

PREGNANCY AND PARENTAL LEAVE HANDBOOK

Welcome Everyone,

This handbook has been produced to provide information and procedures to help managers and individuals who are planning on taking leave to have or adopt a child.

The aims of this handbook are:

- To improve the experience of those taking leave before, during, and following, the leave period.
- To help those with managing responsibilities in supporting their members of staff.

We would welcome feedback regarding this handbook and will endeavor to improve and develop the content for future versions.

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March 2022

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CONTENTS:

1. Specifically FOR MANAGERS:

- a. UK Research Staff Association (UKRSA) Family Leave Leaflet to give to those planning leave. Originally written for Researchers as their audience, this leaflet includes tips and considerations useful to members of staff from any professional group.
- b. Guidance for Line Managers to review and be familiarized with UCL policies and procedures around pregnancy and parental leave.
- c. Pregnancy and parental support information sheet to give to members of staff who are pregnant or about to take parental leave.
- d. Checklist for Structured Conversation for managers and leave takers to fill out well in advance of the leave to be taken.
- e. Pregnancy in the lab to review and be educated about the hazards found in a wet lab environment.
- f. Risk Assessment Guide to support managers when conducting a review of the Risk Assessment for pregnant workers and new mothers.

2. Specifically FOR MEMBERS OF STAFF TAKING LEAVE:

- a. UK Research Staff Association (UKRSA) Family Leave Leaflet.
- b. Pregnancy and parental support information sheet to be educated of steps and procedures when taking parental leave. Originally written for Researchers as their audience, this leaflet includes tips and considerations useful to members of staff from any professional group.
- c. Checklist for Structured Conversation for managers and leave takers to fill out well in advance of the leave to be taken.
- d. Pregnancy in the lab to review and be educated about the hazards found in a wet lab environment.

Supported by Vitae

Tips for researchers taking maternity, paternity, adoption or parental leave and advice for institutions and employers

Are you a fixed-term researcher about to take maternity, paternity, adoption or parental leave?

This leaflet has been compiled by researchers for researchers and is packed with handy tips for before you go on leave, whilst you are away and when you come back.

If you are an institution or employer, this leaflet contains a useful advice section to help you and your organisation in managing family leave in the most supportive way possible.



Before you go on leave

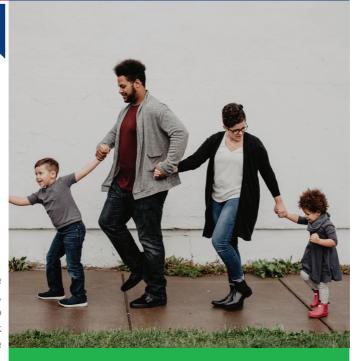
Congratulations! Whatever your reasons for taking family leave, we couldn't be happier for you.

Know your rights with respect to contracts and funding and be prepared to negotiate where necessary. There's often more flexibility in the system than you think.

Agree with your line manager how things will work before, during and after your leave. Focus on what you would like to happen and get it in writing.

Understand the benefits to which you are entitled, from the government and from your institution, and get childcare arranged as soon as possible.

Develop an academic support network among your colleagues. Get included in funding bids, and make sure that someone will be able to speak on your behalf while you're away.



For more information, please go to www.vitae.ac.uk /familyleave

While you're away

Decide whether you want to 'stay on top of things' during your leave or to step back completely. But be realistic about how much work you'll actually be able to do.

Be clear with colleagues about whether they can contact you during your leave. It's OK to stay in touch, but it's fine to switch off and focus on your family, too.

Use 'keeping-in-touch' days to stay up-to-date with what's going on at work and to make progress on things like papers and grant applications.

Enjoy your time with your family. Whatever your reasons for taking leave, it's a special time and you won't get it back. Don't feel pressured into coming back to work earlier than you'd like.

Don't feel guilty about taking leave. You're not letting anyone down. And your institution (probably) isn't going to collapse because you're not there.

