# Supergen Cross Hub Report: Impact of COVID-19 on Equality, Diversity \& Inclusion and Research 

## Contents

Introduction ..... 4
A summary of recommendations ..... 5
Caring responsibilities: conclusions ..... 5
Events: conclusions ..... 5
COVID impacts: conclusions ..... 6
Characteristics ..... 7
Caring responsibilities ..... 11
Caring responsibilities: conclusions ..... 14
Events ..... 15
Events: conclusions ..... 20
Funding schemes ..... 21
Funding schemes: conclusions ..... 29
COVID pandemic impacts ..... 30
COVID impacts: conclusions ..... 40

## Introduction

In the second half of 2020, the EDI Champions from several Supergen investments collaborated on a survey of members, to better understand the impact of the COVID pandemic on our research community. The questions were designed to elicit a better understanding of our community's view of best practice for inclusive events, for diversity in applications to Supergen funds, and in supporting researchers through a global pandemic.

Since March 2020, areas of the United Kingdom experienced lockdown to different extents and over different time periods. We therefore asked respondents, for questions about the impact of the pandemic, to reflect on the period since mid-March 2020. The survey was issued in the autumn of 2020 and responses were received during October and November of that year. It comprised an online form, promoted to Supergen members through emails from the respective Supergen headquarters.

The survey was designed with a mixture of likert-scale and closed (yes/no) questions, along with free text boxes for more open-ended responses. There were five sections to the survey. Section 1 asked questions about the respondent's protected characteristics and employment status. Section 2 asked about caring responsibilities. Section 3 asked about events. Section 4 asked about funding schemes. Section 5 asked about the impact of the COVID pandemic. The results are presented in the sections which follow.

## A summary of recommendations

## Caring responsibilities: conclusions

- $44 \%$ of respondents have caring responsibilities, and hence Hubs should consider caring responsibilities and their impact on the community with which they engage
- $72 \%$ of these are caring for a child or children, but a not-insignificant $28 \%$ are caring for a partner, parent(s), or a combination of child/children partner and parent(s), and hence Hubs should consider caring responsibilities beyond the "school hours" issue
- Around 50\% of both male and female respondents with caring responsibilities saw themselves as the primary carer, which further supports the conclusion that Hubs should consider caring responsibilities, since the community do not all have joint or shared caring responsibility


## Events: conclusions

- In person events are preferred, particularly for Asian/Asian British and for ECRs
- Gender balance is a preference for females, but a majority of both genders reported attending events with a lack of diversity in the space
- A significant proportion of our community have previously experienced barriers to attending events
- Family commitments are more likely to be a barrier for Asian/Asian British colleagues, males were less likely to see this as a barrier than females
- Free text comments on best practice indicated respondents felt Supergen events were generally more diverse and welcoming, with points raised regarding allowing time for networking, reducing cost barriers, virtual events and recordings would still be welcome, and consideration of a diversity of disciplines and interdisciplinary approaches


## Funding schemes: conclusions

- Schemes targeted at certain categories of under-represented groups are popular with those groups, but unpopular particularly with males and White/White British, and so action in this space may need careful communication to overcome this
- Between a quarter and a third of the community had tried to improve diversity in their teams on proposal, and so given this is a minority it behoves the Supergen Hubs to require this be considered
- Free text responses suggest some schemes have supported ECR and diversity in applicants, but advice on how to do this will be needed
- Flexible fund schemes should have at least a six week notice period
- Proposal writing is more likely to be impacted by caring responsibilities, and given $28 \%$ of carers indicated caring for parents or partners, proposal timescales should be about more than avoiding school holidays
- Track record requirements, in order to be PI, are more of a concern for Asian/Asian British respondents, and deadline timings are more of a concern for White/White British respondents
- Timings of deadlines are a barrier, particularly in relation to English and Scottish school holidays
- About of third of respondents struggle with short deadlines due to caring responsibilities
- Caring responsibilities do not seem to be a concern when it comes to leading proposals, and Males are least likely to see this as an issue


## COVID impacts: conclusions

- Childcare and family caring responsibilities increased for a third (childcare) and a fifth (family care) of respondents with more impact for Asian/Asian British and Male respondents. Most ( 30 respondents, 71\%) saw an increase of 1 to 10 hours, 12 respondents saw more than 10 hours, with 3 of those reporting the highest category of more than 30 hours. This could have long term implications for career progression of these colleagues
- Part time colleagues were more impacted than full time colleagues with respect to family care commitments, a serious implication given the existing difficulty of career progression for part time working
- Physical health concerns impacted Asian/Asian British colleagues more, and mental health concerns were also higher for Asian/Asian British colleagues and for Female colleagues. Coping with such concerns could limit mental capacity to deal with other work stresses
- Asian/Asian British were more likely to experience an impact on income during COVID, further exacerbating stress during this period
- Views on the impact on productivity were split, a similar proportion feeling unaffected as those affected, although 40\% of respondents felt their productivity was worse and, again, this could impact on career progression and contribute to feelings of stress
- Around half of respondents felt they could not undertake all of their normal work duties during COVID, and research activities were affected, requiring therefore some flexibility from their employer and the sector in general regarding research progress
- About a fifth struggled with a suitable workspace, although a much higher proportion of Asian/Asian British colleagues and ECRs struggled with this. For online meetings, it is recommended that Hubs/Networks do not require cameras and microphones on at all times, to reduce the impact on colleagues of difficulties with their workspace. For organisations who enable some return to the workplace, it would be appropriate to prioritise those whose home/remote working space is less suitable
- Whilst questions on events showed a preference overall for face to face meeting, Female respondents felt they had attended more events as a result of the move online. Therefore, to enable full participation of the community, a hybrid delivery method or variety of delivery methods is recommended
- Female respondents were more likely to feel that remote working had helped them to make new connections than Males, and ECRs less likely than non-ECRs, although overall the majority disagreed that new connections were easier with online working. Hence, the Hub/network community should ensure future activities enable networking


## Characteristics

We received 98 responses to the survey. We also had information from respondents regarding the particular Hub/Network with which they most closely identified. Please note that the link to the survey was sent by individual Hubs to their mailing list at different times, and so early respondents may have responded to the Hub invite which they received first, although they may have received the invitation subsequently from other Hubs. Respondents identified as: 22 from bio, 27 from networks, 8 from storage, 26 from offshore, 8 from hydrogen, 3 from solar, 4 didn't identify a hub. The first section of the survey covered questions on respondent protected characteristics and employment status.

