

Aleron

Freshney Consulting

**Evaluation of the
Spring Meeting for Clinician Scientists in Training
The Academy of Medical Sciences**

August 2017

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1. Executive Summary

Background

The Academy's Spring Meeting is a scientific conference for Clinician Scientists in Training, which aims to promote scientific discourse to stimulate new collaborations and provide attendees with support for skills and career development.

The objectives of this evaluation are to review the aims, content and impact of the Spring Meeting, considering the niche that it fulfils within the UK landscape. Together, our findings inform recommendations on the future development of the Spring Meeting and how it can best support Clinician Scientists in training.

Methodology

The evaluation was informed by desk research, interviews and an online survey. Further details of the methodology can be found in *Appendix IV: Methodology*.

Key findings

Attendance at previous Spring Meetings

This evaluation covers the Spring Meetings hosted by the Academy of Medical Sciences in 2014, 2015, 2016 and 2017. The event is attended by approximately 170 academics each year.

All delegates are invited to submit an abstract and an average of just over 100 abstracts are accepted for competition in each year. The average acceptance rate in the last three years was just over 65%. It was slightly lower in 2014 due to a very large number of submissions received. The Spring Meeting attracts researchers from a broad range of research disciplines with more than 50% of abstracts received in cellular biology, immunology, neuroscience and epidemiology. However, over time, the distribution of research disciplines has become more balanced and the Spring Meeting in 2016 and 2017 has also attracted researchers of less common disciplines, including, for example developmental biology and pathology.

The geographical representation at the Meeting is weighted towards the London area with more than 47% of attendees coming from London-based institutions, and another 17% from Cambridge and Oxford in 2017. For delegates whose abstracts have been accepted, the gender balance has remained at c.60% Male / 40% Female ratio in the last four years.

Role and value of the Spring Meeting

Overall, the Spring Meeting is considered to occupy a clear niche that is liked and respected by attendees. The meeting has prestige and retains importance to many people in academic medicine. Being a national meeting open to all early career clinical academics, it should retain emphasis on scientific excellence, leadership and support for developing a career in clinical research.

An integral aspect of the Spring Meeting is the shared experience of delegates' balancing a clinical career with an academic career and the challenges they encounter. Therefore, above all, it is important not to lose the niche and purpose of the Spring Meeting, retaining its emphasis on navigating the complexities of dual scientific / clinical careers.

Clinician Scientists at all career stages emphasised the value of the Spring Meeting in two key areas: as a forum for clinician scientists in training to present their work, as well as a forum to network with others to develop new collaborations and partnerships. Indeed, networking opportunities was the

most frequently cited reason for attending the meeting and this activity was also cited as an important career development need for clinician scientists in training.

Scientific Excellence and Discourse

In considering the status of a national event such as the Spring Meeting, a continued emphasis on scientific excellence and discourse should remain key features of the meeting. In particular, opportunities to share and gain scientific insights within a cross-specialty forum were widely recognised as important elements of the Spring Meeting. However, given the diverse range of subjects covered in the Spring Meeting, interviewees considered ways to improve meaningful scientific and interdisciplinary interactions through e.g. more structured networking or thematic sessions.

Attendance

Maintaining a strong scientific programme for the Spring Meeting is also important for encouraging attendance and engagement from senior researchers. Clinician scientists in training who are prospective attendees seek career development support and mentoring through networking with senior clinicians and therefore this is an area that could be enhanced.

Career Development Workshop

The most significant overlap with other meetings and regional events relates to the Career Development Workshop, which is held on the day prior to the Spring Meeting for a small number of trainees (typically 8-15). Despite the overwhelming positive feedback from Career Development Workshop participants, we recommend removing this item from the programme, as there are numerous opportunities for obtaining such support through other events in the UK.

Future Development of the Spring Meeting

The key findings and recommendations arising from this review are intended to inform how the Spring Meeting should evolve over the next five years to support early career clinical academics and advance the goals of the Academy. Whilst a large majority of interviewees and survey respondents had very positive views about the Spring Meeting, a small number of senior clinical academics and funder representatives (n=2/14¹) indicated that a refresh of the programme was important. Proposed developments to the meeting are described in the recommendations below.

Recommendations

Promoting scientific and interdisciplinary interactions

- Place greater emphasis on promoting meaningful interdisciplinary interactions at the meeting, carefully designed within its wide subject scope and modest size. This could be achieved through more structured networking and thematic oral and poster sessions. To assess the level of, and outcomes from, such interactions delegates could be asked to provide feedback directly after the meeting and one year later.
- Specific sessions should be developed to showcase examples of e.g. working with industry; outcomes from translational and interdisciplinary research. These sessions could be developed as a test bed for an evolving meeting structure, with future emphasis on thematic sessions if feedback is strong. Non-clinical scientist(s) and industry representatives would be invited to present, debate or facilitate sessions.
- Each Spring Meeting could include a session (or parallel sessions) covering a cross-cutting theme of interest to a wide attendee base e.g. integrative genomics. Topics should not be

¹ Respondent views based on 14 interviews held with senior clinicians, funders, sponsors and clinician scientists.

disease specific and the overall content of the meeting should remain broad and multi-disciplinary.

- Showcase exemplars of interdisciplinary research at the meeting. This would influence researchers to place more emphasis on exposure to interdisciplinary working at their institutes and through their networks. Such exemplars could also highlight the Academy's emphasis on promoting Team Science.
- Create an interdisciplinary research award – prizes for the most impressive interdisciplinary poster or presentation. Presenters would be asked to describe the interdisciplinary nature of their research, highlighting engagement and collaboration with different scientific expertise. The judging panel would be asked to consider the level and impact of interdisciplinary collaborations.
- Consider greater networking facilitation by the Academy at the meeting. Suggestions are provided below.
- Consider a closing reception or dinner held jointly with, and sponsored by, industry, to promote interactions. Pre-registration would be required and it would be expected that a relatively small number of delegates would attend. Ideally, industry representatives would come from different sectors, e.g. biotechnology, pharmaceutical companies, health and medical technologies.

Structure, content and locations

- Consider more opportunities for young investigators to present through having a higher number of shorter talks or parallel sessions, without reducing the overall time for networking.
- Establish poster discussion sessions, zones or groups within specific themes to promote scientific interaction.
- Provide more structured facilitation of networking, such as 'speed dating' to increase delegate interactions and pitch practice. This could also be achieved through thematic poster sessions or groups, where each presenter provides a short (3 minutes) pitch on their research.
- Include inspiring talks from younger, mid-career Clinician Scientists.
- Consider introducing a session to each meeting with a more thematic focus e.g. integrative genomics, translational research, working with industry.
- Career development workshop: Remove the workshop preceding the Spring Meeting. Review support and coordination of plans with the NIHR in providing leadership, skills development and people management training.
- Rotate future Spring Meetings across the UK (e.g. London, Manchester and Edinburgh or Glasgow).

2. Background and Objectives

Background

The Spring Meeting is a scientific conference, which aims to promote scientific discourse and the development of new collaborations. During the meeting attendees also receive support to:

- Develop their communication skills
- Network with senior academics and peers
- Raise profile and build confidence
- Publish their abstract in The Lancet

Approximately 200 delegates attend the Spring Meeting, predominantly from the target audience of Academic Clinical Fellows, Clinical Research / Training Fellows, Clinical Lecturers and Clinician Scientist Fellows. About 25-35 Fellows of the Academy of Medical Sciences also attend the event, from whom it has a loyal following.

All delegates are invited to submit an abstract, indicating their preference for an oral or poster presentation. The format of the meeting includes sessions for oral plenaries, poster presentations and networking, bookended by keynote lectures from Academy Fellows. Over 100 abstracts are published in a special issue of the Lancet after the meeting. The Lancet, Wolfson Foundation and the Royal College of Physicians (who provide the venue at cost) all support the meeting.

The Academy organises all aspects of the Spring Meeting, which historically has been held at the Royal College of Physicians. Organising the meeting requires a substantial investment of time and resource and therefore clarifying the benefits it provides to Clinician Scientists in training is of importance. The 2017 meeting was the last one that the Academy ran in its current form, with plans to hold the 2018 meeting in Edinburgh.

Objectives of the Spring Meeting

Alongside the provision of feedback on scientific presentations, a key emphasis of the event is the award of prizes for oral and poster presentations. On the day before the main Spring Meeting, the Academy holds a career development workshop for attendees to learn presentation and networking skills that will support them at the main meeting.

Aims and scope of this evaluation

The goals of this evaluation are to:

1. Review the overall aims, purpose and content of the Spring Meeting.
2. Evaluate the meeting's impact and value as a Scientific Conference based on:
 - perceptions from Clinician Scientists in training (attendees and non-attendees)
 - evidence of delegates developing lasting connections or collaborations from the meeting
3. Assess the niche that the Spring Meeting fulfils within the UK landscape, including the Academy's new strategy.
4. Provide recommendations for the future of the Spring Meeting, describing how it can best support Clinician Scientists in training

3. Key findings – existing reports and feedback

3.1. Spring Meeting attendees, abstract submissions and acceptance

Characteristics of Spring Meeting attendees

According to data provided by the Academy of Medical Sciences, a total of c. 240 academics register to attend the Spring Meeting each year. Actual attendance on the day is slightly lower, at approximately 170 academics. There is no registration fee, however delegates are required to cover their travel costs.

Figure 1 provides a breakdown by role of the 164 attendees in 2017. The majority of attendees are from the target audience of Academic Clinical Fellows (c.15%), Clinical Research / Training Fellows (c. 20%), Clinical Lecturers (c.12%) and Clinician Scientist Fellows (<5%). Academy Fellows made up for c. 19% of all attendees. The group 'Other/Unknown' is largely made up of representative from other related organisations or funders, such as the Wellcome Trust, the NIHR, the Royal Colleges. The attendance rate in 2017 was roughly 65% (>240 registrations). Attendance was affected by adverse weather conditions on the day of the event.

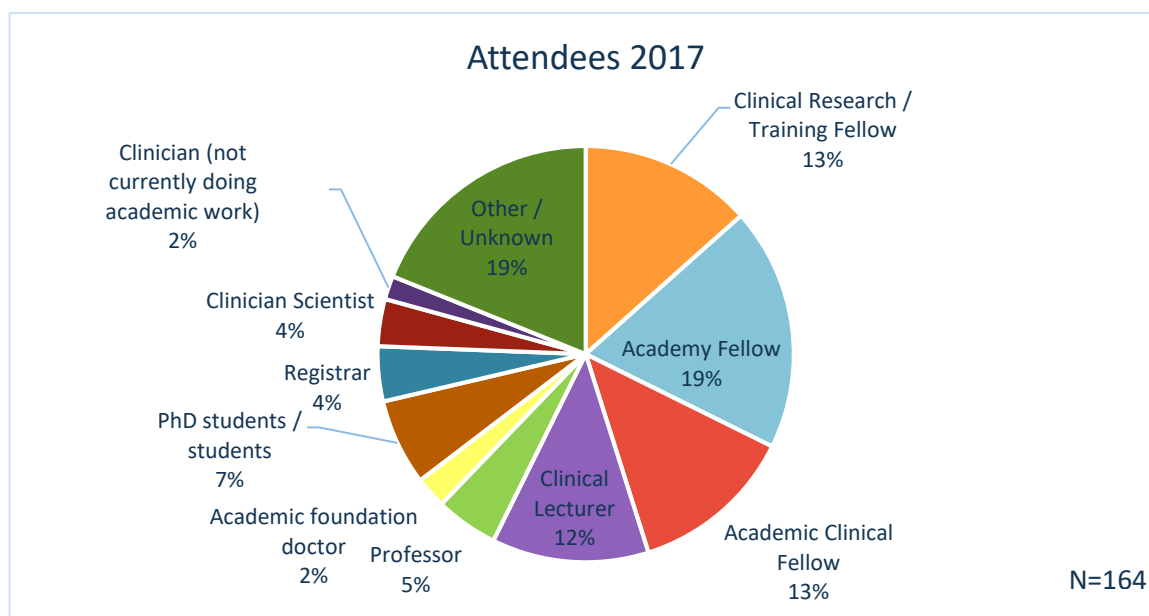


Figure 1 Spring Meeting attendees in 2017 by role

Actual attendance rates for previous years are not available. Table 1 provides a breakdown of registered academics by role.

Table 1 Spring Meeting registrants by role (absolute and in % of all registrants)

Role	2015		2016	
	Absolute	%	Absolute	%
Clinical Research / Training Fellow	67	25%	74	28%
Academy Fellow	43	16%	25	10%
Academic Clinical Fellow	35	13%	40	15%
Clinical Lecturer	25	10%	40	15%
Professor	9	3%	12	5%
Academic foundation doctor	8	3%	6	2%
PhD students / students	8	3%	18	7%

Role	2015		2016	
Registrar	8	3%	6	2%
Clinician Scientist	6	2%	7	3%
Clinician (not currently doing academic work)	3	1%	1	0%
Other / Unknown	51	19%	31	12%
Total	263	100%	260	100%

Abstract submissions and acceptance

Clinician Scientists in training who are interested in attending the Meeting register and submit an abstract of their work online. The number of abstracts received has varied over the years as shown in Figure 2. From 2014 to 2017, the number of abstracts submitted has fallen by 42%, however the Academy has sought to maintain an overall limit of accepting approximately 100 abstracts due to limits on exhibition space.