When you come back . . .

Plan your return to work as carefully as you planned your time away.

Use flexible working opportunities to ease your transition back into work, such as part-time working or working from home. Use any holiday pay accrued during your leave to soften the financial blow.

Have a 'returning to work' interview with your line manager. Use it to learn about what has happened in your absence and to agree how you can best get back into the swing of things.

See if you can get a reduced teaching load for your first semester back, to allow you to spend more time getting up to speed with your research activities.

Pay it forward. Remember what it was like for you to take leave and do what you can to make sure that those taking leave in the future have a better experience.







Ten tips for better family leave

- 1. Create a culture where taking time for your family is valued and respected.
- When someone takes family leave, be happy for them. Don't treat it as a problem to be overcome.
- Develop clear and fair family leave policies for all students and staff.
- Be sensitive about the reasons people take family leave. And make sure that others are, too.
- 5. Treat staff on fixed-term appointments as you would permanent members of staff.
- 6. Try to ensure that fixed-term researchers taking family leave have a job to come back to.
- Implement a research advocate scheme to look after the interests of researchers on leave.
- Make sure that human resources staff are well-informed and can provide appropriate advice.
- 9. Provide those returning from leave with flexible working options for a phased return.
- Give researchers coming back from leave a reduced teaching load, to help them to get back into their research.





www.vitae.ac.uk

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GUIDANCE FOR LINE MANAGERS ON POLICIES AND PROCEDURES AROUND PREGNANCY AND PARENTAL LEAVE

Last updated: March 2022

This information sheet is to help line managers supporting a team member going on parental leave.

Important considerations prior to a staff member taking parental leave

- Make sure you are familiar with the current UCL Parental Leave Policy: https://www.ucl.ac.uk/human-resources/policies-advice/parental-leave-toolkit.
- Use UCL's employee and line manager checklist to guide you through the process of managing arrangements for parental leave: https://www.ucl.ac.uk/human-resources/files/employee_and_line_manager_checklist.docx.
- We advise you to use <u>loN's checklist for a structured conversation</u> to discuss the forthcoming leave period.
- Set the tone right in your first meeting: your employee will greatly appreciate any support and guidance you can offer at this stage.
- You can redirect your employee to the <u>ION HR team</u> and <u>UCL's Parental Leave FAQs</u> to ensure they are fully aware of their rights.
- You can refer your employee to one of ION's dedicated <u>Parental Leave Champions</u>. They are
 there to help with any queries and guide our students and staff members through pregnancy,
 applying for parental leave, and beyond.
- Find out **if and when the employee wishes to share news** with others in the team, bearing in mind they are entitled to confidentiality.
- Ensure pregnant employees are aware that they are entitled to **paid time off for antenatal appointments** and antenatal classes.
- Ensure that employees that are primary adopters are aware that they are entitled to take **paid time off to attend up to five adoption appointments** once they are matched with a child.
- Both primary and secondary adoptive parents in a surrogacy arrangement are entitled to attend
 up to two antenatal appointments.
- An employee whose partner is pregnant or is the primary adopter is entitled to request unpaid time off to accompany their partner to up to two antenatal or adoption appointments.
- Your employee should communicate with you the dates and times of the appointments.

