March 18, 2020

Dear Members of the ScC:

As anticipated in my email of a few hours ago, I am writing to pose two questions to you, related to the current Covid-19 pandemic, and the role (if any) that the ERC can play against it. The questions are:

1. Are you willing to support a special focused initiative of the ERC on excellent, breakthrough, blue-sky, frontier, investigator-initiated research on topics related to the Covid-19 pandemic, open to all fields of research (LS, PE, SH)?
2. If so, what forms do you recommend for this special initiative? What forms would you oppose?

On Question 1, the Vice Presidents unanimously and firmly answered “No”. I will defer to them for an accurate explanation of why that is their preference. I answer “Yes”, for reasons that I will summarize further below.

The envisioned path forward depends on your replies to these questions. If there is a unanimous “No” to Question 1, my proposal for a possible focused initiative will stand rejected, and your vote will simply count in lieu of the proposed extraordinary ScC meeting, which at that point it would be pointless to hold. In its stead, we will simply record the vote in our official minutes.

If there is at least one “Yes” in addition to mine, we will continue on-line discussion on both Questions, and hold a video-conferenced, extra-ordinary meeting of the ScC on these matters. Emerging proposals will then be brought again to the attention of the full ScC.

To frame my rationale for these Questions, and some possible options for the form of the special focused initiative, I am appending some further considerations, below, organized in the following Sections:

A. FUNDAMENTAL STARTING POINTS
B. MY POSITION
C. POSSIBLE OPTIONS FOR THE FOCUSED INITIATIVE
D. THE FUTURE OF THE ERC - RISK ANALYSIS

Of course, my list of Possible Options is by no way exhaustive, and further thoughts and recommendations will be welcomed – they are actually strongly encouraged, if we get to that point.

I am very thankful for your participation in this discussion, no matter what the outcome will be.

Sincerely

Mauro

A. FUNDAMENTAL STARTING POINTS

A1. Bottom-Up research is a fundamental, inalienable, defining characteristic of the ERC. It is a core constituent of its legal basis and remit. The Bottom-Up nature of the ERC operations has been the main engine of its extraordinary success. We are all fully committed to Bottom-Up research, and we share the belief that it is through Bottom-Up research funding that the ERC can bring the greatest benefit to society.

A2. The current Covid-19 pandemic is an extraordinary health care tragedy, with the projected potential to become unprecedented in the toll of human lives it will take before it runs its course over the next 1-3 years. With expected scenarios as tragic as tens-to-hundreds millions of deaths, and an extraordinary adverse effect on economic systems worldwide, it is an adversely transformational event in human history.

A3. The current containment measures against the pandemic will probably be effective in delaying the spread of the infection to different regions of the world, hopefully allowing for the respective healthcare systems not to be excessively overwhelmed, and thus probably reducing the burden of death on impacted populations, by some measure. However, a solution to the pandemic (and future pandemics of similar nature) can only come from new therapeutic and prophylactic agents, vaccines and drugs, requiring breakthrough discoveries, or completely unprecedented, out-of-box, blue-sky, highly innovative approaches of different types, currently outside of the fields of view of conventional thought.

A4. The search for a cure for the common cold (also Coronavirus-caused) has been ongoing since the dawn of medicine, with no success. Thus, even with pharmaceutically-focused approaches, only true breakthrough, blue-sky, investigator-initiated, high-risk high-payoff, frontier research can be expected to yield a true solution for the Covid-19 pandemic. Entirely novel approaches are needed, and perhaps these will emerge from the disciplines that normally work in these fields, or perhaps from fields that traditionally do not, or from some creative, unprecedented combination thereof.

A5. The private sector has failed at generating and making available true solutions, despite continued efforts and innumerable attempts over many years. The breakthrough innovation required to achieve it will have to originate in academe – which is where the vast majority of scientific breakthroughs leading to transformational therapies have originated, in history (and then were carried to the clinic by industry-based processes).

