



## Member Networks Annual Report Form

*Reporting events held in 2018 and those planned for 2019*

In line with the rules for member networks and to enable us to better support our networks and their activities all member networks (Local Sections, Interest Groups and Analytical Division Regions) are asked to complete this form and return it to [networks@rsc.org](mailto:networks@rsc.org) or by post to: Networks Team, Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge, CB4 0WF.

### Deadlines

Deadline for receipt of Financial Accounts by RSC Finance Team: **8th February 2019**  
Deadline for receipt of Annual Report by Networks Team: **25th February 2019**

If there is any reason that your committee will **not** be able to meet either or both of these deadlines please inform [networks@rsc.org](mailto:networks@rsc.org) as soon as possible.

This report will be uploaded to your web page to share with the members of your network. Staff will also share a digest of all member networks activities taken solely from these annual reports with appropriate staff and governance boards and committees including Division Councils with similar interests.

<b>Committee</b>	NMR Discussion Group (Interest Group 54)
<b>Completed by</b>	Stephen J Byard
<b>Date</b>	Sunday, 17 March 2019

Please list below the dates of all of your planned committee meetings and, if held, AGM.

### **Annual General Meeting (if being held)**

<b>Date</b>	Thursday, 12 December 2019
<b>Venue</b>	Institute of Structural and Molecular Biology, Birkbeck College, London

### **Proposed Committee Meetings Dates**

<b>Date</b>	<b>Venue</b>	
25 <sup>th</sup> February 2019	Royal Society of Chemistry, Burlington House, London W1J 0BA	

## 2018 Events

Please report below on activities undertaken in the past year. Please select the type of event and target audience from the drop-down menus. For example, a workshop for Early Career members can be categorised as “Training/ Workshop” for “Early Career Members”.

The categories are as follows:

### Event Types:

- Award Lecture
- Education Event
- Networking Event
- Outreach Event
- Public Lecture
- Scientific Meeting (half-day, one-day or multi-day)
- Social Event
- Training/ Workshop
- Other

### Audience:

- Academics
- Consultants
- Early Career
- Industrialists
- Members of the public
- Postgraduates & PhD students
- Retired members
- School students
- School teachers
- Technicians & Support staff
- Undergraduates

If you wish to include more detailed information about any particularly successful events or advice to share please do so in the provided space. Please append electronic copies of any meeting reports, newsletters or relevant materials to this report.

For additional events please copy and paste the table and continue as necessary.

<b>Event Name</b>	11 <sup>th</sup> Annual NMR DG Postgraduate Meeting
<b>Event Type</b>	Scientific Meeting - One-day
<b>Audience</b>	Early Career
<b>Start Date</b>	21 June 2018
<b>End Date</b>	21 June 2018
<b>No. Attendees</b>	50-100
<b>Comments</b>	The 11 <sup>th</sup> NMR Discussion Group Postgraduate Meeting was held at the Department of Physics, University of Warwick. As in previous years, the meeting was held in conjunction with the UK NMR Facility Managers Meeting (UK MRM), which took place on the preceding day at the Warwick High Field Solid-state NMR facility. Coordinating the two events in this way was, again, extremely successful and increased participation in both events was noted.

The University of Warwick provided excellent facilities for the meeting, with sufficient space for poster presentations adjacent to the lecture theatres. There were 72 participants at the event, the majority being from academia. However, the meeting was also well attended by vendors, industrial representatives and retirees. 32 students submitted abstracts, 8 of which were accepted for oral presentation and all were accepted for poster presentation. It was noted that the standard of both oral and poster presentations was excellent, and the event is now recognised as having an equivalent standard of presentation compared with events comprising programmes delivered by Principal Investigators. The oral presentations covered a diverse cross-section of NMR disciplines.

Two overview lectures were given by established researchers, and the inclusion of these in the programme was again of general interest to the majority of delegates. On this occasion, Prof Mark Smith (Vice Chancellor, The University of Lancaster) and Prof Anne Dixon (The University of Warwick) gave presentations entitled '*Some recent observations of low-gamma quadrupolar nuclei with solid-state NMR and thoughts on career paths for NMR spectroscopists*' and '*Application of NMR to Characterisation of Membrane Proteins: Highlights and Challenges*', respectively.