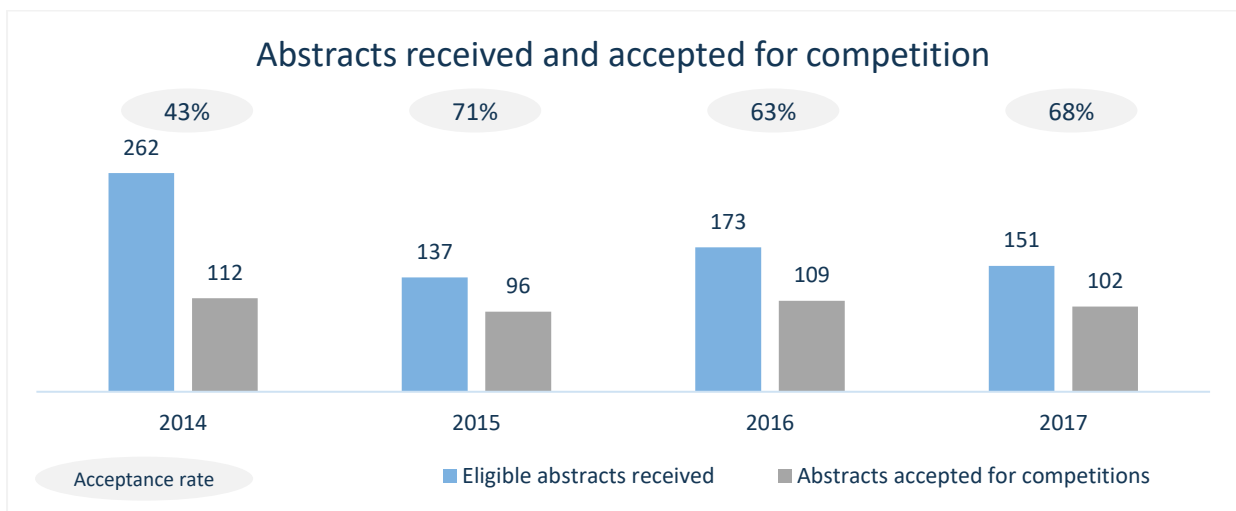


Figure 2 Abstracts received and accepted for competition 2014-2017

Gender

In 2015, the number of abstracts received by male and female researchers was well balanced with a ratio of 51% male and 48% female scientists. In the last two years this has shifted slightly towards an increasing share of abstracts received from male scientists (see Figure 3).

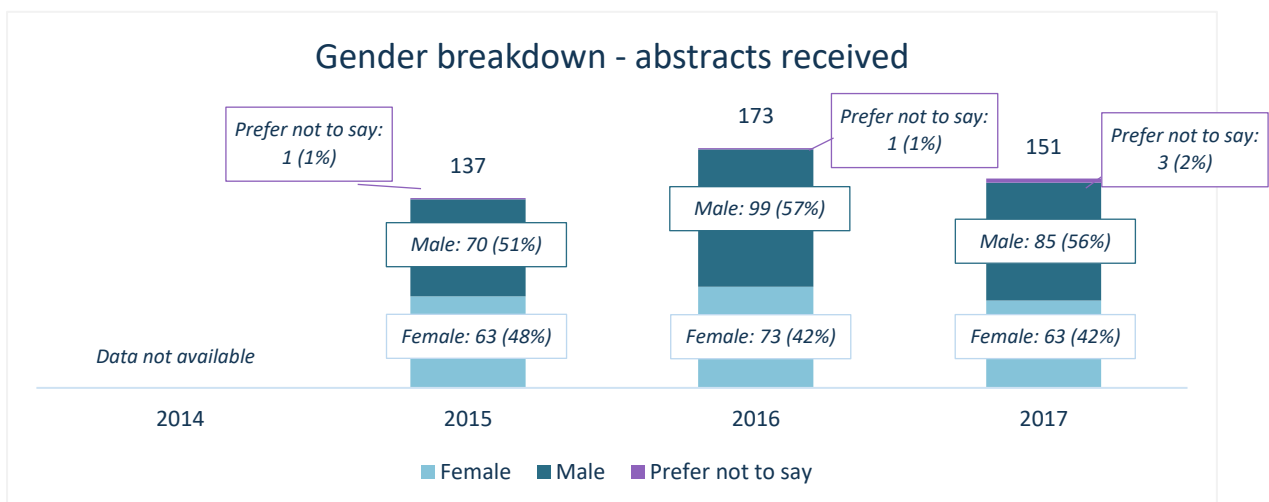


Figure 3 Gender breakdown of registrations received

The gender breakdown of abstracts accepted for competitions reflects this trend, as shown in Figure 4 below, the proportion of abstracts accepted from male authors has increased slightly between 2015 and 2017.

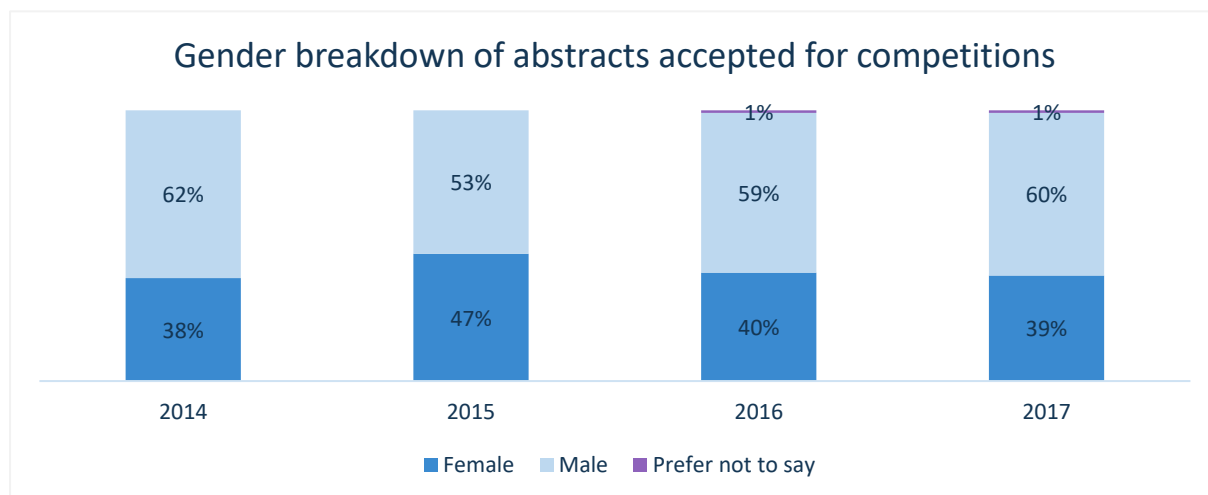


Figure 4 Gender breakdown of abstracts accepted for competitions

Research disciplines

Since 2013, the Academy has taken proactive steps to improve the balance of research disciplines represented in the competitions.² This is shown in Table 2³, which provides a breakdown of the number of abstracts accepted for competition by research discipline between 2014 and 2017.

The number of abstracts accepted for competitions in Imaging and Molecular Biology, for example, increased significantly. At the same time, there has been a decline in the number of abstracts in cellular biology, which dropped from 22 in 2014 to only 3 in 2017. However, in all four years cellular biology, immunology, neuroscience and epidemiology account for roughly 50% of all accepted abstracts.

Table 2 Abstracts by research discipline

Research discipline	Number (and %) of abstracts accepted for competition by research discipline							
	2014		2015		2016		2017	
Cellular biology	22	21%	20	15%	14	13%	3	3%
Immunology	20	19%	22	16%	17	16%	17	17%
Neuroscience	15	14%	8	6%	15	14%	14	14%
Epidemiology	7	7%	21	15%	14	13%	15	15%
Genetics	6	6%	10	7%	7	6%	8	8%
Microbiology	5	5%	2	1%	3	3%	4	4%
Biochemistry	3	3%	6	4%	5	5%	1	1%
Imaging	3	3%	3	2%	9	8%	8	8%
Radiology	2	2%				0		
Statistics	2	2%			1	1%		
Informatics	1	1%	2	1%			1	1%
Medical education	1	1%	2	1%				

² According to past Academy Spring Meeting feedback reports and feedback from the Council. See for example the 2014 and 2015 Spring Meeting feedback reports which both stress the need to increase the proportion of abstracts from each research discipline group.

³ N.B. Data provided for 2015 is based on the number of abstracts received, not the number of abstracts accepted for competition.

Research discipline	Number (and %) of abstracts accepted for competition by research discipline							
	2014		2015		2016		2017	
Social science research	1	1%					4	4%
Structural biology	1	1%	1	1%	2	2%		
Biophysics							1	1%
Developmental biology			5	4%	2	2%	3	3%
Molecular biology					10	9%	6	6%
Pathology					4	4%	6	6%
Physiology					6	6%	6	6%
Qualitative research			1	1%			4	4%
Not applicable	16	15%	34	25%				

Geography

The geographical representation at the Spring Meeting is weighted towards the London area with 47% of Meeting attendees coming from institutions in London in 2017 (see Figure 5). The dominance of attendees from institutions in the South East reflects both the fact that the meeting was held in London and the fact that 33% of all UK Medical Clinical Academics (in terms of FTE) are from institutions in the London area⁴ (see *Appendix IV: Methodology*).

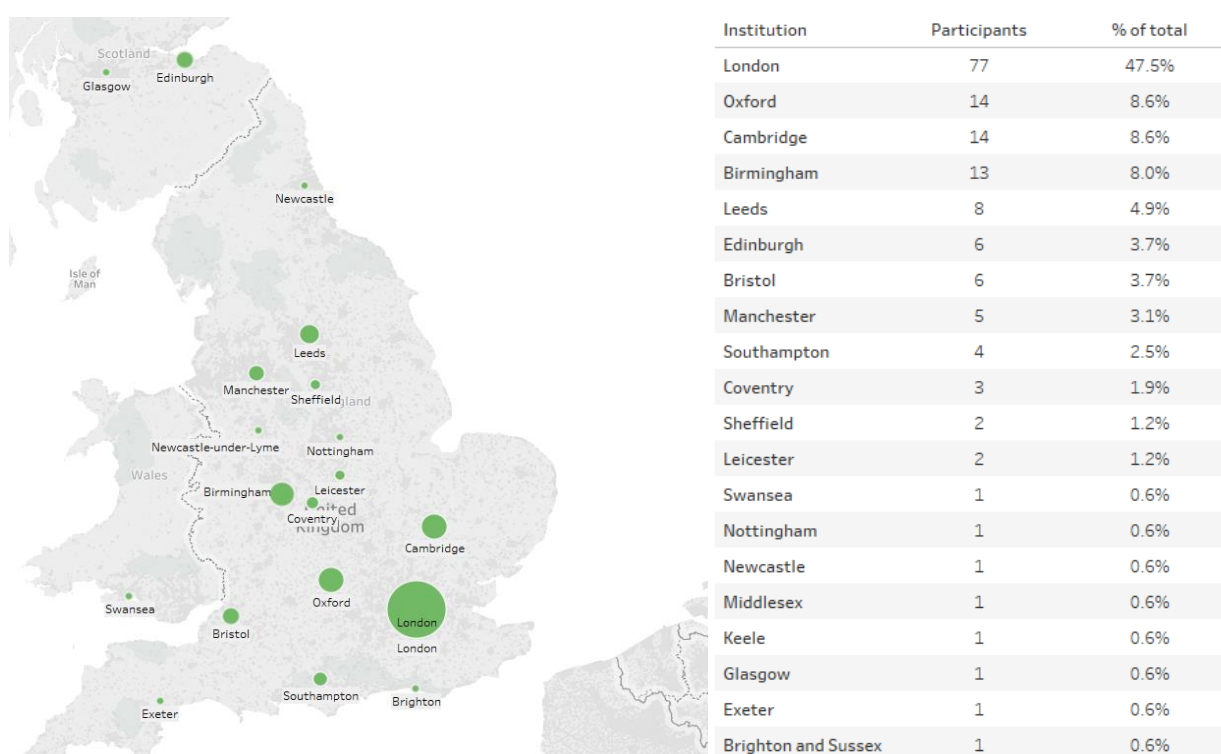


Figure 5 Geographical distribution of meeting registrants by institution (2017)

⁴ Medical Schools Council (2014). A Survey of Staffing Levels of Medical Clinical Academics in UK Medical Schools as at 31 July 2014. Available at <http://www.medschools.ac.uk/AboutUs/Projects/clinicalacademia/Documents/MSC-survey-2015-web.pdf>, last accessed 26 June 2017.

3.2. Feedback from Spring Meeting attendees

Feedback from Spring Meeting survey respondents

The Academy of Medical Sciences conducts a post-event feedback survey of Spring Meeting attendees every year with an average response rate of just over 25%. A breakdown of feedback survey respondents by role is provided in *Appendix VII Analysis of existing Spring Meeting feedback*.

Survey respondent satisfaction

As shown in Table 3, the overall feedback is very positive. 85% of survey respondents agree or strongly agree that the event is very useful and enjoyable. Respondents were particularly satisfied with the organisation of the meeting. In 2015 and 2017, respectively 100% and 96% of survey respondents agreed or strongly agreed that the event was well organised. This figure was lower in 2016, at 68%.

Table 3: Percentage of positive responses to given survey statements

Year	2015 (N=62)		2016 (N=62)		2017 (N=50)		Average	
	Agree	Strongly agree	Agree	Strongly agree	Accurate	Very accurate	Agree / accurate	Strongly agree / v. accurate
I found the event useful	50%	48%	36%	38%	42%	44%	43%	43%
I found the event enjoyable	40%	54%	33%	39%	42%	58%	38%	50%
I felt welcome to ask a question	47%	47%	48%	29%	44%	48%	46%	41%
The event was well organised	23%	77%	19%	49%	26%	70%	23%	65%

NB: Data for 2014 is not available as this question was not asked in the feedback survey. According to feedback from the Academy, 2015 is considered as an exceptional year with a large number of Academy Fellows attending due to the visit of HRH Princess Anne.

