### Supplementary Table 1. The Sequencing Primers

| Genes | Primer sequences |
|-------|------------------|
| siALK5 | F: 5'-GACUUAUUCCUCGAGAUATT-3’<br>R: 5’- UAUCUGAGAUAUAAGUCAA-3’ |
| siPRKD3 | F: 5’-CGAUAUGUCAGUACUGCAATT-3’<br>R: 5’- UUGCAGUACUACAAUUGTT-3’ |

### Supplementary Table 2. The qRT-PCR primer sequence

| Genes | Primer sequences |
|-------|------------------|
| CLU | F: 5’-AGCTCGCTGAGAAGTTACC-3’<br>R: 5’- TTGTGGGAAGACACCTGGA-3’ |
| TGF-β1 | F: 5’-TACCTGAACCGTGTTACCT-3’<br>R: 5’- CCCTAGTGACCCGTGTAT-3’ |
| COL1A2 | F: 5’-TGCTCTCCTGGAAGCTTTG-3’<br>R: 5’- CACCATCACCCCCTGATGTC-3’ |
| α-SMA | F: 5’-AGCCAAGCAGACTGCAAAAT-3’<br>R: 5’- CACCACCCACCCCTGATGTC-3’ |
| PRKD3 | F: 5’-GAGGCTCGCAGTCAACT-3’<br>R: 5’- GTCCTCAATTTCATTTCTGGG-3’ |
| GAPDH | F: 5’-GGATTTGGTCGTATTGGGCG-3’<br>R: 5’- TCCCGTTCTCAGCAGGTAG-3’ |

### Supplementary Table 3.

| Variable | Non-LFH Group (n=22) | LFH Group (n=22) | P value |
|----------|-----------------------|------------------|---------|
| Age(years) | 44.91 ± 2.59 | 61.23 ± 1.28 | <0.01 |
| Gender(male:female) | 12:10 | 12:12 | | |
| LF thickness | 3.05 ± 0.09 | 5.91 ± 0.20 | <0.01 |
| Lumbar level | L4/5 | L4/5 | | |