

Department of Chemistry Athena SWAN Silver Action Plan 2015

NOTE: Explicit in the following action plan is that progress will be monitored at regular intervals. The monitoring tools will be appropriate to any given objective (e.g. data collection, staff surveys, focus groups). The overall responsibility for progress lies with the Senior Management Team. Responsibility for prioritising actions and for developing the plan will lie with the Athena SWAN working party (ASWP).

	Planned action/ objective	Rationale (i.e what evidence is there that prompted this action/ objective?)	Key outputs and milestones	Timeframe (start/end date)	Person responsible (include job title)	Success criteria and outcome
SA 1 Undergraduate Students						
1.1	Monitor undergraduate numbers and outcomes (see actions 1.2. and 1.6 for numeric targets)	<ul style="list-style-type: none"> • Accurate student statistics help inform actions and better comparison with national figures. • Improved granularity of data (by college, subject and individual paper) provides an opportunity for the Department to understand more clearly the underlying problems and map a way forward. 	<ul style="list-style-type: none"> • Establish reliable feed of data, including data for national comparisons. • Track numbers and outcomes over three years. • Preliminary review of data over summer 2016 to establish baseline. 	April 2016 Sept 2019 March 2022	<ul style="list-style-type: none"> • Dr Bill Nolan (DoT) • T&OC 	<ul style="list-style-type: none"> • Consistent and reliable data available, including benchmark against national data. [rely on central data that is now more reliable] • Data used to inform actions (3 specific actions to be identified for implementation by September 2018), including sharing information with Colleges. [ongoing process of tracking gender trends, awarding gaps, effective communication and information with DoSs, and raising profile of female alums and members of the department] • June 2016 – form informal working group with cognate department(s) to report within 12 months (5 recommendations for data collection, analysis, impact of proposed activities) to act-on over the next two years. [through teaching committee and SPS ED&I committee]

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1.2	<p>Encourage more female first year students to take Chemistry in the second year and beyond</p>	<ul style="list-style-type: none"> • Number of female students decreases across the four years of the degree (currently from 35-40% in First Year dropping to ~25% in the Final Year). 	<ul style="list-style-type: none"> • Recruitment and information events throughout the year, and especially in the final term of the first year when decisions are being made about whether or not to progress to Chemistry – to include presentations on the projects available in the final years (especially from female staff), and the range of progression routes available under the chemistry umbrella. • HoD to send a welcome message at start of 2016-17 academic year to all first year students emphasising our commitment to the objectives of Athena SWAN. • Adopting good practice example from Physics, by undertaking 'intention survey' at the start and end of the first and/or second Year. Will aim at 50% completion rate and seek more clarity on why students might not choose chemistry within the Natural Sciences degree. • Investigate (including identifying resources) providing a 'Springboard for Chemists' programme in 2016-17 (implement 2018) to support female students continuing in Chemistry who might not otherwise do so due to a lack of confidence or awareness of career opportunities. 	Feb 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> • Dr Bill Nolan (DoT) • T&OC 	<ul style="list-style-type: none"> • Increase the proportion of female students studying Chemistry, especially in the second year and beyond (will focus on the third year when the level of specialisation develops, currently from 30% to >35% by 2018-2019). [trends for IA, IB and II have achieved proportion of over 35% (closer to 40%) with II >35% since 2019, but III much more variable. Have been tracking cohorts since 2011 entry, and on average the trends have improved since 2015] • Approach the National average of 40% females studying chemistry by 2019. [prior to 2016, average %F (across all years) ~30% with ~30% for II and ~25% for III. Since 2016, average %F (across all years) ~35% with ~30% for II and ~32% for III. In 2021-22 average %F (across all years) ~39% with ~42% for II and ~40% for III]
1.3	<p>Review undergraduate teaching to ensure no negative impact on the achievement of women</p>	<ul style="list-style-type: none"> • Perception that teaching styles may favour male candidates – although in the 2015 undergraduate survey 95% of respondents (42% female) indicated that there was 	<ul style="list-style-type: none"> • Data collected (through course appraisal surveys) throughout the year about teaching material/delivery and discuss with undergraduate focus groups and T&OC. 	Mar 2016	Jul 2019 March 2022	<ul style="list-style-type: none"> • Dr Bill Nolan (DoT) • T&OC 	<ul style="list-style-type: none"> • Increase number of female students continuing beyond the first year. [a clear trend to an increase in the proportion of