Separate registration processes were used for the UK NMR Facility Managers' meeting and the Postgraduate meeting. However, both registration processes were handled by the NMR DG via the RSC website.

The event was generously supported by Jeol Instruments and the Royal Society of Chemistry (*The Analyst* and *PCCP*), for which the NMR DG are extremely grateful.

Oral and poster presentations were judged independently, and prizes were awarded to **Sarah Mann**, *Department of Physics, University of Warwick*, for the best oral presentation and to **Emily Corlett**, *Department of Physics, University of Warwick*, for the best poster presentation. As part of the prize, both Sarah Mann and Emily Corlett were invited to make presentations at the NMR DG Christmas meeting in London. The standard of presentations was excellent, thus making the task of choosing prize-winners exceptionally difficult. To this end, additional prizes were awarded for best poster presentations to **Abby Haworth** *University of Durham*, **Ashlea Hughes** *University of Liverpool*, **Callum Wallace** *University of Lancaster* and **Nicole Kelly** *University of Warwick*.

	A meeting report was issued for publication, and consent was obtained from all those whose photographs were included in the document (Attached to this report as a .pdf file).
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<b>Event Name</b>	NMR DG Christmas Meeting
<b>Event Type</b>	Scientific Meeting - One-day
<b>Audience</b>	Academics
<b>Start Date</b>	13 December 2018
<b>End Date</b>	13 December 2018
<b>No. Attendees</b>	100-200
<b>Comments</b>	<p>The annual NMR DG Christmas meeting is an extremely popular event, typically comprising presentations covering a diverse range of subjects. This year, the programme including presentations on recent developments in small molecule characterisation, NMR signal enhancement, reaction monitoring, structure based design in pharmaceuticals and the continually developing discipline of solid-state characterisation. It was intended that the presentations would be of interest to the majority of spectroscopists of differing backgrounds, either through direct relevance or through potential applicability</p> <p>Registration costs were maintained with respect to the previous year, and concessionary rates were offered to students, retirees and RSC members. The standard fee was £55.00 for non-RSC members or £45.00 for RSC members. However, for students or retirees, a concessionary rate of £30.00 was applied for non-RSC members or £25.00 for members. Members of affiliated groups, such as the Institute of Physics, also qualified for the same rates as RSC members.</p> <p>The meeting was attended by 120 delegates. A list of speakers and presentation titles is presented below:</p> <p><b>Teo Parella, <i>Universitat Autònoma de Barcelona, Spain</i></b> Recovering Old Ideas in Modern NMR Spectroscopy</p> <p><b>Ralph Adams, <i>University of Manchester</i></b> Silencing the Jingle Jangle of J</p>

*BRSG - NMR DG Annual Prize for Excellent Contribution to Magnetic Resonance by an Early Career Researcher*

**Emily Corlett, *University of Warwick***

An NMR Crystallographic Approach to Characterize Lutidine Fumarate Compounds

**Dušan Uhrin, *University of Edinburgh***

SHARPER NMR

**Malcolm Levitt, *University of Southampton***

Nuclear Spins Far from Equilibrium

**Meghan Halse, *University of York***

Reaction Monitoring using SABRE Hyperpolarised Benchtop NMR Spectroscopy

**Sarah Mann, *University of Warwick***

Probing Structure and Dynamics in Ionic Liquid Pharmaceuticals by NMR Spectroscopy

**Reto Walser, *Astex Pharmaceuticals***

Fragment Based Drug Discovery Supported by NMR Spectroscopy

It should be noted that the recipient of the BRSG – NMR DG annual prize for excellence in magnetic resonance, Dr Ralph Adams (*University of Manchester*) was included in the programme. This prize is highly valued, reflecting significant achievement, and Dr Adams is the tenth recipient since the introduction of the prize.

Generous sponsorship for the meeting was provided by John Wiley and Sons. Whilst sponsorship for the Christmas meeting is encouraged, the committee have consistently felt that vendor displays are not appropriate for this meeting and should be avoided for future meetings, if requested by vendors. This is based on an assumption that the format of the meeting will remain unchanged.

The BRSG Christmas meeting was held on the previous day to the NMR DG meeting, and was also very well attended. This meeting had a theme of *solid-state NMR spectroscopy* and was quite complementary to the programme organised by the NMR DG. It is evident that delegates benefited from the two events being coordinated in this way.

