

What do applicants want from SUSTAIN?

2016 Applications

Report prepared for The Academy of Medical Sciences

by Dr Rachel Hallett

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What do applicants want from SUSTAIN? 2016 Applications

SUSTAIN is a year-long programme addressing the challenges women researchers find in the early stages of an independent research career. The Academy of Medical Sciences has developed this flagship programme for a cohort of 20 women on the cusp of independent research careers. The pilot was launched in September 2015 and it was extended for a second round starting in 2017. The programme includes bespoke residential and day workshops as well as tailored mentoring and peer-coaching over the year.

SUSTAIN is supported by the Academy of Medical Sciences, the Medical Research Council and the Royal Society. All scientists (including biomedical researchers with clinical and non-clinical qualifications) are eligible to join SUSTAIN, provided they currently hold a qualifying award or fellowship.

Introduction

This report looks at the factors motivating applicants for the second round of SUSTAIN. There were 49 applications in late 2016 for the second round intake in 2017, compared with 64 applications for the first round in 2015.

For the current analysis, 48 items derived from 376 codes in the 2015 analysis were used as a framework to enable comparison between the two groups of applications. A content analysis was carried out, where the number of applicants referring to each item was measured. Where factors were mentioned that were not covered by the existing 48 items, additional items were added to the framework.

In both analyses, all applicants' data was included, whether or not they were selected to take part in the programme. Two 2016 applicants did not complete the field asking why they were interested in participating: they have been included in the applicant numbers for calculation of percentages.

A summary of the applicants, their funder and the awards held is given in Table 1.

Table 1: Funder and grant type

Funder	n	%	Award	n	%
Royal Society	24	49.0	Dorothy Hodgkin Fellowship	11	22.4
			Sir Henry Dale Fellowship	7	14.3
			University Research Fellowship	6	12.2
MRC	14	28.6	Career Development Award	6	12.2
			Clinician Scientist Fellowship	1	2.0
			Skills Development Fellowship	7	14.3
AMS	11	22.4	Health Foundation Clinician Scientist Fellowship	2	4.1
			Springboard Award	4	8.2
			Starter Grant Award for Clinical Lecturers	5	10.2

Summary of key findings

This report shows that overall, concerns of applicants in 2016 remain similar to those expressed by 2015 applicants. Work-life balance continues to be the leading issue, followed – as in the previous round – by leadership and management skills, and training in how to develop and manage a research team. A number of new categories emerged, most notably a general concern with time management, alongside an interest in developing online skills.

There was a substantial increase in interest in the mentoring which forms part of the SUSTAIN programme, and also more mentions of hearing from those who have managed to make the career work for them, and from inspirational women generally. Many applicants described or anticipated challenges with balancing family life and work, and there was a sense that SUSTAIN could offer opportunities to share ideas and receive advice, particularly where applicants were relatively isolated.

Results

This section begins by summarising the items which appeared in 2015 but not in 2016, and vice versa. The highest frequency items for both years are then compared, including analysis by funding body. Following this, the categories are considered in turn, covering career development, managing research, networking and interaction, personal skills and professional skills.

Items from 2015 not appearing in 2016

The following items used in the analysis for the 2015 applications were not found in the current analysis. The numbers in brackets indicate the number of participants mentioning these items in the previous analysis:

- Developing assertiveness (7)
- Publication volume (6)
- Developing good projects (5)
- Knowing when to move on (3)
- Self-presentation skills (3)
- Independent feedback and assessment (3)
- Project management skills (2)
- Self-assessment skills (2)
- Handling research budgets (1)
- Developing resilience (1)
- Developing self-esteem (1)

The only mention of assertiveness in the current data was a comment that “women tend to be less assertive”. There was no specific interest in training to address this. Publications were mentioned in relation to strategic publishing, rather than volume, and projects were mentioned in passing, in relation to other issues such as developing teams.