A6. True breakthrough, blue-sky, investigator-initiated, high-risk high-payoff, frontier research is what we do. We are the best agency in the world identifying and supporting it. We support the best scientists in Europe, many of the best scientists in the world, in many disciplines which may be the crucible where the breakthrough solutions can be formed. Thus, the ERC is in the best position to help engender the frontier discoveries that will lead to the solutions for the current (and future) pandemics.

B. MY POSITION
B1. I believe that where there is an opportunity to help, there is an ethical responsibility to do so. I am certain that you share that belief. In view of the magnitude of the exponentially growing tragedy, the ethical responsibility in front of us is overwhelming. I cannot and should not speak for others, but as for me, I simply cannot turn a blind eye to it and just watch it happen, without trying my best to contribute to its solution. For the reasons listed below, I personally believe that the best course of action will involve a special focused initiative. I will of course fully respect anyone the believes that the best course of action is the status quo, and that our unmodified modus operandi is the most ethical approach we can take, to contribute to the fight against the pandemic.

B2. I am a firm believer in Bottom-Up research; it is truly what attracted me to my current post. However, when the house is on fire, I believe in “all hands on deck”, doing everything possible to save lives, and extinguish the fire.

B3. It is entirely possible that ERC-funded investigators will make the needed breakthrough discoveries, without us having to resort to a special focused initiative; however, I find that the time urgency of the pandemic crisis (interventional horizon required of 1-2 years) is not compatible with normal idea creation and idea-to-clinic translational pathway (10-20 years). Thus, I believe that a special, focused initiative is required.

B4. I believe that a special focused initiative can be structured, that would not change the overall Bottom-Up nature of the ERC. I have confidence that working together we can find measures to ensure that Bottom-Up remains the core, foundational principle of the ERC, even if we launch a temporary, special focused initiative. I am confident that working together, the ScC can identify, and converge upon special initiative mechanisms and boundaries that will safeguard our defining Bottom-Up nature, overall. Some of these potential mechanisms are described in Section C. They comprise the notion that the special Covid-19 focused initiative would be time-limited, budget-limited, and a unique, exceptional case, warranted by the unique magnitude of the current crisis. Very importantly, it would also be Bottom-Up, investigator-initiated, blue-sky, frontier, and evaluated based on scientific excellence only, exactly per the ERC foundational principles and core values – though available to fund a broad spectrum of Covid-19 topics and approaches, and not for all of scientific research.

B5. The special Covid-19 initiative would embrace all three scientific domains, and all approaches, without limitations. New, paradigm-breaking basic research in molecular biology and virology, leading to the identification of new targets and mechanisms-of-action would be a likely rubric for ERC-funded research under this initiative. Other possibly likely approaches would encompass epidemiological models, innovative applications of artificial intelligence, deep learning, quantum computing, behavioral sciences, medical technologies, historical studies all the way to archaeological efforts, mathematical frameworks, and diagnostic strategies. In keeping with the blue-sky and Bottom-Up nature of the ERC, however, I suspect, or, rather, firmly believe, that the true winners in this special focused initiative would come from unexpected fields of science – perhaps some that do not even exist just yet.

C. POSSIBLE OPTIONS FOR THE FOCUSED INITIATIVE

I will keep this section very brief, just listing some possible modes of operations for the focused initiative, since I do not want to induce the ScC into a discussion of details (however important). The immediate matter at hand is Question 1, that is, whether we want to move forward to a full discussion of mechanisms. Question 2 was just posed to start the conversation, in the interest of the current time stringency, and to make sure that it was clear that the decision on the specific mechanism would be let to the full consideration of the ScC.

So, just by way of a few examples, the special focused initiative could operate by:

C1. Allowing current ERC grantees to restructure their projects, moving in full or in part to Covid-19/pandemic research with their current funding;
C2. Same as C1, but with a “top-up”, additional funding mechanism to embrace Covid-19 focused research;

C3. One or more special focused calls, with mechanisms to be determined, possibly of the “POC” variety;

C4. Any of the above, in synergy or partnership with other EC programs, funding agencies, or entities.

C5. Other mechanisms, at your discretion. Please propose, if interested.

