The effects of COVID-19 pandemic situation for Junior Faculty at Karolinska Institutet

- Short survey results

July 2020



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Introduction

The steering group of Junior Faculty (JF) at Karolinska Institutet (KI) sends out a yearly survey to Postdocs, Assistant Professors (Forskarassistent, Biträdande Lektor), Researchers and Senior Researchers (not yet permanently employed as Lecturer or Professor). In the 2020 survey conducted between 8th and 30th of June, we asked specific questions on how the current COVID-19 pandemic situation, caused by the SARS-CoV-2 virus, has affected the current work and future career perspectives of JF at KI. In this report, we only summarize these specific question related to the pandemic.

On February 1st, the Swedish Government classified COVID-19 as a disease that constitutes a danger to society, opening the possibility of extraordinary communicable disease control measures. On March 16th, the Public Health Agency of Sweden (Folkhälsomyndigheten) recommended that all work to be conducted from home if possible, and all teaching to be held online. While KI did not shut down or limit access to campus buildings, instructions from FHM and the KI central leadership to limit physical presence on campus when possible, practice physical distancing and avoid gathering in groups were clear. Additional recommendations, rules and guidance for staff have been continuously posted on the KI website under the COVID-19 resource hub¹. Although guidelines to limit social interaction at the workplace were in place, the differential actions across KI and the impact of these measures on various researchers, career stages, teaching roles, types of research and Departments within KI were not monitored during this intense period. One of the goals of this year's JF survey for early career researchers has therefore been to assess the impact of the pandemic on research and teaching at KI.

In total, we received answers from 383 responders, of whom 59.3% were women and 40.0% men. The majority of the responders were non-Swedish (59.7%). Just over half of the responders (52.5%) reported having children aged under 19 years with a large majority of those having children between 0-5 years. Figure 1 shows the distribution between the different positions of the responders. The Postdoc position category (52.2% of all responders) includes both employed Postdocs and Postdocs on stipend. The position "other" includes positions such as laboratory manager and project coordinator positions.

¹ https://ki.se/en/covid-19/covid-19-resource-hub

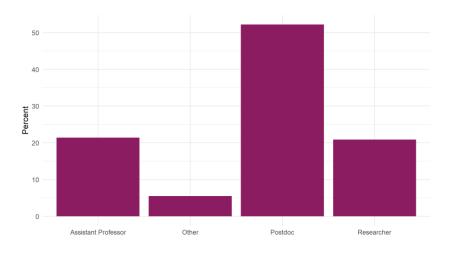


Figure 1. Proportions of the position categories of the responders based on the total of 383 answers.

Summary of results and conclusions

- Approximately 70 % of the responders indicated that they had either worked fully or partly from home during the last three months (37% combined on-site and at home and 34% from home).
- JF members indicate many problems regarding their research included difficulties in starting planned research projects, conducting research on-site, collection of samples/material and maintaining collaborations were reported to a large extent by JF members.
- The pandemic has led to a loss of productivity and a high degree of uncertainty regarding how contracts and grant durations can be extended.
- There might be an imbalanced impact on research across KI with certain fields being more severely affected than others.
- Although the pandemic has affected teaching in many ways, most of the responders did not think the situation will have an impact on their teaching opportunities.
- Many researchers fear that research money for areas other than COVID-19 and SARS-Cov-2 will be diminished.
- The pandemic brings uncertainty for the future with less funding and fewer positions available.

Recommendations

- Extension of contracts and grants should be the default
 - The unequal situation for Postdocs on stipends or ALVA/LAS contracts should be highlighted, and the University management should try to resolve the discrepancies in rights and conditions.
 - There should be a possibility to extend the meriting time of 5-years for Assistant Professor (Bidträndande Lektor) in Sweden.
 - Improved communication from grant agencies and KI central leadership is needed to inform
 JF members about extension possibilities.

- KI should centrally investigate the impact of the pandemic situation on JF researchers and their career prospective.
- KI should centrally investigate whether there have been any imbalances in actions across KI, and how
 the managers at all levels have acted, ensured a safe working environment, and communicated their
 decisions during this time.
- The resource team for mental health during COVID-19² that has been established should take action to monitor mental health of all researchers, and pay extra attention to early career researchers, as majority of them are non-Swedes on time-limited contracts.

We would like to also highlight a recent complimentary survey³ of the COVID-19 situation in Sweden across different universities conducted by the Swedish Network of Postdoc Associations with similar conclusions to ours.