New items for 2016

The following items were found in the analysis of the 2016 data but did not appear in the 2015 analysis. The numbers in brackets denote the number of participants mentioning these items:

- General time management (6)
- Training tailored for women (3)

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- Online skills/social media (3)
- Open access (1)
- Data management (1)
- Understanding organisations (1)
- Support from outside institutions (1)
- Development of knowledge of equality issues (1)
- Non-academic careers (1)
- Stress management (1)

Several participants mentioned time management as a skill in itself, rather than placing it in a particular context. New items might be explained by the increased information surrounding the programme, particularly information that passed on through word of mouth from the 2015 cohort. Online and social media skills were mentioned at an event for holders of Springboard Awards: however, only one of the three participants mentioning this held a Springboard Award, so it appears this is a more general interest rather than arising from the event.

Most frequently-mentioned outcomes

The most frequently-mentioned outcomes are shown figures in Table 2 below, and in the bar chart in Figure 1 overleaf. The priorities for 2016 applicants were largely in line with those for 2015 applicants, with work-life balance a clear priority, followed by leadership and management and developing a research team. There was a substantial increase in interest in mentoring, with around a third of applicants mentioning it, in comparison to fewer than 5% in 2015.

Interest in improving work-life balance was particularly marked for those who mentioned that they had children in their responses to why they were interested in the programme. Fourteen of the applicants fell into this category (those making general comments regarding family were not included as there were no specific indications that they had children). All fourteen found work-life balance to be an issue with which they hoped SUSTAIN could help. Among participants who did not mention that they had children, 19 out of 35 expressed difficulties managing work-life balance.

Table 2: Most frequently-mentioned outcomes

2016 Position	2015 Position	Item	Category	2016 N = 49		2015 N = 64	
				n	%	n	%
1	1	Work-life balance	Personal skills	33	67.3	37	57.8
2	2	Leadership and management	Professional skills	23	46.9	35	54.7
3	5	Developing and managing a research team/group	Managing research	21	42.9	18	28.1
4	=31	Effective development of a mentoring relationship	Networking and interaction	16	32.7	3	4.7
5	7	Career progression	Career development	13	26.5	17	26.6
6	=9	Grant applications	Managing research	12	24.5	12	18.8
7	=4	Managing multiple tasks in the workplace	Professional skills	11	22.4	18	28.1
=8	3	Media skills	Professional skills	10	20.4	21	32.8

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=8	=4	Interaction with peers	Networking and interaction	10	20.4	18	28.1
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The bar chart in Figure 1 below shows the most frequently mentioned outcomes in graphic form for ease of reference.