3.3. Career Development Workshops

As shown in Table 4 below, 13 Spring Meeting attendees in 2016 and 8 trainees in 2017 attended the career development workshop, which takes place on the day before the meeting. Similarly to the Spring Meeting, the overall feedback was very positive with more than 65% of respondents highlighting that they enjoyed or liked the training sessions (Table 4).

Table 4 Feedback from the Career Development Workshops

% of respondents who agreed with the statement: 'It was pretty good, I liked most of it'	2016 (N=13)	2017 (N=8)	Average
Did you enjoy the networking session?	69.2%	62.5%	65.9%
Did you enjoy the pitching ideas session	76.9%	75.0%	76.0%

The online survey that was distributed for this review of the Spring Meeting also included a question about the Career Development Workshop. Out of the 33 respondents who had previously attended

a Spring Meeting, nine had also attended the career development workshop⁵. Their feedback highlights the quality of the sessions, e.g.:

- “The presentation skills and networking sessions were both very helpful and I have been able to use many of the skills I have learned.”
- “Presentation skills training was excellent - could this be longer or could there be more facilitators so more people had an opportunity for 1-1 session?”
- “It was very useful. I particularly found the presentation skills session useful - it was much better than those I had previously attended elsewhere.”

⁵ Participants attended in the following years: 2014 (n=3), 2015 (n=2), 2016 (n=2), 2017 (n=4).

4. The UK Landscape for Scientific Conferences

In considering the Spring Meeting as a whole, it is viewed as being a unique event within the spectrum of UK conferences. However, survey respondents and interviewees indicated that elements of the Spring Meeting programme are covered in a wide range of events held throughout the year, locally and nationally - the most relevant ones are shown in Table 5.

Meetings held by NIHR, Wellcome Trust and the Academy's Winter Meeting are all targeted at grant award holders and are not open for others to attend. In contrast, the Spring Meeting is open fully to all individuals within the target groups (Academic Clinical Fellows to Clinician Scientists). The Association of Physicians' Annual Meeting is only open to members. Meetings held by Scientific and Clinical Societies are open to all, however members receive a preferential rate on registration fees. Spring Meeting delegates also attend a wide range of scientific conferences and these are summarised in *Appendix II: The UK Landscape of Scientific Conferences for Clinicians in Training*.

Table 5 Overview of UK meetings aimed partly or wholly at clinical researchers in training.

		Spring Meeting	NIHR Training Camp	AMS Winter Meeting	Association of Physicians	Local activities	Scientific / Clinical Societies	Wellcome Trust
Target Audience	ACF							
	CF							
	CL							
	CS							
	senior clinical							
	non-clinical							
Topics covered / format	Scientific collaboration							
	Communication & presentation							
	Networking							
	Career Dev Support							
	Posters							
Key Aims		Scientific interaction & career development	Skills & career development	Scientific interaction & career development	Scientific interaction	Skills & career development	Scientific interaction	Skills & career development
<p><i>Key</i></p> <p>ACF Academic Clinical Fellows</p> <p>CF Clinical Research / Training Fellows</p> <p>CL Clinical Lecturers</p> <p>CS Clinician Scientists</p> <p><i>Blue (audience): dark blue indicates good representation from this target audience and light blue indicates low representation</i></p> <p><i>Green (topics / format): highlights the content of each meeting</i></p>								

In considering the status of a national event such as the Spring Meeting, a continued emphasis on scientific excellence and discourse should remain key features of the meeting. Furthermore, funders such as NIHR and the Wellcome Trust were keen to have an ongoing dialogue with the Academy

regarding the shape of the Spring Meeting in relation to the wider programme of events across the UK.

The most significant overlap with other meetings and regional events relates to the Career Development Workshop, held on the day prior to the Spring Meeting. Therefore, we recommend removing this item from the programme, as there are numerous opportunities for obtaining such support through other events in the UK. These are described below.

NIHR Doctoral Training Camp

For over ten years, the NIHR has been holding annual events for NIHR trainees, which focus particularly on skills and career development training. The Training Camps provide workshops, inspirational speakers and practical experience about communicating with a variety of audiences such as research funders, the media, patients and the public. The main themes include 'writing a grant' or 'communicating your science'.

Attendees' scientific research plays a lesser role in this meeting. Whilst the Training Camps include a poster session and scientific presentations, the main focus is career development within a very task oriented format. To attend the meeting, all delegates must submit abstracts about their research work. The best three abstracts are selected for oral presentations with a further 20 abstracts selected as poster presentations. The NIHR awards prizes for best poster, best delegate presenter and best lay summary.

Attendance at the Training Camps is normally 70 delegates from across the country, providing good networking opportunities for doctoral students. Registration is only open to delegates nominated by Biomedical Research Centres and Units, Collaborations for Leadership in Applied Health Research and Care, Patient Safety Translational Research Centres and School of Primary Care. Places are limited to two per institution.

The meeting is spread over 3 days (see *Appendix II: The UK Landscape of Scientific Conferences for Clinicians in Training* for an example programme for the 2017 meeting). The NIHR reports that feedback from these meetings is very positive, with attendees developing new skills and leaving the meeting with a sense of achievement. The NIHR pays all costs for the meeting. Whilst the Training Camps contain elements of scientific presentation and networking, the main overlap with the Spring Meeting lies within in the career development workshop held prior to the meeting.

MRC Annual postdoctoral fellowship symposium

The MRC holds an annual meeting for all intermediate and senior fellowship holders. The day is a mix of talks and interactive events, offering the opportunity to network across MRC fellows and to engage with the MRC on a range of topics relating to research funding and careers. Normally 100 fellows attend plus 40 staff, Board / panel members and speakers.

The Academy's Winter Science Meeting

The Academy's Winter Meeting is an opportunity for Starter Grant holders and Springboard awardees to share their research, network with each other, Academy Fellows and Research Funders, and explore the next steps in their career. It is a full-day conference, held at the Academy's headquarters in London, to which delegates bring posters and give oral presentations.

The 2016 event gave awardees the opportunity to present their work in three different ways: a 15 minute oral plenary talk; a short 'Research in 3' talk; or a poster presentation. Over 80 people attended the day. Members of the Starter Grant Panel judged presentations, with the winner of each category receiving £250.

The meeting also provided delegates with tips and advice on communicating their research. In the career development sessions, delegates discussed topics such as funding applications, leadership and research reproducibility with representatives from funders and Academy Fellows.

Local Training and Development Meetings

Universities across the UK hold a wide range of local meetings for early career clinical academics. The extent and quality of such events around the UK are variable – two commended examples are shown below:

ICR / Royal Marsden support for clinical academics⁶

The ICR / Royal Marsden runs a Clinical Academic Forum, supporting local networking and meetings. They also run a 'Managing Dual Careers' workshop and 'Meet the Funders' events with representatives from the NIHR, CRUK, MRC and Wellcome Trust coming in to talk about their clinical fellowship schemes. Further activities include programmes for Leadership and Mentoring.

University of Sheffield⁷

Sheffield runs Clinical Academic Awaydays, which are open to all clinical academic trainees from Foundation upwards, including those doing research out of programme. In 2017, the programme concentrated on 'Planning the next stage of your career'.

⁶ Further information: <https://www.cancerbrc.org/brc-training-hub/support-clinical-researchers>

⁷ Further information: <http://medicine.dept.shef.ac.uk/news/index.php/2017/04/18/clinical-academic-awayday-2017/>

5. Meeting feedback collected through surveys and interviews

To inform this evaluation of the Spring Meeting, Aleron and Freshney Consulting conducted interviews with Senior Clinicians, Funders and Clinician Scientists and collected quantitative evidence through an online survey. The results are presented in this chapter.

5.1. Overall Perceptions of the Spring Meeting

Overall, the Spring Meeting is considered to occupy a clear niche that is liked and respected by attendees. The meeting has prestige and retains importance to many people in academic medicine. Being a national Meeting open to all early career clinical academics, it is recognised and associated with scientific excellence, networking and an opportunity to access support for developing a career in clinical research. Attendance at the meeting by the Academy's fellows provides an inspirational emphasis on the importance of leadership and the pursuit of scientific excellence.

An integral aspect of the Spring Meeting is the shared experience of delegates' balancing a clinical career with an academic career and the challenges they encounter. It is also seen as being an important forum to promote understanding of the wider picture of academic training, such as training programmes and funding opportunities. This is achieved through attendees sharing career development experiences and, to a lesser extent, attendance by funder representatives.

Career development sessions at the meeting are recognised as helping attendees to hone their communication and presentation skills. The meeting also promotes important elements of the Academy's philosophy in terms of work-life balance and building resilience within a challenging career.

Spring Meeting delegates cited networking – with peers and senior researchers - and receiving career development support as the main reasons for attendance (see Figure 7). Furthermore, all interviewees (n=14) highlighted the importance of having a forum that covers a wide range of scientific disciplines to increase clinical academic trainees' exposure to different research fields.

Nevertheless, many interviewees (n=10; funders and senior clinicians) also pointed out that more could be done in the future to strengthen the meeting's approach to interdisciplinary exchange (see *Chapter 5.2*). One interviewee (funder) suggested that in recent years the interest in meetings with a wide scientific scope was declining due to the rise of more topic-focussed meetings.

One interviewee (senior clinical academic) felt that by just focussing on one group of researchers, the Spring Meeting propagates existing tendencies towards insularity in early career clinical academics. However, given the meeting's emphasis on navigating the complexities of dual scientific / clinical careers, the current target audience would seem appropriate. Furthermore, there are numerous local, national and international meetings to advance wider interactions.

With regards to the structure of the day, the majority of interviewees felt that the overall balance between structured activities and opportunities for more informal networking worked very well. However, two interviewees (one funder, one senior clinical academic) felt that the Meeting was in need of a refresh. In considering these views, it is important to note that the majority of attendees are very positive about the meeting, and that individuals who have attended the meeting several times are more likely to suggest a need for the programme to be refreshed.

5.2. Overall Perceptions – Funders and Royal Colleges

Interviews were held with representatives from the NIHR, Wellcome Trust and MRC, and also with the Royal College of Surgeons and the Royal College of Physicians. Their views about the Spring Meeting were generally very positive, recognising it to be a key national meeting for clinician scientists in training. These organisations hold a wide range of meetings for their grant award holders however the Spring Meeting is an important event that is open for all to attend. As befits the status and prestige of a national, cross specialty meeting, continued emphasis should be placed on scientific excellence and navigating the complexities of dual scientific / clinical careers.

Whilst there exists overlap with events run by other funders (see table 5), the networking opportunities, prestige and target audience are key elements that make the Spring Meeting unique. Nevertheless, the NIHR representative considered the Spring Meeting to have a lower profile than would be expected from a meeting of this nature. Therefore, a refresh of the meeting's objectives and content could be considered. In particular, encouraging clinician scientists in training to engage in interdisciplinary research was a priority and a worthy aim of the Spring Meeting.

The NIHR expressed interest in convening the relevant funders to progress discussion of the coordination and content of their combined programme of events for clinician scientists in training. Such a forum would also be helpful in sharing insight on e.g. successful facilitation tools to promote delegate interactions.

5.3. Structure and format of the Spring Meeting

Networking

As mentioned above, survey and interviews confirm that delegates placed considerable value on the informal networking opportunities during the meeting. However there was also the general perception that a more structured approach to networking could be beneficial for increasing the level of interdisciplinary engagement.

The Academy could provide greater networking facilitation at the meeting by acting as a broker or providing a matchmaking service. For example, the Wellcome Trust provides structured facilitation at its events, using 'speed dating' to increase delegate interactions and pitch practice. Approaches to 'biopartnering' are also quite common in industry-led conferences e.g. BIO International Convention partnering⁸. This requires registrants to submit their profile and a summary of research interests prior to the meeting, enabling them to review all delegate profiles and set up meetings. Setting up and managing a partnering platform would require more resource from the organisers.

The size of the meeting (200-250 delegates) was considered to be optimal – larger would hinder networking and would also add to expense. A smaller meeting would lessen the meeting's prestige and networking potential. A one-day meeting was also thought to be appropriate. Delegates would find it difficult to justify the time required for attending a longer meeting, and the cost would be higher.

More thought could also be given to understanding how young researchers network, communicate and share results using social media and other platforms, adapting the Spring Meeting accordingly. Furthermore, there might be scope for the Academy to consider developing a 'Linkedin'-type

⁸ <http://convention.bio.org/partner/>

platform for clinical academics to showcase their profile and highlight interests with the aim of building interactions with other researchers.

Content – presentations and prizes

The programme contains a range of presentations, and maintaining a high quality was seen as important. Some interviewees suggested providing more opportunities for young investigators to present through having a higher number of shorter talks. However, given the value associated with networking at the meeting, a generous allocation of time for this should be maintained.

The majority of interviewees considered the competitive elements - prizes for posters and presentations - and the publication of abstracts to be important factors that added prestige and attracted delegates. In contrast, previous attendees rated factors such as networking and career development support as more significant reasons for attending the meeting (Figure 7). Whilst these results suggest that emphasising the networking and career development aspects of the meeting are important incentives to attend, the prizes and abstract publication may also act as an important 'carrot' for individuals less familiar with the meeting. Furthermore, the level of prize available (£2,500) was generous in comparison to other events, adding to interest and prestige at the meeting.