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		no gender bias in the chemistry lecture courses.	<ul style="list-style-type: none"> Working group to be established (April 2016) to investigate (and trial) different styles of teaching and assessment, learning from good practice in other departments. 				<p>female students beyond the first years since 2015]</p> <ul style="list-style-type: none"> Improve survey return rate to >50% (compared to 42% in 2015). [46% in 2020-21 – difficult to achieve high completion rates across the university] 1 survey per year (to avoid survey overload). [regular surveys ineffective and dilute to achieve good completion rates – to many surveys across the collegiate university. Rely on regular consultation with undergraduate groups] Maintain survey results suggesting that teaching has no gender bias. [Survey and consultations suggest this to be the case]
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1.4	Analysis of student course selection and development of guidelines for lecturers	<ul style="list-style-type: none"> • Too few female lecturers available in the Department (although female lecturers now present in first year). • Some courses (in the third and fourth years) attract a low proportion of female undergraduates. 	<ul style="list-style-type: none"> • Analysis of student feedback to identify gender bias in course selection. • Offer training to new lecturers. • Offer in-house work-shops for lecturers to discuss course delivery. • Inform all lecturers of the need to deliver lectures in a style that does not discourage female undergraduates (e.g. inclusive presentation style and content that highlights achievements of female scientists). 	Oct 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> • Dr Bill Nolan (DoT) • T&OC 	<ul style="list-style-type: none"> • Greater understanding of student choices by 2016/17. [no clear view of how student choices are made, but continue to consult and explore through the department and within the School. Key objective is visibility of senior women] • Actions identified and implemented in 2017/18. [presentations, biographies and videos of women] • 100% of new lecturers trained within first year in post. [all offered one-to-one advice and directed to university training] • 100% lecturers aware of inclusive lecturing style. [through DRC information]
1.5	E&D training for all (small group) supervisors and laboratory demonstrators	<ul style="list-style-type: none"> • Department and Colleges rely on a diverse community of teachers throughout the academic year and degree (College staff are independent of University E&D training requirements). • Lack of awareness of gender (and more general E&D issues) may disproportionately affect female undergraduates. 	<ul style="list-style-type: none"> • Offer supervisor training at the start of every term, and inform all supervisors of on-line information and guidance. • Compulsory for all first year PhD and MPhil students to participate in E&D training session. • Laboratory Demonstrators will be required to complete on-line E&D training module as part of their induction. • Recommend Colleges to require E&D training completion by supervisors. • Monitor feed-back from student survey. 	Oct 2016	On-going	<ul style="list-style-type: none"> • Dr Bill Nolan (DoT) • T&OC 	<ul style="list-style-type: none"> • Confirm that all first year PhD and MPhil students (who are likely supervisors and demonstrators) complete E&D training module – 70% uptake by 2016-17, >95% by 2017-18. [compulsory for all PhDs and MPhils through their formal induction, and advice provided throughout the year] • Survey College employed supervisors (starting

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1.6	<p>Address examination performance by gender</p>	<ul style="list-style-type: none"> • Survey returns suggest that female undergraduates expect to do less well than their male colleagues. • Female undergraduates underperform relative to male counterparts in both years 3 and 4 	<ul style="list-style-type: none"> • Collect detailed data (starting June 2016), with a level of granularity (by question across all years) to better understand if particular papers/courses question styles affect female examination performance. • Establish an examinations working group (October 2016) to look at the data and make appropriate recommendations. 	Jun 2016	July 2019 March 2022	<ul style="list-style-type: none"> • Dr Bill Nolan (DoT) • T&OC 	<ul style="list-style-type: none"> • Granular data collected and analysed in more detail by June 2016. [Examiners have been looking at data for attainment gaps, but greater granularity and comparisons have been achieved after 2018 through centralised data and comparison with other department in the Schools] • Working group to make recommendations by Feb 2017. [no formal recommendations could be developed prior to 2018-19, but groups now in place at School level to assess and address attainment gaps] • Recommendations to be actioned over 2018-19. [focus on PartIII project assessment, all other year groups ongoing] • Gender attainment gap reduced by 10% by 2019. [%F Firsts at II since 2013-14 is 28, 30, 30, 36, 32, 30, 36, 42 (~16% reduction in attainment gap between 2013-2020 on a rolling three year average since 2013-14). %F Firsts at III since 2013-14 is 25, 25, 17, 35, 26, 34, 24, 39 (~20%
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							<i>reduction in attainment gap on a rolling three year average since 2013-14.]</i>
1.7	Outreach activity and engagement with College Admissions Tutors/Admissions Offices to encourage female students to choose chemistry in first year of Natural Sciences degree	<ul style="list-style-type: none"> • A-level teaching and content may discourage women from considering chemistry as an option for their first year. • Gender balance of staff involved in outreach activities raised aspiration of female students and encourages more female applicants. 	<ul style="list-style-type: none"> • Continue with successful Outreach activities. • Offer workshops for potential female undergraduate applicants as part of Outreach activities. 	Jan 2016	On-going	<ul style="list-style-type: none"> • Dr Bill Nolan (DoT) • T&OC 	<ul style="list-style-type: none"> • Increase the proportion of female undergraduates studying Chemistry in year 1 (37% over the past four years) towards the National average (42%) by start of 2018. [39.3% average since 2015 – small increase with little influence over these numbers as admissions and subject choice in the first year managed by colleges]