Figure 1: Bar chart of most frequently-mentioned outcomes

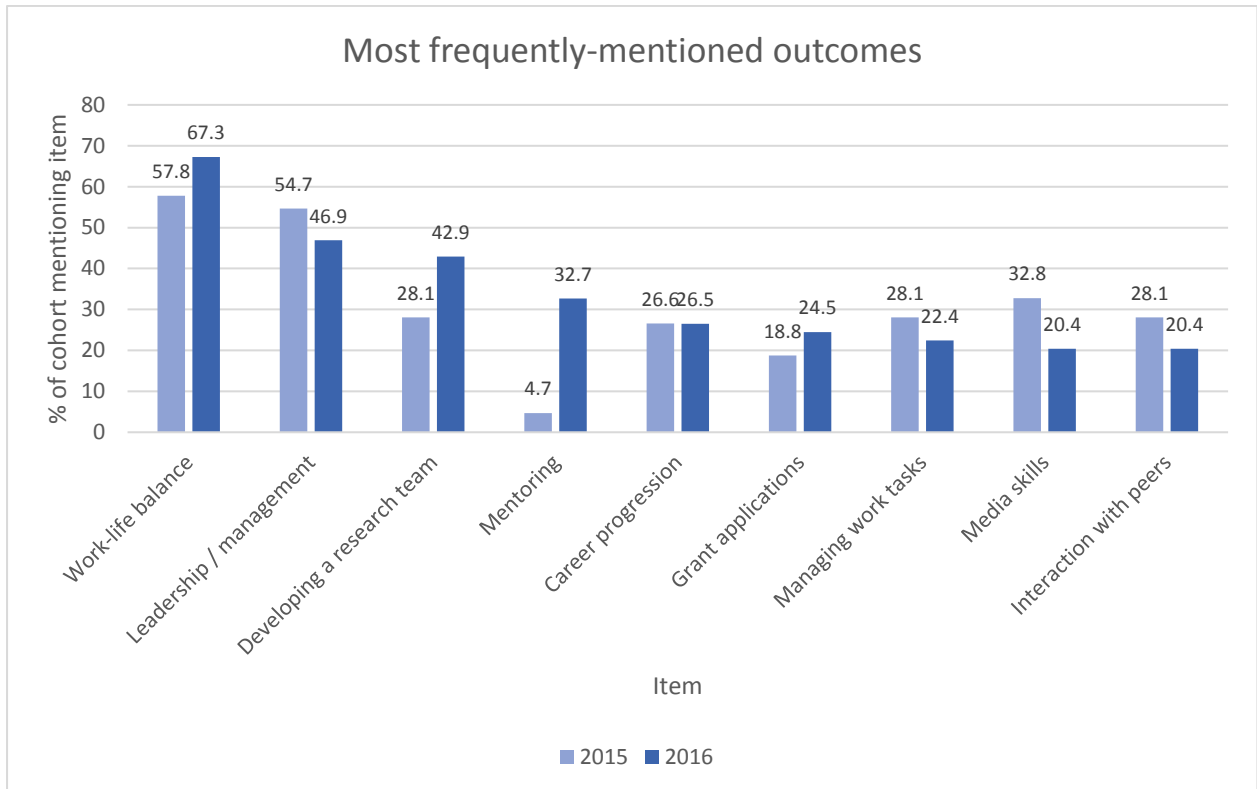


Table 3 overleaf shows the most frequently-mentioned outcomes by applicants' funder, comparing priorities for those with Royal Society, MRC and AMS funding. The numbers of participants in the categories when analysed were too small to indicate reliable statistically significant differences between the priorities of those with different funding sources. It is nevertheless noteworthy that Royal Society and AMS-funded applicants prioritised developing a good work-life balance, while MRC-funded applicants prioritised training in leadership and management skills.

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Table 3: Most frequently-mentioned outcomes analysed by funder

2016 Position	Item	Category	2016 N = 49		RS N = 24		MRC N = 14		AMS N = 11	
			n	%	n	%	n	%	n	%
1	Work-life balance	Personal skills	33	67.3	19	79.2	7	50.0	7	63.6
2	Leadership and management	Professional skills	23	46.9	9	37.5	9	64.3	5	45.5
3	Developing and managing a research team/group	Managing research	21	42.9	10	41.7	5	35.7	6	54.5
4	Effective development of a mentoring relationship	Networking and interaction	16	32.7	9	37.5	3	21.4	4	36.4
5	Career progression	Career development	13	26.5	8	33.3	2	14.3	3	27.3
6	Grant applications	Managing research	12	24.5	5	20.8	2	14.3	5	45.5
7	Managing multiple tasks in the workplace	Professional skills	11	22.4	6	25.0	3	21.4	2	18.2
=8	Media skills	Professional skills	10	20.4	3	12.5	2	14.3	5	45.5
=8	Interaction with peers	Networking and interaction	10	20.4	5	20.8	1	7.1	4	36.4

Career Development

The frequencies with which applicants mentioned the career development items is shown in Table 4 below. The most frequently mentioned aspect of career development was career progression. It showed a similar percentage of applicants mentioning it to the previous round. Part-time working was more frequently mentioned in this round, and career issues were mentioned in the context of caring responsibilities:

“I hope SUSTAIN would offer me support, training and guidance for how to utilise my fellowship to minimise the effects of carer responsibilities on my career, and facilitate a work-life balance I am happy with, with the end goal of emerging as an internationally recognised research group leader with a permanent academic position – and a happy mother.”

Several applicants also identified issues of bias and/or discrimination which they associated with being female and not following a typical career path in the past:

“I have an unusual career path with a significant career break of approximately 5 and half years. I am very aware of the massive gender gaps in academia. I have had experience both subtle and direct exclusion by senior managers because of my ‘unusual career’ path.”

