

# The SONG laser protocol and pulmonary fibrosis: a case study

## Abstract

**Background:** This case study describes the benefits seen in a patient suffering from Pulmonary Fibrosis who received the SONG Laser Protocol. Our hypothesis is that the SONG Laser Protocol may have respiratory benefits in a patient suffering from Pulmonary Fibrosis.

**Methods:** This was a case study focusing on a single patient suffering from Pulmonary Fibrosis. The SONG Laser Protocol was delivered in a clinic setting and the primary outcome measures were the respiratory physiology of the patient.

**Results:** The patient showed some improvement in her respiratory physiology following the SONG Laser Protocol.

**Conclusion:** The SONG Laser Protocol may have a beneficial effect on Pulmonary Fibrosis in terms of improved respiratory physiology parameters. A clinical trial is needed to confirm safety and efficacy.

**Keywords:** pulmonary fibrosis, SONG laser activation, human very small embryonic like (hVSEL) stem cells

Volume 11 Issue 1 - 2026

 S Greenberg,<sup>1</sup> P Hollands<sup>2</sup>
<sup>1</sup>Greenberg Regenerative Medicine, USA

<sup>2</sup>Churchill College, Cambridge, UK

**Correspondence:** Peter Hollands PhD (Cantab), Churchill College, Cambridge, CB3 0DS, UK

**Received:** September 12, 2026 | **Published:** October 09, 2026

## Introduction

Pulmonary Fibrosis is a global cause of morbidity and mortality.<sup>1</sup> The current treatment of Pulmonary Fibrosis includes oxygen therapy, pulmonary medications and in severe cases lung transplant.<sup>2</sup>

The SONG Laser Protocol (formerly known as the QiGen Protocol) involves the activation of autologous human Very Small Embryonic Like (hVSEL) stem cells<sup>3</sup> in Platelet Rich Plasma (PRP) by a modulated red laser known as the SONG Laser.<sup>4</sup> The mechanism of action of the SONG Laser is still the subject of ongoing research and a proposed mechanism based on quantum mechanics has been hypothesized.<sup>5</sup>

The SONG Laser Protocol has been previously used in a variety of diseases including dementia,<sup>6</sup> radiculopathy,<sup>7</sup> osteoporosis,<sup>8</sup> multiple system atrophy,<sup>9</sup> Parkinson's disease,<sup>10</sup> advanced liver fibrosis,<sup>11</sup> degenerative disk disease,<sup>12</sup> fertility<sup>13</sup> and as an anti-aging procedure.<sup>14</sup>

## Method

This work was carried out at Greenberg Regenerative Medicine, Bryn Mawr, Pennsylvania, USA. The patient provided informed consent prior to receiving the SONG Laser Protocol. The SONG Laser Protocol is a modified autologous Platelet Rich Plasma (PRP) procedure with minimal manipulation, and it is a closed procedure. As such it is a low-risk procedure and does not require Ethical Committee approval. The patient was taking the medications listed in Table 1 at the time of the SONG Laser Protocol. The patient is allergic to Ceclor.

The patient received the SONG Laser Protocol intravenously and by nebuliser and was assessed pre- and 5 months post-treatment.

4/27/2026:

- Activated hVSEL stem cells infused intravenously: 80 mL (approximately  $8.0 \times 10^7$  stem cells)

- Nebulizer: 3mL (approximately  $3.0 \times 10^6$  stem cells)

6/18/2026:

- Activated hVSEL stem cells infused: 220 mL (approximately  $2.2 \times 10^8$  stem cells)

- Nebulizer: 3mL (approximately  $3.0 \times 10^6$  stem cells)

**Table 1** Medication

| Medication          | Frequency    | Dosage    |
|---------------------|--------------|-----------|
| Tyraso DPT          | 4x daily     | 80 mL     |
| Amlodipine          | Once daily   | 2.5/10    |
| Ipratropium Bromide | Nasal spray  | -         |
| Methenamine HIPP    | Once daily   | 1 mg      |
| Nebivolol           | Once daily   | 2.5 mg    |
| Trelegy Ellipta     | Once daily   | 200 mg    |
| Sertraline          | Once daily   | 50 mg     |
| Nexlizet            | Once daily   | 10 mg     |
| Rosuvastatin        | Once daily   | 5 mg      |
| Albuterol Inhaler   | As needed    | 90 µg     |
| Denosumab(prolia)   | Twice yearly | 60 mg     |
| Vitamin D3          | Once daily   | 5000 IU   |
| Zolpidem            | Nightly      | 10 mg     |
| Pantoprazole        | Once daily   | 40 mg     |
| Zinc Picolate       | Once daily   | 30 mg     |
| TRU Niagen          | Twice daily  | 300 mg    |
| Immune Defence      | Once daily   | -         |
| Fluocinonide        | Once daily   | 0.05% gel |