As part of the registration process, researchers are asked whether they would still like to attend the event if their abstract is not accepted for one of the competitions. In 2017, 71% (107) of trainee researchers indicated that they would attend without an abstract. Out of the 44 registrants who would not be interested in attending, roughly 70% were based outside of London suggesting travel might be an issue⁹.

Content – Plenaries and Themes

As well as plenaries from senior academics, inspiring talks should also be sought from mid-career figures (e.g. Clinician Scientists) to tell their story and engage early career clinical academics who may only be 5-10 years behind in terms of career position. Talks could also introduce the audience to cutting-edge technologies and their use in translational or clinical research. The introduction of parallel sessions covering specific themes could also be considered.

One senior academic suggested that future meetings could have a more thematic focus on e.g. bringing together different approaches to tackle specific medical challenges, e.g. integrative genomics or public health. As proposed above, theme-based oral or poster sessions should be introduced to promote interdisciplinary networking. However, giving an overall theme to the meeting is not recommended, as this would increase its specialisation, risking a decline in attendance and reduced interdisciplinary exposure.

Poster sessions

Some questions were raised in the interviews about the value of the poster sessions, and whether informal networking with peers dominated this time instead of scientific interactions. A small number of delegates (n=2/25) who were interviewed during the 2017 Spring Meeting felt that the range of posters at the meeting was too broad, considering they were only interested in, or could understand, a small proportion of the science presented. However, these responses also highlight

⁹ Figures for 2015 and 2016. In 2015: 106 (77%) of applicants indicated that they would like to attend if their submission is not accepted. Out of the 31 that replied that they would not like to attend, 84% were based outside of London. In 2016, 72% (125) of trainee researchers indicated that they would still like to attend. Out of the 48 registrants who would not be interested in attending, 36 (75%) were based outside of London.

the need to encourage attendees to interact with people beyond their own immediate area of research interest, and that more active facilitation may be beneficial.

The programme could be developed to include poster discussion sessions, zones or groups focussing on specific themes to promote interactions between attendees in related subject areas. This would require more resource and scientific knowledge to organise alongside the abstract selection and programme development process.

Location

The meeting was considered to be too South East / London centric. Plans to rotate it around the country e.g. London, Manchester, Scotland should be progressed, whilst monitoring future attendance. It was noted that London remains an important venue due its strong travel links and the prestige associated with the current venue. When holding the meeting around the country, increased involvement from local institutions should be sought to provide support in organising, providing speakers and venue. If held in partnership with selected institutions, the meeting could be used to showcase their achievements and bolster attendance. Senior interviewees also commented on the need to announce the date of the Spring Meeting as early as possible. To avoid overlap with other key events in the academic calendar, two senior clinicians that were interviewed suggested that late May/June were considered to be the most favourable months.

5.4. Fostering interdisciplinary interactions:

An important goal of the Spring Meeting as a scientific conference is to promote interdisciplinary interactions between attendees. This is aligned with the Academy's strategic objectives of promoting interactions between clinicians, including collaborations with non-clinical biomedical scientists and industry. Indeed, facilitating stronger links with industry may be a strong niche for the Academy due to the absence of conflicts of interest. Harnessing the commercial potential of academic research through better interaction with industry is also a key priority within the government's Industrial Strategy¹⁰.

Facilitating interdisciplinary engagement is an important goal of many funders in the UK. From the NIHR's perspective, they were particularly supportive of seeing the Clinical Lecturer community, which is perceived as being too intra-disciplinary, becoming part of a more broad and multidisciplinary ecosystem. Importantly, Clinical Lecturers possess strong clinical connections, which are valuable for establishing wider collaborations.

However, creating meaningful interdisciplinary interactions is a real challenge. Many early career researchers can be less interested to learn about subjects beyond their field, largely due to pressures to build clinical expertise within their specialty area alongside developing scientific knowledge and a research niche with subsequent recognition. Nevertheless, attendees from the 2017 event who were interviewed considered that exposure to a wide range of topics was an important aspect of the day to e.g. increase their awareness of approaches and methodologies used across scientific disciplines and to see the quality of science presented.

There also exists a mentality of 'chaining early career researchers to a bench' to e.g. complete their PhD, which hinders time for interdisciplinary collaborations. Overall, more needs to be done to encourage engagement between fields, by building recognition of this goal amongst young researchers and their supervisors.

¹⁰ <https://www.gov.uk/government/consultations/building-our-industrial-strategy>

One interviewee (senior clinical academic) expressed concern that, in its current format, the Spring Meeting fosters insular attitudes between clinical academics, which is not in line with the Academy's cross-disciplinary agenda. However, given that a key objective of the meeting is to support the career development of clinical academics in relation to specific challenges experienced in this field, it would seem important that this group should remain the key target audience for this meeting.

Interviewees also considered forums that foster interdisciplinary interactions. Such interactions are supported at many levels: locally through seminars, research meetings and awaydays; nationally and internationally through topic-specific conferences and large, interdisciplinary conferences (see 'Other specialty meetings' in Appendix II. In many cases, collaborations develop quite organically following initial interactions about shared interests, expertise, technologies or reagents. Furthermore, the increasing number of topic-specific meetings may indicate, or be contributing to, a reduced interest in general scientific meetings.

Given the wide subject scope and modest size of the Spring Meeting, there exist limitations on the extent to which it can contribute to developing meaningful interdisciplinary interactions. Whilst, feedback from the survey indicated that 25% of survey respondents agreed that the event helped them to develop fruitful research connections, we don't have data on whether these were of an interdisciplinary nature.

Encouraging non-clinical, biomedical researchers to attend the Spring Meeting

In relation to the question of encouraging non-clinical, biomedical researchers to attend the Spring Meeting, the majority view was that this could be quite problematic and would change nature of the event. Career development pathways for clinical and non-clinical researchers are quite different and there were considered to be other, more appropriate avenues for developing interactions between these communities. For example, an increasing number of scientific and clinical societies are placing more emphasis on promoting interactions between clinical and non-clinical researchers (see Table 5). Above all, it is important not to lose the niche and purpose of the Spring Meeting, retaining its emphasis on excellence and navigating the complexities of dual scientific / clinical careers.

The potential for promoting more interaction with industry at the Spring Meeting was received more warmly and it was expected that there would be sufficient interest from industry – particularly bio- and health technology – to advance this aim. Whilst promotion of industry interactions should not be a main focus of the meeting, a session covering this topic could be included in the agenda. Furthermore, it was suggested that a joint Academy / industry reception or dinner could follow the meeting, with an emphasis on promoting interactions with industry, particularly in biotechnology. Numbers could be restricted and pre-registration required, as it would be expected that the majority of attendees would depart after the main programme. Indeed, the Academy has previously held a dinner with recruitment firm RSA¹¹ to facilitate Academia / industry interactions.

5.5. Survey results

To inform this evaluation, clinician scientists at different stages of their career were invited to participate in an online survey. The survey focus was on three main areas: reasons for attending the Spring Meeting, career development needs, the structure of the Spring Meeting and its role in the

¹¹ Further info: Chris Molloy; previous CEO at RSA Group and now CEO of the Medicines Discovery Catapult; and Prof Melanie Lee FMedSci, BTG plc

wider context of other local and national scientific conferences. Please see *Appendix IV: Methodology* for a copy of the survey.

Survey respondents

104 members of the clinical academic environment replied to the survey, representing 28 different academic institutions. More than 54% of survey respondents were from the Universities of Oxford, Cambridge, Edinburgh and the University College London. A detailed breakdown of respondents by home university is provided in *Appendix I: Survey data*. 31% of survey respondents were Clinical Research / Training Fellows, 16% Clinician Scientist Fellow and 13% Clinical Lecturers (for further detail see Figure 6)¹². Out of all respondents only 32% had previously attended a Spring Meeting.

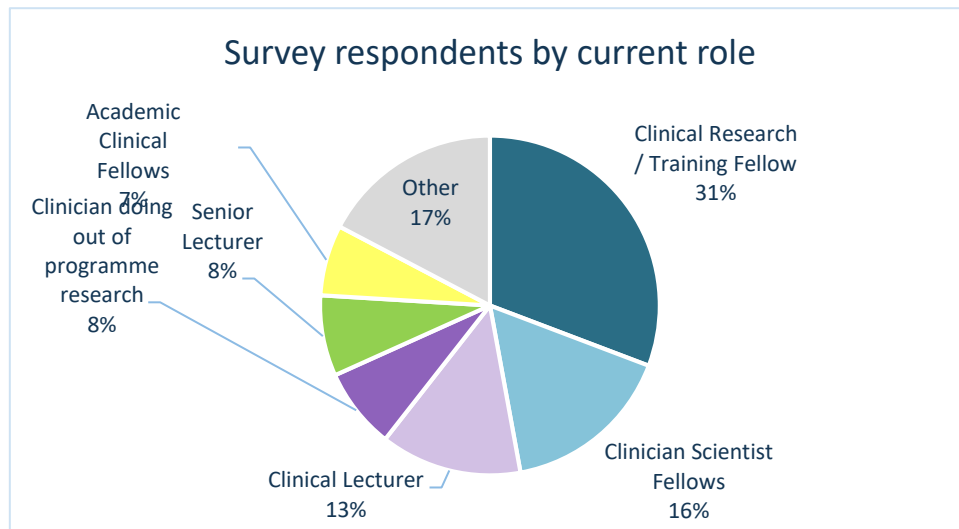


Figure 6 Survey respondents by current role

Main reasons to attend the Spring Meeting

Previous Spring Meeting attendees highlighted in the survey that the main reasons for attending are to network with senior clinical academics and to support career development as a Clinician Scientist. The presentation of scientific research and sharing insights within a cross speciality scientific meeting were perceived to be less important (see Figure 7).

¹² Other includes: Clinician (not currently doing academic work) (n=4), Professor (n=3), Basic scientist (post-doctoral) (n=2), Reader (n=1), PhD Student (n=1), Associate Professor (n=1), Vet with Wellcome CRCDF (n=1), Principal research associate - non-tenured Reader (n=1), Wellcome Trust Clinical Research Fellow (n=1), Wellcome Trust (n=1), Biomedical scientist (n=1), Senior Clinical Fellow (n=1)

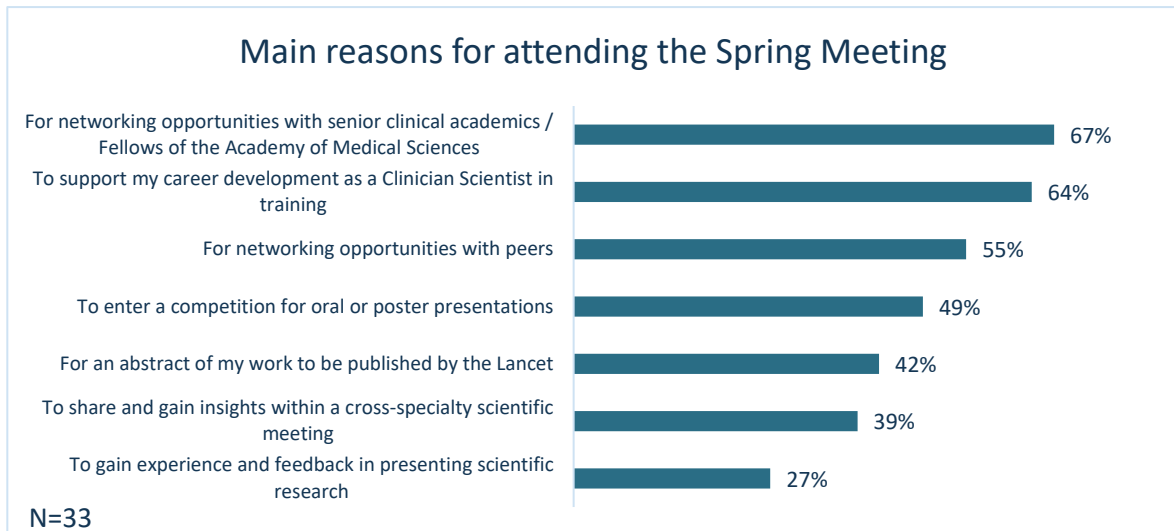


Figure 7 Main reasons for attending the Spring Meeting

Career development needs

All survey respondents were asked to rank specific elements of the Spring Meeting based on how helpful they considered them to their career development. As shown in Figure 8 below, both attendees and non-attendees rank the opportunity to network with peers as a very important element for their career development. This objective has similarly been emphasised by interview partners and further strengthens the recommendation to keep the current focus on the clinical academic community.

