

Anisuzzaman’s uncompromising, moral leadership



I T was a privilege for me to work with professor Anisuzzaman in the drafting of the Constitution. I had the extraordinary good fortune of knowing him for more than 50 years, since our school days in St Gregory’s School, Dhaka. Since then we have travelled side by side towards the independence of the country and in the struggles for democracy.

I recall the respect he enjoyed amongst his students as an outstanding teacher. But more so we valued his voice of conscience. He had been active in all pro-people’s movements. During the Liberation War he was invited to join the Planning Commission set up by the Mujibnagar Government. Professor Razzaq, whom we all respected as the guru of all gurus, had a special respect for him. He regarded him as a model of a good teacher and indeed a good person.

A high priority task, following liberation, was to draft a constitution for Bangladesh. Anis readily responded to my request to assist in drafting the Constitution in Bangla. He agreed and took leave from his post in Chittagong University so he could give his full time

towards this major task.

Anis’ creative role in drafting the Bangla text of the Constitution is inadequately reflected in referring to him as a translator. He was, in effect, a co-drafter of the Constitution. He used to attend the meetings of the Constitution Committee and joined in the debates. After each meeting we would come home together and work till late at night deciphering the summaries of the day’s discussion. It would be a disservice, therefore, to see him only as a translator.

On the contrary, he was able to contribute to the debates and his views were valued by the members of the Drafting Committee. As an active participant in the freedom movement he could articulate the aspirations of the movement for independence and thus formulate the basic principles of the Constitution. Anis was able to inscribe the values which inspired the people to dedicate themselves in our national liberation struggle into the Constitution because he too was an active part of the movement for independence.

His interest in constitutional developments remained over the years. I remember that in 2016 he was persuaded to deliver the annual lecture on the Constitution. He drew upon his prodigious memory to give a detailed account of the debates in the Constituent Assembly. His lecture gives us an excellent account of the



Professor Anisuzzaman (February 18, 1937 – May 14, 2020)

contribution of different drafting committee members. It was he who can be credited as proposing, then, the idea of an election period interim caretaker government, in order to ensure a fair and free election.

He had a special gift of writing which enabled him to make the most complex of issues understandable to many. He could express critical views without giving offence by putting forward persuasive arguments that convinced those who might once have been offended. And once convinced

they would take corrective action. Whenever we needed to put forward proposals for reform, we could count on him to formulate these in a language that was convincing.

He was no ordinary scholar. His scholarship was reflected in the large number of his publications on literary criticism. He had served as a Commonwealth Staff Fellow in the University of London School of Oriental and African Studies (1974-75) and a visiting Fellow of Paris University and the North Carolina University.

But beyond his scholarly contribution we must acknowledge his prominent role in major popular movements, particularly his involvement in the Language Movement, the 1969 students’ movement and the Non-Cooperation Movement of 1971. Anis’ role was central in putting together all the ideas that emerged during our discussions in a simple and more persuasive language. We could, through discussions, formulate proposals for reform which everybody would find acceptable.

Anisuzzaman was among the young academics in Dhaka University who opposed communal and rightist politics. They worked together to discuss the need for radical changes in society. In effect, he assumed intellectual leadership amongst these academics which led to his participation in the popular movement. It was because of his own involvement

and beliefs that he was able to make a creative contribution in the discussions towards the formulation of the basic principles of the Constitution.

In the vibrant environment of the university in the sixties, issues of economic disparity and political democracy involved teachers and students to support people’s rights, democratic participation and equal opportunities and economic justice. As the political movement for democracy and regional autonomy gained strength, university teachers became more active in the exchange of ideas for a social and political transformation. Among the academics led by professor Razzaq, those who were motivated to struggle for a just cause and indeed had been in the vanguard of the language movement now rallied for people’s rights to freedom and justice. Professor Anisuzzaman was indeed actively engaged in this struggle for democracy and social justice.

Even after independence he continued to guide us in our struggles towards democracy, secularism and human rights. His loss is personal for many of us, but the nation has lost a true democrat. He will be remembered for his moral leadership reflected in his uncompromising commitment to these values.

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Mystery of SARS-CoV-2 genome isolated in Bangladesh

ABMM KHADEMUL ISLAM

SARS-CoV-2 has so far infected more than 4,500,000 people in 187 countries and caused over 300,000 deaths, but no drug or vaccine is yet available. In Bangladesh, over 20,000 people have been infected and 250 died. Lockdown can provide a temporary solution but we need a sustainable solution for this.