The patient in this case study was a female patient aged 81 with a history of smoking 2-3 packs for 60 years off and on. The patient has had sixty ER/Hospital visits at LCMC Health, Mayo Clinic hospitals. She suffers from acute and chronic hypoxic respiratory failure (CMSV/HCC); ILD (interstitial lung disease); Pulmonary fibrosis; Lung Interstitial Disease (HCC); Pain in joints were the primary diagnosis for the visits. The patient also has a primary diagnosis of spinal stenosis of lumbar region; Lumbar spine ankylosis; ILD (interstitial lung disease); Obstructive sleep apnoea

syndrome; Essential hypertension; Osteoporosis; Rotator Cuff Tear (Left); WHO group 3 pulmonary arterial hypertension; Pulmonary fibrosis; Emphysema; Interstitial Lung Disease With Progressive Fibrotic Phenotype In Diseases Classified Elsewhere (HCC); Lung Interstitial Disease (HCC); Pain Joint; Navicular fracture, foot; Decreased range of motion of lumbar spine; COPD On O<sub>2</sub>; Acute respiratory failure with hypoxia.

A Mayo Clinic visit on 12/9/2025 lists her diagnoses as follows:  
- Combined PF with emphysema (previously ILD component was SRIF by cryobiopsy, but radiographically UIP pattern now with exuberant honeycombing mixed with emphysema

- Chronic bronchitis / bronchiectasis

- Hypoxia

In January 2026, the patient was placed on Jascayd to slow Idiopathic Pulmonary Fibrosis.

## Results

Table 2 shows the spirometry assessment pre- and post-treatment. All spirometric indices are within or above normal with positive Z scores. FEV<sub>1</sub>, FEV<sub>1</sub>/FVC and mid-flows are marginally better, and FVC is unchanged. This is under the ≥5% absolute decline threshold that would signal progression. The small differences are within test-to-test variability and are best interpreted as stable, not progressed or improved.

**Table 2** Spirometry

| Parameter                 | March 16 <sup>th</sup> 2026 | August 10 <sup>th</sup> 2026 | Change                       |
|---------------------------|-----------------------------|------------------------------|------------------------------|
| FVC (L)                   | 2.81 (Z 0.58)               | 2.78 (Z 0.30)                | -0.03 L (essentially stable) |
| FEV <sub>1</sub> (L)      | 2.31 (Z 1.08)               | 2.39 (Z 1.09)                | +0.08 L slight improvement   |
| FEV <sub>1</sub> /FVC (%) | 82 (Z 0.59)                 | 86 (Z 1.21)                  | +4 %                         |
| FEF25-75 (L /s)           | 2.73 (Z 1.63)               | 3.48 (Z 2.33)                | +0.75 L /s                   |
| PEF (L /s)                | 7.97 (Z 2.85)               | 8.07 (Z 2.81)                | 0.10 L /s                    |

Table 3 shows the 6-minute walk pre- and post-treatment. This showed a significant improvement. The patient more than doubled her walk distance and completed the full test on 4L/min oxygen. In the pre-SONG Laser Protocol 6-minute walk, the test had to be stopped because she required 6L/min oxygen and still desaturated. The approximate 168 m gain far exceeds the approximate 22-33 m minimum clinically important difference for the 6-minute walk in respiratory and cardiovascular. Table 4 shows the diffusing capacity data for this study. DLCO fell by roughly 3-4 percentage points of

predicted with an unchanged haemoglobin, so it is not explained by anaemia. This is below the ≥10% absolute-decline threshold used to define physiological progression. The transfer factor is severely impaired and remains the dominant abnormality. There is a low DL/VA with a preserved to low VA suggesting loss of alveolar capillary units which is the expected pattern in interstitial/pulmonary vascular disease. Severe DLCO reduction is a robust predictor of mortality and warrants attention despite the reassuring spirometry.

**Table 3** 6 Minute Walk

| Metric                                | March 16 <sup>th</sup> 2026             | August 10 <sup>th</sup> 2026 | Change                    |
|---------------------------------------|-----------------------------------------|------------------------------|---------------------------|
| Distance Walked                       | 450 ft (Test terminated early)          | 1000 ft (Completed)          | Increased ~550ft (~168 m) |
| Resting SpO <sub>2</sub> (room air)   | 93%                                     | 90%                          | Slightly lower            |
| Nadir SpO <sub>2</sub>                | 83%                                     | 84%                          | Similar                   |
| O <sub>2</sub> to maintain saturation | Up to 6L/min (still could not complete) | 4L/min (completed >90%)      | Lower requirement         |
| Post-walk recovery                    | 100% on 6L/min                          | 91% on room air              | Improved                  |