	<p>It is generally recognised that the 2018 NMR DG Christmas meeting was a very successful event and the feedback has been extremely positive.</p>
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### Awards and Bursaries

Please list any awards or bursaries presented by your committee in the past 12 months and indicate any that will be open for nomination/application in the next calendar year.

Please also include information about the application/nomination and selection processes.

Please ensure that **all** members of your network are notified of any awards or bursaries for general application. These notifications can be sent via e-alert through [networks@rsc.org](mailto:networks@rsc.org).

<b>Award</b>	BRSG-NMRDG Prize for Excellent Contribution to Magnetic Resonance
<b>Award Type</b>	Award
<b>Audience</b>	Early Career
<b>Nomination/ application deadline</b>	January 2018
<b>Award winner(s) and institution(s)</b>	Dr Ralph Adams, University of Manchester
<b>Comments</b>	<p>The prize is awarded for excellence in magnetic resonance and is to honour a work representing one or more substantial contributions to the field. The prize is awarded jointly by the BRSG (Institute of Physics Magnetic Resonance society) and the NMR Discussion Group of the Royal Society of Chemistry on an annual basis. The awardee can be of any nationality, but is to be based in the UK or Ireland at the time of nomination and award. The research being recognised can have been partially but not exclusively carried out outside the UK or Ireland. The prize will be awarded to a researcher within the first seven years of taking up an independent position (allowing for career breaks). The awardee cannot be a member of the prize committee (that is made up of two representatives from the BRSG and two representatives from the NMR Discussion Group of the Royal Society of Chemistry). The recipient need not be a member of the IOP BRSG: The Magnetic Resonance Group or the NMR Discussion Group. Candidates for the award need to be nominated (and seconded) by a member of the BRSG or the NMR Discussion Group. A short case is to be made as to why the candidate is suitable for a prize recognising excellence in magnetic resonance, including reference to one or more substantial contributions to the field. The prize is awarded by a committee made up of two representatives from the BRSG and two representatives from the NMR Discussion</p>

	Group of the Royal Society of Chemistry. A majority decision of the prize committee is required.
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<b>Award</b>	NMR DG conference bursary
<b>Award Type</b>	Bursary
<b>Audience</b>	Early Career
<b>Nomination/ application deadline</b>	No formal deadlines; applications are open throughout the year for all events.
<b>Number of nominations/ applications</b>	16
<b>Award winner(s) and institution(s)</b>	<p>Abby Haworth – University of Durham            Cameron Rice – University of St Andrews            Tavleen Attari – University of Durham            Nikita Harvey - Imperial College, London            Ashlea Hughes – University of Liverpool            Patrick Timmons – University College, Dublin            Thomas Deo – University of Nottingham            Guilherme Dal Poggetto – University of Manchester            Claire Dickson – University of Bristol            Lydia Dewis – University of Bristol            Siying Zhong – University of Bristol            Mark McBride – University of Nottingham            Irene Marco-Ruis – Cancer Research UK            Adam Gaunt – Cancer Research UK            Will Kew – University of Edinburgh</p>
<b>Comments</b>	<p>Bursaries were awarded in support of travel and accommodation with respect to attendance at both national and international conferences. The events for which awards were made included: SMASH Small Molecule NMR Conference (USA), Rocky Mountain Solid-state NMR Conference (USA), Euromar European NMR conference (France), ICMRBS Molecular Biology NMR conference (Dublin), PANIC 2018 - Practical Applications of NMR in Industry Conference (USA), HYP18 NMR Hyperpolarisation conference (UK) and NMR DG Postgraduate Meeting (UK). Awards were made on a discretionary basis, and all applications were honoured in 2018. Awards for attendance at the SMASH NMR meeting were issued on a joint basis with the SMASH organising committee, with contributions from SMASH.</p>

<b>Award</b>	NMR DG Postgraduate Meeting: best poster award
<b>Award Type</b>	Poster Prize
<b>Audience</b>	Early Career
<b>Nomination/ application deadline</b>	21 <sup>st</sup> June 2018
<b>Number of nominations/ applications</b>	32
<b>Award winner(s) and institution(s)</b>	Emily Corlett, University of Warwick
<b>Comments</b>	The selection was made based on assessment by four members of the NMR Discussion Group, who were independent of the applicants. Selection criteria included content, quality and impact of research, knowledge of subject matter and presentation skills (written and oral).

