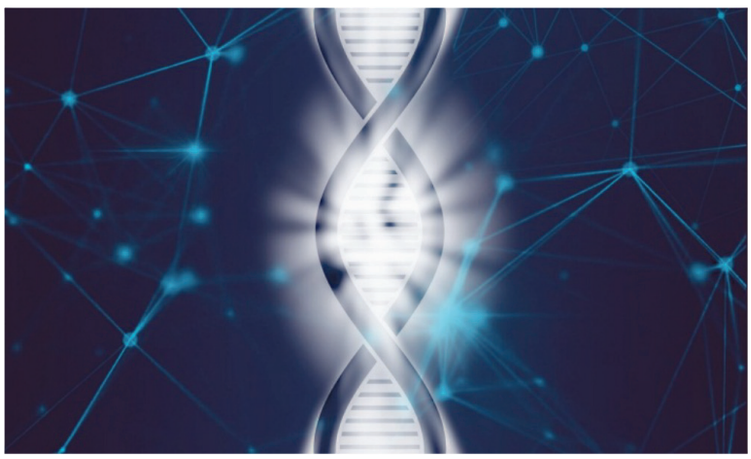
Letter to the Editor

Further on CRISPR gene editing

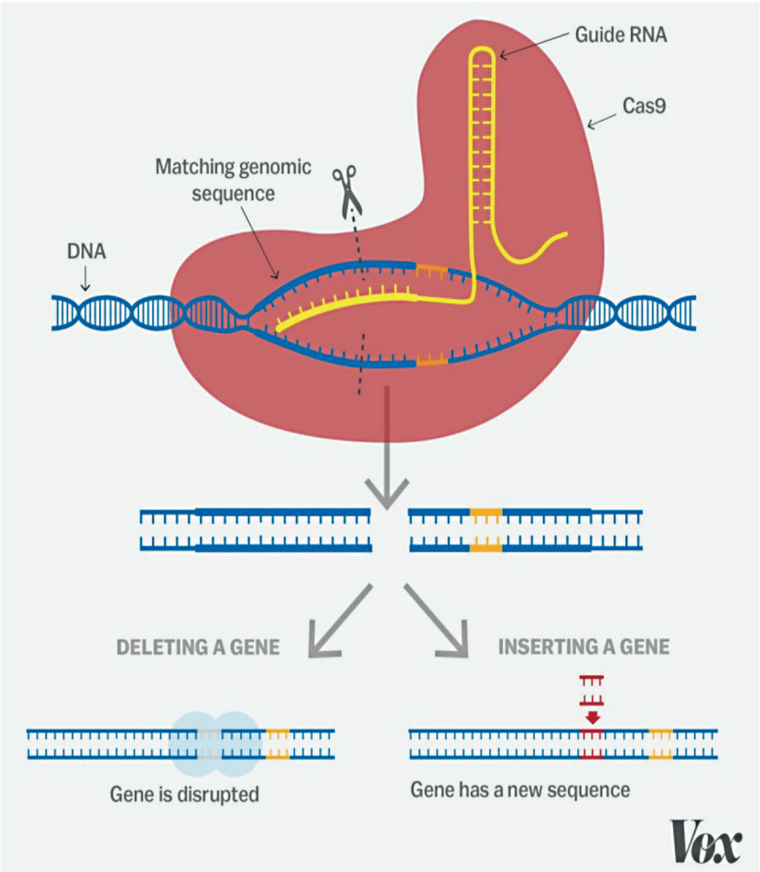
The writer of this letter has been interested in the capability of the clustered regularly interspaced short palindromic repeat (CRISPR) genome editing technology for some time (Pitukpakorn M, Bovornkitti S. CRISPR/Cas9, the molecular scissors. Thammasat Med J 2017; 17: 458-61). Therefore, it is delightful to see further progress is being made in this field of medicine as achieved by several Massachusettes Hospital investigators (Walton RT, et al. Unconstrained genome targeting with near-PAMless engineered CRISPR-Cas9 variants. Science 2020. Abstract available from: https://science.sciencemag.org/content/early/2020/03/25/sciience.aba8853). News about this science was published on March 27, 2020 in the article titled "Capabilities of CRISPR gene editing expanded" (Available from: https://m.phys.org/news/2020-03-capabilities-crispr-gene.html; accessed on 28/3/2020).

The news reveals that it is now possible to potentially target any location across the entire human genome by using two newly engineered Cas9 protein, SpG and SpRY, which enable editing of any previously inaccessible regions of the genome. Now that nearly the entire genome is targetable, the most exciting implication is that the entire genome is "druggable" from a DNA-editing perspective.

In addition, the author hopes the a synopsis excerpted from the publication cited above would answer the question contained in a letter to the editor: "Awaiting for Real Time" in Thammasat Med J 2019;19: 584.



CRISPR gene editing.
From: Harvard Medical School, March 27.2020. Capabilities of CRISPR gene editing expanded. https"//m.phys.org/news/2020-03-capabilities-crispr-gene-html. Accessed 28/3/2020.



From: https://www.vox.com/2018/7/23/17594864/crispr-cas9-gene-editing

Somchai Bovornkitti, MD, FRCP
The Academy of Science, The Royal Society of Thailand, Bangkok