Working conditions and progress of research projects

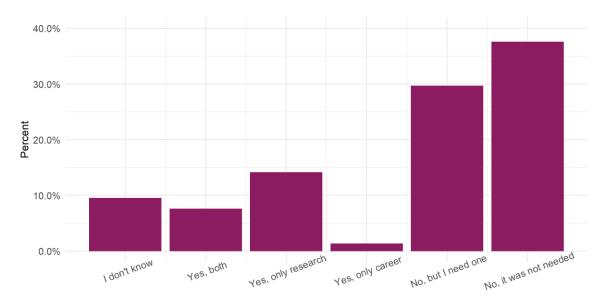
On March 16th, the Public Health Agency in Sweden gave the recommendation that everyone who has the possibility should work from home, especially in the Stockholm area. At KI, all managers with delegation rights⁴, including research group leaders, had the responsibility to make a risk assessment and plan and monitor how employees and affiliated group members prioritize their work, either at home or on campus, and follow the overall recommendations from the Public Health Agency. The majority of teaching activities, including all lectures at KI were conducted remotely from mid-March onwards (see more in the section on teaching questions). During the spring, the KI campuses have however remained open for staff and students.

Leadership at all levels at KI, including research group leaders were advised to conduct risk assessments for the pandemic situation and plan for action for the risk(s) identified. These assessments and action plans are usually done together with the affected research group members. Therefore, we asked the following question: "Have you established (or are you now in the process of establishing) a risk handling plan for your research project and career with your closest manager?" (Figure 2). The majority of the responders had not established a risk handling plan as it was not needed (37.6%, n=138). In total, 26.8% had made such a plan either for their research project or for their future career or both. Almost 30% reported that they did not establish such a plan but indicated that they would need one.

² https://staff.ki.se/ki-establishes-resource-teams-for-support-during-the-covid-19-pandemic

³The effect of the COVID-19 pandemic on postdocs in Sweden https://bit.ly/2BWYbAq

⁴Decision making procedures and delegation rules at KI: https://staff.ki.se/media/669/download



Have you established a risk handling plan for your research project and career

Figure 2. Proportions of the responders that have or have not established a risk handling plan due to COVID-19 situation (n=367).

The general recommendation in Sweden was to work from distance if possible, thus giving the possibility to continue on-site research at KI during the pandemic. Therefore, we asked the responders to choose the option that best applied to their working situation during the past three months (Figure 3). Most of the responders (n=140, 37%) stated that they worked from home on some days, and on-site campus on others. Thirty-four percent reported that they had worked only from home and 23.5 % worked only on-site at one of the KI campuses. The choice to work from home or the need to be on-site for work could be due to the type of research (experimental vs computational) of the responders, however, we did not include specific questions on the research area to be able to confirm this.

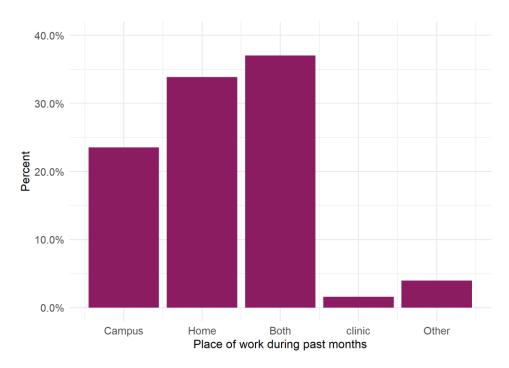


Figure 3. The proportion of responders (n= 378) working from home or on-site during the last three months.

To understand the extent to which JF researchers had encountered difficulties in their research during the pandemic, we proposed ten pre-specified potential problems (all ten could be chosen) based on JF steering group experiences and feedback from the Committee for Research at KI, and we also included an open field option to capture additional issues. Figure 4 shows the pre-specified problem areas and the distribution of the answers. Just under half of the responders (45.4%) reported that they had problems starting their planned new studies. Problems with conducting research studies on-site (i.e., work that cannot be done from distance such as field studies, lab studies, animal studies, etc.) were reported by 37.3%. Twenty-two percent reported problems with recruiting study participants. Twenty percent of the responders had problems with receiving and working with human material due to the changed biosafety rules. Problems in conducting clinical studies in collaboration with Region Stockholm or other regions were reported by 9.3%. Other problems hindering research such as access to core facility services and problems in ordering and receiving needed reagents/material were reported by 14.3% and 25.6%, respectively. Another layer of issues was related to communication problems in the research group due to the pandemic situation, reported by 27.7%.