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	Planned action/ objective	Rationale	Key outputs and milestones	Timeframe		Person responsible	Success criteria and outcome
SA 2 Postgraduate Students							
2.1	Actively review postgraduate numbers	<ul style="list-style-type: none"> In recent years, about 40% of applicants for PhD places have been female (numbers for MPhils too small to give meaningful data). Recruitment events have also attracted ~40% potential applicants (in line with national average). 	<ul style="list-style-type: none"> Graduate Open Days to encourage more female attendees. Highlight profile of women in the department and the ASWP activities through the website. Engage with the RSC to encourage more women to apply (in Cambridge and elsewhere through their literature and conference events). Identify long term trends in MPhil applications. Work with other Departments in the SoPS to share effective recruitment strategies. Compare to national statistics. 	Feb 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> Prof David Spring (DoGE) Dr Aruna (HoGR) Dr Nick Bampos (School Gender Champion) GEC 	<ul style="list-style-type: none"> Increase female participation at Open Days (currently 40%) by 3% per annum. [current format of Open Days since 2017 provides greater visibility of activities in the Department, and %participation rates of women has been 36, 61, 40, 43 and 48 - 46% average across five years and 45% in total numbers over five years] Increase number of female applicants to 45% (currently under 40%). [average 38% since 2015-16] Maintain the recent favourable proportion of PhD admissions relative to applications (over 40% since 2012). [have maintained an average 40% within range of 36%-45% since 2015]
2.2	Greater understanding of PDRA numbers and background	<ul style="list-style-type: none"> The large and international PDRA community requires more detailed monitoring of gender and ethnicity statistics to take into account cultural barriers. Understanding the composition of the PDRA community can help 'customise' support during the time PDRAs are the Department, and better advise them about their career aspirations. 	<ul style="list-style-type: none"> Departmental Welfare, Training and Development advisor to collect relevant data and identify groups with specific support needs. DHoD to inform and get support from HoD and SMT for initiatives that address any specific needs. PDRA focus-group(s) established by May 2016 (through PDAC) to develop appropriate support. 	May 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> Departmental Welfare, Training and Development advisor Dr Nick Bampos (DHoD) 	<ul style="list-style-type: none"> Achieve high positive response (>80%) in surveys and exit questionnaires. [high completion rates and >80% positive responses for various surveys (first year postgraduate survey and exit surveys for postgraduates and PDRAs) prior to covid. Excellent

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							<p>engagement with the postgraduate community, but variable with the PDRAs]</p> <ul style="list-style-type: none"> From exit surveys and focus groups identify, implement and evaluate one new initiative each year to support female PDRAs. <p>[Have implemented changes to visibility of initiatives and in our processes on a yearly basis (especially prior to covid) – e.g. formal social events to enhance interactions, annual Women in Chemistry events; popular ‘personal experience’ presentations by named visiting professors (64% female since 2015)]</p>
2.3	Recruitment of postgraduates and PDRAs	<ul style="list-style-type: none"> Wording and information in advertisements and recruitment literature influence the gender balance of applicants. Selection process risks appointing candidates ‘in the image’ of the interviewer. Style of interviews (likely conducted by male interviewers in the predominantly male department) may unconsciously bias against female candidates. 	<ul style="list-style-type: none"> Gender imbalance to be highlighted at all Faculty meetings. Compulsory for those recruiting, interviewing and appointing to have completed on-line E&D Training module. Adverts and recruitment literature reviewed annually to ensure gender neutral language and commitment to Athena SWAN. Involve female members of staff in the appointment process. Data about recruitment and appointment process presented to the HoD and DHoD termly, and presented at Faculty meetings annually. 	Mar 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> Prof David Spring (DoGE) Dr Aruna (HoGR) GEC Dr Nick Bampos (DHoD) 	<ul style="list-style-type: none"> Increase the number of female applicants to above 40% over three years (currently 25% for PDRAs). <p>[%F PDRA applicants average 34% between 2016-19, but numbers drop after 2020 to ~27% (most likely do to BREXIT). For postgraduate applicants average 38% over same period]</p>
2.4	Embed mentoring and support schemes	<ul style="list-style-type: none"> The mentoring scheme currently in place has not had the intended profile 	<ul style="list-style-type: none"> GEC to revisit the schemes to provide greater clarity 	Apr 2016	Jan 2019	<ul style="list-style-type: none"> Dr James Keeler (HoD) 	<ul style="list-style-type: none"> Scheme highlighted on website and relaunched in 2016.

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		<p>due to lack of communication (especially amongst students admitted before the current scheme was in place in 2013-14).</p> <ul style="list-style-type: none"> • Lack of clarity about 'mentoring' and 'pastoral' support schemes. 	<p>based on recent consultation with focus-group.</p> <ul style="list-style-type: none"> • Raise profile of schemes in website and Departmental literature. • Continue with October graduate 'Open Day' and track attendance by gender. • HoD to write to all postgraduates to 're-launch' schemes. • All new postgraduates to be informed of mentoring scheme prior to arrival. • Engage with Secretary of the Colleges' Graduate Tutors' Committee to make sure that the Colleges are aware of support mechanism that the Department offers. 		March 2022	<ul style="list-style-type: none"> • Prof David Spring (DoGE) • Dr Deborah Longbottom (HoGE) • GEC 	<p><i>[this was done and embedded through the annual 'launch' event (not since 2020)]</i></p> <ul style="list-style-type: none"> • Achieve 100% allocation of mentors/tutors to all incoming students from October 2016. <i>[have achieved the 100% and maintaining this through the annual processes]</i> • Improve survey results (compared to 2015) relating to mentoring and support, including awareness. <i>[feedback for PDRAs through exit surveys and SRDs (and actions acted on as identified), and for postgraduates feedback collected at the end of every course offered in the first year (including unconscious bias, ED&I, ethics, managing relationships) and feedback checked and actioned as required]</i>
2.5	Monitor postgraduate completion rates by gender	<ul style="list-style-type: none"> • To confirm that support mechanisms are equally applied across the department and within all research groups. 	<ul style="list-style-type: none"> • SMT and HoD to be presented with data annually to confirm that there is no gender bias in completion rates (especially within any group). • HoD to address any concerns should they arise with PIs. 	Jun 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> • Dr James Keeler (HoD) 	<ul style="list-style-type: none"> • Confirm no gender bias in postgraduate completion rates each year. <i>[completion rates in the department are high, and where there is an overrun (beyond four years) there is no gender disparity in the small numbers]</i>
2.6	Writing workshops for postgraduates and PDRAs	<ul style="list-style-type: none"> • Lack of writing skills is often not addressed at the research group level. 	<ul style="list-style-type: none"> • HoGE has been developing writing work-shops for graduates as part of the 	Oct 2015	Sept 2019	<ul style="list-style-type: none"> • Dr Deborah Longbottom (HoGE) 	<ul style="list-style-type: none"> • Increase in number of graduates staying in chemistry related