It is also clear that any of these mechanisms would have to be validated with the EC, on at least two counts:

- The allocation by the EC of additional funding – a separate budget line, not be counted against
  the normal financial allocation of the ERC
- The legal boundaries of our remit as a funding agency must be respected, or modified to
  accommodate the proposed initiative, in whichever shape it would take by means of our discussion

If we reach concurrence from the ScC on moving forward on this initiative with a specific proposal, of
of course I will bring to the EC both of these concerns. At the same time, I will there make an absolute case
that the Bottom-Up nature of the ERC must be preserved; and that the Covid-19 initiative must remain a
unique occurrence, justified by a global emergency of unprecedented proportions, the likes of which we
most certainly hope never to see again.

D. THE FUTURE OF THE ERC – RISK ANALYSIS

D1. The risks associated with moving on to launch an initiative with special focus on the Covid-19
pandemic include:

- Embarking on a slippery slope that will encourage other special focused initiatives, and
  ultimately undermine the Bottom-Up nature of the ERC;
- A backlash from the components of the scientific community which favor Bottom-Up research;
- Bottom-Up is a defining characteristic of the ERC. If it is lost or diminished, there may be
  pressures to merge the ERC with other EC research funding units;
- An allocation of further EC emergency funds to the ERC for a focused initiative may lead to a
  commensurate reduction in our upcoming budget, per a “zero-sum” argument.

D2. The risks associated with remaining with the status quo, that is, not launching any initiative with special
focus on Covid-19 include:

- A backlash from the components of the scientific community that is interested in immediately
  pursuing excellent blue-sky, investigator-initiated, frontier research to fight the Covid-19 pandemic
- A backlash from the communities (including at-large, patients and families, the media, political
  at all levels, but scientific too) that may interpret the ERC lack of focused action as indifference
  toward this tragedy, or an affirmation of the primacy of our interests in our own world of science,
  over the needs of the “real world”, even when the house is on fire. We can of course offer many
  arguments against these misunderstandings and misinterpretations, but they may not be very
  effective, once the avalanche starts rolling.
- The ERC is at a time juncture of especially high, possibly existential risks, for which what we
decide now is likely to be the decisive factor. The ERC is expected, but not guaranteed, to have its
very existence renewed in Horizon Europe, come January 1, 2021. Even if we are renewed, our
budget is by no means certain. All of the member States will be under immense financial pressures,
to save their own economies from the disasters of Covid-19. Having to del internally with massive
unemployment numbers, they will not be too inclined to give generously to the EU, in the new MFF
currently under negotiation. With a potentially dramatic reduction in contributions from member
States, everyone at the EC will then be looking for budgets to slash, and line items to eliminate. If
the ERC is seen as detached from the most tragic of priorities and needs of the community, and
unwilling to adapt its ways to help at these tragic times, it will be near impossible to find anyone willing to defend us, on the nuances of Bottom-Up vs. Top-Down research, which the electoral public and therefore the world of politics really does not appreciate or understand, or care for, at all. Without support from the EU political leadership, the member States, and the community at-large, the ERC would be exposed to the very real risk of being dramatically reduced in funding, marginalized, restructured in its operations and guiding principles, subsumed into other funding agencies, or extinguished. The world of science would have a very difficult time arguing for an ERC that is seen as indifferent to the world’s most tragic needs, and scientists would probably just migrate toward the next exciting funding opportunity.

These are the risk scenarios, as best as I can reconstruct them. The biggest risks, however, are not in the various pragmatic considerations listed above. The fundamental risk is that we do not follow what our individual consciences tell to each of us. The biggest risk is that we do not do all we can to help, at this time of great tragedy and need.

You know where I stand, without hesitation, on these questions. I will look forward to hearing from you.

Sincerely

Mauro
Dear Mauro,

First, let me also extend my warmest wishes for a negative outcome, with your tests.

I will join my colleagues in answering with a clear NO to any form of targeted action against the Covid-19 pandemic, by the ERC.

In my view, there are two distinct components, when considering the situation: the long-term strategy and the short-term tactical response.