A major problem, reported by 35.7% of the responders, was establishing and maintaining research collaborations both nationally and internationally with the cancellation of research meetings and visits as well as halted sample collections abroad. Difficulties in recruiting staff members, including national and international PhD students, Postdocs, Staff Scientists, clinicians or other specialists, administrative, were reported by 17.6%.

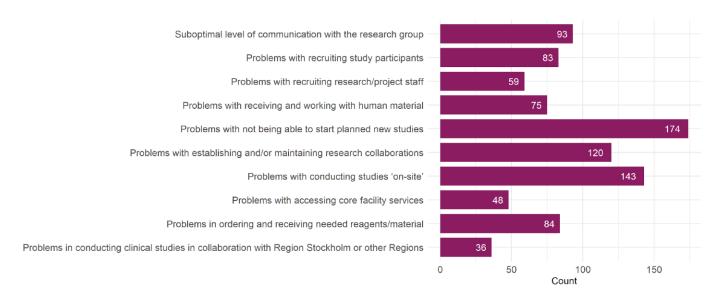


Figure 4. Number of individuals reporting problems in ten pre-specified areas.

Among the free-text answers, additional areas of problems for research during this time were identified: clinical work prioritized over research, uncertainty of University or Departmental policy and unclear communication from leadership at all levels, lowered overall research productivity, running costs for salaries despite halted research, and mental distress due to various issues. However, on the positive side, several responded that their research was not affected and was going well despite the pandemic, or that the pandemic had opened new possibilities for research.

Research related to COVID-19 and SARS-Cov-2

Since the start of the pandemic, KI has initiated a number of studies related to COVID-19 and SARS-Cov-2 within several research areas. We wanted to monitor how many researchers at the early career stages had changed their focus to COVID-19 and SARS-Cov-2 research. From the 372 responders, 22.3% reported that they have partially changed their focus towards COVID-19 and SARS-Cov-2 (Figure 5, left panel), of whom 20% reported that they have encountered problems conducting these studies (Figure 5, right panel).

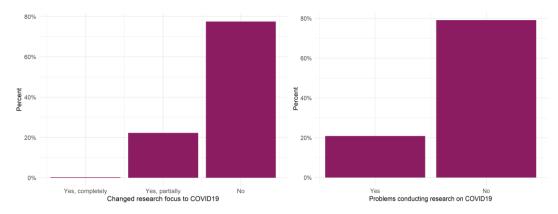


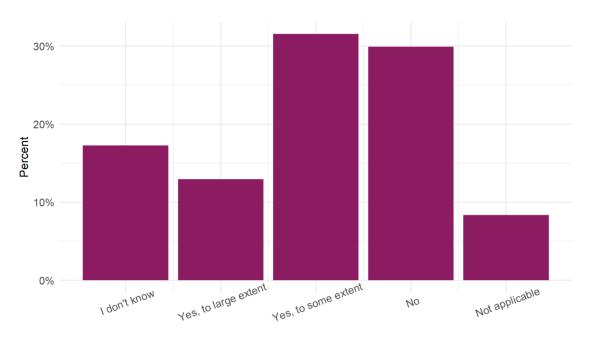
Figure 5. The proportion of responders that have changed in research focus towards COVID-19 and SARS-Cov-2 (left panel) and proportion of those who reported problems conducting these studies (right panel).

For those who answered 'yes' for having problems in conducting research focusing on COVID-19 and SARS-Cov-2, we asked them to specify the issues they had encountered. These researchers reported problems with having access to biosafety level 3 facilities for their experiments, lack of funding especially for smaller pilot studies, problems and delays in accessing the needed patient samples or data from patient registries. The responders also reported difficulties in communication between different research groups within KI and lack of collaborative efforts. A few respondents also mentioned a slow process of obtaining ethical approval despite the prioritized process for COVID-19 related research at the Swedish Ethical Review Authority. These delays, both in the ethical applications and access to data and samples, were considered a hindrance to keep up with the rapid pace of international studies.

Employment and career prospective

As many JF researchers are not permanently employed, we aimed to assess whether the current situation is affecting how JF members perceived the possibilities to obtain research positions in the future. Indeed, more than half of the responders were on contracts that either will end this year (20.4%) or next year (32.5%). It is also noteworthy that KI has indicated that some of the research staff are entitled to prolonged contracts due to the pandemic situation, but not all. The extension possibility depends on the contract type and research group funding situation, and should be approved by the group leader and/or by the department leadership.