GENDER: $62 \%$ of respondents identified as male, $36 \%$ female ( $2 \%$ preferred not to say). Note that non-binary responses were possible, we did not get responses for those categories (response options: Female; Male; Transgender female; Transgender male; Gender variant/Non-conforming; Other (Free text box); Prefer not to say).

You can see in Figure 1 that the storage and hydrogen hub respondents were more male ( $88 \%$ ) than the full sample (although these hubs only had 8 respondents in total, each), and the offshore and networks hub respondents had a slightly higher proportion of women ( $42 \%$ and $41 \%$, respectively) than the full sample.


Figure 1. Gender characteristics of respondents (a) as a whole (b) by Hub/Network.
ETHNICITY: $77 \%$ of respondents identified as White/White British, $12 \%$ as Asian/Asian British (13 respondents in total) as shown in Figure 2. A very small number chose "Chinese", "Mixed/Multiple" and "Prefer not to say". Because of the small numbers involved in those categories, in order to avoid the potential for individuals to be identified, the three categories with low response rates were merged into a category called "other" (8 respondents in total).

PLEASE NOTE: Future analysis by ethnicity does not comment on the difference for the "Other" category. Where comments are made regarding the difference between responses from Asian/Asian British and White/White British, there are still a relatively small number of respondents (13) in the former category.

The proportion of respondents who identify as White/White British for the different Hubs are: bio $59 \%$; networks $89 \%$; storage $75 \%$; offshore $77 \%$; hydrogen $50 \%$; solar $100 \%$ (only 3 respondents from the solar network). Hydrogen had the highest proportion of respondents in the Asian/Asian

British category (38\%). When asked about nationality, 58\% identified as British, 8\% as European and $12 \%$ as "other".


Figure 2. Ethnicity characteristics of respondents (a) as a whole (b) by Hub/network
DISABILITY: 3\% of respondents identified as disabled, $89 \%$ not disabled.
AGE: almost half of respondents were under 40 ( $48 \%$ of respondents), a further $45 \%$ of respondents were in the age range 40-59, and a small proportion were 60 and over, as shown in Figure 3. (20 respondents declined to answer this question.)


Figure 3. Age characteristics of respondents
WORKING SECTOR: 76\% of respondents identified as primarily working in the academic sector, $18 \%$ in industry and $4 \%$ in the third sector, see Figure 4 . The questionnaire was primarily aimed at academic colleagues, since we were interested in ways in which we could increase engagement at events and with flexible fund opportunities, and how COVID had impacted on research, in particular.


Figure 4. Working sector of respondents
CONTRACT TYPE: The majority (81\%) of respondents work full-time (Figure 5a), and 59\% are on permanent contracts (Figure 5b). Female respondents were more likely to be part time than males ( $26 \%$ of female respondents work part time, compared to $9 \%$ of male respondents, Figure 5d). Asian/Asian British were more likely to be full time than part time, Figure 5c (14\% of full time respondents were Asian/Asian British compared to 7\% of part time respondents).


Figure 5. Employment characteristics of respondents (a) contract type (FT/PT) (b) contract term (c) FT/PT by ethnicity (d) FT/PT by gender


Figure 6. ECR characteristics of respondents (a) as a whole (b) by Hub/network
$30 \%$ of respondents identified as ECR, with a further $10 \%$ identifying as ECR under certain circumstances (Figure 6a). The Offshore Renewable Energy Hub, the Storage Hub and the SuperSolar Network Plus having a higher percentage of respondents identifying as ECR than the other Hubs, although the other three Hubs/Networks have a number of respondents who consider themselves ECR under certain circumstances (Figure 6b).

## Caring responsibilities

We asked respondents what caring responsibilities they had, with regards children, partners, parents or other caring responsibilities. A small number of respondents indicated caring in multiple categories.

Of those who responded "Other", they indicated they had no caring responsibilities (for future reference, "no caring responsibility" should have been a response option, to reduce the use of "other" or blank responses). A total of 49 respondent did not respond, or reported zero individuals, regarding the number of people for whom they have caring responsibilities. A further 6 responded with "prefer not to say". Therefore 43 of the 98 respondents indicated caring responsibilities, $44 \%$ of respondents.

The majority of caring responsibility is for a child or children. $84 \%$ of those with caring responsibilities were caring for a child or children, $12 \%$ of which were also caring for a partner or parents(s), or both (Figure 8a).


Figure 7. Number of respondents with caring responsibilities


Figure 8. Caring responsibility (a) category of person(s) being cared for (b) number of persons being cared for

Of those who did indicate a caring responsibility, there was a subsequent question on the number of individuals cared for. Only two respondents identified four and five individuals they cared for, more frequent responses being one, two or three individuals being cared for ((Figure 8b). For caring responsibilities for three individuals, $50 \%$ of respondents are female, as compared to $27 \%$ of respondents with one individual to care for, and $31 \%$ of respondents with two individuals to care for, being female. $77 \%$ male respondents have one or two individuals they care for, the remaining $23 \%$ care for three or more. For female respondents, $67 \%$ have one or two individuals they care for, the
remaining 33\% care for three or more (Figure 9). Due to the small number of respondents indicating caring responsibilities, the responses have not been broken down by ethnicity.

(a)
(b)

Figure 9. Caring responsibility by gender of respondent
Male and female respondents were equally likely to describe themselves as the primary carer, although more female respondents preferred not to describe their caring role (Figure 10).


Figure 10. Carer role, by gender of respondent

## Caring responsibilities: conclusions

- $44 \%$ of respondents have caring responsibilities, and hence Hubs should consider caring responsibilities and their impact on the community with which they engage
- $72 \%$ of these are caring for a child or children, but a not-insignificant $28 \%$ are caring for a partner, parent(s), or a combination of child/children partner and parent(s), and hence Hubs should consider caring responsibilities beyond the "school hours" issue
- Around $50 \%$ of both male and female respondents with caring responsibilities saw themselves as the primary carer, which further supports the conclusion that Hubs should consider caring responsibilities, since the community do not all have joint or shared caring responsibility

Supergen
|Energy Networks Energy Storage
SuperSolar (3)|sioneroro

## Events

In order to inform future Supergen event planning, we asked respondents a range of questions about the events which they have attended.

