

## CORRESPONDENCE



## Journey of a Thai Taxi Driver and Novel Coronavirus

**TO THE EDITOR:** The potential human-to-human transmission of the novel coronavirus (SARS-CoV-2) has been shown in multiple reports, including data from 425 patients in Wuhan, China.<sup>1</sup> Local transmission from a Chinese business partner to a German businessman who attended the same meeting has been reported in Munich, Germany.<sup>2</sup> We describe a taxi driver infected with SARS-CoV-2 in Thailand, potentially from Chinese tourists; the infection appears not to have spread to others.

On January 20, 2020, a 51-year-old male taxi driver had fever, cough, and myalgia and went to a local pharmacy to get unspecified over-the-counter medications. At the time, he was not aware of the emergence of SARS-CoV-2 or the illness it causes (Covid-19). As the symptoms persisted, he decided to visit a private primary care clinic in Bangkok on January 23. The body temperature was 36.8°C (98°F). The clinic physician ordered a throat swab for influenza A and B; the swab was negative for both strains. Additional medications were prescribed for treatment of the patient's symptoms.

From January 24 through 27, the patient was unable to drive the taxi because he felt ill, and he rested at home. On January 28, he presented to a public general hospital in Bangkok. He was classified as a patient under investigation for Covid-19, isolated, and referred to the Bamrasnartdura Infectious Diseases Institute, the national authority responsible for the management of emerging infectious diseases.

On arrival at the institute, the patient had a fever and mild dyspnea. He was admitted to the airborne infection isolation room. Chest radiography showed reticular, patchy infiltration of the left lower lung. Throat and nasopharyngeal swabs

that were obtained from the patient tested positive for SARS-CoV-2 on real-time reverse-transcriptase–polymerase-chain-reaction (RT-PCR) assay performed at two laboratories: the Thai Red Cross Emerging Infectious Diseases Health Sciences Center, Faculty of Medicine, Chulalongkorn University, and the Department of Medical Sciences, Ministry of Public Health.

The patient initially reported that he had no underlying conditions, but hypertension and type 2 diabetes were discovered during the admission. He reported contact with Chinese tourist passengers in his taxi who had had frequent coughing but who wore masks. He had no history of travel to China.

The patient had been in clinically stable condition and was discharged on February 5. His wife, son, and nephew — all of whom lived in

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the same house as the patient — were asymptomatic and tested negative for SARS-CoV-2 on RT-PCR assay. Throat and nasopharyngeal swabs that were obtained from 10 other close contacts tested negative for SARS-CoV-2 on RT-PCR assay.

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1. Li Q, Guan X, Wu P, et al. Early transmission dynamics in Wuhan, China, of novel coronavirus-infected pneumonia. *N Engl J Med*. DOI: 10.1056/NEJMoa2001316.

2. Rothe C, Schunk M, Sothmann P, et al. Transmission of 2019-nCoV infection from an asymptomatic contact in Germany. *N Engl J Med* 2020;383:970-1.

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## Reversal of TGF $\beta$ 1-Driven Profibrotic State in Patients with Pulmonary Fibrosis

**TO THE EDITOR:** The multiple signaling roles of transforming growth factor beta 1 (TGF $\beta$ 1) limit the development of global signaling inhibitors of the cytokine as therapeutic agents.<sup>1,2</sup> Epigallocatechin gallate (EGCG), a commercially available food supplement, is a fibroblast-specific, irreversible inhibitor of both lysyl oxidase-like 2 (LOXL2) and TGF $\beta$  receptors 1 and 2 (TGF $\beta$ R1/2) kinase. Inhibition of LOXL2 generates the TGF $\beta$ R1/2 kinase inhibitor,<sup>3</sup> lowers cellular levels of phosphorylated SMAD2/3, and suppresses TGF $\beta$ 1-induced matrix production with blockade

of collagen cross-linking. We tested the effect of oral EGCG treatment on lung tissues and serum samples obtained from 20 patients with pulmonary fibrosis who had presented to our interstitial lung disease clinic and were scheduled to undergo diagnostic lung biopsy. All the patients provided written informed consent.

In sequential order, half the patients were given capsules of EGCG (Teavigo) at a daily dose of 600 mg for 14 days before they underwent biopsy (treated group), and the other half did not receive the capsules (untreated group). We exam-

### Figure 1 (facing page). Effect of EGCG on Biomarkers in Lung-Biopsy and Serum Samples from Patients with Pulmonary Fibrosis.

Panel A shows a Western blot analysis of lysates obtained from control lung tissue, from lung tissue obtained from untreated patients with pulmonary fibrosis, and from patients with pulmonary fibrosis who had received EGCG (all identified by their sample numbers), as analyzed for levels of fibronectin, collagen I, alpha smooth-muscle actin ( $\alpha$ -SMA), SNAIL,  $\beta$ -actin, phosphorylated SMAD3 (pSMAD3), and total SMAD3. For each analysis, one of five representative gels is shown. Panel B shows the quantification of Western blot bands that had been normalized to  $\beta$ -actin and then to the reference sample (18541 RML UIP) on each gel. Multiple data points from biopsy samples of lung tissue obtained from the upper, middle, and lower lobes of each patient were averaged. Differences in protein levels across the three groups (5 control samples, 10 untreated samples, and 9 EGCG-treated samples) were tested for significance with the use of the exact Kruskal–Wallis distribution. Comparisons between the control group and the untreated group and between the untreated group and the EGCG-treated group were then performed with the use of exact Wilcoxon rank-sum testing with a Bonferroni correction. (Details are provided in Table S3 in the Supplementary Appendix.) Overall, of the patients who were included in the analyses, 60% had the fibrotic imaging pattern associated with usual interstitial pneumonitis (UIP), and the rest had nonspecific interstitial pneumonitis (NSIP) (30%) or hypersensitivity pneumonitis (HP) (10%). The horizontal lines indicate the mean values. Panel C shows the correlation between the pSMAD3 level and collagen I protein expression in 24 samples (Spearman's correlation,  $r=0.53$ ;  $P=0.007$ ). Data from control, untreated, and EGCG-treated patients are color-coded. Panels D and E show the results of enzyme-linked immunosorbent assays of serum cartilage oligomeric matrix protein (COMP) and periostin. Data from each patient before and after EGCG treatment were compared and analyzed with the use of the Wilcoxon signed-rank test (two-tailed).