

## IANAS VIDEOCONFERENCE ON COVID-19

June 1, 2020

### Report from the Colombian Academy of Exact, Physical and Natural Sciences

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Because we are not an Academy of Medicine, we have not been involved directly in actions having to do with the pandemic.

However, we have done a few things that are worth mentioning.

#### First action

Many of you may remember how pleased we were here in Colombia with the creation of the Ministry of Science, Technology and Innovation early in 2019, and with how the government was really paying attention to what the scientific community had to say about many issues.

Well, things started to go wrong with the appointment of the first person to occupy the position of Minister, and after that, in my opinion, things are going downhill.

When the pandemic started, the lack of leadership on the part of the Ministry became painfully evident. There was basically no reaction from them.

So, on March 19<sup>th</sup> the Academy prepared a statement addressed to the Ministry, calling their attention on the gravity of the situation, and asking them to open an **urgent and immediate** call for proposals to help deal with the crisis. (Copy of the Statement attached)

We don't know if it was in response to our letter, but a couple of weeks later they did post the call for proposals but, in our opinion, they did it all wrong. It was a call for proposal just like any other, and their sense of urgency was to ask researchers to write proposals **in three days**. In addition, while we asked for fresh funds, they decided to use funds already available and which had a completely different destination. Obviously, many scientists decided not to participate but others did...there was money involved! To top it all off, while the minister talks about the "democratization of science", most of the money went to some of the largest and wealthiest universities, which was to be expected given the way the call for proposals was decided on.

It would be interesting to know how those projects that were funded are doing and what impact they are having on the fight against the coronavirus, if any.

#### Second action

Through a statement widely distributed on April 29<sup>th</sup> to the general public, the media, and government officials, we were the first to call attention to the serious problems created by the implementation of on-line education. (Copy of the Statement attached)

We cited figures from the Laboratory of the Economics of Education of the Catholic University (Pontificia Universidad Javeriana), regarding the limitations of internet connection in the country: 96 % of the municipalities cannot implement virtual education because 50% of high school students don't have access to a computer or to internet In their household; 67% of students in

public schools are in the same situation; in rural areas, only 9% of students have a computer; in cities like Bogotá only 68% of households have access to Internet.

There are many more problems, like for example, take a family of four, two parents, two children, the parents doing work from home and the children having to do their school homework, but there is just one computer available!

We also called attention on the amazing job that teachers have had to do, learning about on-line teaching without having the slightest idea of how it is done, juggling family and work, and so on.

We finished our statement by asking for an all-out campaign to provide connectivity to the whole country, something that has been promised over and over again but has never really been a priority.

Our statement received some media attention, and, after it was published, many people started talking about these issues, with some of them mentioning us or quoting us.

### **Third action**

The governor of the department of Magdalena presented a proposal to the local University which is, by the way, one of our Institutional Members, the University of Magdalena, asking to take all the funds available for research to use them to provide free education for their students, given the current and very difficult financial situation of many families.

On May 22<sup>nd</sup> the Academy issued a statement rejecting the proposal, using words like; “we welcome the initiative to provide free education to college students, but in no way are we going to accept that that is done at the expense of funds already allocated to science, technology and innovation”. “A reduction of the budget for research today goes against the logic and the conclusions reached by many countries around the world regarding the fundamental role of science, technology and innovation to face the present and future crises”. We obviously offered our full support to the University administration and their scientific staff. (Copy of the Statement attached)

Fortunately, we hear that a new proposal submitted by the Rector (President) of the University to his Executive Board to reduce the costs of tuition and fees has been approved, without touching the budget allocated to research.

### **Fourth action**

On March 21<sup>st</sup> the Antioquia Chapter of the Academy sent a letter to the governor of the Department of Antioquia offering their support to deal with the crisis in the department, and suggesting the creation of a working group with members of the Academy, to help make decisions based on the best scientific evidence available. (Copy of the letter attached)

Unfortunately, the Governor never answered the letter, which again shows how little science means to some policy makers.

### **Fifth Action**

On May 8<sup>th</sup> the Academy had a massive participation in a “Public Audience on Pharmaceutical Security for Colombia” organized by the Colombian Senate and particularly by Senator Iván Darío Agudelo. This open forum was convened as a response to the serious shortage of supplies for coronavirus testing. There were 50 participants, and 13 of these were members of the Academy.

The Senator expects to submit to Congress a project for a law on Pharmaceutical Security.

### **Sixth Action**

We have distributed through Facebook, twitter, e-mail messages to our members and long list of contacts, and we have posted on our web page, each and every statement that we received from IANAS, ISC, Pontifical Academies, etc..

### **Seventh Action**

I would like to mention that several members of the Academy have been involved at different levels in the situation with the COVID-19, but I have to say that these activities have not necessarily been carried out by these individuals as representatives of the Academy. They are:

Dr. John Mario Gonzalez, a Medical Doctor, Corresponding member of the Academy and Professor at the Universidad de los Andes has been producing short videos explaining in easy to understand terms, numerous aspects of the pandemic.

Dr. Alf Onshuus, a Mathematician, Corresponding Member of the Academy and also Professor at Los Andes, has created with Prof. Gonzalez and others, a group dedicated to critically look at the news regarding the COVID-19 that reach the public, with the strong scientific evidence available to the group.

Dr. Lucy Gabriela Delgado, the first Ph. D. in Pharmaceutical Sciences in Colombia, Corresponding member of the Academy and a Professor at the National University of Colombia, is now supporting the Secretary of Health of Bogotá, and supervising the network of laboratories carrying out coronavirus tests.

Dr. Moisés Wasserman, an Honorary Member of the Academy, is one of the most respected editorialists in Colombia. He has repeatedly dealt with the pandemic in his weekly newspaper column in El Tiempo.

Dr. Bernardo Uribe, a Mathematician, Corresponding member of the Academy, a Professor at the Universidad del Norte in Barranquilla, and current President of the Colombian Mathematical Society, has developed a dashboard on which, with a group of colleagues, they estimate the value of  $R_t$  (the effective reproductive number) for the COVID-19 for the departments and municipalities of Colombia. (A short description of the project – in English – with a couple of links, is attached).