Regarding the preference to attend events in person, more males agreed with this statement than females ( $66 \%$ of male respondents agreed, compared to $53 \%$ of female respondents), and this was a stronger preference for Asian/Asian British (75\%) compared to White/White British (59\%) as shown in Figure 11. Note that 12 respondents in the Asian/Asian British category responded to this question and so each individual response has a more significant percentage weighting (8\%) than each of the 75 White/White British respondents. Whether by gender or by ethnicity, the majority preference is for events in person.


Figure 11. Preference for in person events (a) by ethnicity (b) by gender
It is considered that networking is important at events, particularly for Early Career Researchers. When looking at the preference for in person events, by ECR category, a higher proportion of ECRs preferred in person events (69\%) compared to those who did not identify as early career (59\%), see Figure 12.


Figure 12. Preference for in person events, by ECR characteristic

Respondents were asked whether family commitments limited their ability to travel to events, as shown in Figure 13. More Asian/Asian British agreed this was a limitation compared to those in the White/White British category. The proportion of male and female respondents agreeing this was a limitation was roughly the same ( $38 \%$ and $41 \%$, respectively), although more male respondents disagreed that this was a barrier ( $43 \%$ of males compared to $34 \%$ of females).


Figure 13. Family commitments a barrier for travel to events (a) by ethnicity (b) by gender
Respondents were asked about their preference for gender balance at events. More female respondents preferred a gender balance of speakers than male respondents (Figure 14b). White/White British respondents also had a strong preference for this, while Asian/Asian British respondents were more indifferent (Figure 14a).

(a)
(b)

Figure 14. Preference for a gender balance of speakers at events (a) by ethnicity (b) by gender
We asked respondents if they feel uncomfortable at events where they are the minority (Figure 15). Slightly more females agreed with this than males, and slightly more Asian/Asian British agreed with this than the White/White British. However, in general, respondents mainly disagreed, which indicates respondents were not uncomfortable if they were a minority at events.

(a)
(b)

Figure 15. Feel uncomfortable at events when being a minority (a) by ethnicity (c) by gender
Respondents were asked whether an event ever been arranged in such a way that they felt they had a lack of opportunity to attend. There is very little difference in the responses by gender or ethnicity, but worryingly a significant proportion of respondents indicated they had experienced barriers to attending events (Figure 16). Some individuals chose to provide specific examples of how events were inaccessible, rather than answer "Yes". Specific examples included:

- timing clashed with childcare commitments (more than one respondent highlighted this issue);
- evening meetings at my own institution when there was no need for the meeting to be in the evening;
- Scottish holidays almost never planned for in timing of events;
- I cannot be away overnight, so early mornings and/or late evenings are not possible; yes where the transport didn't allow morning arrival and I had other commitments in the evening that prevented coming the night before;
- distant event,
- multi-day inaccessible locations;
- clashes with teaching commitments or exam boards. Summer holidays should be protected but instead it is when a lot of conferences and grant deadlines seem to occur.


Figure 16. Lack of opportunity to attend an event (a) by ethnicity (b) by gender
We asked respondents whether an event has ever been arranged in such a way that there was a lack of diversity in the space. A majority of males (53\%)and higher majority of females (67\%) agreed with this (Figure 17b). Asian/Asian British respondents were split 50/50 on this issue, 58\% of White/White British respondents agreed (Figure 17a). Specific comments provided by respondents included:

- lack of BAME. feel that only thinking about gender could be considered positive discrimination, speakers should be arranged based on merit alone;
- all male panels, all white panels, also a lack of diversity in terms of disciplinary perspectives on a particular issue;
- nearly always white male speakers;
- 'manels';
- e.g. all white male mid-aged panels; being asked for interview panel just because female is needed;
- too many older men;
- male heavy panels.

(a)
(b)

Figure 17. Lack of diversity in an event space (a) by ethnicity (b) by gender
The section on events concluded with a free text box option, with the request to provide examples of how Supergen and non-Supergen events have made you feel they DO offer equality of opportunity, diversity of participation and inclusion of all. The comments are provided below (unedited other than to correct typing errors):

- The invited speakers are the same all the time. The London mafia and friends. They invite one each other over and over again to be popular and get bigger track records. EPSRC likes to be blind to this, and have not done anything to solve the problem.
- My limited experience of Supergen events is that they have a better mix of people (gender, age, work experience, class) than oil \& gas. Maybe that's not saying much but it seems good to me.
- I think the events are short but long enough to get what you want. In terms of equality and diversity, I do not pay much attention to genders, ethnicity, but to the content, but everybody is included and that is a nice atmosphere to participate.
- Individual focus. Interdisciplinary groups. Open discussion. Transparent decision making. Approachable staff. Personal connection.
- I believe that Supergen events have been very good examples of inclusivity (probably top 10\%).
- Later start time, to avoid peak travel costs. Reasonable finish time. Good mix of presenters, including respected specialists and early-career researchers, from diverse backgrounds. Catering to cover a wide range of food intolerances and preferences.
- Attracting speakers and delegates from a range of backgrounds and career stages; having a discursive approach, rather than a competitive or confrontational one; building in some
networking time during the day, not just leaving it all till the classic evening drinks reception (when - if it's local - l'd normally have to leave due to childcare commitments).
- Really enjoyed Supergen EN Hub Online Conference and cross-hub webinars for their diversity, inclusion, space for comments, sticking to working day working hours, etc. The only thing that virtual events are missing is the networking space - networking is just all that much harder virtually.
- I have found that virtual events tend to offer better opportunity for participation and contribution during the session.
- I am an ECR according to EPSRC, but I was not allowed to apply for the ECR opportunities in this network (program manager said I didn't qualify). It very much feels like there is no way for me to join this network. I recently moved from the USA to the UK and I know it is hard with virtual spaces to "meet" others, but so far I do not understand how I will be able to join the community.
- As STEM dominated Hubs, I feel that Supergen events are amongst the most diverse in terms of non-STEM perspectives.
- When there is diversity in presenters or panel members.
- British Institute for Energy Economics makes a big effort to avoid both manels and speakers only there to tick the box.
- Supergen seems a very open and welcoming environment to me and the fact that the platform is often given to ECRs helps show a more diverse range of speakers.
- It is easier to attend both in time and in cost (which is a particular problem if you can only attend for part of the time anyway).
- Re 3g-I would have (and did) attended virtual ones before, and I still would.
- I consider that the biggest barrier of inclusion is money. I will also explicitly exclude of my circles to anyone who somehow demonstrate that they have prejudice for any form of discrimination other than money.
- There is more diversity in academia than industry HOWEVER the women seem to disappear after studies and do not seem to make it through to management positions after further study
- Supergen places considerable emphasis on fairness, equity, and welcome to all. I cannot point to a single event, but overall Supergen scores very highly in this regard (as far as I am concerned).
- I do not recall any examples where Supergen have made specific efforts to improve participation/access.
- With teaching, especially recorded events give everyone a chance to participate