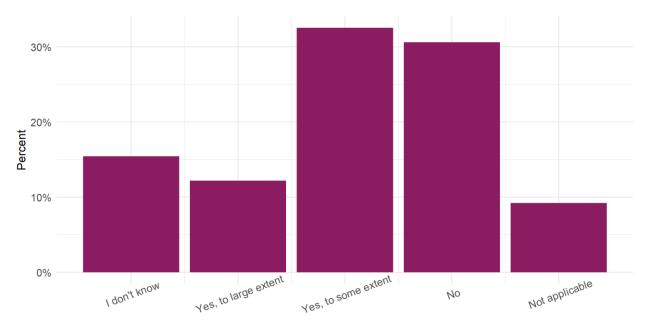
As presented in Figure 6, in total 44.4% responded that they think that the current situation will affect their possibility to apply for academic positions in the future either to a large extent (12.9%) or to some extent (31.5%). Thirty percent did not think the situation would affect their possibilities.



I think the current situation will negatively affect my possibility to apply for academic positions

Figure 6.

Additionally, we asked if the responders think that the current situation will negatively affect their possibility to use current grants or apply to external funding agencies during this year and 2021. Forty-five percent thought the situation will have a negative effect (Figure 7), of whom the majority thinks the effect will be to some extent (32.5%). No negative effect was reported by 30.6%.



I think the current situation will negatively affect my possibility to use current grants and apply for new

Figure 7.

Next, we asked the responders to identify the negative and positive effects of the pandemic for both future career possibilities and research funding. The responders believe that overall there will be less academic positions available for them to apply for. Many countries or universities are not hiring or have postponed current calls for the recruitment of new staff members⁵. As research productivity and the possibility to conduct research has slowed down during the spring, many responders fear that they will not be able to finish their project in-time to be able to be competitive enough for faculty positions. Another important concern for the responders was the time-limited contracts and time-limited eligibility (5-years after PhD) for Assistant Professor positions (Biträdande Lektor) in Sweden. Also, the lack of possibility to network and present one's research work at international conferences was seen as a putative hindrance to compete for faculty positions. For Assistant Professors on time-limited contracts, the lower productivity and ability to conduct the planned research were considered a major barrier for reaching the next career stage.

A large number of responders feared that overall funding, both private and governmental, will be reduced in the future, which will have a negative impact on their research. A general comment was that many of the grant agencies have now focused on funding COVID-19 related research thus leaving other research areas with less funding. Researchers already reported cancellation of calls for research grants.

The responders reported reduced research productivity, including patient / participant recruitment, international collaborations and difficulties in conducting experimental work, which they believe will have an impact on their capacity to receive grants in the future as well as their ability to use their current grants within the planned time frame. This reduced / lack of research productivity will affect future publications and their possibility to show preliminary data in new grant applications, a factor that the responders thought will have a negative impact on their chances of getting funded. Another major issue identified was that grants are being used for salaries of staff members who cannot perform the intended work, thus leading to grant money being used while the projects are not moving forward, which will lead to problems in the near future.

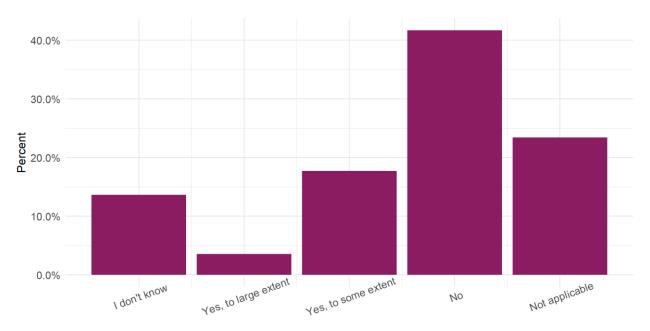
On the positive side, some of the responders reported that they have been able to extend their current grants without difficulties and managed to conduct many projects from home. The researchers mentioned that they have been able to adjust to the new situation and be creative to find solutions to the problems arising. Some of the responders were currently on parental leave and thus felt that the situation will have less of an impact on them than on others. Some also reported that everything is going as normal with slight changes related to working from home.

Teaching

Teaching opportunities are important for JF researchers as teaching merits are a crucial part of an academic career and will be part of the evaluations for Lecturer and Professor positions. As the majority of teaching at KI has moved online and some of the courses were cancelled, we asked if the responders thought that the current COVID-19 pandemic situation had/will negatively affect their teaching opportunities (Figure 8). From the 367 respondents, 153 (41.7%) did not think the situation had a negative impact on their teaching opportunities.