Although there are three (A,B,C) SARS-CoV-2 variants, we still don’t know which one is prevailing in our country, how and through which route it has been transmitted here; if it has acquired any mutations by now and how deadly it has become. Also, we do not know why some people are affected more, showing serious symptoms, while others remain asymptomatic. We do not know why and how this has created serious havoc in some countries whereas others are only mildly affected.

In the modern era, problems in biological sciences are tackled by a bottom up approach, where we do genome sequencing of the relevant organism and associate it with other metadata to address the problem and find solutions. For the same reason so far 80 countries have deposited more than 24,000 genome sequences of this virus, which includes even countries like Nepal and Vietnam where the coronavirus problem is comparatively less severe. Since the first cases were reported on March 7, 2020 by the country’s epidemiology institute IEDCR, we have been repeatedly advocating the need for genome sequencing of this virus. We also ensured that we make substantial advancement in science and technology, especially with the special attention of the prime minister in this sector.

Now we are able to do genome sequencing by Next Generation Sequencing (NGS) in our country. There are some institutes and private organisations where NGS machines are available and virus genome sequencing can be done, and also we have expert

and experienced Bioinformaticians who can perform complete genome sequence analysis. The ground-breaking work has finally been done by the Child Health Research Foundation (CHRF). Dr Senjuti Shaha and Dr Samir Kumar Shaha, along with their team from CHRF, collected samples from a 22-year-old coronavirus infected female patient and arranged to do whole genome sequencing of the virus using Illumina iSeq 100 NGS platform. As soon as the news of deposition of genome sequence data became available on May 12, Tuesday afternoon, we sought to extract this sequence and information from the public repository GISAID and CNCB, and started to explore it.

Position	Reference base	Mutated base	Mutation type	Protein: amino acid change	Mutation Frequency (10984)
241	C	T	Upstream gene variant	Non-coding	7080
1163	A	T	Missense	Orf1ab: 300I>F	1
3037	C	T	Synonymous	Orf1ab: No change	7104
14408	C	T	Missense	Orf1ab: 4715P>L	7120
17019	G	T	Missense	Orf1ab: 5585E>D	1
23403	A	G	Missense	S: 614D>G	7145
28881	G	A	Missense	N: 203R>K	1735
28882	G	A	Synonymous	N: No change	1731
28883	G	C	Missense	N: 204G>R	1730

COURTESY: AUTHOR

Lead by me at the Department of Genetic Engineering and Biotechnology, University of Dhaka, the Epigenetic and Bioinformatics team on nCoV research has done basic analysis of the genome. My team member Mr Abdullah Al Kamran Khan was with me in this analysis. We compared the sequence with that of the first reported coronavirus genome sequence from Wuhan, China—which is globally considered as “reference”. Strikingly, we have found that this genome is very similar (99.7 percent similarity) to that of reference SARS-CoV-2 isolated from Wuhan. There are changes only in nine

places and these changes are single nucleotide change (SNP). There are no deletion or insertion/addition of any large sequence compared to the original reference.

However, with great surprise, we observed that this genome has acquired two new mutations which have not been seen among the viruses reported so far and that we have observed closely. At position 1163 (genes orf1ab) a new mutation from A to T has been detected. Previously at the same position nucleotide A to C in one virus and nucleotide A to G changed in another genome reported. Also, there is a brand new mutation position at 17019 detected in our Bangladeshi isolated

virus which has not been reported so far. This means that these are the new changes that the virus has acquired after entering into Bangladesh. Out of nine, seven other mutations were very common among the sequenced viruses so far. We can further study what trouble or benefit these new mutations have brought us.

Very interestingly, of these nine mutations, it contains a mutation (Single Nucleotide Mutation or SNP) in its Spike protein. There is non-silent (non-synonymous), amino acid changing (Aspartate to Glycine) mutation at the 614th position of

the Spike protein (D614G). This is of particular interest because it is probably due to this mutation that the virus could spread quickly among the European and American populations compared to the original virus from China. This creates an additional serine protease (Elastase) cleavage site near the Open Reading Frame (ORF) S1 and S2 junction of the Spike protein.