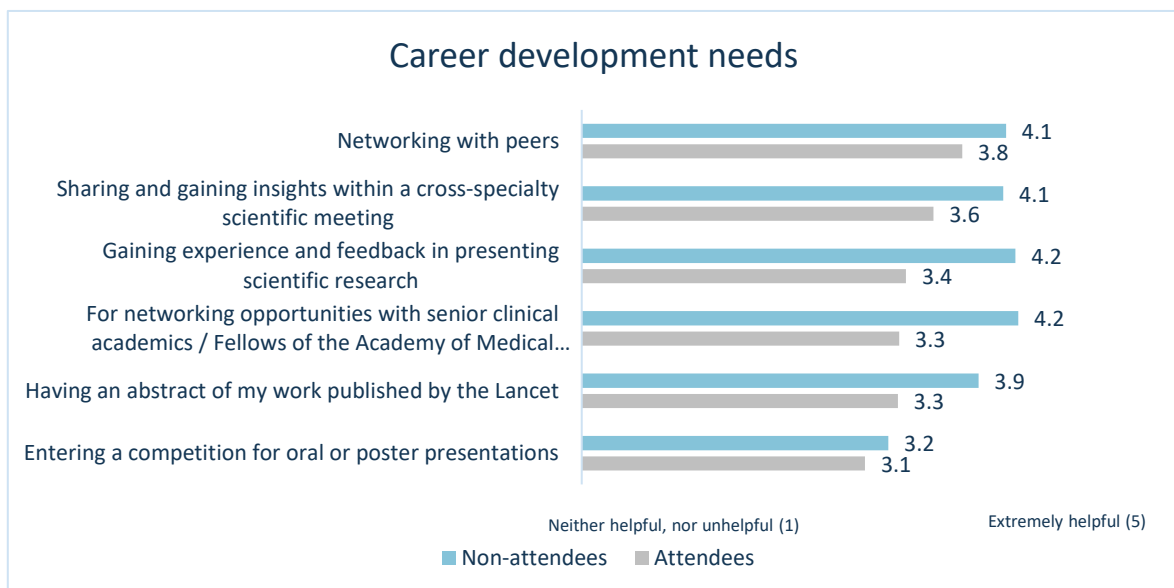


Figure 8 Career development needs

According to the survey data, the opportunity to share insights and gain presentation experience are key development needs for early career clinical academics (Figure 8), particularly those who have not previously attended a Spring Meeting. However, these objectives were not ranked as the main reasons for previously attending a Spring Meeting (Figure 7). Instead, networking was perceived to be significantly more important, underlining the importance that all clinician scientists in training place on this activity.

In addition, several attendees of the 2017 meeting commented that it was very helpful to see what research their peers are doing in relation to their own work. For some delegates¹³, particularly PhD students, it was the first time presenting their research and that doing so at this meeting was much less intimidating than at specialist meetings or conferences. The opportunity to publish an abstract in the Lancet and to enter a poster competition are considered helpful for career development, but less important than the other elements of the meeting.

To better understand the niche that the Spring Meeting currently occupies, we asked survey participants about the main gaps in local or national training programmes. As shown in Figure 9 below, there seem to be sufficient opportunities to participate in competitions for posters, however, there are clear gaps in opportunities to network with senior clinical academics and Fellows of the Academy. Therefore, sustaining strong attendance by Academy Fellows at future Spring Meetings will be an important asset for the future success of the event.

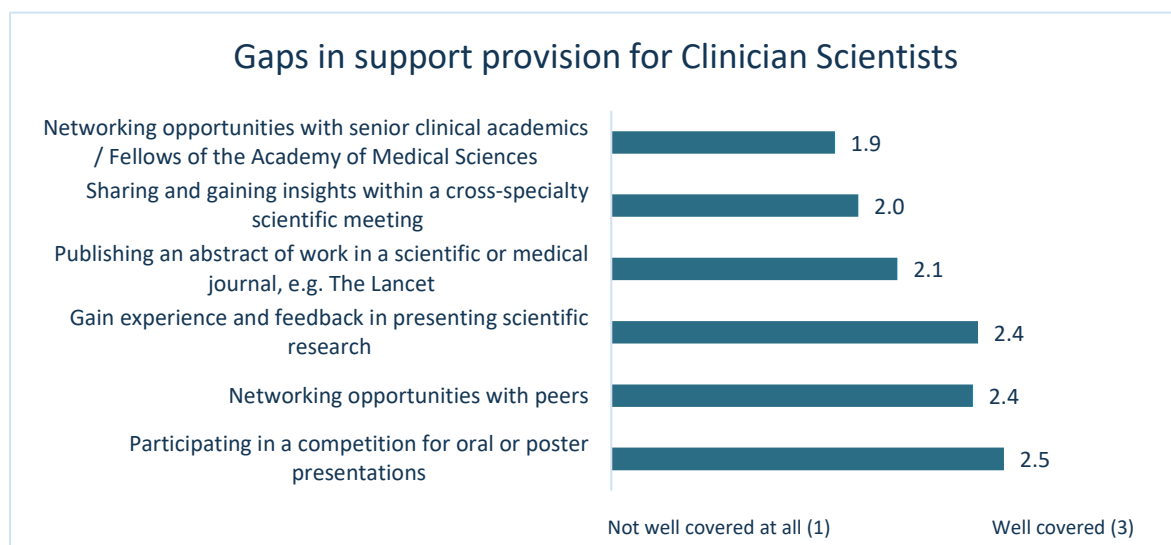


Figure 9 Support provision for Clinician Scientists

Looking at survey and interview feedback in more detail suggests that trainees are particularly interested to meet clinicians whose career path closely resembles their own, especially also for veterinary researchers and dentists¹⁴. Survey participants appreciated the opportunity to meet role models and mentors at the Spring Meeting. It was mentioned by two survey respondents that this is particularly important for women and BME. This finding emphasises the need to think about ways to continuously engage senior academics and Academy Fellows at the Meeting. One survey respondent, for example, commented:

“The quality and relevance of the keynote talks is not matched by other events. By contrast, opportunities to meet non-clinical researchers, networking and to present abstracts orally can all be provide by local or regional events. I feel the Spring Meeting should continue to focus on the unique contribution from senior Academy staff rather than emulating events which are available elsewhere.”

The majority of survey respondents who had previously attended a Spring Meeting (78%) felt that the event is somewhat unique, with certain elements of the day contributing to its uniqueness. A further six (18%) previous attendees of the Spring Meeting indicated that the event is very unique and helpful and that they could not have obtained the support / insight from elsewhere.

¹³ Source: informal interviews at the 2017 Spring Meeting; numbers not available

¹⁴ Three vets participated in the survey, commenting on the limited access of support available for vets and dentists

6. Suggestions / recommendations:

The key findings within this review are intended to inform how the Spring Meeting should evolve over the next five years to support early career clinical academics and advance the goals of the Academy. In particular, within the Academy's strategy for wider engagement, we set out how these goals can be progressed whilst continuing to engage and support this important cohort of early career clinical academics.

Overall objectives of the Spring Meeting

- Networking with senior academics and peers are recognised as important and highly valued aspects of the meeting.
- Sharing and gaining insights about different scientific fields and promoting interdisciplinary research were identified as key interests and priorities for early career clinical academics. To support them, we recommend the Academy to consider inviting senior academics or mid-career Clinician Scientists who can showcase exemplars of interdisciplinary research. This would influence researchers to place more emphasis on exposure to interdisciplinary through their institutes and networks. Such exemplars could also highlight the Academy's emphasis on promoting Team Science. Buy-in from researchers' institutes to promote more interdisciplinary would also be necessary to advance this goal.
- Attendees also expressed interest in learning about different career paths from people who had followed unconventional career pathways. This topic is also of relevance to insight about individuals who have changed disciplines during their career and the wider discussion of pursuing interests as promoted through the Academy's #MedSciLife .
- In addition, and to directly support early career clinician scientists to develop more opportunities to network with industry, specific sessions could be developed where senior academics showcase examples of e.g. working with industry; outcomes from translational, interdisciplinary research. These thematic sessions could be developed as a test bed for an evolving meeting structure, with future emphasis if feedback is strong. Non-clinical scientist(s) and industry representatives would be invited to present, debate or facilitate sessions.

Interdisciplinary interaction and collaborations

- Consider creating an interdisciplinary research award – prizes for the most impressive interdisciplinary poster or presentation.
- Consider a closing reception or dinner held jointly with, and potentially sponsored by, industry.
- Consider greater networking facilitation by the Academy at the meeting.

Structure of the day

- Rotate future Spring Meetings across the UK (e.g. London, Manchester and Edinburgh or Glasgow).
- Consider a more thematic focus to specific sessions within each meeting.
- Consider more opportunities for young investigators to present through having a higher number of shorter talks, without reducing time for networking.
- Establish poster discussion sessions, zones or groups within specific themes to promote scientific interaction around posters.
- Provide more structured facilitation of networking, such as 'speed dating' to increase delegate interactions and pitch practice.

Appendix I: Survey data

Table 6 Survey respondents by home university

Institution	# of survey respondents	% of total	Cumulative
The University of Oxford	18	17.3%	17.3%
The University of Cambridge	16	15.4%	32.7%
University College London	12	11.5%	44.2%
The University of Edinburgh	11	10.6%	54.8%
The University of Bristol	5	4.8%	59.6%
The University of Liverpool	5	4.8%	64.4%
Imperial College of Science, Technology & Medicine	3	2.9%	67.3%
King's College London	3	2.9%	70.2%
The University of Leeds	3	2.9%	73.1%
University of Newcastle-upon-Tyne	3	2.9%	76.0%
London School of Hygiene and Tropical Medicine	2	1.9%	77.9%
Queen Mary University of London	2	1.9%	79.8%
The University of Glasgow	2	1.9%	81.7%
The University of Manchester	2	1.9%	83.7%
The University of Sheffield	2	1.9%	85.6%
The University of Southampton	2	1.9%	87.5%
University of Nottingham	2	1.9%	89.4%
Cardiff University	1	1.0%	90.4%
Leeds Trinity University	1	1.0%	91.3%
The Queen's University of Belfast	1	1.0%	92.3%
The University of Aberdeen	1	1.0%	93.3%
The University of Birmingham	1	1.0%	94.2%
The University of Dundee	1	1.0%	95.2%
The University of Leicester	1	1.0%	96.2%
University of London (Institutes and activities)	1	1.0%	97.1%
National University of Ireland Galway	1	1.0%	98.1%
Tsinghua University (Beijing, China)	1	1.0%	99.0%
Wellcome Trust	1	1.0%	100.0%
Total	104	100%	100%

	# of respondents	In % of total
Previous attendees of the Spring Meeting	33	31.7
Non attendees	71	68.3
Total	104	100%

Appendix II: The UK Landscape of Scientific Conferences for Clinicians in Training

Other meetings for Clinicians

Several other organisations provide a wide range of general and specialist meetings for clinicians in the UK. The topics covered at the NIHR Training Camps are of most relevance to the career development elements of the Spring Meeting. Other meetings provide opportunities for scientific engagement and improvement of clinical practice.

Draft programme for the NIHR Doctoral Training Camp – 12-14 July 2017

Day 1

12 th July 2017	1pm to 1.05	Welcome Professor Waljit Dhillon and Professor Anne-Maree Keenan
	1.05 to 1.30	Title tbc Dr Giles Yeo Cambridge University
	1.30 to 2.15	Delegate Presentations
	2.15 to 3.45	Poster presentations (assessed by Denise Best, PPI representative Julie Stone, Julieanne Bostock) Tea/Coffee will be available during the session
	3.45 to 4.00	Introduction to the Making People Healthier research programme (MPHrp) Training Camp Director of MPHrp Science and Deputy Director of Science MPHrp (Waljit and Anne-Maree)
	4.00-4.45	Break into groups
	4.45-5.15	WORKSHOP Describing your research in 20 words and yourself in 10 seconds (Professor Tony Redmond)
	5.15-5.45	Group work
6.30 onwards	Informal Dinner	

Day 2

13 th July 2017		Trainees to sit in their groups
	9.00 to 10.00	MASTERCLASS 'Writing and implementing a communications plan' (NIHR comms professional – Leicia Feare and Zainab Oyegoke NIHR)
	10.00 to 5.30	Group working
	10.00-5pm	Director of MPHrp - Office Open Experts available: PPI representative (Suzanne Parsons and Paula Wray) Deputy Director of MPHrp Science (Anne-Maree Keenan) Comms person (Leicia Feare) Press Officer - media channels (Sarah Foxton/Helen Jaques)
10.15 to 11.00	WORKSHOPS 1. Top tips for media interviews (Caroline leFevre) 2. Using social media effectively	

	(Mike Trenell) 3. Communicating with patients and the public - intro (Suzanne Parsons)
11.00 to 11.15	Coffee break
11.15	Plain English summaries collected from groups
11.15-12.00	1. Top tips for media interviews (Caroline leFevre) 2. Using social media effectively (Mike Trenell) 3. Communicating with patients and the public - intro (Suzanne Parsons)
12.00 – 2.00	Buffet Lunch available
1.00pm to 3.30	PPI Advisors (teams allocated appts to discuss PPI – Ben Wills Julie Stone Angela Ruddock Sandra Paget)
5.00	<u>Application Submission Deadline</u> Hard copy to be submitted to MPHrp Science Office. Office will close at exactly 5pm.
5.30	<u>Presentation Submission Deadline</u> Collected by MPHrp Representative from each seminar room.
5.30 to 6.30	BREAK
6.30	Pre-dinner reception
7.30	Dinner After dinner speaker – Dame Caroline Watkins

Day 3

DAY 3 14th July 2017	8.30 onwards	All teams <u>must</u> present themselves in main hall before 9am to the representative of MPHrp
	9am	Opening by Chair
	9.05am onwards	Making People Health research programme Advisory Panel (Waljit Dhillon, Anne-Maree Keenan, Dave Jones, Anthony Redmond, Helen Jaques and Sarah Foxton) Presentations First 5 teams present
	10.30 to 10.45	Tea/Coffee break
	10.45am to 12.10	Second 5 teams present
	12.10	Update on the review and Prize giving Tony Soteriou and Lisa Cotterill
	12.10 to 12.30	Panel Deliberations
	12.30	Winners announced and Close of Training Camp Waljit and Anne-Maree
	13.00	Lunch

Other relevant meetings

Updates on clinical practice are provided to clinicians at a wide range of meetings, however the examples provided below also incorporate research themes to the programme.

