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and in memory of Prof. Brian Clark

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In commemoration of completion of the genetic code, and in memory of Prof. Brian Clark

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2016 has seen celebrations for the 20th anniversary of the complete decoding of the genetic code. In every lecture where I have talked about the genetic code with my colleagues this year, and in each class where I have taught the genetic code to my students, both undergraduates and postgraduates, an image of an old friend always comes to my mind. I cannot stop remembering him. He is Brian, full name Brian F. C. Clark, former Professor of the University of Aarhus, Denmark, and Honorary Professor of my own institute, BGI, China, as well as my old friend and teacher.

The significance of the genetic code and its impact on modern life sciences cannot be overestimated. “The elucidation of the genetic code is probably the most significant advance this century in the biological sciences.” (1). It is the first *natural language* decoded by mankind. The genetic code “has achieved iconic status as the biologists’ counterpart to *Mendeleev’s periodic table* for chemists and *Einstein’s $E=mc^2$* for physicists’ - forming the first *Holy Trinity* for Science” (2). The genetic code is also regarded as “*the Rosetta Stone* by which we interpret the 3 billion letters of human DNA, the alphabet of life, and the discovery of the code has had an immeasurable impact on science and society” (2).

Brian explained what the genetic code is in his own style, direct, clear and to the point, which I would like to quote because nobody has ever described it better or more comprehensively (1):

“All living organisms have information encoded in their genetic material to ensure their hereditary continuity and to control the metabolic processes needed for living. When it was realized by the early 1950s that proteins are gene products and not the genetic material, which is DNA, the search began for the link between the genetic information contained in the two related polymers. This relationship is the genetic code.”

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