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		<ul style="list-style-type: none"> • Difficulties writing a thesis (or research publications) at the end of a PhD discourages some from continuing in research. • CV preparation and career applications suffer if potential candidates lack suitable writing skills. 	<p>Department's Graduate Education programme.</p> <ul style="list-style-type: none"> • Capitalise on current writing skills a part of transferable skills offered by the Department. • Continue effective engagement with the Careers Service. 		March 2022	<ul style="list-style-type: none"> • Careers Service 	<p>fields/professions (keeping a track of gender breakdown through exit surveys). [data patchy, especially since late 2019, but there appears little disparity in gender staying in chemistry related fields, and as a chemistry degree makes graduates attractive in a range of professions, not clear there are useful conclusions to be reached from any such analysis. Ongoing work to more effectively track career trajectories]</p> <ul style="list-style-type: none"> • Writing workshops introduced by early 2016. Uptake and feedback monitored by gender (aim for >80% positive feedback on effectiveness of sessions through surveys). [important component of first year postgraduate program, but diversity of research groups requires more work in this area]
2.7	Career progression support	<ul style="list-style-type: none"> • Loss of female chemists going from PhD to PDRA to research/academic careers. • There is a perception that a research career is incompatible with personal/family aspirations. 	<ul style="list-style-type: none"> • Career events held in the final term of the academic year for (third year) postgraduates and PDRA's to raise awareness of career options. • Events to include female academics, female alumni (working in a range of careers) and the Careers Service. 	Mar 2016	On-going	<ul style="list-style-type: none"> • Dr Nick Bampos (DHoD), • Dr Deborah Longbottom (HoGE) 	<ul style="list-style-type: none"> • Improve survey results in 2018-2019 (compared to 2015) relating to career progression support by the Department - in 2015 78% of graduates, and 86% of PDRA's. [will get from the next survey]

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			<ul style="list-style-type: none"> ● Embed the recent success of inviting visiting named lecturers to give 'personal perspective' presentations about their careers. ● Include question about career intentions for new PhD students and PDRAs in surveys. 				
2.8	Exit surveys for postgraduates and PDRAs	<ul style="list-style-type: none"> • Lack of data about what the experience in the Department does for the next phase of the career of our female postgraduates and PDRAs. • Recently implemented exit surveys for PDRAs have provided useful information, however improving the completion rates (43% since 2013) and extending the process to postgraduates will better inform future initiatives. 	<ul style="list-style-type: none"> ● Use exit questionnaires/surveys to assess how Departmental activities have influenced career progression. ● Departmental Welfare, Training and Development advisor to circulate and track exit survey completion and data collection. ● Data to be presented to the ASWP and the HoD. ● Appropriate actions to be formulated and presented at the Faculty meetings annually. 	Feb 2016	On-going	<ul style="list-style-type: none"> • Departmental Welfare, Training and Development advisor, 	<ul style="list-style-type: none"> ● Exit surveys analysed annually to assess impact and identify additional issues/actions [we do this for PDRAs and also for postgraduates] ● Achieve completion rates greater than 50% for PDRAs and postgraduates. [completion rates >50% prior to covid for PDRAs, and higher for postgraduates (>75%) with high positive responses (see 2.2 above)] ● Develop protocol for collecting career data (especially if female members of the Department stay in chemistry-related fields) by December 2016 and implement by January 2017. [changes in moving from paper to online, and covid, have hindered implementation of a robust approach to collecting this data]
2.9	Introduce women support groups	<ul style="list-style-type: none"> • Providing women only groups to meet regularly provides a relaxed and supportive environment in which to share experiences and advice. • Including female chemists from various stages of careers provides a more 	<ul style="list-style-type: none"> ● Offer termly sessions over lunch for female postgraduates, PDRAs and academics to meet informally. 	Feb 2016	On-going	<ul style="list-style-type: none"> • Prof Melinda Duer and Dr Jenny Zhang 	<ul style="list-style-type: none"> ● Track participation over three years and evaluate annually at one of the sessions. [good and enthusiastic turn-out prior to 2020, but back to such sessions as of