Royal College of Physicians

The RCP holds an annual conference and a wide range of clinical specialty meetings. As part of the RCP's 500th anniversary year, they are holding a substantial 'Innovation in Medicine' conference in London in July 2018. The programme will have an emphasis on clinical updates and training as well as a variety of health services and policy, education and professionalism sessions, relevant to all clinical specialities and grade.

Further information:

<https://www.rcplondon.ac.uk/events>

<https://www.rcplondon.ac.uk/events/innovation-medicine-2018-rcp-annual-conference>

The Association of Physicians of Great Britain and Ireland

A key focus of the Association of Physicians is 'the promotion of clinical academic excellence'. The association's main activity is an annual meeting for clinicians to 'advance internal medicine' through presentations represent achievements of academic medicine throughout Britain and Ireland. The profile of this meeting appears to have diminished considerably in recent years. In 2017, their annual meeting was followed by a joint symposium with the Academy on Targeted Therapeutics, co-Chaired by Professor Sir Robert Lechler and Professor David Lomas (Vice Provost (Health) at University College London and President Elect of the Association of Physicians.

Further information:

<https://theassociationofphysicians.org.uk/index.php/41-annual-meeting-2017/35-annual-meeting-2017>

Royal College of Surgeons

The RCS provides a strong programme of support and training to their fellows covering e.g. help in developing grant applications, clinical leadership and research methods.

Further information:

<https://www.rcseng.ac.uk/news-and-events/events/#/>

Royal Society of Medicine

The RSM provides a wide range of topic-specific scientific and training meetings. Many of their meetings focus on particular specialties (see examples below) and they also run workshops on research methods.

Further information:

<https://www.rsm.ac.uk/events/events-listing.aspx>

- [Specialty careers](#)
- [Psychiatry as a career](#)
- [Critical appraisal and research methods](#)
- [John Glyn trainees' prize](#) - for audits

Other specialty meetings

Numerous scientific and clinical societies hold annual meetings for researchers with specific research interests. The focus of these meetings is scientific discourse and networking.

The level of interaction between clinical and non-clinical researchers at these meetings is variable and two examples are described below. The topic of interdisciplinary interaction is discussed in more detail in the next section.

1) Neurology and Neuroscience

The [Association of British Neurologists'](#) (ABN) clinically focussed conferences and the more basic biennial [British Neuroscience Association](#) (BNA) conference have been described as being two different 'cultures and tribes'. Some discussions have taken place towards holding joint meetings in the future to improve interactions.

2) Cancer

Considerably more successful efforts to promote clinical and non-clinical interaction have been led by the [National Cancer Research Institute](#), which holds an annual conference that is well-attended by both groups.

Draft programme for the Wellcome Trust's clinical PhD trainees meeting

Monday, 10 July 2017

10:30	<i>Registration and coffee</i>
11:00	Welcome and Introduction <i>Dr Clare McVicker, Research Careers, Wellcome</i>
Session 1	A Fellow's Perspective
11:15 – 12:15	Chair: <i>Dr Clare McVicker, Research Careers, Wellcome</i>
11:15	A Fellow's Perspective: Clinical Research Career Development Fellow (Stage 1) followed by Q&A <i>Dr Eleanor Raffan, University of Cambridge</i>
11:45	A Fellow's Perspective: Intermediate Clinical Fellow followed by Q&A <i>Dr Rickie Patani, University College London and Crick Institute</i>
Session 2	Breakout Sessions
12:15 – 15:10	Chair: <i>Dr Clare McVicker, Research Careers, Wellcome</i>
12:15	Breakout Session introduction and explanation
12:20	Breakout Session 1 , followed by lunch
14:20	Breakout Session 2
Session 3	Getting to know Wellcome
15:10 – 16:30	Chair: <i>Dr Kiri Tan, Clinical Activities Manager, Wellcome</i>
15:10	Public Engagement
15:20	Open Research
15:30	ORCID
16:00	Future Funding and Next Steps followed by Q&A <i>Dr Kiri Tan, Clinical Activities Manager, Wellcome</i> <i>Dr Clare McVicker, Research Careers, Wellcome</i>
16:30	Closing Remarks <i>Close of meeting followed by a drinks reception</i>

Other meetings and conferences attended by survey respondents

In the survey, respondents were asked to highlight any other events that they had attended that addressed similar topics. A full list of events is provided below:

- National and international conferences, e.g.
 - British HIV Association conference
 - BMA Clinical Academics Conferences
 - BSI congress / annual meeting
 - European Society for Human Genetics Conference
 - European Society of Immuno-deficiencies conference
 - European Lung Science Conference
 - Keystone Symposium
 - Local Academic Clinicians Symposium
 - L'Oreal Women in Science fellowship training days
 - National Cancer Research Institute (NCRI) conference
 - National veterinary conferences
 - RCPsych International Congress
 - UK Public Health Science Conference
- Local events, e.g.
 - Edinburgh Clinical Academic Training (ECAT) training days and progress meetings
 - Health protection research unit (PHE/Imperial) events
 - Manchester Cancer Research Centre Autumn School 2015
 - Leeds Oncology Research Day
 - Local pulmonary vascular meeting
 - Local research showcase events / medical school research day
 - Oxford HIU day and WIMM day meetings
 - Oxford MSDTC annual symposium.
 - Oxford T cell symposium
 - Oxford Tropical Network Meeting
 - Oxford University Clinical Academic Graduate School (OUCAGS) events (e.g. symposium)
 - UCL virtual virology
 - University of Birmingham PERCAT events (Postdoctoral / Early Researcher Career Development And Training)
- Society meetings, e.g.
 - American Association for the Study of Liver Diseases (AASLD)
 - American Society of Haematology Meeting
 - British Association for the Study of the Liver (BASL)
 - British Paediatric Allergy, Immunity and Infection Group (BPAIIG) meetings
 - British Society for Immunology annual meeting
 - British Society for Matrix Biology
 - British Society of Gastroenterology (BSG)
 - British Society of Haematology Meeting
 - British Thoracic Society meeting
 - European Stroke Organisation / UK Stroke Forum
 - GW4 Early Career Neuroscience Day
 - International epidemiological meetings
 - Scottish Society for Gastroenterology

- Welsh Paediatric Society meetings
- Funder events
 - Wellcome Trust Student and Fellow meeting
 - Wellcome Trust Clinical PhD programme events
 - Wellcome Trust Fellow Days / Fellow Meetings
 - MRC events
 - NIHR Experimental Medicine Summer workshops
 - NIHR meeting for clinical lecturers
- Informal events, e.g.
 - Local discussions with PhD supervisors / committees were the most informative meetings
 - Local university divisional research days
 - PhD student colloquia
 - Senior clinical academics / fellows of the academy within the institute

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Appendix IV: Methodology

Interviews

To inform this evaluation, we conducted 16 1:1 interviews with a small number of key stakeholders to provide increased depth of insight not available from the survey data. Discussion topics and interview questions were previously agreed with the Academy. The stakeholders shown in the table below were interviewed. In addition, informal interviews were held with approximately 25 attendees at the Spring Meeting in February 2017, and comments from these discussions are included in the report.

Senior Clinicians	University / Organisation	Role
Prof Andrew Dick FMedSci	UCL	Chair of the Spring Meeting steering committee
Prof Moira Whyte FMedSci	University of Edinburgh	MRC TCG Chair; Former MRS ¹⁵ member
Prof Steve O'Rahilly FMedSci	University of Cambridge	ex-MRS Chair, AMS Council member
Prof Melanie Lee FMedSci	BTG plc	Chief Scientific Officer
Prof Ros Smyth FMedSci	UCL	Chair, MRC Training panel
Prof Paul Stewart FMedSci	University of Leeds	BHF & AMS governance
Funders/Sponsors		
Prof Dave Jones	NIHR	Dean of NIHR Faculty Trainees at the NIHR
Julia Dickinson	MRC	Programme Manager for clinical careers strategy
Anne-Marie Coriat	Wellcome Trust	Head of Research Careers
Prof Margaret Johnson	RCP	Academic Vice President
Martin Coomer (RCS)	RCS	Head of the Research Department
Clinician Scientists		
David Church	University of Oxford	Clinician Scientist Fellow
Professor Peter Hutchinson	University of Cambridge	Senior Clinician Scientist
Elsbeth Whitby	University of Sheffield	Senior Clinician Scientist
Local Activities		
Caroline Shriver	Institute of Cancer Research / Royal Marsden	BRC Training and Education Manager
Professor Debbie Sharp	University of Bristol	Head of School for Clinical Academic Training

¹⁵ Medical Research Society

Survey questions

The online survey was designed for previous attendees, as well as interested academics who have not previously attended the Spring Meeting. The survey was circulated to Clinician Scientists by the Academy, using direct mailing as well as newsletter adverts. In addition, funders were asked to distribute the survey. This includes the NIHR, the MRC and the Wellcome Trust. The total number of survey respondents was 104.

1. What best describes your current role?

- Academic Foundation Doctor
- Academic Clinical Fellows
- Clinical Research / Training Fellow
- Clinical Lecturer
- Clinician Scientist Fellows
- Clinician doing out of programme research
- Senior Lecturer
- Reader
- Professor
- Academy Fellow
- Basic scientist (pre-doctoral)
- Basic scientist (post-doctoral)
- Clinician (not currently doing academic work)
- Other (please specify)

2. What is your home university?

3. Have you previously attended a Spring Meeting?

Respondents who replied 'No' to question 3, skipped questions 4-12.

- Yes
- No

4. When did you attend the Spring Meeting? If you have attended more than once, please tick all years that you attended.

- 2014
- 2015
- 2016
- 2017

5. What were your main reasons for attending the Spring Meeting?

- To support my career development as a Clinician Scientist in training
- To gain experience and feedback in presenting scientific research
- To enter a competition for oral or poster presentations
- For networking opportunities with senior clinical academics / Fellows of the Academy of Medical Sciences
- For networking opportunities with peers
- To share and gain insights within a cross-specialty scientific meeting
- For an abstract of my work to be published by the Lancet
- Other (please specify)

6. Did you attend the career development workshop on the day before the Spring Meeting?

Respondents who replied 'No' to question 6 skipped question 7

- Yes
- No

7. Please let us know which elements of Career Development workshop you perceived to be most helpful. Do you have any suggestions of how to improve the workshop?

<i>Open text</i>

8. Which specific elements of the Spring Meeting did you consider most helpful to your career development?

	Extremely helpful	Very helpful	Helpful	Somewhat helpful	Neither helpful, nor unhelpful
Gaining experience and feedback in presenting scientific research					
Entering a competition for oral or poster presentations					
For networking opportunities with senior clinical academics / Fellows of the Academy of Medical Sciences					
Networking with peers					
Sharing and gaining insights within a cross-specialty scientific meeting					
Having an abstract of my work published by the Lancet					

9. How unique and helpful was the content of the Spring Meeting?

- Very unique and helpful – I could not have obtained this support / insight from elsewhere
- Somewhat unique – certain elements of the day were unique
- Not unique – I could have obtained this support / insight from elsewhere

Please highlight any other events that you have attended that address similar topics:

<i>Open text</i>

10. How much do you agree with:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I developed fruitful research connections or collaborations directly from attending the event					
The Spring Meeting is a key conference in my annual calendar					
The event would benefit from a more interdisciplinary audience					

11. In order to promote scientific discourse and the development of new networks/collaborations, the Academy of Medical Sciences is considering to offer additional activities at the Spring Meeting. Please rate the following options based on how much value they would add to the Meeting:

	Significant additional value	High additional value	Moderate additional value	Low additional value	Very little / no additional value
Invite industry leaders, to promote collaborations with industry					
Invite non-clinical researchers					
Provide structured networking activities					
Include shorter oral presentations that allow more competitors to present their research					

12. Do you have any other suggestions on how the Academy could improve the Spring Meeting?

Open text

Questions for survey participants who have not attended a Spring Meeting

13. Please rate the following options based on how important they are for the career development of Clinician Scientists in training.

	Very important	Important	Moderately important	Slightly important	Not important
Gaining experience and feedback in presenting scientific research					
Participating in a competition for oral or poster presentations					
Networking opportunities with senior clinical academics / Fellows of the Academy of Medical Sciences					
Networking opportunities with peers					
Sharing and gaining insights within a cross-specialty scientific meeting					
Publishing an abstract of work in a journal, e.g. The Lancet					
Other (please specify)					

14. In considering the items listed above, which factors are least well covered by local or national training programmes or events? [Or, which factors would you most like to see covered by local or national training programmes or events?]

	Well covered	Fairly well covered, but programmes/events are difficult to access	Not well covered at all
Gaining experience and feedback in presenting scientific research			
Participating in a competition for oral or poster presentations			

	Well covered	Fairly well covered, but programmes/events are difficult to access	Not well covered at all
Networking opportunities with senior clinical academics / Fellows of the Academy of Medical Sciences			
Networking opportunities with peers			
Sharing and gaining insights within a cross-specialty scientific meeting			
Publishing an abstract of work in a scientific or medical journal, e.g. The Lancet			

15. Please highlight any local or national events that you have attended that address the topics described above

Open text

16. Are you aware of the Academy of Medical Sciences grants and career development support offers for Clinician Scientists?

- Yes
- No

If yes, please provide us with your email address:

17. Would you like to subscribe to the Academy's newsletter, which provides information about grant schemes and career development support?

