



Innovative Outlook for Containing COVID-19

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Abstract:

Coronaviruses attack the respiratory tracts in humans, causing a range of illnesses from the common cold to more serious, fatal forms. Severe respiratory consequences of the COVID-19 pandemic have prompted urgent need distress syndrome (ARDS), although not as yet well studied in respiratory virus- for novel therapies. There is no vaccine or specific treatment for COVID-19. Current available therapies fail in severe disease where the hallmark is the cytokine storm induced by COVID-19 in the lung. Here I consider novel approaches to improve patient's biological resistance to COVID-19 using stem cells and to capture the therapeutic properties of stem cells with using nanotechnology. I am handling to inspire a therapy for use in hopes of slowing the propagation of the disease. Cell-based approaches, primarily using mesenchymal stem cells (MSCs), have demonstrated safety and possible efficacy in patients with the acute respiratory induced ARDS. MSCs are safe and can reverse severe critical disease with high potency may representing an entirely new biological approach to treatment. Nanotechnology could provide advanced biomaterials which can create a Nanoscale extracellular environment capable of promoting the adhesion and proliferation of stem cells and accelerating stem cell differentiation in a controlled manner. The investigation of stem cell based on nanotechnology could provide new methods for stem cell therapy and tissue engineering. Nanotechnology may have great potential to be of enormous help in the treatment of COVID-19. I am hopeful my outlook has implications for the development of a novel drug for the treatment of this unprecedented pandemic.

Biography:

Laila Montaser served as Chair, Founder leader of Clin-



ical Pathology Department Menoufia Faculty of Medicine. She is uniquely trained and has a philosophy on how to manage research. She is an Honorable Editorial Board Member for many International Journals. Montaser's distinguished career as a Prof, and researcher who had an enormous international impact selected her for three times at 1986, 1998, and 2002 by Council of Menoufia University to Award of "Ideal Doctor" from Egyptian Medical Syndicate and also nominated to two major awards: TWAS prize in Medical Sciences and Nano Science Research Excellence due to her scientific achievements worldwide.

Recent Publications:

1. Laila M Montaser, et al J Embryol Stem Cell Res, 2020.
2. Laila M Montaser, et al J Chem Appl Chem Eng, 2018.
3. Laila M Montaser, et al Adv Tissue Eng Regen Med Open Access. 2017.
4. Laila M Montaser, et al APMIS, 2011.
5. Laila M Montaser, et al J Egypt Natl Canc Inst, 2007.

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