<b>Award</b>	NMR DG Postgraduate Meeting: best oral presentation award
<b>Award Type</b>	Award
<b>Audience</b>	Early Career
<b>Nomination/ application deadline</b>	21 <sup>st</sup> June 2018
<b>Number of nominations/ applications</b>	8
<b>Award winner(s) and institution(s)</b>	Sarah Mann, University of Warwick
<b>Comments</b>	The selection was made based on assessment by four members of the NMR Discussion Group, who were independent of the applicants. Selection criteria included content, quality and impact of research, knowledge of subject matter and presentation skills (written and oral).



### **Other information/comments:**

The NMR Discussion Group continues to increase engagement with spectroscopists at all levels, both Nationally and Internationally, providing mechanisms for information exchange and scientific advancement. An increased level of support has been delivered to students throughout 2018, assisting with travel to international conferences. Registration fees will be maintained at the lowest possible rates, and concessionary rates for our events will be offered to both students and retirees, consistent with the group's objective of facilitating social and professional interaction at all levels. The NMR DG is also appreciative of the continued support and interactions with the Royal Society of Chemistry, which has been of significant help in allowing us to achieve our aims and objectives.

Continued collaborations with groups who have either similar or complementary interests, including the BRSG (Institute of Physics), Molecular Spectroscopy Group (RSC) and British Biophysical Society are of demonstrable benefit with respect to promoting scientific exchange.

### **Other forms of Recognition provided by your committee:**

### Future Activities

When planning any activities please remember to ensure that all events are logged on our events database and ensure that all contracts are sent to our Legal Team with enough time for amendments and, where necessary, approval by the Board.

Please outline any activities already in planning for the next calendar year. Please include the type of event and the target audience.

For additional events please copy and paste the table and continue as necessary.

<b>Event Name</b>	NMR in Biophysics and Molecular Biology
<b>Event Type</b>	Scientific Meeting - Multi-day
<b>Audience</b>	Academics
<b>Proposed Date</b>	10 <sup>th</sup> and 11 <sup>th</sup> April 2019
<b>Comments</b>	<p>One of the principal objectives of the NMR Discussion Group is to provide mechanisms for educating, sharing ideas and promoting recent developments in NMR and related disciplines. The group continues to provide such opportunities for scientists that work in many different areas associated with magnetic resonance. On this occasion, we are delighted to be hosting a joint two-day event in conjunction with the British Biophysical Society, facilitating exchange of information from cutting-edge research activities in Biophysics and Molecular Biology. There will also be opportunities to present posters and meet informally with other research workers. In particular, early career research workers are encouraged to attend the event, and bursaries will be made available to those who submit an abstract which is accepted for either a poster or short oral presentation. Sponsored prizes will be offered for best poster and best short oral presentation.</p> <p>Whilst the event is dedicated to NMR in biophysics and molecular biology, it is intended that the meeting programme will be of general interest, offering educational content to an audience beyond spectroscopists directly associated with biological or biophysical NMR. This may be either through direct relevance or through potential applicability.</p> <p>Invited speakers include:</p> <ul style="list-style-type: none"> <li>• Alvar Gossert - ETH Zürich, Switzerland</li> <li>• Bob Griffin – Massachusetts Institute of Technology, USA</li> </ul>