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		<p>constructive perspective about career aspirations.</p> <ul style="list-style-type: none"> • Such groups are not exclusive, but simply respond to the clear evidence that females are underrepresented in the Department and in the field more generally. 					<p>2022 when in-person meeting have been possible]</p>
2.10	<p>Induction and welcome sessions</p>	<ul style="list-style-type: none"> • Effective welcome sessions and clarity of information help postgraduates and PDRAs have a more productive and enjoyable time in the Department. • Postgraduates and PDRAs benefit from bespoke sessions to better address their specific working needs. • Sessions when people join the Department introduce them to policies (e.g. Dignity@Work, Dignity@Study, flexible working and maternity/paternity policies) and structures (e.g. mentors). 	<ul style="list-style-type: none"> • These sessions have been in place since 2014, but we have not captured all those postgraduates and PDRAs who arrived before the current structures were introduced. For these groups, sessions will be made available to bring them up to date. • HoGE to embed all 'welcome' information into the Graduate Education programme. • PDRAs induction sessions run monthly throughout the year to capture all new arrivals. • DHoD attends all induction sessions to welcome new PDRAs. 	Oct 2015	On-going	<ul style="list-style-type: none"> • Dr Deborah Longbottom (HoGE) • Departmental Welfare, Training and Development advisor 	<ul style="list-style-type: none"> • 100% attendance at all welcome meetings/sessions for new postgraduates. [compulsory for all new postgraduates] • 100% attendance at all induction meetings for new PDRAs. [>95% for PDRAs at the monthly induction sessions to capture people joining throughout the year and to offer an many opportunity for people to attend, especially as catch-up session. PDRAs receive a 'welcome' letter prior to arriving in Cambridge outlining key information and online resources] • >50% of current PDRAs attend catch up sessions. [opportunities for such sessions available throughout the year, and working closer with the Careers Service and the University Postdoc Academy to deliver ongoing engagement and access to induction programmes.]

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							<i>Take-up after PDRAs arrive tend to be lower than in the first 2-3 months]</i>
2.11	E&D training	<ul style="list-style-type: none"> Lack of E&D training early in career risks future bias (conscious and unconscious) and gender imbalances. 	<ul style="list-style-type: none"> All PDRAs and postgraduates to attend compulsory E&D training session (also see action 1.5), and any other in-house workshops that are presented (often led by developments in the University that avoid replication and driven by good practice). 	Mar 2016	Sep 2019 March 2022	• Dr Nick Bampos (DHoD)	<ul style="list-style-type: none"> Get as close to 100% completion rates for PDRAs within 4 years (currently 16% of PDRAs have completed the on-line E&D module, 50% by Dec 2016, >90% by December 2018). [>80% since 2017, which is one of the highest completion rates for PDRAs in the University?] 100% completion rate of postgraduates [100% through the induction process and presentations such as Dignity@Study in the first year]
	Planned action/ objective	Rationale	Key outputs and milestones	Timeframe		Person responsible	Success criteria and outcome
SA 3 Support the recruitment, retention and promotion of female staff							
3.1	Increase the number of female academics	<ul style="list-style-type: none"> 13.3% female teaching and research staff compared to 17.7% national average (HESA, 2013/14). Academic appointments do not come up often, so important to ensure that appointment committees are E&D trained and alerted to the historical underrepresentation of women in the Department. 	<ul style="list-style-type: none"> Actively encourage appropriately qualified female researchers to apply for vacancies. Minimum of 20% females on each recruitment shortlist. Continue (and improve) effective and inclusive recruitment and appointment processes. 	Feb 2016	On-going	• Dr James Keeler (HoD)	<ul style="list-style-type: none"> Increase the number of female academics. [4/39 in 2015 to 6/36 in 2021] Despite the low number of positions in the near future (see 2.2), use the 18% national average as a target for the next 3-5 years. [from 10% in 2015 to 17% in 2021, and about 18% if including Research and teaching Fellows]

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3.2	Increase the number of women holding early-career fellowships	<ul style="list-style-type: none"> • Low number of early-career academic appointments has a negative impact on later career numbers. 	<ul style="list-style-type: none"> • HoD and SMT to identify funds and available opportunities to appoint female researchers from those candidates applying for competitive research fellowships (e.g. Royal Society URF, EPSRC, BBSRC, etc) on similar terms as the bodies they applied to (e.g. length of appointment, research support). • Run 'proposal preparation' and 'grant writing' workshops for those applying for fellowships. 	Mar 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> • Dr James Keeler (HoD) • SMT 	<ul style="list-style-type: none"> • Appoint up to 2 female early-career research fellows within three years. <i>[only one in the period despite supporting applicants for research fellowship applications]</i>
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3.3	Tackle unconscious (and conscious) bias	<ul style="list-style-type: none"> • Fewer female teaching and research staff than male at every level. • Unconscious bias has been identified as the next step to address in overcoming obstacles to female recruitment, appointment, attainment and promotion. 	<ul style="list-style-type: none"> • Provide unconscious bias training for all academic staff. • Use the University modules. • Develop in-house sessions to address issues specific to the STEMM subjects. • Unconscious bias training to become part of induction and training. 	Feb 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> • Dr Nick Bampos (DHoD) 	<ul style="list-style-type: none"> • 100% academic staff to participate in unconscious bias programmes/ sessions by end 2017. <p><i>[Unconscious bias focus at meetings throughout the year, but no agreed 'institutional programme' (like E&D training module) to make compulsory. Working with the SPS to develop more effective an ongoing 'programmes']</i></p>
3.4	Encourage promotion opportunities for female academics	<ul style="list-style-type: none"> • Female academics tend not to apply for promotion at the earliest opportunity 	<ul style="list-style-type: none"> • Allocate a team of 'promotion mentors' with the specific aim of annually assessing career progression and supporting female academics in the promotion process. 	Feb 2016	On-going	<ul style="list-style-type: none"> • Dr James Keeler (HoD) 	<ul style="list-style-type: none"> • Increase the number of female Senior Lecturers/Readers/ Professors - at least one promotion of the 3 eligible female academics by 2019. <p><i>[increase from one 1 Prof and 2 Readers in 2015 to 4 Profs in 2021]</i></p>
3.5	Mentoring and Staff Review & Development (SR&D)	<ul style="list-style-type: none"> • Mentoring improves job satisfaction and helps structure career progression. • Regular SR&D helps highlight achievements, and is an area in which the Department failed to make progress in the last submission. • 80% of academic staff indicated in the Bronze submission that they wanted a SR&D process to operate in the Department. 	<ul style="list-style-type: none"> • Offer 'mentoring groups' for all academic staff, as a way of formalising groupings in which colleagues can talk informally about career development and share experiences relevant to their role in the Department. • Put in place SR&D program in which all academic staff participate biennially. • Ensure PDRAs have access to regular SR&D. • Support School level action to collect information and review SR&D process. 	May 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> • Dr James Keeler (HoD) • Dr Nick Bampos (DHoD) 	<ul style="list-style-type: none"> • All academics to be assigned a 'mentoring group'. <p><i>[achieved through the RIGs and mentoring group amongst junior academics]</i></p> <ul style="list-style-type: none"> • 100% academics to have been involved in SR&D within three years (staggered over this period). <p><i>[completing the first cycle took a little longer than three years, but now in second three year cycle]</i></p> <ul style="list-style-type: none"> • >90% of PDRAs reviewed in next 2