With regard to long-term planning, if anything, the current pandemic has made the need for ERC's bottom-up, blue-skies research, even more prominent: It is this approach, that stands any chance of protecting us, in the face of unpredictable threats. Today it's SARS-CoV-2, tomorrow it's going to be something else.

With regard to short-term tactical measures (the essence of your suggestions), ERC is already well-geared to accommodate the response of the scientific community. It is the scientific community that has the capacity, and is in the position, to best address the challenge.

Thus, in my opinion, this is not just a matter of core principles, it is also a matter of substance.

I could articulate more on both points above, but this is just a quick reaction, at this stage.

All the best,

Nektarios

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Nektarios Tavernarakis, PhD
Dear Mauro,

I am glad you tested negative. My vote is NO for the reasons given by [redacted] and [redacted] and others.

With best regards,

Gerd
Dear Mauro, my vote is also a clear NO, the arguments have been put forward by several of the colleagues, I wish all to stay in good health, best regards Ben
Dear Mauro,

I very much hope that you stay in good health. We are doing fine but the situation in Madrid at the moment is bad and worsening by the day.

Let me quickly say that as much as I appreciate your wholehearted initiative, my answer to your first question is a clear NO.

If anything, the unprecedented emergency in which we are immersed reinforces my belief that allocating resources to foster undirected scientific breakthroughs is a critical ingredient for the ability of our societies to face the unpredictable. In the EU this ingredient is the responsibility of the ERC. True, the house is on fire, but even in those circumstances each body has to do their indispensable due for the benefit of all, and ours is to keep the ERC going for what it is.

Thank you again for your thoughtful proposal.

Best wishes,

Manuel
Dear Mauro,

I hope you are well and have tested negative.

My vote is NO for the arguments given by and others.

Best regards,

Kurt
Dear all,
There is no reason for me to repeat well-put arguments.
No from me as well.
Jesper
Dear Mauro,

firstly, I hope that your test will return to be negative!

Secondly, thank you for your initiative. These are special times and thinking out of the box in times likes these is always useful and important.

I also appreciate your thoughts and comments, which include good food for thought. Having said this, I will vote with a firm “No”, still.

I say this for various reasons. The strongest argument is that this would be a strong deviation from our core principles. It would clearly be a programmatic instruction for research in a certain direction. Even in these times, I think we must avoid this and cannot let this happen.

Also, even if we were to contemplate it, it would only make sense time-wise if existing grantees would react. But, in principle, if their research is related or could have any impact, they could already ask the ERC to modify their grant goals after discussing this with the agency. Hence, who is capable of helping, could do a lot bottom-up already, without us enabling a program from the top. For new projects, there are new calls coming up. Whoever wants to do related research can submit a proposal. If the demand is there, money will be allocated to the panels accordingly. So, we are already prepared.

Instead, if we created such program, we would clearly direct funding to specific research areas. I cannot, for instance, see who PE9 would be able to contribute to this.

Hence, for all those reasons, I cannot help but adding my firm “No.”.
I rather would step up our efforts to show what the ERC is already doing in this direction using a pure bottom-up approach.

Best wishes, Michael
Dear Mauro,
Thank you for sharing these thoughts and the discussion.
In line with ...‘s arguments. It is NO.
Best wishes, G

Dr. Geneviève Almouzni
Dear Mauro,

My answer to your question about targeted action from the ERC on the Covid-19 pandemic is a very clear NO.

As a researcher based at the Pasteur Institute, one of the leading centres for research on infectious diseases in Europe, I am very aware of the huge effort that is going into research on this coronavirus. In the Institute, the three research units that are expert on these viruses, are working round the clock. Two weeks ago the director of the institute appealed to senior and junior researchers with the right expertise to join these teams and a number have done so. There is no lack of funds or personnel. The last thing that these scientists would do at present is take the time to apply for an ERC grant. Researchers from other fields and places may well decide to put in a proposal with a possibly good idea on the subject, for future exploration and they are free to submit such a proposal by the usual route. Scientists are, of course, sensitive to major societal challenges. This has happened for climate change, for example, and is the best way to proceed. Making a call specifically on Covid-19 won't solve the immediate problem and won't bring in outstanding applications, rather mediocre ones from opportunistic scientists. It will be seen by many members of our scientific community as a public relations stunt not worthy of the ERC.