## Events: conclusions

- In person events are preferred, particularly for Asian/Asian British and for ECRs
- Gender balance is a preference for females, but a majority of both genders reported attending events with a lack of diversity in the space
- A significant proportion of our community have previously experienced barriers to attending events
- Family commitments are more likely to be a barrier for Asian/Asian British colleagues, males were less likely to see this as a barrier than females
- Free text comments on best practice indicated respondents felt Supergen events were generally more diverse and welcoming, with points raised regarding allowing time for networking, reducing cost barriers, virtual events and recordings would still be welcome, and consideration of a diversity of disciplines and interdisciplinary approaches

SuperSolar H2FCSUPERGEN

Supergen
$0=$

## Funding schemes

In order to inform future Supergen funding calls, we asked respondents a range of questions about the possible approaches which might encourage diversity of applications.

We asked respondents whether they would welcome calls which require that applicant team to represent the diversity of the community. We also specifically asked respondents whether they are supportive of making calls open only to Women, or Black, Asian and Minority Ethnic applicants.


Figure 18. Supportive of calls which represent diversity of the community (a) by ethnicity (b) by gender; Supportive of calls which are targeted at women, black, Asian and minority ethnic applicants (a) by ethnicity (b) by gender

Females and Asian/Asian British respondents were more supportive of calls which represent diversity (at 66\% and 85\%), and calls which specifically are aimed at Women, Black, Asian and Minority Ethnic applicants (at 46\% and 77\%) above.
$46 \%$ of males supported calls that represent the diversity of the community, but only $38 \%$ support calls which specifically are aimed at Women, Black, Asian and Minority Ethnic applicants. A higher proportion (44\%) of males did not support calls, than did support calls, which specifically are aimed at Women, Black, Asian and Minority Ethnic applicants. Only 29\% of White/White British supported calls that represent the diversity of the community, and even fewer (22\%) of White/White British supported calls which specifically are aimed at Women, Black, Asian and Minority Ethnic applicants. Double the proportion of White/White British, 44\%, did not support calls which specifically are aimed at Women, Black, Asian and Minority Ethnic applicants.

We asked respondents whether they had ever deliberately sought out collaborators to help improve the diversity of a team. More Females (37\%) agreed they had done this, than Males (27\%). There was less difference by ethnicity, although more White/White British agreed they had done this (23\% of Asian/Asian British, 29\% for White/White British). Respondents were also asked if they had sought out collaborators in a way which enabled equal opportunity. There was less difference in response by gender ( $38 \%$ of Males and $37 \%$ of Females agreed they did this), but a slight difference by ethnicity ( $31 \%$ of Asian/Asian British and $37 \%$ of White/White British).


Figure 19. Have you deliberately sought collaboration to improve diversity (a) by ethnicity (b) by gender (of respondent); Have you sought collaborators in a way which enabled equal opportunity (c) by ethnicity (d) by gender (of respondent)

A small number of respondents gave free text answers to these questions, provided as follows:

- Identification of collaborators has always been random, but that still requires diversity being present
- No, but I would ask the question, "are we diverse?"
- I don't really understand what this means (equal opportunity question)
- Diversity in terms of academic and professional interests/experience
- I've tried to ensure gender and racial diversity on teams but feel collaboration is often limited to people you 'know' so this can limit diversity...more efforts to connect a wide range of ECRs and support them to develop funding bids would be very valuable. The UKERC networks fund did this through their IVUGER project but the funding was limited to a one off retreat and seedcorn funding - something more long term and providing the opportunity to apply for more significant funding would be helpful

Respondents were asked about certain issues which might impact on their proposal writing activity. Very few respondents agreed that religious commitments impacted their availability for proposal writing and submission (Figure 20). Caring responsibilities were slightly more of a concern. Whilst the most responses were in the category neither agree or disagree, caring responsibilities were seen as impacting proposal writing for around a quarter of respondents, 31\% of Asian/Asian British, 24\% of White/White British, 28\% of Male and 23\% of Female respondents (Figure 20c and Figure 20d).


Figure 20. Religious commitments limit proposal activity (a) by ethnicity (b) by gender; caring responsibilities limit proposal activity (c) by ethnicity (d) by gender

To better understand the time needed for proposal writing, for flexible funds which the Supergen investments have, we asked respondents what advance notice period (between announcement of funding and proposal deadline) they would like. Differences in response by gender and ethnicity are minor. It is clear that the majority of respondents ( $69 \%$ of Males, $74 \%$ of Females, $75 \%$ of Asian/Asian/British and $71 \%$ of White/White British) prefer no less than, and more than, 6 weeks period for preparation of flexible fund proposals (Figure 21).


Figure 21. Preferred notice period for funding calls (a) by ethnicity (b) by gender
Respondents were asked about particular barriers they may have encountered which would discourage their application as Principal Investigator.

