

COVID-19: 2020 a year in turmoil

It must be rare to be confident about a year's leading story in February, but in 2020 that's certainly not the case. Without any doubt, the emergence of the COVID-19 pandemic will find a prominent place in the world's history in years to come, and everyone will remember this period of time no matter who they are, what they do or where they live. COVID-19 will have major immediate and long-term effects on the world's health, economy and societal organization.

Against this background of crisis and uncertainty, we have composed this editorial to highlight several themes that should resonate with the international hemostasis community.

To begin with the culprit in this pandemic, it's daunting to realize that the current global catastrophe is the result of a microbe that has a single stranded RNA genome of 30,000 nucleotides – smaller than any one of the genes that encode human clotting factors. The coronavirus genome encodes just ~25 proteins, and the viral particle is protected by a simple protein/lipid envelope. As humans struggle to comprehend our own massively complex genome and proteome, the emergence of the COVID-19 pandemic reminds us that we still have a lot to learn about the biology of far less complex organisms. Political and public support for basic science is always a hard sell, but the challenges of COVID-19 should provide the basic science community with more than enough ammunition to restate their claims for enhanced funding.

As the COVID-19 pandemic has evolved around the world we have witnessed two starkly contrasting approaches to the management of the virus. Political leaders, those whose leadership we rely upon to keep us safe, have demonstrated highly variable abilities to comprehend and provide strategically rational approaches to the infection. The growing impact of populist, autocratic and theocratic administrations has not helped in developing effective approaches to the pandemic, and the continuing bad news from some especially hard-hit countries highlights the challenges that result when politics and science are not aligned. This situation is especially unfortunate when science has advanced so much in recent times and now has so much to offer in providing basic and translational knowledge in circumstances such as this.

In contrast to the variable performance of governments in handling this crisis, scientists around the world have worked together at an astonishingly rapid pace to generate knowledge that can be applied to the current and future management of this infection. Indeed, in our own field we have witnessed reports from Wuhan gathered within 6 weeks of the initial cases of COVID-19 pneumonia and documenting evidence that markers of DIC provide an important prognostic indicator. Even more remarkably, following the very early acquisition and sharing of the complete genome of the COVID-19 virus, there are now

several groups working towards the generation of vaccines that will enter clinical trials soon. The speed, effectiveness and collaborative responses of the global scientific community have been spectacular, and as a community that embodies many of these qualities, we should be proud of the international biomedical scientific response.

Lastly some words that are closer to home. As you all know, our Society was due to hold its next annual Congress in Milan this July. However, as you are also aware, Northern Italy has been one of the most severely affected regions on the planet, with 793 deaths and 6557 new diagnoses of COVID-19 in the single day that this editorial is being written. The pandemic is now a major catastrophe, affecting health care systems and professionals worldwide. In light of these developments, early cancellation of the Congress was the only responsible action the Society could take.

Coincident with this cancellation we can all feel enormously sad for our Italian colleagues. Not only have they worked long and hard to organize an outstanding congress that will not now take place, but they are also on the front line of the clinical care of the largest population of critically sick COVID-19 patients in the world. We send them enormous thanks for their organizational efforts and wish them well with their immense ongoing clinical challenges.

Subsequent to the cancellation of the Congress, the Society is working on the development of a virtual meeting that will enable ISTH to deliver the latest thrombosis and hemostasis science, research and education to the global community in a virtual format. While this cannot fully replace an in-person meeting (particularly not in Italy), this innovative approach will offer a rich and robust program online that will focus on the highlights of the already prepared scientific and education program, with tools that will allow attendees to connect and participate.

None of us know exactly how and when this pandemic will end. However, by the time you read this editorial in May we know that many more patients will succumb to this virus and that life as we knew it in 2019 will still be a distant memory. Stay safe, keep well and look after one another.

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