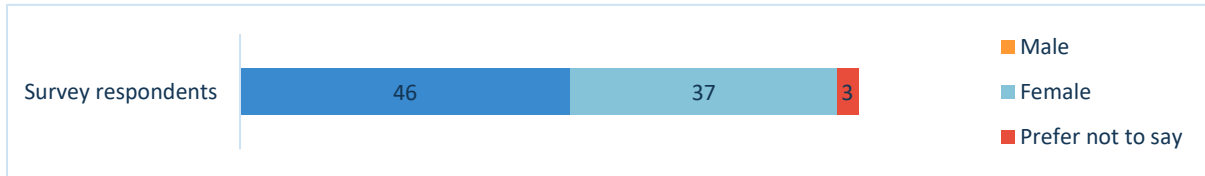
- Yes
- No

Equality and Diversity Monitoring Form

Appendix V: Survey respondent demographics

Gender

<i>Answered</i>	86	<i>Skipped</i>	18
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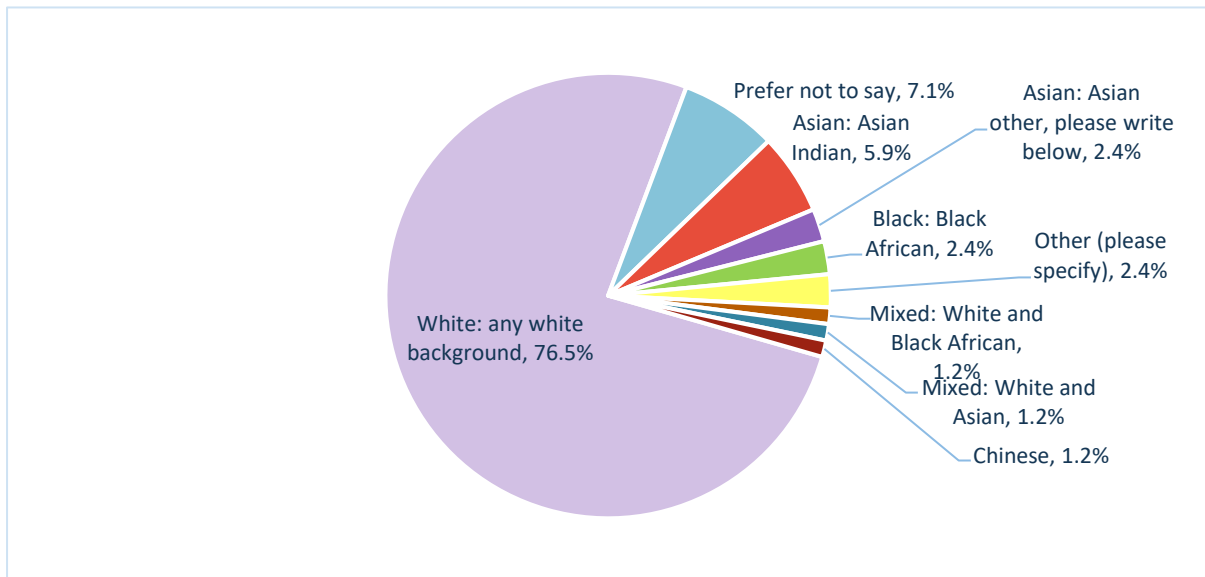
Disability

<i>Answered</i>	86	<i>Skipped</i>	18
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Ethnic group

<i>Answered</i>	85	<i>Skipped</i>	19
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Appendix VI: Survey quotes

General comments

Excellent meeting - would be great if each year can be a little different to encourage people to keep coming back

This is helpful as it's really useful to meet doctors in training at different stages of the pathway.

I particularly like the session where a senior academic gives insight into their career path and how this integrates with their personal life.

It's a great meeting and I'm grateful for the chances I've had to make podcasts, videos and attend workshops. The caliber of presentations is very high. It's great to have a senior academic look at your poster and ask you good questions. Posters often get ignored otherwise!

I really applaud the AMS for making serious efforts to encourage and support early career clinician scientists on their career pathway. Very well done!!

There is currently too much focus on the few individuals selected for oral presentations. As a poster presenter I felt like a second class citizen and received no feedback or advice from the judges. It would be helpful if the judges score sheets with feedback were emailed to participants. The meeting should case more talent with short 3-minute presentations giving a succinct overview of research.

don't try and replicate other meetings; be clear who it is aimed at - useful for those just starting, not that useful for those getting closer to the end of the early career phase - target accordingly

No - the format is excellent - as above the opportunity to speak with industry leaders or gain some insight into their approach would be very valuable.

workshops on leadership and people management?

Opportunities for vets and dentists

There is much more support for medical clinical academics than for vets or dentists, where research may not fit as clearly into their career pathway. It would be great for events not to be tailored to people on the NHS pathway only.

I'm a vet and fall between 'clinical' and 'basic science' stools. Limited options for support from AMS as a clinician, for instance. And support for vets wanting to do research is very limited - I am very envious of the support and job opportunities (e.g. clinical lectureships, ACFs) available for medics which 'normalise' trying to combine clinical and academic careers. Training and funding wise, it would be great for vets to be considered with the medics cf basic scientists, as at Wellcome. (I accept there are too few vets to make an independent stream viable, and it might not be a good idea anyway.)

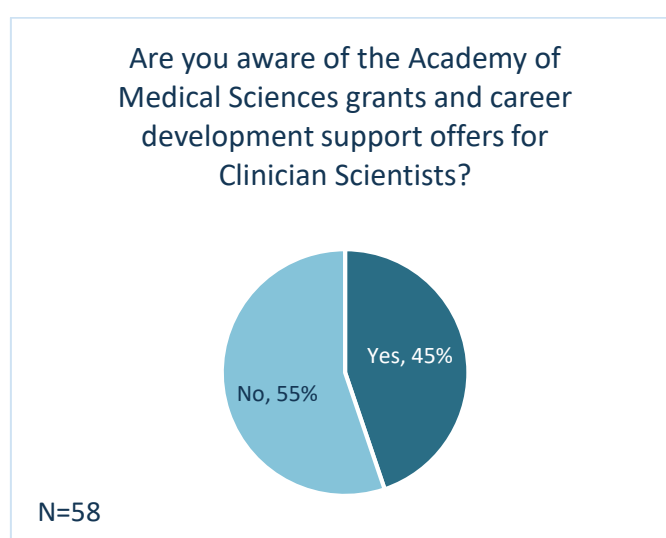
Suggestions

It would be great to have sessions particularly for post CCT clinical academics who are facing the challenges of obtaining funding and permanent position or further Fellowship. Personally this is hardest part of my career and having sacrificed family life I am beginning to question whether continuing in academia is really worth it. "

It seems that a lot of the academy support is geared towards people more senior than me (e.g. the mentorship scheme). This is a shame as I really think these kind of things (particularly the mentorship scheme) would benefit those of us at the PhD stage.

Feedback from researchers that have not previously attended a Spring Meeting

55% of academics who participated in the survey indicated that they were not aware of the Academy's grants and career development support.

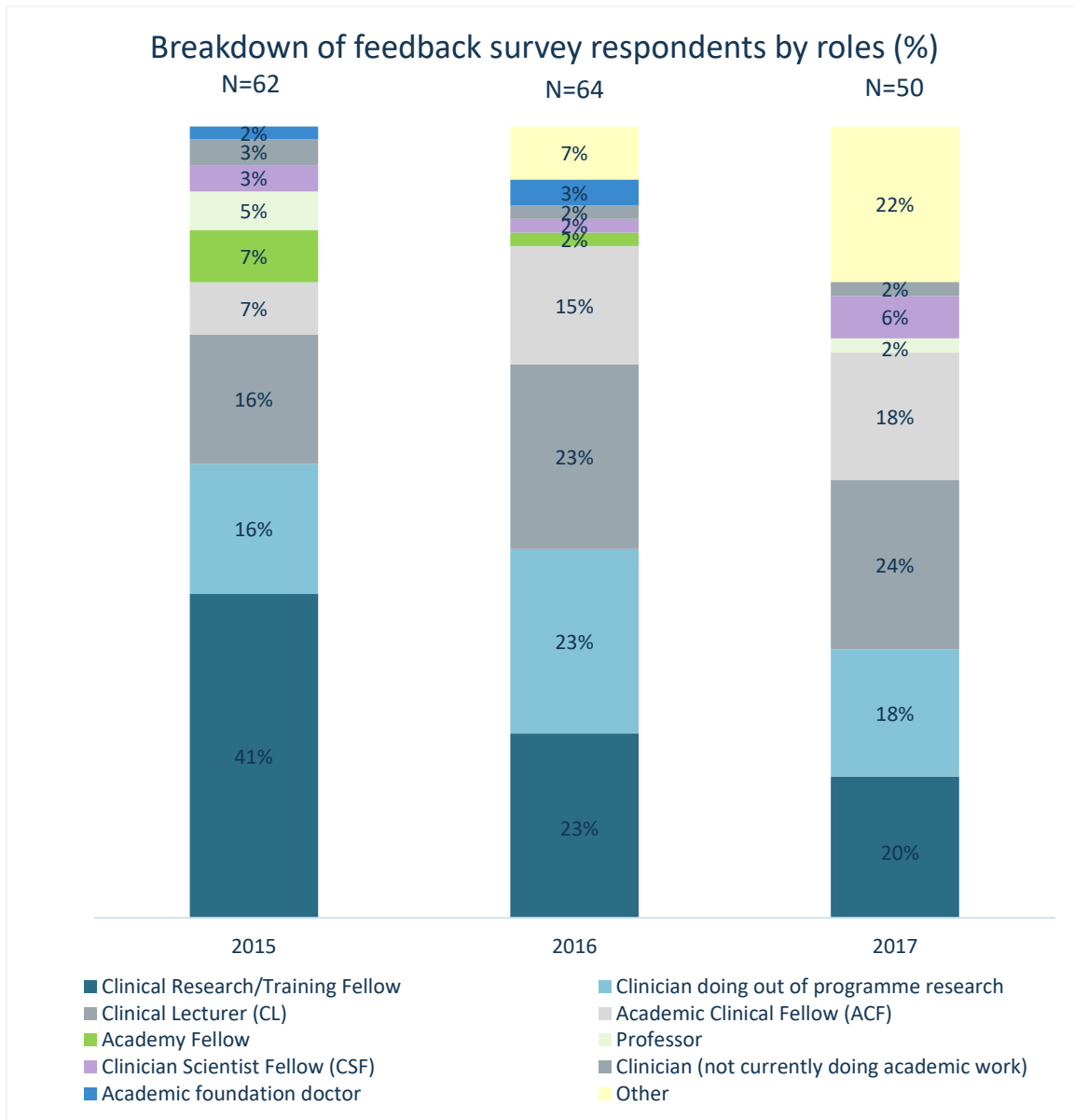


The majority were Clinical Researchers / Training fellows and the most common home university was the University of Oxford (see below).

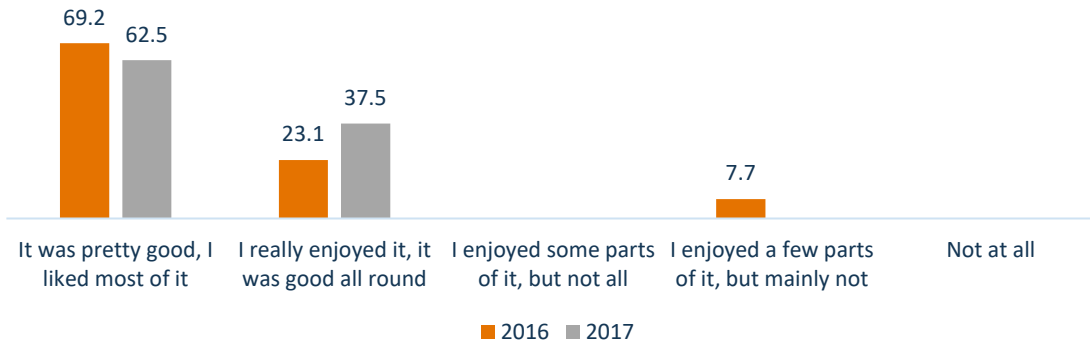
# of survey participants who were not aware of the Academy's support offer			
Home university	#	Current role	#
The University of Oxford	8	Clinical Research / Training Fellow	15
University College London	5	Clinician doing out of programme research	3
The University of Cambridge	5	Other (please specify)	3
The University of Edinburgh	3	Clinician Scientist Fellows	5
Imperial College	2	Professor	1
Other	2	Senior Lecturer	1
The University of Liverpool	2	Academic Clinical Fellows	1
The University of Southampton	1	Clinician (not currently doing academic work)	2
The University of Bristol	1	Basic scientist (post-doctoral)	1
The University of Leeds	1		
University of London (Institutes and activities)	1		
King's College London	1		
Total	32		32

Appendix VII Analysis of existing Spring Meeting feedback

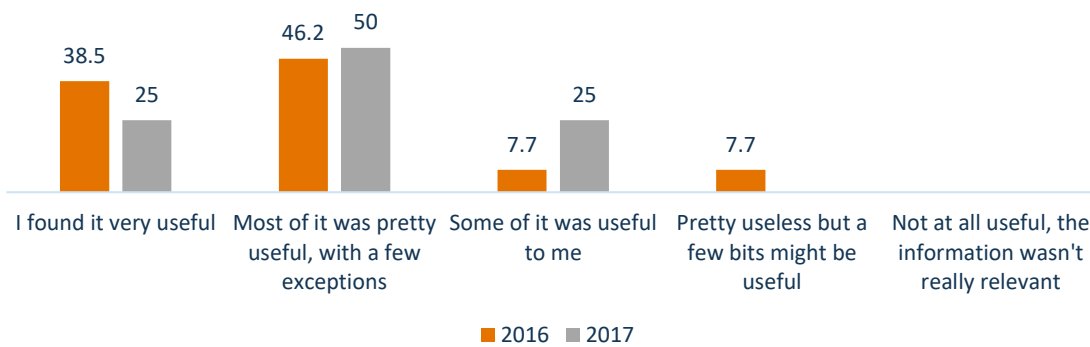
2016 and 2017 feedback from Spring Meeting attendees