- It is your duty as line manager to review the existing Risk Assessment(s) for your employee's
 work and consider any risks to their health and safety, or that of their unborn child. Reach out to
 you <u>Departmental Safety Officer</u> to help you conduct the Risk Assessment. Further information
 about Risk Assessments is available here:
 https://www.ucl.ac.uk/estates/safetynet/quidance/pregnant_workers/index.htm.
- The ION has prepared a guide to reproductive toxic chemical, biological, and radiological hazards commonly found in our wet labs. You can find this document here: https://www.ucl.ac.uk/ion/sites/ion/files/qs ion parental leave pregnancy in the lab.pdf
- It is recommended that you use the Pregnancy Risk Assessment template documents, found here: https://www.ucl.ac.uk/ion/sites/ion/files/gs ion parental leave risk assessment guide.pdf
- A review of the employee's Risk Assessment should be carried at the following time points:
 - As soon as your employee informs you of their pregnancy
 - Once at every trimester of their pregnancy.
 - When returning from Maternity Leave within six months of having the baby or while they
 are still breastfeeding. The University regards it as best practice to offer a risk
 assessment to all returning mothers even if they are returning after 6 months or are not
 breastfeeding.
- You should also regularly review the <u>Display Screen Equipment Assessment</u> (once every trimester) to ensure your employee is as comfortable as possible throughout their pregnancy. Consider measures like additional breaks away from the screen and less time spent at the workstation.
- Make sure you schedule a meeting with your employee to discuss the forthcoming
 parental leave. Consideration needs to be given to any issues that may arise during the period
 of leave, so that contingency plans can be identified, and a handover plan should be made.
- You should discuss and agree the type/level of contact there should be during the period of leave, e.g., regular phone calls from the manager, e-mail updates and newsletters, invitation to team social events, distribution lists etc.
- The ION has created a checklist to facilitate a structured discussion between the line manager and the employee around the necessary arrangements. Please find this document here: add link to the webpage when ready.
- If an employee takes parental leave during their probationary period, the leave will pause the probationary period. Ensure that the employee is aware that the probationary period will continue once they return from parental leave.

Key parental leave benefits

Adoption leave

All primary adopters are entitled to **52 weeks' adoption leave**; they must take two weeks' mandatory adoption leave immediately following the date of placement.

UCL offers primary adopters **18 weeks' full occupational adoption leave pay** (this can also be taken as 9 weeks' full pay followed by 18 weeks' half pay).

Maternity leave

All pregnant staff (including surrogates) are entitled to **52 weeks' adoption leave**; they must take two weeks' mandatory maternity leave commencing from the date of birth, or the day after birth if the child is born before the expected week of childbirth.

UCL offers **18 weeks' full occupational maternity leave pay** (this can also be taken as 9 weeks' full pay followed by 18 weeks' half pay).

Neonatal leave

Staff whose child is hospitalised for at least seven days following birth will be entitled to an additional period of leave to add to the end of their adoption/maternity/paternity/partner's leave.

Neonatal leave is fully paid and is equivalent to the number of days that their baby has been in hospital for a minimum period of seven days and a maximum period of 12 weeks.

Ordinary parental leave

Employees are entitled to request **18 weeks unpaid ordinary parental leave per child**, up to their 18th birthday. Leave is pro-rata for part-time staff.

Paternity/partner's leave

The father of the child and/or the mother's spouse/civil partner/partner and/or the secondary adoptive parent is entitled to take **four weeks' full occupational paternity/partner's leave pay** as long as the employee has responsibility for the child's upbringing. Leave is pro-rata for part-time staff.

Paternity/partner's leave must be taken within three months following the date of birth/adoption but does not have to be taken in a single block. The minimum period of paternity leave that can be taken in a block is one week.

Shared parental leave

Any periods of adoption/maternity leave and/or paternity/partner's leave must be taken prior to commencing shared parental leave.

All staff with responsibility for caring for the child are entitled to **50 weeks shared parental leave**, i.e., 52 weeks minus mandatory adoption/maternity leave. Any maternity or adoption leave taken will be deducted from the available amount of shared parental leave. Similarly, shared parental leave taken by the employee's partner will be deducted from the available amount of shared parental leave.

If the employee is the partner/secondary adopter, then the mother/primary adopter must also be eligible to take shared parental leave.

UCL offers **16 weeks' full occupational shared parental leave pay.** Any occupational maternity or adoption pay received will be deducted from the available amount of occupational shared parental pay. Similarly, shared parental pay received by the employee's partner will be deducted from the available amount of shared parental pay.