Table 4: Career Development item frequencies

Item	2016 N = 49		2015 N = 64	
	n	%	n	%
Career progression	13	26.5	17	26.6
Career progression for part-time workers	6	12.2	3	4.7
Career planning	4	8.2	12	18.8
Dealing with a crucial point in one’s career	3	6.1	6	9.4
Interview and application skills	3	6.1	6	9.4
Establishing oneself/being visible	2	4.1	8	12.5
Non-academic careers	1	2.0	-	0.0
Knowing when to move on	-	0.0	3	4.7

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Managing Research

Table 5 below shows the frequency with which applicants mentioned items relating to managing research. As with 2015, developing and managing a research team was a priority for applicants, with a substantially higher proportion of applicants mentioning it than in the previous round. This, along with the continued interest in leadership and management skills, suggests that leadership and people management are seen as key to career success:

“My ambition is to lead a team of successful, motivated people in a way that encourages collaboration, commitment, and excellence in both research and professional conduct. Participating in the SUSTAIN programme would enable me to learn from others, explore my strengths, and identify areas to work on. I believe this will have a profound positive impact on my career, and enable me to be an international research leader in my field.”

There was a higher interest in this round regarding training for grant applications, although other aspects of managing research were mentioned by smaller proportions of applicants. Data management and open access were only mentioned once each, but this may reflect the greater emphasis now being placed on this aspect of research.

Table 5: Managing Research item frequencies

Item	2016 N = 49		2015 N = 64	
	n	%	n	%
Developing and managing a research team/group	21	42.9	18	28.1
Grant applications	12	24.5	12	18.8
Publication strategy	5	10.2	11	17.2
Developing research goals/programme	4	8.2	10	15.6
Developing research independence	3	6.1	8	12.5
Finding a research niche	2	4.1	5	7.8
Developing and managing collaborations	2	4.1	4	6.3
Data management	1	2.0	-	0.0
Open access	1	2.0	-	0.0
Publication volume	-	0.0	6	9.4
Developing good projects	-	0.0	5	7.8
Handling research budgets	-	0.0	1	1.6

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Networking and interaction

The frequencies with which networking and interaction items were mentioned by applicants is shown in Table 6 below. Interest in mentoring showed a particularly marked increase from the previous round. This may be due to greater awareness, and word-of-mouth endorsement, or may reflect the growing interest in mentoring more generally.

Applicants' comments on networking reflected difficulties finding networks outside one's own institution, alongside a wish to discuss specific issues:

"Competition in academia is tough so having a network of peers and support, independent from workplace is important but also difficult to establish."

"I would also like to have the opportunity to discuss with fellow researchers how they have approached various problems and challenges that are common to all early career investigators (e.g. negotiating space and money, handling difficult situations, time management)."

There was also a view that being able to network with women in particular was important:

"Getting to meet other women at my career stage and share with them daily concerns and the common obstacles to our ambitious career prospects is of the greatest importance to me."

Additionally, there was an interest in finding practical ways to network when traditional methods, such as conference attendance, were difficult to access:

"Another challenge is that it is very difficult to leave my family to go to international conferences so I have only been to one and advice on other ways to network would be appreciated."

Table 6: Networking and interaction item frequencies

Item	2016 N = 49		2015 N = 64	
	n	%	n	%
Effective development of a mentoring relationship	16	32.7	3	4.7
Interaction with peers	10	20.4	18	28.1
Hearing from women who have made the career work for them	8	16.3	4	6.3
Networking opportunities	7	14.3	10	15.6
Gaining inspiration from successful (female) role models	6	12.2	3	4.7
Sharing ideas and experiences	5	10.2	5	7.8
Independent feedback and assessment	-	0.0	3	4.7

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Personal skills

Personal skills covers general issues that may affect applicants in the workplace and more broadly regarding their wellbeing, rather than specific professional skills such as management, strategy and communication. The frequency with which these items were mentioned is shown in Table 7 below.