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								years (currently 75%). <i>[checking the completion rate]</i>
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3.6	Leadership training (including university programmes)	<ul style="list-style-type: none"> • Academics are required to take on roles and responsibilities for which they have received no formal training. • Leadership training benefits both the individual and the institution. • Department has been running a scheme since 2014, and this has proved effective and popular with all those who have taken part. • <i>Individual leadership training support has proven extremely effective and much appreciated.</i> • The University runs leaderships training programmes which are more general but not as effective as Departmental schemes 	<ul style="list-style-type: none"> • Continue the programme that is provided (and funded) by the Department using an external provider. • Programme involves four sessions run over an academic year. • Between 6-8 academics in any year makes the programme more 'participant responsive' and maximises impact. • <i>At current rate, all academic members of staff will have opportunity to participate in leadership training within five years.</i> • All new academic staff to also be directed to the relevant University schemes. 	2014	Sep 2019 March 2022	<ul style="list-style-type: none"> • Marita Walsh (SSM) • Dr Nick Bampos (DHoD) 	<ul style="list-style-type: none"> • 80% of academic staff to have participated in leadership training by 2019, 100% by 2021. <p><i>[various leadership training schemes available to all staff, and bespoke training arranged (as required). Working closely with University providers to maximise impact of such programmes to all our academics and also PDRAs]</i></p> <ul style="list-style-type: none"> • One-to-one leadership training to be offered to academic staff who will benefit from such support. <p><i>[this is offered as required and funded by the department]</i></p>
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	Planned action/ objective	Rationale	Key outputs and milestones	Timeframe		Person responsible	Success criteria and outcome
SA 4 Provide a culture where everyone can succeed							
4.1	Promote good citizenship and an inclusive environment	<ul style="list-style-type: none"> Faculty meetings have provided a much needed and appreciated forum to discuss Departmental business and agree on collective objectives/aspirations. Rewarding good citizenships improves the working environment for all. We have not yet fully developed and implemented a formal 'work-load' model which would provide a better way to monitor good citizenship, although data collection has been initiated and the HoD already considers relative workloads. From the most recent academic survey, some colleagues were still concerned about workload and work/life balance. 	<ul style="list-style-type: none"> Implement 'workload model' to better assess contribution to the department (which covers teaching, administration, pastoral and research) – this is one of the few actions not completed from the previous submission. Improve the distribution of workload amongst academic staff. HoD to review the Group Expectation Documents annually. Reduce the number of committees in the Department to improve governance and reduce unnecessary committee load within the 'core hours' in the Department. Ensure women are distributed across committees in order to avoid 'committee overload' and gain experience in committees that will most effectively support their career development. 	Mar 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> Dr James Keeler (HoD) Dr Howard Jones (Academic Secretary) 	<ul style="list-style-type: none"> Complete and implement 'work-load' model by 2016-2017. [have developed a model that allows the department to assess and manage work-loads, but ongoing work with the SPS to develop a more transparent and effective model that can be used across department] Rationalise committee structure by June 2016. [done] Transparent comparative workloads for all academic staff by October 2016. [have not quite embedded the process as had been envisaged, but working with the SPS, as stated above]
4.2	Promote career pipeline options for women	<ul style="list-style-type: none"> Women drop-out of the chemical career pipeline because of perceived limitations in (i) their background, and (ii) career options. Better understanding of the available options and compatibility with family/carer responsibilities should help keep women in the chemical sciences. 	<ul style="list-style-type: none"> Establish where female PDRAs go when they leave the Department (see SA 2.8). Provide career guidance sessions throughout the year, delivered by leaders in a number of fields that broaden career horizons. Invite female 'industry mentors' from a broad range of professions to generate a critical mass of leading women to support our senior academics as role-models. Use 'industry mentors' to give a better sense of 	May 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> Dr Deborah Longbottom (HoGE) University Careers Service PDAC 	<ul style="list-style-type: none"> 2 career guidance sessions offered annually (attendance and feedback monitored). [prior to covid we have offered at least two such session a year for research staff, and one session a year for support staff. Turnout has been strong with 30-100 attendees]