	<ul style="list-style-type: none"> <li>• Ulrich Gunther – University of Birmingham</li> <li>• Gabi Heller – University of Cambridge</li> <li>• Józef Lewandowski – University of Warwick</li> <li>• Steve Matthews – Imperial College, London</li> <li>• Jennifer Potts – University of York</li> <li>• Sheena Radford – University of Leeds</li> <li>• Christina Redfield – University of Oxford</li> <li>• Michael Sattler - Technische Universität München, Germany</li> <li>• Katherine Stott – University of Cambridge</li> <li>• Geerten Vuister – University of Leicester</li> <li>• Anastasia Zhuraleva – University of Leeds</li> </ul> <p>Tours of the modern, recently installed, NMR and cryo-TEM facilities available in Biological Sciences at the University of Leeds, will also be offered during the meeting.</p>
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<b>Event Name</b>	12 <sup>th</sup> NMR DG Postgraduate Meeting
<b>Event Type</b>	Scientific Meeting - One-day
<b>Audience</b>	Early Career
<b>Proposed Date</b>	Friday 21 <sup>st</sup> June 2019
<b>Comments</b>	<p>The NMR Discussion Group will be holding the 12<sup>th</sup> Postgraduate Meeting, at the Department of Chemistry, University of York. This one-day meeting is designed to showcase the work of early career researchers, including postgraduates, postdoctoral workers and industrialists, whose work has a strong NMR content. Following on from previous years, there will be two “overview” lectures given by established NMR spectroscopists:</p> <p><b>Prof Guy Lloyd-Jones</b>, <i>Forbes Professor of Organic Chemistry, University of Edinburgh</i>, ‘Cats and Dogma’</p> <p><b>Dr Karen Johnston</b>, <i>Assistant Professor of Chemistry, University of Durham</i> ‘Probing structural intricacies using solid-state NMR’</p> <p>This event provides an ideal opportunity for early career researchers to gain experience in presenting their work, either in poster format or <i>via</i> oral presentation. Presenters at previous meetings have found the experience to be of real benefit prior to presenting work in an international setting. Whilst making either an oral or a poster presentation is not mandatory, we hope that the majority of younger scientists attending will present their work. Established scientists and group leaders are encouraged to attend and provide a supportive environment for those presenting, in addition to learning about cutting edge NMR-related research in the UK.</p>



	<p>The event will be held in conjunction with the UK Magnetic Resonance Managers' Meeting (UK MRM), which will take place on Thursday 20<sup>th</sup> June 2019 at the same location.</p>
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<b>Event Name</b>	NMR DG Christmas Meeting
<b>Event Type</b>	Scientific Meeting - Multi-day
<b>Audience</b>	Academics
<b>Proposed Date</b>	12 <sup>th</sup> December 2019
<b>Comments</b>	The event will be held at the Institute of Structural and Molecular Biology, Birkbeck College, London. The BRSG meeting will be held on the 11 <sup>th</sup> December, London.

### Committee

This information will be used to update our membership database and your web page. Please ensure that any changes to the committee are sent to [networks@rsc.org](mailto:networks@rsc.org) as soon as possible.

<b>Position</b>	<b>Name</b>	<b>Dates on committee (20xx – 20xx)</b>
Chair	Prof Simon Duckett	2018 - present
Secretary	Dr Stephen Byard	2005 - present
Treasurer	Dr John Parkinson	2008 - present
Ordinary Members	Prof Sharon Ashbrook Dr Mike Bernstein Prof Frédéric Blanc Prof Craig Butts Dr Iain Day Dr Meghan Halse Dr Flemming Hansen Prof Gareth Morris Dr Harry Parkes Dr Tran Pham Dr Vanessa Timmerman Dr Matthew Wallace Dr Sara Whittaker	2016 - present 2006 – present 2019 – present 2017 – present 2019 – present 2019 – present 2014 – present 2014 – present 1994 – present 2019 – present 2019 – present 2018 – present 2019 – present
Chemists' Community Fund Representative (if relevant)		
Co-opted member(s) and their affiliation(s)		



### **Diversity & Inclusion**

The NMR Discussion Group continues to hold events at locations that are geographically accessible to as many members as possible, and venues are selected that provide access to members who may have disabilities. Where possible, locations for annual meetings are varied throughout the United Kingdom to permit attendance by delegates who may wish to limit travel time or avoid use of overnight accommodation. Mechanisms are in place to assist with private communications to ensure that potential delegates can make any specific requirements known. Consideration to all dietary or access requirements of delegates are given, and specific assistance with requirements of differing faith groups has been provided at meetings.

Events are advertised using all media types, to avoid exclusion of potential delegates. Concessionary rates are offered to students and retirees, and registration rates are maintained at the lowest possible levels. Our events are designed to be inclusive and appealing to all age groups, from early-career researchers to retirees and, correspondingly, maintain social and professional interactions at all levels.

The committee believes that recognition of diversity is fundamental to the advancement of the Interest Group and all associated activities, and that gender equality is implicit in achieving this. Equal opportunities in this respect are presented both at committee level and at group activity level.

Interested sixth form school pupils are encouraged to attend events, and additional assistance or guidance provided on a dedicated basis where appropriate.

Global interactions with NMR Spectroscopists in countries having limited access to instrumentation are both fostered and promoted, and advice provided accordingly to assist with teaching.