When specifically asked if they had not submitted because they felt they didn't have sufficient track record, individuals who gave a specific reason in the response are categorised as "other", and so "yes", "yes but for a reason other than track record", and "other", are all responses which indicate respondents had done most, or led, proposal writing but not submitted as the PI. The percentage of Male and Female respondents reporting proposal writing without submission as PI is similar, but slightly higher for Males ( $52 \%$ compared with $46 \%$ of Females), see Figure 22 b. The difference by ethnicity is more marked, $69 \%$ of Asian/Asian British felt they had done most, or led, proposal writing but not submitted as PI, compared to $44 \%$ of White/White British, Figure 22a. Specific responses were received, reported in the graphs as "other":

- I am not a researcher so not generally a PI
- My work used to be based on writing proposals for other people
- Not a PI for research council rules
- Because of eligibility rules earlier in career
- Yes, because the University insisted on having a Professor for PI
- This was not for Supergen grant: The PI needed to be a 'full-time' academic (an academic on a non-fixed term contract)
- I do not want to block my opportunity to apply for the EPSRC New Investigator Award


Figure 22. Feelings of insufficient track record for proposals as PI (a) by ethnicity (b) by gender; discouraged from submission due to deadline (a) by ethnicity (b) by gender

When asked if they had not submitted because of the timing of deadlines, more than half of those surveyed responded yes ( $53 \%$ of Males, $52 \%$ of Females), although a slightly lower proportion of Asian/Asian British reported this as a barrier (38\%, compared to 53\% of White/White British) as shown in Figure 22c and Figure 22d. Specific issues raised to this question, were:

- It coincided with a co-l's first child being born so we couldn't develop it fully in time
- After school holidays - feel it would be inappropriate to commit in case I can't put the effort in during holidays and let others down
- Current delivery commitments
- Competing deadlines, deadlines scheduled in the middle of the main academic leave periods or during assessment exam board periods make it difficult to commit
- Deadlines often seem to be just before English holidays and fully in the Scottish ones. Hence the need for long lead times but importantly UKRI to listen before they get a judicial review...

Further questions on deadlines, regarding whether short deadlines are more of an issue because of caring responsibilities, showed little or no difference in response by gender ( $33 \%$ of Males agree, $34 \%$ of Females agree) or ethnicity ( $38 \%$ of Asian/Asian British agree, $31 \%$ of White/White British agree), as shown by Figure 23. So around a third of respondents find short deadlines difficult because of their caring responsibilities.


Figure 23. Caring responsibilities impact proposal writing for short deadlines (a) by ethnicity (b) by gender

We also asked respondents whether caring responsibilities impacted on their willingness to lead on the writing of proposals. Again, there was very little difference by gender or ethnicity, 13-15\% of respondents agreed this was an issue, see Figure 24. Almost half of respondents were ambivalent on this issue, except for Males, where the highest response of $48 \%$ was to disagree that caring commitments led to a preference to not lead proposals.

(a)
(b)

Figure 24. Caring responsibilities impact being PI/lead for proposal writing (a) by ethnicity (b) by gender

We asked respondents about barriers to submission because of eligibility criteria, or because of difficulties attending an information event. There was very little difference in response by gender or ethnicity for these two questions, but almost half (47\%) of respondents were discouraged from submitting if only meeting some criteria (Figure 25 a and Figure 25 b). Around a third of respondents were discouraged from submitting if they were unable to attend an information event ( $33 \%$ of Males and Females, $38 \%$ of Asian/Asian British and $32 \%$ of White/White British) as shown in Figure 25 c and Figure 25d. Three specific comments were raised:

- Short notice of 'townhall' type events meant I couldn't attend and therefore was excluded from then submitting an application to a funding round
- IDRIC
- Events normally online after


Figure 25. Discouragement from proposal submission because of criteria (a) by ethnicity (b) by gender; discouragement from proposal submission because of missing information event (c) by ethnicity (d) by gender

Finally, we provided a free text box to enable respondents to provide examples of how Supergen and non-Supergen calls for proposals have made you feel they DO offer equality of opportunity, diversity of participation and inclusion of all.

- Everyone should be encouraged to participate but no to 'women only' or 'BAME only' events
- In the H2O20 programme, there used to be an value to take into account which was the percentage of women participating. It was not decisive but the maximum score was at $50 \%$ (I believe). This kind of parameters encourage people to include them in proposals and work. However, I believe that it should be considered the diversity of groups and countries. Back where I was working, it would be impossible to apply the same rule with religion or ethnicity because every worker was white (no much diversity in the country)
- The Bioenergy hub management board/topic reps have not included any researchers from ethnic minority backgrounds. Similarly a fairer review process on proposals should be implemented by this hub. There is some evidence to suggest that the hub has tried to limit bias reviews by concealing the name and organisation of the proposing candidate, however this does not work as the researcher and organisation can easily be identified by reviewers via the technology being proposed. Bias reviewers are cancerous to research progression and anyone found to be guilty of foul play should be removed from future review process and reported to EPSRC. This should be enforced through an independent monitoring officer appointed to sit within the management board, where any suspicion of foul play can be reported in confidence. Similarly the management board/topic reps and proposal reviewers should not consist of more than 1 person from the same organisation. This can lead to
reviewers conspiring together. In no circumstances should the researcher be required to speak to reviewers or members of the core management board about their proposal before submission, this can lead to favouritism and again biased reviews forming. Furthermore, topic leaders and reps should be selected on the basis of their academic track record. They should be "leaders" in the field. It is disappointing to see some of the topic reps having fewer research publications than some of my students
- It seems rare that the call actively seeks under-represented participation per se. The emphasis on reputation, track record, quality and value for money come at the expense of having a mandatory development element. Calls could include an element "How will this proposal advance the opportunities for diversity and participatory inclusion for all" that has to be addressed - and evaluated by reviewers including a representative panel
- Completely anonymous selection process to prevent bias
- Most qs n/a as I've never written a proposal
- Not an academic
- Recent CREDs ECR call was supportive of staff on non-permanent contracts applying and provided mentoring. Flexibility in terms of timescales for identifying as ECR are helpful
- Our proposals typically involve a small team of people, we can't really add any additional constraints to choose staff and researchers
- How do you represent a group making up $20 \%$ of the research community if you think that your project needs 3 applicants?
- Fellowship schemes encourage diversity, e.g. women only applications
- UKERC networking call felt like this, helped by explicit statements on who was underrepresented. However, I felt ill-equipped to answer this in applying for funding - I realised I had no experience to draw on
- I never submitted a proposal to Supergen
- A recent example is the EPSRC call for proposals for CDTs where diversity and inclusion are explicitly addressed in the stated criteria