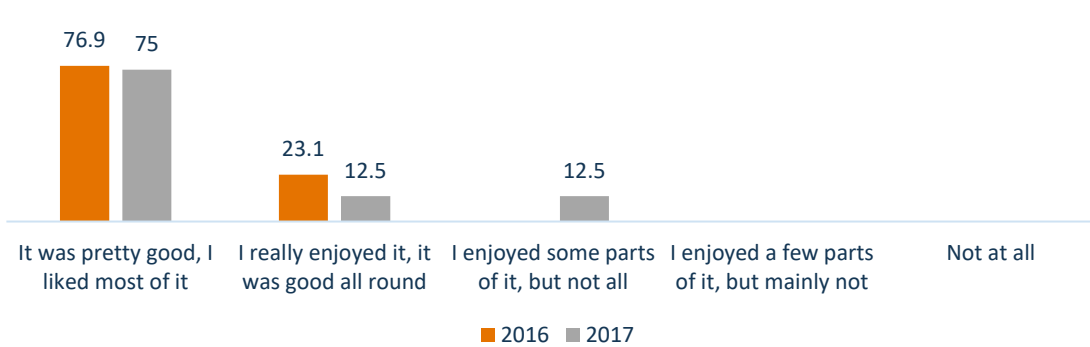
Did you enjoy the networking session? (%)



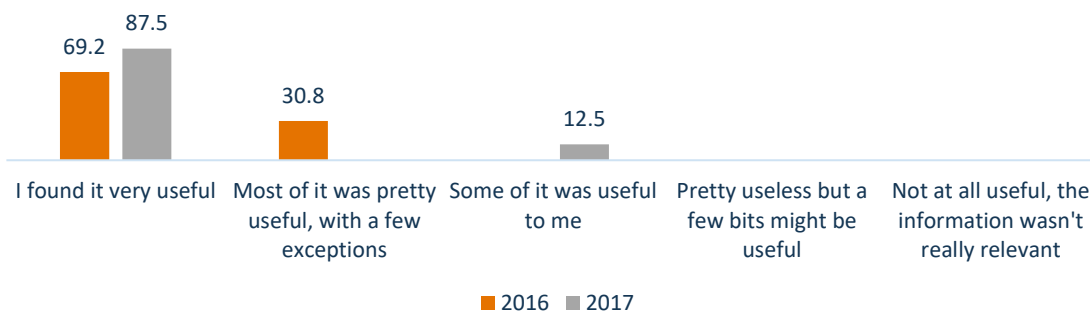
How useful was the content of the networking session? (%)



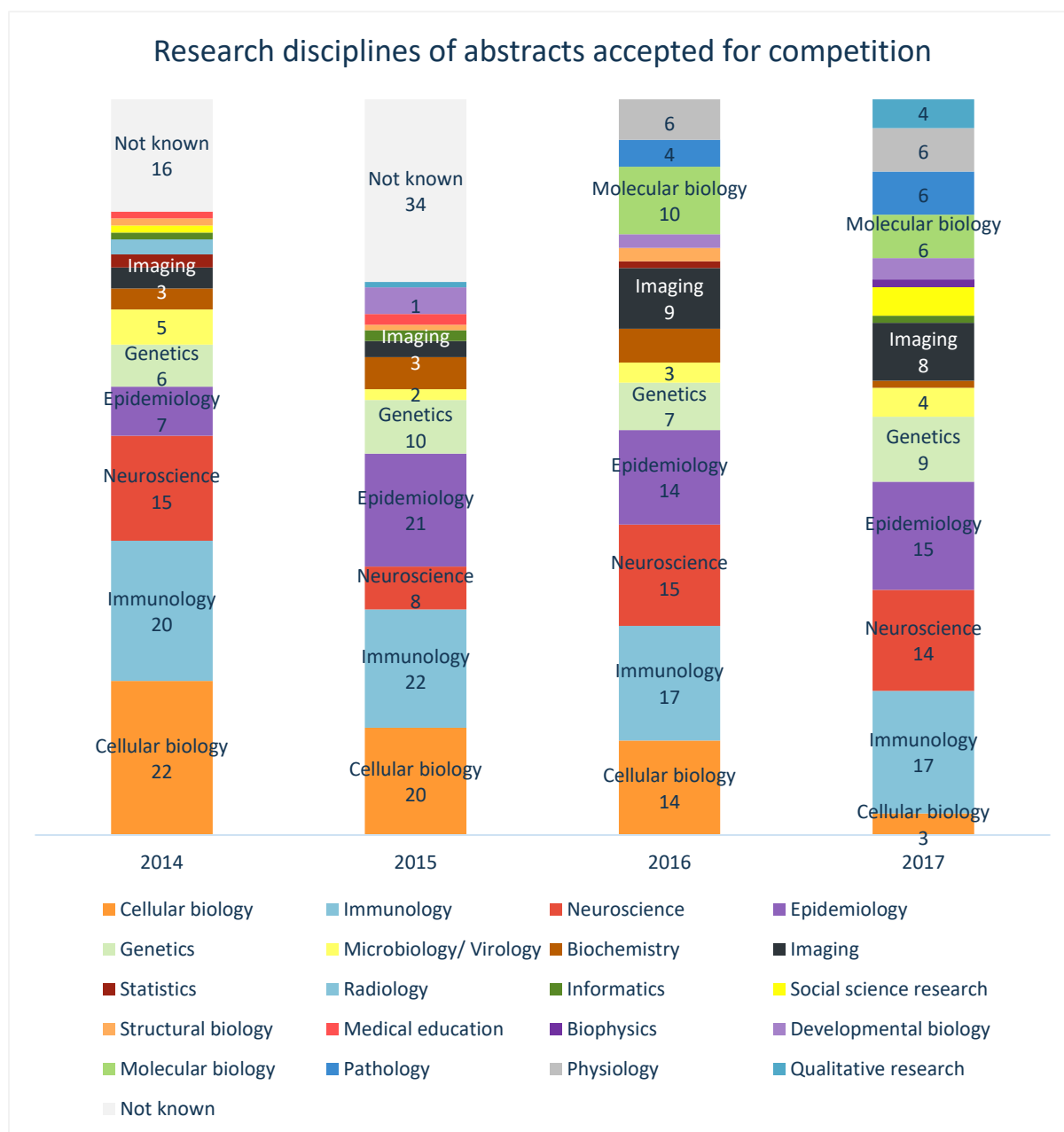
Did you enjoy the pitching ideas session? (%)



How useful was the content of the pitching ideas session? (%)



Spring Meeting Attendees by research disciplines



Research discipline	Number of attendees			
	2014	2015	2016	2017
Biochemistry	3	6	5	1
Biophysics				1
Cellular biology	22	20	14	3
Developmental biology		5	2	3
Epidemiology	7	21	14	15
Genetics	6	10	7	8
Imaging	3	3	9	8
Immunology	20	22	17	17
Informatics	1	2		1

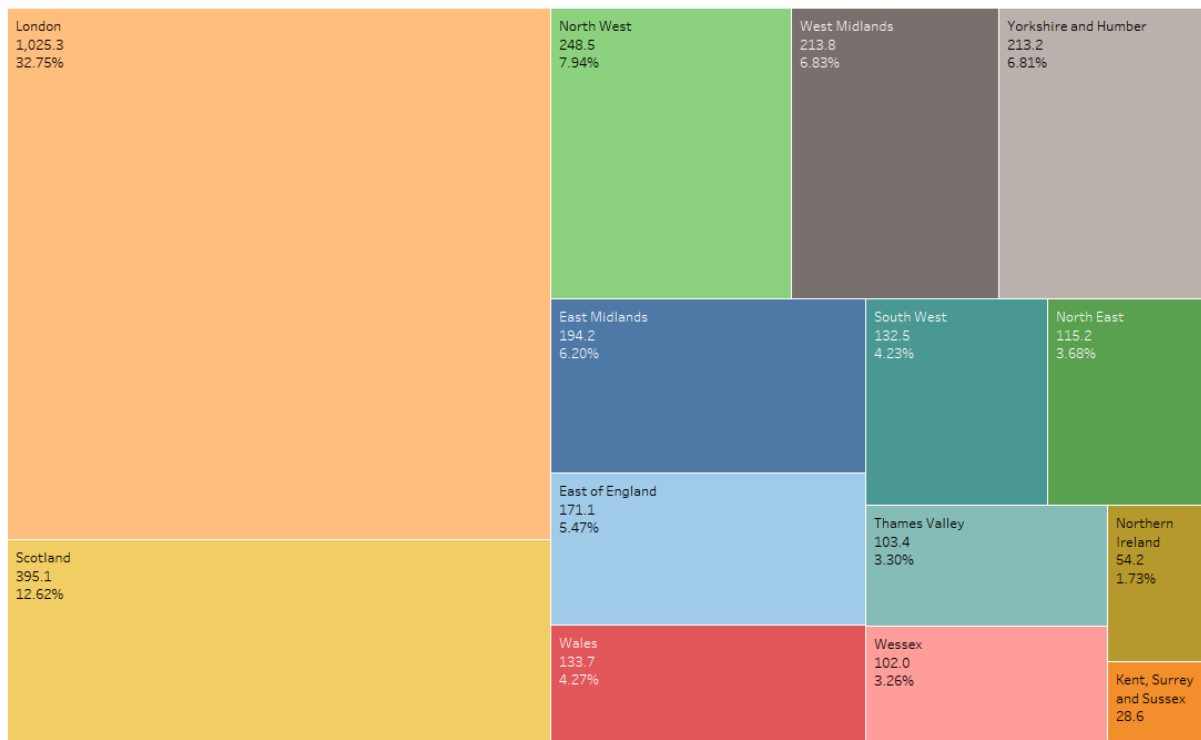
Medical education	1	2		
Microbiology	5	2	3	4
Molecular biology			10	6
Neuroscience	15	8	15	14
Not applicable	16	34		
Pathology			4	6
Physiology			6	6
Radiology	2			
Social science research	1			4
Statistics	2		1	
Structural biology	1	1	2	
Qualitative research		1		4

Appendix VIII Statistics on Medical Clinical Academics

Number of Medical Clinical Academics (FTE) by institution¹⁶

Geographical Area	Institution	FTE in 2014	% of Total FTE in 2014 ..
East Midlands	Nottingham	131.6	4.2%
	Leicester	62.6	2.0%
	Total	194.2	6.2%
East of England	Cambridge	146.6	4.7%
	Norwich (UEA)	24.5	0.8%
	Total	171.1	5.5%
Kent, Surrey and Sussex	Brighton and Sussex	28.6	0.9%
	Total	28.6	0.9%
London	UCL	330.0	10.5%
	King's College London	239.4	7.6%
	Imperial	221.8	7.1%
	Barts and the London, QMUL	133.5	4.3%
	St George's	70.7	2.3%
	London School of Hygiene & Tropical Medicine	29.9	1.0%
	Total	1,025.3	32.7%
North East	Newcastle	108.5	3.5%
	Durham	6.7	0.2%
	Total	115.2	3.7%
North West	Manchester	140.8	4.5%
	Liverpool	105.7	3.4%
	Lancaster	2.0	0.1%
	Total	248.5	7.9%
Northern Ireland	Queen's University Belfast	54.2	1.7%
	Total	54.2	1.7%
Scotland	Edinburgh	132.6	4.2%
	Glasgow	119.3	3.8%
	Dundee	72.5	2.3%
	Aberdeen	65.7	2.1%
	St Andrews	5.0	0.2%
	Total	395.1	12.6%
South West	Bristol	97.7	3.1%
	Exeter	21.5	0.7%
	Plymouth	13.3	0.4%
	Total	132.5	4.2%
Thames Valley	Oxford	103.4	3.3%
	Total	103.4	3.3%
Wales	Cardiff	113.2	3.6%
	Swansea	20.5	0.7%
	Total	133.7	4.3%
Wessex	Southampton	102.0	3.3%
	Total	102.0	3.3%
West Midlands	Birmingham	129.3	4.1%
	Warwick	62.5	2.0%
	Keele	22.0	0.7%
	Total	213.8	6.8%
Yorkshire and Humber	Leeds	96.2	3.1%
	Sheffield	79.7	2.5%
	Hull York (HYMS)	37.3	1.2%
	Total	213.2	6.8%

Number of Medical Clinical Academics (FTE) by region¹⁷



¹⁶ Medical Schools Council (2014). A Survey of Staffing Levels of Medical Clinical Academics in UK Medical Schools as at 31 July 2014. Available at <http://www.medschools.ac.uk/AboutUs/Projects/clinicalacademia/Documents/MSC-survey-2015-web.pdf> , last accessed 26 June 2017.

¹⁷ Medical Schools Council (2014). A Survey of Staffing Levels of Medical Clinical Academics in UK Medical Schools as at 31 July 2014. Available at <http://www.medschools.ac.uk/AboutUs/Projects/clinicalacademia/Documents/MSC-survey-2015-web.pdf> , last accessed 26 June 2017.