I am surprised that one of your major preoccupations is not how to keep our grant system going, which our colleagues in the Agency are valiantly trying to do, under very difficult circumstances. This reaches a new level of complexity at step 2 of the evaluation process. We should be working closely with them at this critical time, giving them input and all our support.

I trust that you were found to be negative for the virus and wish you Bon Courage in this anxious situation.

With best wishes,

Margaret
Dear Mauro, dear all:

I find arguments utterly convincing. It is a No from me.

Mercedes
Dear Mauro,

Many thanks for your stimulating thoughts. Anyway, I share your arguments against any move away from the bottom-up principle of the ERC funding. Although usage of such tools as PoC or allocating some extra funds for our current grantees working on COVID-19 related projects makes sense. I am really afraid that if we divert from our principle now, although in the good case, we could be pressed in future to create some special funding programs also of a lesser importance.

Fortunately, there are currently some other Horizon 2020 programs aiming at the pandemic, such as, for example: EXSCALATE4CoV (E4C). A couple days ago a friend of mine got such funding. See more at: https://bit.ly/3a5sQeB.

I wish you good health. All the best,

Andrzej

Prof. Andrzej JAJSZCZYK, Ph.D.
Dear Mauro

Hope that you are feeling better and that your test has turned out negative (although being positive by now might be an advantage).

Thank you for raising this important issue. However, I join the NO position. I do endorse arguments and add the following.

Since its establishment, the ERC has sustained, using the results obtained by its grantees, that a bottom-up approach is the best approach towards innovation. For me, this is a truth and not an argument to use in front of politicians. ERC grants are competitive and applicants make special efforts and really spend time to develop truly innovative proposals. Innovative ideas are what we need to solve the Covid-19 pandemic. I know that you share this view.

Opening a specific call now will certainly attract applications but not of the type that the ERC wants/need to push forward. There will be no time to come up with great ideas. The field is too confused and information is often contradictory. The innovative ideas that you state are needed will only come from thinking in depth to the problem.

I am sure that researchers who can contribute to this enormous problem will do so in regular ERC calls, after carefully thinking over it. If truly innovative these proposal will be funded by ERC and hopefully they will make the difference.

On more practical terms, national governments have already announced funding for Covid-19 and there are already many researchers applying for them. Horizon 2020 has also an open call on Covid-19, why the Commissioner should authorize more funding to the ERC to establish a top-down call that are funded through other pillars?

Of course open to more discussion and confrontation
All the best

Paola

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Paola Bovolenta

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Dear Mauro,

I hope you remain in good health and can relocate with family.
I also appreciate your thoughtful analysis and openly laying out the pros and cons on this quite tricky issue. I share [redacted]'s view that it is good for us to think carefully around our mode of operation at such unusual times.
I think protecting our bottom-up, investigator driven approach is paramount. I also think a special call for this would be a too slow process to make an impact, and also assume funding in general is not a limitation for this type of research now or in the future in most countries. Hence my inclination is a No for generating a special push.
I would, however, be positive to us informing our grantees with a special communication that we are entirely positive if they would wish to redirect their efforts into this direction, and I would also in principle be positive to an opportunity for them to obtain a PoC type grant, with fast response on our end for such a redirection.

Best wishes

Eystein
Dear Mauro,

First and foremost I hope that your health has improved! Not to repeat all the points put forward by SC members, I also vote NO.

All the best to you and everyone on the mailing list, And May the Force be with You, Milena
Dear members of the ScC:

I am thankful for the time you have taken to analyze my document and provide your thoughtful replies. I believe we have received NO votes from all, from whom response may be expected - if I missed anyone, please do let me know. Per the stipulated protocol, then, we will NOT proceed to convene a telephonic Scientific Council meeting on this topic, but rather we will record this vote in our ScC minutes, in lieu of the extraordinary ScC meeting.

Again, thanks for your time and attention to this question.

My best regards

Mauro