⁵Junior researchers hit by coronavirus-triggered hiring freezes, Nature Career news: https://www.nature.com/articles/d41586-020-01656-3

Only 3.5% reported a large negative effect on their teaching and 17.7% said that the situation had negative effects to some extent.



I think the current situation will negatively affect my teaching opportunities

Figure 8.

In an open text field, the responders had the possibility to describe how they think the pandemic situation has and will affect their teaching. Many reported cancelled courses, especially hands-on laboratory courses, and thus missed opportunities for gaining teaching experience. Additionally, many reported a reduced need for teachers in the courses they have been part of as the courses are online or used recorded lectures.

Although many of the courses have been successfully transferred to online courses, several of the responders indicated that they prefer in-person teaching, that the interaction with students was not always optimal, and that technical issues sometimes interfered with the online teaching. Also, additional time was spent on preparing to digitalize and change the course content, and although this took time away from research, it was not compensated for.

Additionally, the responders indicated lost opportunities to teach abroad and that taking in students for internships was not possible, again leading to lost teaching / supervision opportunities for JF researchers / teachers. Although this would be equal for researchers at all career stages, early career researchers are most likely to be the hardest hit, as they have a strong pressure to acquire teaching merits for the next step of their careers.

Additional comments

Based on the free text comments of the responders, we identified additional issues in connection to the COVID-19 pandemic during this spring which we did not specifically survey for and which should be investigated further by the university.

1) The impact of the pandemic on mental health among JF researchers.

The pandemic situation can have a huge negative impact on people's mental health due to anxiety or fear of getting affected by the virus (either personally or close-ones), social isolation and many other related issues. The university should thus closely monitor these issues and have a plan for how to ease the situation for those affected. The majority of the responders to our survey identify themselves as non-Swedes which means they might not be able to visit their families and home countries for long periods of time due to lock-downs and travel restrictions, which can elevate their distress and mental health problems. Uncertainty for their future career was also identified in our survey as an additional major issue that can negatively affect the mental health of junior researchers.

2) Potential imbalanced response and action throughout KI during the pandemic.

The majority of the decisions on how, when and where to work during the spring of 2020 was taken by the research group leaders at KI, which may have led to imbalance actions across KI as some staff members have been demanded to work on-site despite the risks related to the pandemic and conversely, in some groups all work on campus had been halted despite the research buildings remaining open. This might unintentionally have led to unequal opportunities across the campuses and Departments, and should perhaps be investigated further for future reference. Some of the responders also thought KI had not taken enough action to provide a safe working environment.

About the Junior Faculty Steering Group at Karolinska Institutet

The Junior Faculty Steering Group at KI, established in 2002, is an interest organization for researchers with a PhD but not yet a permanent academic position as university lecturer or professor. Junior faculty refers to a stage in the research career and includes postdocs, assistant professors and researchers (both short-term and permanently employed).

Our aim is to promote the development of a career system at all levels and to advocate for conditions that allow present and future junior faculty at Karolinska Institutet to perform at their best and to conduct independent research of a high academic quality and originality. The Junior Faculty Steering Group has a direct and continuous dialogue with KI leadership (thanks to representation in several KI committees and working groups at central and departmental levels), as well as funding agencies and government. The Steering Group voices the opinions of the junior faculty based on information from our yearly surveys and by having a broad representation at the majority of departments at KI. We provide support to early career academics through our website and by organizing seminars, workshops and hearings. We aim to integrate equal opportunities in all of our work.

The work carried out by the Junior Faculty Steering Group is divided into different focus areas, represented by Focus Groups. The number and the scope of the Focus Groups can vary and is dependent on the most prominent issues Junior Faculty at KI needs to tackle at a specific time point. As the Junior Faculty Steering Group is an interest organization, we do not have a member registry. Any junior faculty at KI is welcome to participate in the activities organized by Junior Faculty and to apply to become a member of the Steering Group. Please contact us at our email address below.

About the authors

The questions were drafted by the communication focus group headed by Anna Sidorchuk with detailed feedback from JF leadership 2020, the whole steering group of JF and the committee for Research at KI. The data was analyzed and the report written by Kristiina Tammimies with help from Carolina Hagberg, Shireen Sindi, Nick Tobin, Hassan Abolhassani, Rodrigo Fernandez Gonzalo and Anna Sidorchuk.

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