

Title: Fibroblast gene expression following asthmatic bronchial epithelial cell conditioning correlates with epithelial donor lung function and exacerbation history

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Supplementary Information

| BEC Donor | QPCR Ct values | | | | alpha-SMA FMT by flow cytometry (% positive cells) | Collagen I ELISA (ng/mL) | HA ELISA (ng/mL) | PGE2 ELISA (pg/mL) | Lung function parameters (FEV1 % predicted, FEF25-75 % predicted, FEV1/FVC ratio) | | | History of Severe Exacerbation |
|------------|----------------|-------|--------|-------|--|--------------------------|------------------|--------------------|---|----------|----------|--------------------------------|
| | GAPDH | SMA | COL1A1 | HAS2 | | | | | FEV1 | FEF25-75 | FEV1/FVC | |
| Healthy 1 | 18.21 | 24.45 | 21.46 | 26.60 | 2.79 | 2015.9 | 4391.0 | 2594.7 | 99 | 96 | 0.84 | |
| Healthy 2 | 18.73 | 25.34 | 23.07 | 26.30 | | 1478.8 | 8792.2 | 5917.9 | 139 | 104 | 0.91 | |
| Healthy 3 | 18.60 | 24.91 | 22.23 | 27.17 | 3.54 | 771.0 | 3717.9 | 4503.4 | 115 | 106 | 0.88 | |
| Healthy 4 | 18.96 | 24.63 | 21.85 | 26.96 | | 1461.4 | 4755.5 | 4870.2 | 109 | 63 | 0.77 | |
| Healthy 5 | 18.08 | 24.18 | 21.64 | 26.12 | | 1383.9 | 8733.3 | | 113 | 130 | 0.97 | |
| Healthy 6 | 17.19 | 23.47 | 20.59 | 25.03 | 3.21 | 1863.5 | 6380.4 | 347.3 | 121 | 119 | 0.91 | |
| Healthy 7 | 18.06 | 24.92 | 21.85 | 27.32 | | 485.0 | 1200.9 | 3409.2 | 99 | 91 | 0.95 | |
| Healthy 8 | 18.76 | 25.79 | 23.33 | 28.34 | 4.74 | 294.5 | 2024.9 | 5560.0 | 81 | 99 | 0.89 | |
| Healthy 9 | 21.59 | 27.34 | 24.02 | 26.40 | | | | | 115 | 83 | 0.81 | |
| Healthy 10 | 20.54 | 25.99 | 23.29 | 25.84 | | | | | 111 | 77 | 0.84 | |
| Healthy 11 | 21.16 | 29.62 | 25.43 | 29.65 | | | | | 102 | 97 | 0.87 | |
| Healthy 12 | 20.12 | 28.28 | 23.08 | 25.68 | 2.1 | | | | 105 | 79 | 0.85 | |
| Healthy 13 | 20.08 | 25.63 | 22.91 | 27.14 | 5.8 | 2867.8 | 3893.2 | 530.9 | 92 | 80 | 0.90 | |
| Healthy 14 | 19.72 | 25.37 | 22.40 | 27.72 | 2 | 2567.8 | 5077.7 | 133.2 | 113 | 138 | 0.98 | |
| Healthy 15 | 19.14 | 25.63 | 22.49 | 26.94 | 1.60 | 1665.7 | 3321.3 | 127.9 | 107 | 104 | 0.88 | |
| Asthma 1 | 20.07 | 25.06 | 22.60 | 25.62 | | 1235.0 | 16978.0 | 1390.0 | 79 | 55 | 0.75 | Yes |
| Asthma 2 | 19.97 | 24.78 | 22.47 | 25.91 | | 1311.7 | 12590.9 | 4123.0 | 98 | 77 | 0.79 | Yes |
| Asthma 3 | 20.92 | 25.75 | 21.81 | 26.37 | 9.31 | 1593.8 | 3166.0 | | 82 | 59 | 0.82 | Yes |
| Asthma 4 | 19.01 | 24.12 | 22.23 | 25.84 | 2.30 | 1138.3 | 7701.6 | 3960.5 | 85 | 82 | 0.85 | No |
| Asthma 5 | 18.40 | 24.12 | 21.43 | 26.36 | | 1682.5 | 10534.2 | 33.7 | 79 | 68 | 0.81 | No |
| Asthma 6 | 19.57 | 25.20 | 21.64 | 26.97 | 5.86 | 936.4 | 6384.7 | 1911.1 | 94 | 74 | 0.91 | Yes |
| Asthma 7 | 19.73 | 25.52 | 21.91 | 26.44 | 5.35 | 2381.2 | 14059.0 | 499.1 | 89 | 81 | 0.83 | Yes |
| Asthma 8 | 18.92 | 24.99 | 21.48 | 27.17 | 3.20 | 910.4 | 4396.6 | 4653.2 | 116 | 105 | 0.90 | Yes |
| Asthma 9 | 17.50 | 23.84 | 21.09 | 25.77 | 4.40 | 1690.0 | 10037.4 | 4024.6 | 113 | 98 | 0.85 | No |
| Asthma 10 | 19.87 | 26.05 | 23.25 | 28.27 | | 1473.6 | 6531.8 | 1247.3 | 92 | 78 | 0.83 | No |
| Asthma 11 | 17.85 | 24.22 | 22.88 | 26.54 | 11.90 | 757.9 | 5554.6 | 3637.2 | 85 | 89 | 0.84 | No |
| Asthma 12 | 20.29 | 25.43 | 22.06 | 25.54 | 10.30 | 6466.9 | 2842.6 | 1151.6 | 58 | 34 | 0.64 | Yes |
| Asthma 13 | 20.50 | 25.35 | 22.11 | 24.80 | 8.10 | 2120.5 | 3217.9 | 1551.0 | 82 | 61 | 0.75 | Yes |
| Asthma 14 | 20.22 | 25.33 | 22.50 | 24.05 | | | | | 78 | 101 | 0.84 | Yes |
| Asthma 15 | 20.76 | 25.99 | 22.90 | 26.04 | | | | | 89 | 82 | 0.75 | Yes |
| Asthma 16 | 21.26 | 25.96 | 20.34 | 28.07 | 14.50 | 3994.4 | 3932.8 | 614.0 | 77 | 47 | 0.79 | No |
| Asthma 17 | 20.63 | 25.30 | 20.01 | 27.20 | | 4152.5 | 5797.5 | 143.6 | 86 | 66 | 0.79 | No |
| Asthma 18 | 20.94 | 25.80 | 19.92 | 27.75 | | 5191.9 | 3809.1 | 35.3 | 64 | 58 | 0.79 | Yes |
| Asthma 19 | 20.55 | 25.23 | 19.71 | 27.11 | | 11141.1 | 5114.4 | 502.2 | 73 | 42 | 0.7 | No |
| Asthma 20 | 20.69 | 25.41 | 19.87 | 27.27 | | 4154.6 | 5262.7 | 805.9 | 88 | 63 | 0.76 | No |
| Asthma 21 | 20.94 | 25.06 | 20.14 | 27.83 | | 2842.1 | 3739.9 | 568.8 | 78 | 59 | 0.73 | No |
| Asthma 22 | 21.11 | 25.81 | 20.15 | 27.59 | | 4765.2 | 2737.3 | 1189.3 | 85 | 78 | 0.77 | Yes |
| Asthma 23 | 20.56 | 25.68 | 20.49 | 26.97 | | 3380.2 | 4072.0 | 2079.4 | 97 | 70 | 0.7 | Yes |