Work-life balance was, as previously noted, the most common issue mentioned by applicants, and was mentioned by a higher percentage of applicants than in the previous round: other personal skills appeared to be less of a priority than among previous applicants. A number of applicants wondered not only how to achieve a work-life balance, but whether it was feasible to have both a happy family life and a successful career as a woman in science:

“I also want to hear how to stay competitive in a male-dominated field, and whether this means sacrificing the idea of working part-time, or are there other ways to maintain a good family/work-life balance.”

There was a sense of needing to learn from the experiences of others, that might not otherwise be easily accessed, in order to find strategies to manage work and family:

“These challenges [balancing family and work] make my progression to senior positions very difficult and hearing some advice from academic researchers that experience or have experienced similar challenges would really help me find the best ways to secure a position in academia and to progress in academia.”

Other applicants simply described difficulties with managing work alongside childcare:

“I work part-time in a job I love and have a young family, and find balancing the two can be challenging.”

“The transition back to work and balancing work with childcare has been significantly harder than I anticipated.”

Table 7: Personal Skills item frequencies

Item	2016 N = 49		2015 N = 64	
	n	%	n	%
Work-life balance	33	67.3	37	57.8
Improving confidence	9	18.4	12	18.8
Dealing with (assertive) male environments	8	16.3	14	21.9
Dealing with personal life affecting career development	3	6.1	5	7.8
Dealing with feeling isolated	2	4.1	2	3.1
Dealing with imposter syndrome	2	4.1	2	3.1
Stress management	1	2.0	-	0.0
Developing assertiveness	-	0.0	7	10.9
Developing resilience	-	0.0	1	1.6
Improving self-esteem	-	0.0	1	1.6

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Professional Skills

The frequencies with which items relating to professional skills were mentioned is shown in Table 8 below. Although leadership and management skills remained the second most mentioned item, it was referred to by a smaller proportion than in 2015, as were most professional skills items. The exceptions were negotiation skills, particularly with regard to contracts and tenure, and general time management skills (the 2015 round focused on specific aspects of time management).

Although managing multiple tasks in the workplace was mentioned by a smaller proportion of applicants in 2016 than in 2015, several expressed the difficulties in allocating time to competing tasks:

“Aspects that are often neglected in the University include career progression, how to balance teaching and research, how much teaching must I commit to versus, how much the department requires off me and how that can impact on my career progression.”

“A particularly challenging aspect of my job as a faculty member, is balancing the demands of research, teaching and administration, all of which seem to require a full time job to do adequately. Therefore support in learning how to manage these competing demands would be really valuable.”

Online skills were not mentioned last year, and only a few applicants expressed interest in learning more about this area, but the relevance of this to research was emphasised:

“I would like to learn skills in making best use of social media, including blogging and tweeting. I depend on human volunteers to take part in my on-line studies and a robust social media presence would be invaluable for this.”

Table 8: Professional skills item frequencies

Item	2016 N = 49		2015 N = 64	
	n	%	n	%
Leadership and management skills	23	46.9	35	54.7
Managing multiple tasks in the workplace	11	22.4	18	28.1
Media skills	10	20.4	21	32.8
Negotiation skills	9	18.4	7	10.9
General time management	6	12.2	-	0.0
Communication skills	4	8.2	6	9.4
Strategy	4	8.2	6	9.4
Dealing with people generally	3	6.1	6	9.4
Presentation/public speaking skills	3	6.1	3	4.7
Online skills/social media	3	6.1	-	0.0
Having specifically female-tailored training	3	6.1	-	0.0
Conflict management skills	1	2.0	4	6.3
Self-assessment skills	1	2.0	2	3.1
Understanding organisations	1	2.0	-	0.0
Equality issues knowledge	1	2.0	-	0.0
Project management skills	-	0.0	3	4.7

Summary

The Appendix on the following page shows all items mentioned by applicants in round 1 (2015) and round 2 (2016) and their frequencies. The analysis shows that the challenges and needs identified by applicants for SUSTAIN have remained largely consistent in both rounds with a few noteworthy changes, particularly an increased interest expressed in mentoring.