**Table 4** Diffusing capacity

|                          | Ref   | (LLN) | (ULN) | Z-Score | Pre  | % ref pre |
|--------------------------|-------|-------|-------|---------|------|-----------|
| DLCO_SB mL/(min*mm Hg)   | 18.67 | 13.75 | 24.80 | -7.83   | 3.37 | 18.1      |
| DLCOcSB mL/(min*mm Hg)   | 18.67 | 13.75 | 24.80 |         |      |           |
| DL/VA mL/(min*mmHg*L)    | 4.02  | 3.03  | 5.16  | -6.45   | 0.95 | 23.6      |
| VA_SB (L)                | 4.58  | 3.61  | 5.65  | -1.76   | 3.55 | 77.6      |
| DLCOc/VA mL/(min*mmHg*L) | 4.02  | 3.03  | 5.16  |         |      |           |
| IVC_SB (L)               | 2.47  | 1.78  | 3.16  | 0.55    | 2.70 | 109.3     |
| Hb g(Hb)/dL              | 13.50 | 11.90 | 15.10 |         |      |           |

## Discussion

The SONG Laser Protocol appears to have a beneficial effect in the patient in terms of the six-minute walk test and oxygen requirement. This is a large, clinically meaningful gain. There are also minor gains in FEV<sub>1</sub> and mid-flows. The spirometry remains stable with FVC, lung volumes (VA, IVC) and overall spirometry showing no evidence

of spirometric progression. DLCO and DL/VA continued their downward drift and are severely reduced at the time of writing. The diffusing capacity needs close assessment in the future. There were no adverse events following the SONG Laser Protocol.

The picture in this study is mixed with clinically meaningful improvement in functional exercise performance and stability, or even a slight improvement, in spirometry. This is set against a small further

decline in an already severely reduced diffusing capacity. The data warrant further investigation ideally in a Phase I clinical trial.

## Acknowledgements

None.

## Conflict of interest

The authors declare that there are no conflicts of interest.

## References

1. Noble PW, Barkauskas CE, Jiang D. Pulmonary fibrosis: patterns and perpetrators. *J Clin Invest*. 2012;122(8):2756–2762.
2. Lu S, Liu Y, Li X, et al. Treatment of pulmonary fibrosis: from disease mechanisms to future novel therapies (review). *Int J Mol Med*. 2026;57(5):112.
3. Hollands P, Aboyaji DR, Ovokaitys T. The action of modulated laser light on human very small embryonic-like (hVSEL) stem cells in platelet-rich plasma (PRP). *CellR4*. 2020;8:e2990.
4. Hollands P, Ovokaitys T. Human very small embryonic-like (hVSEL) stem cells: little miracles. *CellR4*. 2022;10:e3304.
5. Brindley J, Hollands P, Ovokaitys T. A theoretical mechanism for the action of SONG-modulated laser light on human very small embryonic-like (hVSEL) stem cells in platelet-rich plasma (PRP). *CellR4*. 2021;9:e3201.
6. Schroeder T, Ovokaitys T, Hollands P. Dementia and the SONG laser protocol: a clinical case study. *CellR4*. 2023;11:e3425.
7. Greenberg S, Ovokaitys T, Hollands P. The SONG laser protocol and radiculopathy. *Int J Stem Cells Med*. 2024;3(1).
8. Greenberg S, Ovokaitys T, Hollands P. The SONG laser protocol and osteoporosis: a preliminary case report. *J Stem Cell Res Ther*. 2025;10(1):223–224.
9. Greenberg S, Ovokaitys T, Hollands P. The SONG laser protocol and multiple system atrophy–parkinsonian (MSA–P). *J Stem Cell Res Ther*. 2025;10(1):49–51.
10. Eckel G, Dart G, Wojciechowski L, et al. The SONG laser and the Eckel protocol in Parkinson's disease: a case study. *J Stem Cell Res Ther*. 2025;10(1):1–3.
11. Sansores RH, Poo JL, Domínguez–Arellano S, et al. Human very small embryonic-like (hVSEL) stem cells and the reversal of advanced liver fibrosis. *J Stem Cell Res Ther*. 2025;10(1):156–159.
12. Bernard J, Gomez JF, Tatis GJ, et al. The SONG laser protocol and multilevel degenerative disk disease: a case report. *J Stem Cell Res Ther*. 2026;11(1).
13. Hollands P, Ovokaitys T, Matoshi V. The SONG laser protocol and fertility treatment: a preliminary study. *J Stem Cell Res Ther*. 2026;11(1):233–234.
14. Hollands P, Ovokaitys T. New concepts in the manipulation of the aging process. *Curr Stem Cell Res Ther*. 2023.