## Funding schemes: conclusions

- Schemes targeted at certain categories of under-represented groups are popular with those groups, but unpopular particularly with males and White/White British, and so action in this space may need careful communication to overcome this
- Between a quarter and a third of the community had tried to improve diversity in their teams on proposal, and so given this is a minority it behoves the Supergen Hubs to require this be considered
- Free text responses suggest some schemes have supported ECR and diversity in applicants, but advice on how to do this will be needed
- Flexible fund schemes should have at least a six week notice period
- Proposal writing is more likely to be impacted by caring responsibilities, and given $28 \%$ of carers indicated caring for parents or partners, proposal timescales should be about more than avoiding school holidays
- Track record requirements, in order to be PI, are more of a concern for Asian/Asian British respondents, and deadline timings are more of a concern for White/White British respondents
- Timings of deadlines are a barrier, particularly in relation to English and Scottish school holidays
- About of third of respondents struggle with short deadlines due to caring responsibilities
- Caring responsibilities do not seem to be a concern when it comes to leading proposals, and Males are least likely to see this as an issue


## COVID pandemic impacts

There are concerns across the Higher Education sector of the impact of the COVID pandemic on researchers. In order to inform future Supergen management, we asked respondents a range of questions about the ways in which they have been impacted by the pandemic. We asked respondents to base their responses on their experience since March 2020.

The first questions asked respondents whether their responsibilities had been increased because of childcare, $44 \%$ agreed and $44 \%$ disagreed overall that childcare responsibilities had increased. We also asked whether responsibilities had been increased because of family members who need more support or are shielding, 31\% agreed and 51\% disagreed.

Results are significantly different for increase in childcare responsibility by ethnicity ( $60 \%$ Asian/Asian British see increased responsibility, compared to $32 \%$ of White/White British) and gender ( $47 \%$ of Males saw increased responsibility compared to $38 \%$ of Females), as shown in Figure 26a and Figure 26b. Results are also quite different for increase in caring due to family members shielding or needing more support: 50\% of Asian/Asian British agreed this had increased compared to $29 \%$ of White/White British, and $34 \%$ of Males agreed this had increased compared to $27 \%$ of Females (Figure 26c and Figure 26d).

It is interesting to note the difference by gender, a higher proportion of Males reporting increased caring responsibility compared to Females. It could be argued that this perception might be because Males were required to become more equal partners with the care burden when caring increased, although earlier we did identify that $50 \%$ of Males considered themselves to equally share caring responsibility with their partner (Figure 10).


Figure 26. Increase in childcare responsibility during COVID (a) by ethnicity (b) by gender; increase in caring for family members due to shielding (c) by ethnicity (d) by gender

We asked respondents on average how many hours per week they felt their caring hours had increased, as shown in Figure 27. 3 respondents reported an extremely high more than 30 hours

increased caring per week, 1 respondent 21 to 25 hours per week (no respondents in the category 26 to 30 hours), 4 respondents 16 to 20 hours per week and 5 respondents 11 to 15 hours per week. Slightly higher response rates were achieved for the two categories of 1 to 5 hours ( 12 respondents) and 6 to 10 hours ( 18 respondents). For the 1 to 5 and 6 to 10 categories, $60 \%$ of respondents in these categories were Male and 40\% Female (note the overall proportion of Female respondents across the survey is $36 \%$ and so while the proportion of Females in these categories is lower than Males, it is higher than the survey average).


Figure 27. Extent of additional caring hours (on average) over the COVID period, by gender and ethnicity

We also analysed response by full time and part time working. Note, firstly, that the majority of part time respondents considered themselves to be the primary carers (Figure 28).


Figure 28. Caring role by contract type (Full Time/Part Time)

Supergen $=$

A similar proportion of full time and part time respondents agreed that their childcare responsibilities had increased ( $45 \%$ of full time and $50 \%$ of part time respondents), shown in Figure 29 a. The difference between full time and part time responses is more noticeable when asked about increase in family care responsibilities - 26\% of full time respondents agreed but a higher 38\% of part time respondents agreed, see Figure 29b.


Figure 29. Increased childcare responsibilities (a), and increased family care responsibilities (b), during COVID, by contract type (Full Time/Part Time)

We asked respondents whether they were concerned about their physical health or the physical health of immediate family members. About 47\% agreed, and 30\% disagreed. Differences emerge when looking at this by ethnicity or gender. A significantly higher proportion of Asian/Asian British had physical health concerns for themselves or family members, $77 \%$, compared to $44 \%$ of White/White British respondents (Figure 30a). 4 out of 5 respondents in the "other" category who responded to this question also said they had concerns for the physical health of themselves or family members. By gender, we see $50 \%$ of Females and $51 \%$ of Males reporting concern for the physical health of themselves or their immediate family, with slightly more (30\%) Males disagreeing that they had increased concern compared to the proportion of Females (24\%) disagreeing (Figure 30b).


Figure 30. Concern about physical health (self or family) (a) by ethnicity (b) by gender; concern about mental health (self or family) (a) by ethnicity (b) by gender

We asked respondents whether they were concerned about their mental health or the mental health of immediate family members. $56 \%$ agreed and $27 \%$ disagreed with this statement. There was an overall slightly higher concern for mental health, $56 \%$ agreeing compared to $47 \%$ for concern about physical health. A significantly higher proportion of Asian/Asian British had mental health concerns for themselves or family members, $79 \%$, compared to $58 \%$ of White/White British respondents (Figure 30c). By gender, we see $68 \%$ of Females and $54 \%$ of Males reporting concern for the mental health of themselves or immediate family, with more (32\%) Males disagreeing that they had increased concern compared to the proportion of Females (15\%) disagreeing (Figure 30d).

We asked respondents whether, during the various lockdown periods, they felt their income was affected, about 14\% agreed and 71\% disagreed. Differences emerge when looking at this by ethnicity or gender. A significantly higher proportion of Asian/Asian British agreed that their income had been affected, $40 \%$ of Asian-Asian British compared to $9 \%$ of White/White British respondents (Figure 31a). There was a slight difference by gender, $16 \%$ of Males agreed that their income was affected, compared to 10\% of Females (Figure 31b).


Figure 31. Effect on income during COVID (a) by ethnicity (b) by gender
Respondents were asked whether, during the various lockdown periods from March 2020, their productivity was unaffected, or better, by remote working. About 38\% agreed and 40\% disagreed (Figure 32). Differences emerge when looking at this by ethnicity or gender. A higher proportion of Asian/Asian British felt their productivity was unaffected or better, $54 \%$, in comparison to $37 \%$ of White respondents. By gender, we see $45 \%$ of Females agreeing their productivity was unaffected or better, with a similar 43\% disagreeing. For Males, $35 \%$ agreed their productivity was unaffected and 40\% disagreed.