Formal process for applying for parental leave

Staff intending to take maternity, paternity/partner's, and/or shared parental leave and pay must complete the following actions by the end of the 15th week before the expected week of childbirth (approximately 25 weeks of pregnancy):

- Formally notify (in writing) their line manager, the <u>Departmental Administrator</u> and the <u>ION HR</u> team.
- Complete the relevant <u>parental leave application form</u> and email it to their line manager with a copy of their <u>MATB1</u> form. The <u>ION HR team</u> can provide you with advice and guidance in completing the application form(s).
- The line manager must countersign the parental leave application form and send it to ion.hradmin@ucl.ac.uk in the first instance, along with details of how they propose to cover the employee's duties. The ION HR team will then review any recruitment needs and ensure the application is submitted to central HR.

In the case of **Adoption Leave**, the employee must inform the line manager, the Departmental Administrator and the <u>ION HR team</u> at the earliest opportunity possible, and send a completed

Adoption Leave application form together with a copy of the matching certificate. The line manager must countersign the parental leave application form and send it to ion.hradmin@ucl.ac.uk in the first instance, along with details of how they propose to cover the employee's duties. The ION HR team will then review any recruitment needs and ensure the application is submitted to central HR.

During parental leave

Ensure you keep to the contact arrangements agreed with the employee before they started their parental leave.

Staff are entitled to accrue annual leave, bank holidays, and closure days while on parental leave.

Staff should try to take any leave due to them before going on parental leave. Unused annual leave may be carried over in exceptional circumstances. Leave accrued while on parental leave should be taken immediately following parental leave, or as soon as reasonably practicable afterwards.

Your employee has the right to take up to 10 Keeping in Touch (KIT) days and 20 Shared Parental Leave in Touch (SPLIT) days during their parental leave, which will be paid.

Ensure that any KIT/SPLIT days have been logged and payment has been requested from the <u>ION HR</u> <u>team</u>. You can use the following form to record them: <u>https://www.ucl.ac.uk/human-resources/files/record_of_kit_split_days.docx</u>.

Your employee should give you and HR 28 days' notice of any intention to change their return-to-work date.

Your employee should discuss any flexible working request on return to work following parental leave, or their preference not to return to work with you.

Returning from parental leave

Arrange a handover meeting with your employee regarding their responsibilities following their return from parental leave and discuss training and/or re-induction needs. Make sure you follow up with regular 1:1 meeting to discuss how the return is going.

If the employee is breastfeeding, they are entitled to have time to express and rest. The ION provides a private and quiet space for nursing mothers to use. The <u>ION maternity room</u> is located on floor 7 of Queen Square House (room 709/710).

It is your duty as line manager to **review the existing Risk Assessment(s)** for your employee's work and consider any risks to their health and safety if they are returning from Parental Leave within six months of having the baby or while they are still breastfeeding. The University regards it as best practice to offer a risk assessment to all returning mothers even if they are returning after 6 months or are not breastfeeding. Reach out to you Departmental Safety Officer to help you conduct the Risk Assessment.

Other useful information

- UCL website: https://www.ucl.ac.uk/safety-services/a-z/new-and-expectant-mothers/table-risk-factors
- HSE website: http://www.hse.gov.uk/pubns/books/infection-mothers.htm



PREGNANCY, ADOPTION AND PARENTAL LEAVE INFORMATION SHEET

Last updated: March 2022

This information sheet helps guide you through important work-related issues during your (or your partner's) pregnancy or adoption, period of parental leave, and subsequent return to work. We recommend you also familiarise yourself with UCL's parental leave toolkit.