Although items have been isolated in the analyses above, applicants frequently related the issues back to central concerns: progressing in one's career and having a family; developing skills to progress in male-dominated environments, where implicit and explicit biases were experienced; and being able to negotiate in order to secure better, more senior positions. Addressing these integrated concerns with SUSTAIN, an integrated career development programme, is therefore particularly appropriate.

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Appendix: Full list of items and frequencies

Category	Item	2016 N = 49		2015 N = 64	
		n	%	n	%
Personal skills	Work-life balance	33	67.3	37	57.8
Professional skills	Leadership and management skills	23	46.9	35	54.7
Managing research	Developing and managing a research team/group	21	42.9	18	28.1
Networking & interaction	Effective development of a mentoring relationship	16	32.7	3	4.7
Career development	Career progression	13	26.5	17	26.6
Managing research	Grant applications	12	24.5	12	18.8
Professional skills	Managing multiple tasks in the workplace	11	22.4	18	28.1
Professional skills	Media skills	10	20.4	21	32.8
Networking & interaction	Interaction with peers	10	20.4	18	28.1
Personal skills	Improving confidence	9	18.4	12	18.8
Professional skills	Negotiation skills	9	18.4	7	10.9
Personal skills	Dealing with (assertive) male environments	8	16.3	14	21.9
Networking & interaction	Hearing from women who have made the career work	8	16.3	4	6.3
Networking & interaction	Networking opportunities	7	14.3	10	15.6
Career development	Career progression for part-time workers	6	12.2	3	4.7
Networking & interaction	Gaining inspiration from successful (female) role models	6	12.2	3	4.7
Professional skills	General time management	6	12.2	-	0.0
Managing research	Publication strategy	5	10.2	11	17.2
Networking & interaction	Sharing ideas and experiences	5	10.2	5	7.8
Career development	Career planning	4	8.2	12	18.8
Managing research	Developing research goals/programme	4	8.2	10	15.6
Professional skills	Communication skills	4	8.2	6	9.4
Professional skills	Strategy	4	8.2	6	9.4
Managing research	Developing research independence	3	6.1	8	12.5
Career development	Dealing with a crucial point in one's career	3	6.1	6	9.4
Career development	Interview and application skills	3	6.1	6	9.4
Professional skills	Dealing with people generally	3	6.1	6	9.4
Personal skills	Dealing with personal life affecting career development	3	6.1	5	7.8
Professional skills	Presentation/public speaking skills	3	6.1	3	4.7
Professional skills	Online skills/social media	3	6.1	-	0.0
Professional skills	Having specifically female-tailored training	3	6.1	-	0.0
Career development	Establishing oneself/being visible	2	4.1	8	12.5
Managing research	Finding a research niche	2	4.1	5	7.8
Managing research	Developing and managing collaborations	2	4.1	4	6.3
Personal skills	Dealing with feeling isolated	2	4.1	2	3.1
Personal skills	Dealing with imposter syndrome	2	4.1	2	3.1
Professional skills	Conflict management skills	1	2.0	4	6.3
Professional skills	Self-assessment skills	1	2.0	2	3.1
Career development	Non-academic careers	1	2.0	-	0.0
Managing research	Data management	1	2.0	-	0.0
Managing research	Open access	1	2.0	-	0.0
Personal skills	Stress management	1	2.0	-	0.0
Professional skills	Understanding organisations	1	2.0	-	0.0
Professional skills	Equality issues knowledge	1	2.0	-	0.0
Professional skills	Developing assertiveness	-	0.0	7	10.9
Managing research	Publication volume	-	0.0	6	9.4
Managing research	Developing good projects	-	0.0	5	7.8
Career development	Knowing when to move on	-	0.0	3	4.7
Networking & interaction	Independent feedback and assessment	-	0.0	3	4.7
Professional skills	Project management skills	-	0.0	3	4.7
Managing research	Handling research budgets	-	0.0	1	1.6
Professional skills	Developing resilience	-	0.0	1	1.6
Professional skills	Improving self-esteem	-	0.0	1	1.6