Figure 32. Productivity unaffected or better during COVID (a) by ethnicity (b) by gender
We thought productivity might be affected by whether it was possible to all the normal work tasks when working remotely/at home, so we asked whether respondents felt they were unable to do all their normal tasks. Overall, 53\% agreed, 32\% disagreed that their productivity had been unaffected or better. Differences emerge when looking at this by ethnicity and by gender. A higher proportion of Asian/Asian British felt they were not able to undertake all their normal tasks, $54 \%$, in comparison to $37 \%$ of White/White British respondents Figure 33a. By gender, we see a relatively similar 35\% of men agreeing and 40\% disagreeing to this statement. 46\% of women agree and 43\% disagree. So whilst slightly higher proportion of females felt they could not do all of their tasks, a similar proportion of females felt they could, as could not, do all their normal tasks (Figure 33b).


Figure 33. Unable to do all my 'normal' tasks from home during COVID (a) by ethnicity (b) by gender
Specifically, we asked respondents whether there were some research activities they were unable to do during the COVID period. 60\% of Asian/Asian British agreed compared with 51\% of White/White British that they were unable to do some research tasks (Figure 34a). 58\% of Males and $47 \%$ of Females agreed they were unable to do some research tasks (Figure 34b). Therefore, whilst there are differences by gender and ethnicity, it is clear that a significant proportion of all respondents felt that their ability to undertake research activity was adversely affected ( $54 \%$ of all respondents).


Figure 34. Unable to do some research activity during COVID (a) by ethnicity (b) by gender
We thought productivity might also be affected by appropriate places to work, so we asked whether respondents felt they did not have a suitable workspace. About $21 \%$ agreed and $63 \%$ disagreed. Differences emerge when looking at this by ethnicity, less difference by gender. A higher proportion of Asian/Asian British felt they did not have a suitable workspace, $46 \%$, in comparison to $15 \%$ of White/White British respondents, as shown in Figure 35a. By gender, we see a relatively similar 23\% of Males and $17 \%$ of Females reporting they do not have a suitable workspace (Figure 35b). We broke the responses down according to whether the respondent classed themselves as ECR, since this cohort might be less affluent to afford the investment in a suitable workspace. $44 \%$ of those who considered themselves an ECR felt they did not have a suitable workspace (Figure 36).

(a)
(b)

Figure 35. Do not have a suitable work space during COVID (a) by ethnicity (b) by gender


Figure 36. Do not have a suitable work space during COVID, by ECR status
Linking to some of the questions about events, we asked respondents whether they felt they had been able to attend more events during lockdown due to the move to online delivery of these. About 58\% agreed, 20\% disagreed and 21\% were indifferent. Differences emerge when looking at this, particularly by gender. A similar proportion of Asian/Asian British felt they could attend more events (58\%) as White/White British respondents(62\%) as shown in Figure 37a. By gender, we see $71 \%$ of Females feeling they could attend more events, compared to $53 \%$ of Males, with more (21\%) Males disagreeing that they had increased event attendance compared to the proportion of Females (14\%) disagreeing (Figure 37b).


Figure 37. Attending more events due to remote delivery (a) by Ethnicity (b) by Gender

In a similar vein, we asked respondents whether they had found it easier to make new connections through remote working. Overall, $23 \%$ agreed and 59\% disagreed, although there are some slight differences by gender and ethnicity. A slightly higher proportion of Asian/Asian British felt they could create new connections (36\%) as White/White British respondents(31\%), although the difference is minor as shown in Figure 38a. By gender, we see 29\% of Females feeling it was easier to make new connections through remote working compared to $19 \%$ of Males, so the gender difference is more noticeable (Figure 38b). Given the early stage in career and importance with networking building, we considered responses to this question by ECR status. Those indicating they considered themselves to be early career were less likely (21\%) to consider it easier to make new connections than those who were not ECR (34\%), see Figure 38c.


Figure 38. I am better able to make new connections with people through remote working (a) by Ethnicity (b) by Gender (c) by ECR status

Finally, we provided a free text box to enable respondent to provide details of anything they felt comfortable sharing, with regards the way in which COVID-19 and the lockdown had affected them. The free text boxes show some positive (more time, less commuting) and some negative experiences (childcare, income, lack of networking, online teaching, stress and mental health) for individuals. Responses below are unedited except for typographical errors:

- I am lucky because I have more time available for personal activities such as health and fitness. I am not commuting to work - average commuting time was 2.5 hours per day - this not only saves me time but also quite a considerable amount of money each month
- Vastly increased organisational/administrative workload; Stress of children at home with their own home learning problems; Frustration at home internet bandwidth
- My workload has dramatically increased - more enquiries, more meetings, more admin load. This has meant I am having to work longer hours and exhausted. I have been very fortunate from a time perspective that my wife lost her job at the beginning of COVID so has been able to spend time caring for our son
- With the closure of the local school to our child in early March, we have settled into a routine of work, though the child fell into habits of getting up late, not going out and not seeing friends. I was unable to help my shielding parents who are in Wales. We are fortunate that we each have a private space though the Wi-Fi has struggled sometimes. My job primarily involves meeting people and attending events/running stands. I have found it difficult to replicate this online. Similarly, access to labs was curtailed for many months, there is a backlog and we still don't allow visitors - all making my job tough to do. I have been able to dedicate time to otherwise neglected elements of the role. It's very difficult to find a way to have those short conversations - corridor, coffee, etc. with members of the department which kept things running smoothly. I'm grateful to a few supportive contacts within the department. I have significant uncertainty about my contract's continuing beyond October - for various reasons. It's harder to network and explore new opportunities right now. The return to school and opening up of lockdown restrictions in recent days and weeks are making things a little easier
- Having two primary-school aged children, who needed support and home-schooling during lockdown. I'm very lucky that my husband is mostly retired, and only works part-time. During early lockdown I was on a short RA contract, to be delivered end of May. I spread annual leave out to arrange a nominal 3-day working week (with some evening and weekend work close ), while my husband did the home schooling and childcare. My line manager was supportive. I normally did the home-schooling / childcare 2 days a week and we shared weekend activities (most weeks, when I wasn't working). Once that was over, I put my PhD into voluntary suspension and took a break. It was all too much. Now that schools are back (hopefully for good, but that is far from certain) , I've restarted my PhD, I'm wanting to work 8:30/ 9am till 3pm as my regular hours. I could work more hours, but my husband needs time off too, and my kids need input from me outside these hours, and as I'm working from home (possibly forever?) it's harder to ignore that. Arranging for "a-bit-less-than-full-timeworking" on my PhD seems bewilderingly complex, with obstacles both from the funder (a presumption against any deviation from full-time work) and a university rule that the tuition fees can be paid on a full time (100\%) or part time (50\%) basis only, no other work patterns are allowed. (A colleague brought this up at the university's Doctoral researchers' Group, and was told nobody other than her had ever requested a different work pattern, so clearly there was no "need to consider it". We're going to have another go!) The senior professor on my programme suggested I could make up the hours I miss in afternoons, by working evening or weekends (something I've considered and rejected as impractical / unsustainable other than as a short-term measure), and reminded me that PhD is not a 9-5 and additional hours will be needed. I'm currently working the hours that suit me (80\%), and hope the admin (and stipend and timeline arrangements) can at some point catch up with my actual working hours. I'm lucky both my supervisors are very supportive of my request I feel it shouldn't be this hard to modernise practices. This morning my son woke up with a cough... it doesn't really fit with covid symptoms as per NHS / Govt website (more like a cold), but I've kept him off school so as not to worry the school (this week our county is under new covid restrictions), have let him have a day in front of the telly, and have been keeping an eye and ear on him all day, wondering if I have to drop everything to get him tested, and isolate all of us, cancel everything, arrange online food deliveries.... Yes, I've done a
"normal" day's work, and have been able to concentrate at times, but it's reduced the time / headspace I've had available. Here's hoping he shakes it off quickly - I guess I'm lucky he's not really ill
- Networking is hard for me already, and virtually is even more so. Mental health did get impacted from isolation, worries about grandparents and their safety. Took a while to set up a comfortable work space at home, and still struggling with internet reliability...
- I have more time because no longer commuting
- Working-from-home combined with home-schooling, or supervising children, four days a week as other parent is NHS key worker, has restricted ability to work as normal
- COVID-19 and the lockdown certainly affected me as I had to restructure my day to allow me to care for my child and perform all of my work duties. It was very hard work but I managed to do this successfully. As it is now the school holidays and I have alternative caring arrangements (and some holidays too) I am now benefitting in many ways due to working from home and I am able to work more productively. This will continue when the schools re-open; providing they stay open!
- My partner and I try to share childcare but the nature of his work means there are more 'hard' deadlines, formal meetings etc which are less easy to fit around childcare - this has resulted in me taking on more of the childcare responsibilities and trying to fit in work at the start/end of the day - ultimately this isn't productive as I've been permanently exhausted and feel my career in the future will suffer (I'm on a fellowship and its not yet clear if I will be eligible for a funding extension). I've had ongoing anxiety about how I will be compared to other researchers who don't have caring responsibilities - many of whom have been able to do more, rather than less, work over lockdown and also maintain a high profile for themselves within the department and be seen as generally 'helpful' during the current crisis. Just doing my core work has been a struggle so I couldn't even think about volunteering for additional work
- Online teaching, done well, requires a Lot more preparation to have a good set of asynchronous materials that can be mixed in with live sessions - that's been very bad for research time recently, but the task is nearly completed; should then have more...
- Interruptions more frequent. No spontaneous discussions. More managerial activity which wipes out research and thinking time. Frustrating. But would favour spending more time working from home in future
- My mental health has suffered, and this has had a knock-on effect on my productivity
- I have found it difficult to fit my 3 working days a week into 3 days and generally have had to spread it out over more. This has some positive as well as negative impacts
- The two biggest effects of the lockdown on my professional life have been (a) almost zero research done this summer, because my time was all spent on reworking teaching material for partly-online delivery; (b) a halt to networking of any sort - both nationally at conferences, and internally, since I joined my university just a few months before lockdown. Virtual events are fine for information delivery, but no good for meeting people and chatting
- COVID-19 has had little impact in my life
- With working from home, and the restrictions, i am no longer able to take a lodger for my spare room. this has an impact on my additional income which would have been useful for paying mortgage/bills
- Two kids at home - ignoring them to work highlights the gap in their personal development that the situation currently represents


## COVID impacts: conclusions

- Childcare and family caring responsibilities increased for a third (childcare) and a fifth (family care) of respondents with more impact for Asian/Asian British and Male respondents. Most ( 30 respondents, $71 \%$ ) saw an increase of 1 to 10 hours, 12 respondents saw more than 10 hours, with 3 of those reporting the highest category of more than 30 hours. This could have long term implications for career progression of these colleagues
- Part time colleagues were more impacted than full time colleagues with respect to family care commitments, a serious implication given the existing difficulty of career progression for part time working
- Physical health concerns impacted Asian/Asian British colleagues more, and mental health concerns were also higher for Asian/Asian British colleagues and for Female colleagues. Coping with such concerns could limit mental capacity to deal with other work stresses
- Asian/Asian British were more likely to experience an impact on income during COVID, further exacerbating stress during this period
- Views on the impact on productivity were split, a similar proportion feeling unaffected as those affected, although $40 \%$ of respondents felt their productivity was worse and, again, this could impact on career progression and contribute to feelings of stress
- Around half of respondents felt they could not undertake all of their normal work duties during COVID, and research activities were affected, requiring therefore some flexibility from their employer and the sector in general regarding research progress
- About a fifth struggled with a suitable workspace, although a much higher proportion of Asian/Asian British colleagues and ECRs struggled with this. For online meetings, it is recommended that Hubs/Networks do not require cameras and microphones on at all times, to reduce the impact on colleagues of difficulties with their workspace. For organisations who enable some return to the workplace, it would be appropriate to prioritise those whose home working space is less suitable
- Whilst questions on events showed a preference overall for face to face meeting, Female respondents felt they had attended more events as a result of the move online. Therefore, to enable full participation of the community, a hybrid delivery method or variety of delivery methods is recommended
- Female respondents were more likely to feel that remote working had helped them to make new connections than Males, and ECRs less likely than non-ECRs, although overall the majority disagreed that new connections were easier with online working. Hence, the Hub/network community should ensure future activities enable networking