Guidance and information pre-parental leave

- You are entitled to paid time off to attend antenatal appointments.
- Primary adopters are entitled to take **paid time off to attend up to five adoption appointments** once they are matched with a child. Both primary and secondary adoptive parents in a surrogacy arrangement are entitled to attend up to two antenatal appointments.
- An employee whose partner is pregnant is entitled to **request unpaid time off to accompany** their partner to up to two such appointments.
- An employee whose partner is the primary adopter is entitled to take **unpaid time off to attend two adoption appointments**.
- Whether you work in an office space or in a laboratory, if you are pregnant, you must have a full Risk Assessment carried out. It is your line manager's responsibility to contact the <u>Departmental Safety Officer</u> to ensure a Risk Assessment is completed and that any risks to your (or your unborn child's) health are evaluated. To ensure you are informed of potential risks around working in a laboratory, please consult ION's guide to reproductive toxic chemical, biological, and radiological hazards commonly found in our wet labs: https://www.ucl.ac.uk/ion/sites/ion/files/gs ion parental leave pregnancy in the lab.pdf.
- You may wish to use the <u>ION maternity room</u> located on the 7th Floor of Queen Square House (rooms 709 and 710).
- We encourage you to contact one of **ION's dedicated** <u>Parental Leave Champions</u>, who can help guide you through the process of planning your parental leave, taking leave, and returning to work.
- We encourage you to contact the **ION HR team** for support in planning your parental leave.
- Familiarise yourself with the <u>staff health and wellbeing webpages</u> for advice on **stress** management and work-life balance, and wellbeing initiatives.
- Visit the <u>UCL Parental Leave Toolkit</u> for guidance on how to apply for parental leave.
- Have a look at the <u>UCL Parental Leave FAQs</u>, which address frequent questions related to parental leave.

Key dates related to pregnancy		
Second	If you haven't already had your Pregnancy Risk Assessment , this should be arranged	
Trimester	with your manager and regular reviews should be scheduled. The Risk Assessment can also be carried out by your department's Safety Officer.	
21 weeks	Your GP/midwife will give you your MAT B1 form - this confirms expected due date and is required to be submitted with your parental leave application.	
25 weeks	You must inform your line manager, your <u>Departmental Administrator</u> , and the <u>ION HR</u> team that you intend to take parental leave by the qualifying week (15 weeks before your baby is due, approximately 25 weeks' pregnant).	
	This is also the deadline for you to complete your parental leave application and email it to your line manager with a copy of your MAT B1 form.	
	Your manager will countersign the form and send it to ion.hradmin@ucl.ac.uk to review before it is submitted to central HR. The parental leave forms include space for detailing how your duties will be covered while you are on leave.	
	Your partner should also have informed their employer by now if they will be taking paternity/partner's leave or shared parental leave and completed the relevant applications.	
26 weeks	If you wish to opt out of the Pension Salary Exchange, you must inform Payroll by this week at the latest.	
Third Trimester	Ensure you have a Pregnancy Risk Assessment review this trimester.	
29 weeks	Your 29 th week of pregnancy is the earliest your parental leave can begin (11th week	
23 1100113	before the Expected Week of Childbirth).	
36 weeks	Your parental leave <i>may</i> start automatically if you are off sick with a pregnancy-related illness during the 4 weeks before your baby is due.	
37 weeks	Your pregnancy is considered full-term.	
39 weeks	Parental leave will commence the day after your baby is born, if the actual birth date is earlier than the commencement of parental leave date you specified.	
40 weeks	Expected Week of Childbirth.	

 Prior to taking leave, we advise you to meet with your line manager to discuss the forthcoming leave. Use IoN's checklist for a structured conversation to support you: https://www.ucl.ac.uk/ion/sites/ion/files/qsion_parental_leave_checklist_for_structured_conversation_docx

Use the <u>Maternity Leave calculator</u> or the <u>Parental Leave planner</u> tools (both downloadable excel files) to help you plan your parental leave dates.

Types of parental leave and pay offered at UCL

Adoption leave

All primary adopters are entitled to **52 weeks' adoption leave**; they must take two weeks' mandatory adoption leave immediately following the date of placement.