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			working environments (e.g. mock corporate/policy meetings, board meetings, promotion meetings) in diverse professions that women tend to avoid applying to.				<p>depending on presentation, and higher female attendance]</p> <ul style="list-style-type: none"> Identify 4 'industry mentors' by Sept 2016 and arrange 2 sessions per year that focus on 'career pipelines' for women thereafter. <p>[at least 4 from chemical and non-science professions who visit the department for presentations and with whom our AS work is discussed]</p>
4.3	Provide support for women who take maternity leave (and men on paternity leave)	<ul style="list-style-type: none"> Supporting staff prior to, during, and returning from maternity leave is a key element of Departmental support for female staff. Effective policy (well implemented) encourages women to stay in academia/research. 	<ul style="list-style-type: none"> Make all members of staff aware of the maternity policy. Identify resources for practical assistance beyond the Returning Carers Scheme. Lobby funding bodies that do not provide support for PDRAs and research fellows (though SoPS, and University HR and E&D Committees) over the next two years. Collect survey/questionnaire data from female staff taking maternity leave. Develop case studies from staff benefitting from Returning Carers' Scheme, and publish on website by June 2016. 	Feb 2016	Sep 2019 March 2022	• Marita Walsh (SSM)	<ul style="list-style-type: none"> Ensure that all staff benefit from maternity structures in the Department (monitor through staff surveys and exit questionnaires). <p>[support well-advertised and brought to the attention to all staff requesting parenting or carer leave]</p> <ul style="list-style-type: none"> For academics, fund cover for running research groups during maternity leave, (from Jan 2016). <p>[we take advantage of the university Career Support Fund, and where required the department offers additional support]</p> <ul style="list-style-type: none"> Survey returning staff and achieve >90% satisfaction rate with support received. <p>[>90% satisfaction]</p> <ul style="list-style-type: none"> Increase maternity return rate to >80%

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							(average over last 5 years is 63%). [since 2015, 87% return rate on 31 taking maternity leave]
4.4	Communication within the Department	<ul style="list-style-type: none"> Information about opportunities/support mechanisms is generally difficult to find on the Departmental website. Access to surveys, guidelines, training opportunities, and career progression help all students make the most of the Departmental resources. Clarity and accessibility of information leads to more inclusive and productive management and decision making structures. Clear agendas and minutes of meetings provide transparency of governance structures. 	<ul style="list-style-type: none"> Appointment of Web Programme Developer to restructure the departmental website and make better use of images to highlight diversity in the Department. Streamline navigation through the website in response to focus groups and the ASWP. Use e-mail, meetings, and website content more effectively, and in particular to address AS actions. Run focus-group(s) to provide feedback on website development and improvements Communicate and update key policies (e.g. Dignity@Work, flexible working and maternity/paternity policies). 	Jan 2016	May 2019 March 2022	<ul style="list-style-type: none"> Diane Harris (Project Delivery Coordinator) 	<ul style="list-style-type: none"> Web Programme Developer post filled by end 2015. [post filled and the planned work completed] Focus-group(s) to meet in early 2016 and again in 2017 to report on effectiveness of communication in the Department. [done through standing agenda items on departmental committees] Monitor 'page-hits' using analytics software. [have started assessing web traffic and reports made available to committees] Website accessibility measured by incorporating suitable question in future surveys. [not through surveys, but by consultation and through standing agenda items on departmental committees]

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4.5	Communication beyond the Department	<ul style="list-style-type: none"> • 'Outward facing' publications, web content and social networking shape the perception of the Department as a place to work, learn and undertake research. • Effective communication of Departmental impact in teaching, research and professional support can have a lasting and transformative effect on engagement with the broader community and women wanting to work in science. 	<ul style="list-style-type: none"> • Appointment of Web Programme Developer will help implement features that will make the site more accessible and interactive. • Focus-groups to identify areas that respond to different demographics and age groups. • Chem@Cam editor to assess the content of our publications (in paper and web form) to highlight the impact of activities in the Department, particularly those from women to ensure visibility. 	Jan 2016	May 2019 March 2022	<ul style="list-style-type: none"> • Diane Harris (Project Delivery Coordinator) • SMT • (Editor of Chem@Cam) 	<ul style="list-style-type: none"> • Focus-group(s) to meet in early 2016 and again in 2017 to report on effectiveness of communication in the Department. [combination of groups and formal committee] • Track increasing number of searches of our website and followers on Twitter. [being done and ongoing process] • Track when work in the Department is reported by media and other sites (by gender). [being done and ongoing process]
4.6	Committee structure	<ul style="list-style-type: none"> • Committee structure does not make efficient use of the members of the Department. • Regular scrutiny of membership and remit improves impact and effectiveness of committee business. • Ensure female representation on all committees. • Standing items ensure that key actions (e.g. from the ASWP) are dealt with accordingly. • Effective ASWP membership informs Departmental policy. 	<ul style="list-style-type: none"> • Restructure the committee structure to promote efficiency and better lines of communication. • Include standing items in key committees (e.g. gender and E&D). • HoD to meet with committee Chairs annually to (i) discuss key items of business, (ii) emphasise transparency, fairness and inclusivity in all business, and (iii) sensitise Chairs about the need to give all members of committees an opportunity to participate in discussions. 	Mar 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> • Dr James Keeler (HoD) 	<ul style="list-style-type: none"> • Complete committee restructure by June 2016, and map success by >80% positive feed-back in future surveys. [done] • Ensure female representation on all committees by Jun 2016. [done] • Avoid 'committee overload' of female academics by inviting female senior researchers, Teaching Fellows, and administrators to join committees as a career development opportunity. [done and an ongoing discussion with female colleagues to avoid committee and administrative overload compared to male colleagues]

