow Cytometry.

Cell line	MFI
A549	55.35
Calu-3	14.53
16-HBE	2.55
BOS-LFs	56.72
CTD-ILD-LFs	77.71
THP-1	61.11
THP-1-PMA	74.46

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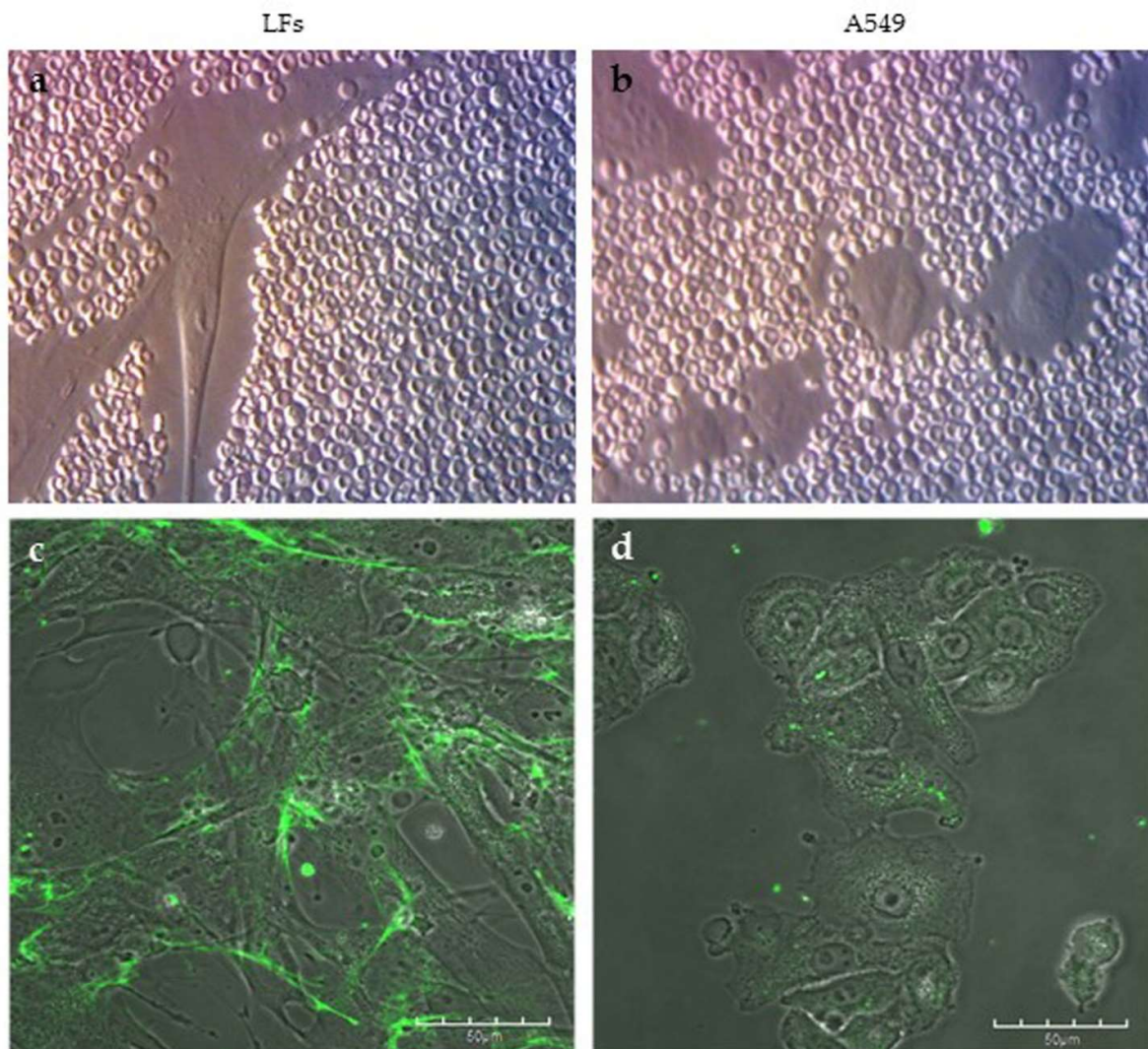
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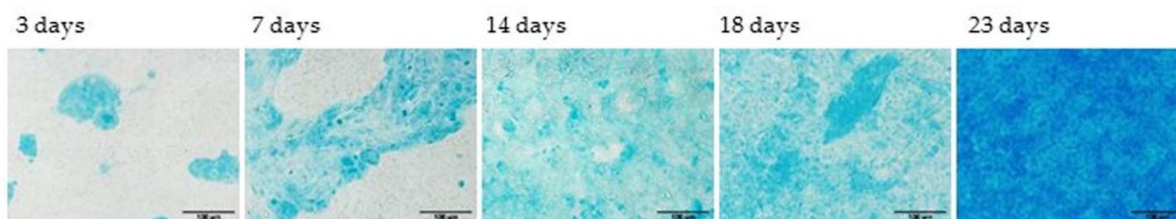
Figure S1. Liposomes internalization analyses by confocal microscopy on 16HBE (a-c) and Calu-3 (d-f) after 4 h of incubation. Scale bar = 50 μ m.

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35 **Figure S2.** Pericellular coating (a,b) and fluorescent HA deposition (green signal, c,d) on LFs (a,c) and
36 A549 (b,d). Scale bar = 50 μm.



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38 **Figure S3.** Alcian blue staining of mucus layer produced by Calu-3 cultivated in air-liquid interface
39 configuration at different time points. Scale bar = 100 μm.