UCL offers primary adopters **18 weeks' full occupational adoption leave pay** (this can also be taken as 9 weeks' full pay followed by 18 weeks' half pay).

Staff are eligible for statutory adoption pay (SAP) if they have at least 26 weeks' service by the time they are matched with a child, provided that the average earnings are above the <u>lower earnings limit</u> for National Insurance contributions. If an employee is not eligible for SAP, UCL Payroll Services will give

the employee a form 'SAP1' and they may be able to get support from the local council, or adoption agency instead.

SAP is payable for 39 weeks and is included within occupational adoption pay.

You must notify your line manager of your intention to take adoption leave within seven days of being matched with a child or, if adopting following surrogacy, at least 15 weeks before the expected week of childbirth

Adoption leave applications must be supported by a copy of the adoption matching certificate or surrogacy agreement.

Maternity leave

All pregnant staff (including surrogates) are entitled to **52 weeks' adoption leave**; they must take two weeks' mandatory maternity leave commencing from the date of birth, or the day after birth if the child is born before the expected week of childbirth.

UCL offers 18 weeks' full occupational maternity leave pay (this can also be taken as 9 weeks' full pay followed by 18 weeks' half pay).

Staff are eligible for statutory maternity pay (SMP) if they have at least 26 weeks' service at the Notification Week, provided that the average earnings are above the <u>lower earnings limit</u> for National Insurance contributions. If an employee is not eligible for SMP they may be able to claim Statutory Maternity Allowance (SMA), the employee should check the latest <u>Government Guidance</u>.

SMP is payable for 39 weeks and is included within occupational maternity pay.

You must notify your line manager of your intention to take maternity leave at least 15 weeks before the expected week of childbirth.

Maternity leave applications must be supported with a MAT B1 form.

Neonatal leave

Staff whose child is hospitalised for at least seven days following birth will be entitled to an additional period of leave to add to the end of their adoption/maternity/paternity/partner's leave.

Neonatal leave is fully paid and is equivalent to the number of days that their baby has been in hospital for a minimum period of seven days and a maximum period of 12 weeks.

Neonatal leave should be taken after adoption/maternity/paternity/partner's leave but before the return to work.

You should notify your line manager that there were complications as soon as possible, confirm how many weeks your baby was in the hospital, and confirm when your parental leave will end, and your neonatal leave commence.

Neonatal leave will be recorded via MyHR.

Ordinary parental leave

Employees are entitled to request **18 weeks unpaid ordinary parental leave per child**, up to their 18th birthday. Leave is pro-rata for part-time staff.

Leave can be requested in blocks of a maximum of four weeks per child per year.

If less than a week's leave is requested, it will be considered that one week of leave has been used.

Please see the <u>Unpaid Leave Policy</u> for advice on the impact of unpaid leave on your pension contributions.

Paternity/partner's leave

The father of the child and/or the mother's spouse/civil partner/partner and/or the secondary adoptive parent is entitled to take **four weeks' full occupational paternity/partner's leave pay** as long as the employee has responsibility for the child's upbringing. Leave is pro-rata for part-time staff.

Paternity/partner's leave must be taken within three months following the date of birth/adoption but does not have to be taken in a single block. The minimum period of paternity/partner's leave that can be taken in a block is one week.

Statutory paternity pay (SPP) is included with occupational paternity/partner's pay.

You must notify your line manager of your intention to take paternity/partner's leave at least 15 weeks before the expected week of childbirth.

Paternity/partner's leave applications must be supported with a copy of the MAT B1 form.

Shared parental leave

Any periods of adoption/maternity leave and/or paternity/partner's leave must be taken prior to commencing shared parental leave.

All staff with responsibility for caring for the child are entitled to **50 weeks shared parental leave**, i.e., 52 weeks minus mandatory adoption/maternity leave. Any maternity or adoption leave taken will be deducted from the available amount of shared parental leave. Similarly, shared parental leave taken by your partner will be deducted from the available amount of shared parental leave.