The interesting aspect is that in human, a single nucleotide mutation (deletion of C nucleotide, delC) (rs35074065 variant site) in the TMPRSS2 receptor gene facilitates the entry of SARS-CoV-2 with D614G mutation to the cell very effectively. Dr Hemayet Ullah from Howard University, USA, also informed us that this delC mutation is very common in the American and European population but very rare in the East Asian/Asian populations—hence the change of amino acid aspartic acid to glycine in the S protein of the virus may be helpful for Asian countries but more infectious in the American and European populations. We do see a less severe effect in Asian countries compared to that in Europe and America. Any deleterious mutation from the perspective of an organism gets lost through natural selection and we hope more virulent mutation does not appear in Asian countries later on. Several research papers are also available on this mutation.

To understand the origin, we have constructed phylogenetic tree (UPGMA and Neighbour-Joining) in MEGA with default parameters, with representative sequences from 60 other countries and the reference sequence, totalling 350 sequences. Phylogenetic tree shows that this Bangladeshi SARS-CoV-2 genome isolate seems closer to European cluster—most likely the person got infected from someone who returned from Europe or maybe she herself returned from there. We are fine-tuning the phylogenetic tree. And are also in the process of making phylogenetic tree with

10,000 high quality sequences selected from 80 countries to better explain the origin and route of transmission of this particular virus.

To understand the pattern of infection in Bangladesh, only one genome sequence is not enough. We need sequence of at least 100 isolates. We have made a proposal to the ICT ministry in response to their “Call for Nation (Hakathon)”. In this study proposal we aim to create a dataset by combining 100 coronavirus genomes from Bangladeshi patients and integrate this genome information with patient’s personal/clinical/treatment/diagnostic and other information. This information will be analysed extensively by computational methods to do clustering, phylogenetic and pharmacogenomics studies, and will compare data with other globally available data to make a concrete information-base that will help pharmaceutical industries produce appropriate drugs and vaccines for our population.

Also, the ICT ministry will be able to announce that Bangladesh has uncovered the genome mystery of the coronavirus circulating in the country and trace back the transmission. This project will be a multicentre research where essential help from ICT/ Bangladesh government, and help of IEDCR through the government will be required to get patients’ samples and relevant clinical data. We will carry out sequencing (Next Generation Sequencing) of the viral genome and other analyses with our own resources in Bangladesh. If ICT/government support us, it is also possible to do further research in future where in addition to the viral genome we can sequence genome of some individuals who were infected and developed the disease as well as healthy individuals who did not develop the disease. This may also let us know the factors (if any) that conferred resistance to them.

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ALBERT EINSTEIN
(1879-1955)
German-born physicist

Life is like riding a bicycle. To keep your balance, you must keep moving.

CROSSWORD BY THOMAS JOSEPH

ACROSS

1 Spanish inn
 7 Aid in crime
 11 Zoo resident
 12 Newspaper part
 13 "Raiging Bull" star
 14 Pressing need
 15 Sofa type
 17 Corn cores
 20 Massage targets
 23 King Kong, for one
 24 Bitter brew
 26 Spying org.
 27 Annoy
 28 Quick taste
 29 Track meet event
 31 Braille bit
 32 Game host

33 Nick and Nora's dog
 34 Survived
 37 Libya neighbor
 39 Found darling
 43 Coyote call
 44 Misbehaving
 45 Wee
 46 Snarl

DOWN

1 Spot to jot
 2 Low digit
 3 Immoral act
 4 Wrong
 5 Be bold
 6 Heaps
 7 Each
 8 What those without tools work with

9 Sense of self
 10 Toe count
 16 Negotiations
 17 Secret store
 18 Poppy yield
 19 Big pastries
 21 "Cats" poet
 22 Nose dividers
 24 Heaps
 25 Verb for you
 30 Fatal
 33 Bedeck
 35 Lacking slack
 36 Writer Ferber
 37 Greek X
 38 Spicy
 40 Weaver's creation
 41 Building wing
 42 Do fabric work

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YESTERDAY'S ANSWERS

M A R I E
 A C O R N
 P R O S A N D
 S E T M U G N E T
 D E V I L R E P E L
 I R A N C A V E
 M A N U P A R E D
 S O P U P
 E N D L I D F L U
 Y E A S A N D N A Y S
 E A T E N L O I R E
 S T E E D E R R E D

BEETLE BAILEY

BY MORT WALKER

BABY BLUES

BY KIRKMAN & SCOTT