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							<ul style="list-style-type: none"> Refresh the ASWP membership by December 2016. [delegated much of this work to sub-groups to maximise buy-in and visibility of this work across department]
4.7	Staff exit survey	<ul style="list-style-type: none"> Exit questionnaires/surveys for all staff provide valuable information about the working environment in the Department. Data collected over an extended period gives a timeline of the effectiveness of actions and initiatives. 	<ul style="list-style-type: none"> Develop exit questionnaires/surveys for all categories of staff. 	Mar 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> Departmental Welfare, Training and Development advisor Marita Walsh (SSM) 	<ul style="list-style-type: none"> Develop a better overview of the Department for all categories of staff. [specific effort to engage and support our Professional Support staff] Present the data annually to the ASWP and SMT, new actions result. [done through committees and working groups]
4.8	Athena SWAN profile in policy development in the Department	<ul style="list-style-type: none"> To highlight and track progress on key objectives and actions on an ongoing basis at the highest level in the Department. Engage members of staff beyond the membership of the ASWP and SMT through committee and Faculty meetings. 	<ul style="list-style-type: none"> HoD and SMT to consider ASWP minutes once a term and scrutinise progress and identify mechanisms by which to support key actions (especially if there are resource implications). 	Mar 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> Dr James Keeler (HoD) Dr Nick Bampos (DHoD) 	<ul style="list-style-type: none"> Maximise impact of all ASWP activities and actions through committees and surveys. [done through committees, working groups, publications and online]
4.9	Data collection for Athena SWAN Working Party	<ul style="list-style-type: none"> The recent ASWP surveys have addressed the Bronze and new Silver actions. Previous surveys have helped track progress on actions, but may no longer identify the areas that we should be addressing in the next cycle of work. 	<ul style="list-style-type: none"> ASWP to review the questions about actions that future surveys need to address. Additional surveys and data collection (e.g. destination data) to be considered by the ASWP and SMT. 	Mar 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> ASWP 	<ul style="list-style-type: none"> Use relevant data that has not been previously available to inform future actions. [ongoing as granularity of data becomes available, and work through the SPS ED&I Committee is particularly important] Use data to inform Silver to Gold Actions (identify 4 data sets for Gold application by Jan 2017 and implement

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							<p>collection by Mar 2017).</p> <p>[have established that maintaining the Silver is the correct strategy for the Department, as there is still work that needs to be done to embed practices and policies for the longer term benefit of all staff]</p> <ul style="list-style-type: none"> Maintain (or where possible improve) the high return rates for surveys (around 50% for postgraduates and PDRAs and above 90% for academic surveys leading to Silver submission). <p>[ongoing work]</p>
4.10	Influencing policy development outside the Department	<ul style="list-style-type: none"> The Department is large, diverse and has enough influence to shape gender related policy in the University and beyond. Working with professional bodies and industry effects lasting change for female scientists at all stages in their careers. Our academics can highlight the Departmental gender related activities, and in so doing influence a wider sphere beyond Cambridge. SAP risks not taking into account personal circumstances which are likely to affect female members of staff. 	<ul style="list-style-type: none"> Engage with the SoPS and other departments about gender related policy, through one of the School Gender Champions (who is a member of the Department). Good practice identified and shared via School level E&D forum and buddy system. Engage with the University Gender Working Group and E&D Committee through members of the Department who are also members of these committees/groups. ASWP members to engage with University Athena SWAN Network. Track involvement in local and national activities (e.g. ASWP member Prof Jane Clarke is very active on the national stage highlighting issues and promoting support for women in STEMM). 	Mar 2016	Sep 2019 March 2022	<ul style="list-style-type: none"> Dr James Keeler (HoD) Dr Nick Bampos (SoPS Gender Champion) 	<ul style="list-style-type: none"> Capture areas in which Departmental involvement has impact in gender related activities. <p>[consult working groups and various colleagues]</p> <ul style="list-style-type: none"> Over three years of action plan, identify at least 10 examples of 'beacon activity' in support of AS by members of the Department. <p>[list as appropriate]</p> <ul style="list-style-type: none"> School Champion or nominated representative to attend >90% of E&D forum meetings and report outcomes to ASWP/HoD (SoPS Athena SWAN Buddy Scheme to be implemented in 2016). <p>[done most effectively through</p>

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							<p>SoPS ED&I Forums/Committee]</p> <ul style="list-style-type: none"> At least one member of ASWP to attend all termly Athena SWAN Network events. [yes prior to 2020, but not much since] Identify at least 2 other members of the Department to champion gender equality within and outside the University by end 2017. [James, Melinda]
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Key: AS Athena SWAN; ASWP Athena SWAN Working Party; DHoD Deputy Head of Department; DoGE Director of Graduate Education; DoT Director of Teaching; E&D Equality and Diversity; GEC Graduate Education Committee; HEI Higher Education Institutions; HoD Head of Department; HoGE Head of Graduate Education; HoGR Head of Graduate Recruitment; HR Human Resources; PDAC Post-Doctoral Affairs Committee; PDRA Post-Doctoral Research Associates; PI Principal Investigator (Group leader); RSC Royal Society of Chemistry; SA Silver Action; SAP Senior Academic Promotion; SMT Senior Management Team; SoPS School of Physical Sciences; SR&D Staff Review and Development; T&OC Teaching and Outreach Committee; URF University Research Fellow.