If you are the partner or secondary adopter, then your partner must also be eligible to take shared parental leave.

UCL offers **16 weeks' full occupational shared parental leave pay.** Any occupational maternity or adoption pay received will be deducted from the available amount of occupational shared parental pay. Similarly, shared parental pay received by your partner will be deducted from the available amount of shared parental pay.

Staff are eligible for statutory shared parental pay (SSPP) if they have at least 26 weeks' service at the Notification Week, provided that the average earnings are above the <u>lower earnings limit</u> for National Insurance contributions, similarly their partner will need to be eligible for SSPP.

SSPP is payable for 37 weeks and is included within occupational shared parental pay.

Shared parental leave must be taken during the 12 months following the birth or adoption of the child as follows:

- a minimum period of at least one week.
- in multiples of complete weeks.
- As one continuous period of ShPL or as up to 3 discontinuous periods, for example taking ShPL in blocks of 2 weeks at a time, and returning to work for 2 weeks at time, then taking leave again repeating this pattern three times.

You must notify your line manager of your intention to take shared parental leave at least 15 weeks before the expected week of childbirth.

Shared leave applications must be supported with a copy of the adoption matching certificate, surrogacy agreement or MAT B1 form, confirmation that you/your partner has curtailed their adoption/maternity leave, and confirmation that you and your partner are entitled to take shared parental leave.

During parental leave

You are entitled to accrue annual leave, bank holidays, and closure days while on parental leave.

You should try to use your annual leave as usual before going on parental leave. Unused annual leave may be carried over in exceptional circumstances. Leave accrued while on parental leave should be taken immediately following parental leave, or as soon as reasonably practicable afterwards.

Once you have commenced annual leave your period of parental leave is deemed to have ended, and you are considered to have returned to work, unless this arrangement is part of an agreed shared parental leave application.

You may take up to 10 Keeping in Touch (KIT) days and 20 Shared Parental Leave in Touch (SPLIT) days during your parental leave, which will be paid.

Ensure that any KIT/SPLIT days have been logged and payment has been requested from the <u>ION HR</u> <u>team</u>. You can use the following form to record them: <u>https://www.ucl.ac.uk/human-resources/files/record_of_kit_split_days.docx</u>.

You should give your line manager and HR 28 days' notice of any intention to change your return-to-work date.

You should discuss with your manager any flexible working request on return to work following parental leave (see UCL's Work Life Balance Policy), or if you decide that you would not like to return to work.

Returning from parental leave

If you are returning to work within six months of having the baby, or while you are still breastfeeding, your line manager should ensure a **further Risk Assessment** is carried out. The University regards it as best practice to offer a risk assessment to all returning mothers even if they are returning after 6 months or are not breastfeeding.

The <u>IoN maternity room</u> located on floor 7 of QSH can be used for expressing breastmilk or if you are feeling unwell.

You might want to join the <u>UCL Parents and Carers Together (PACT) network</u>.

Look at the government's website regarding tax free childcare and other schemes.

UCL has a **Day Nursery** in Bloomsbury Campus, available to UCL staff and students: https://www.ucl.ac.uk/day-nursery/ There is limited availability so we recommend you should contact them and complete an application form as soon as possible.



MATERNITY, PATERNITY, ADOPTION, PARENTAL LEAVE

- CHECKLIST FOR STRUCTURED CONVERSATION -

Last review: March 2022

Prior to commencing a period of extended leave as above, the employee should meet their line manager to discuss the forthcoming leave. Consideration needs to be given to any issues that may arise during the period of leave, so that contingency plans can be identified. This is a discussion; the employee is not expected to provide an answer to each question as these may be a decision for the line manager or point of discussion / negotiation for both parties.

This checklist has been compiled to prompt areas of discussion and is not exhaustive, but meant to be a helpful guide:

Prior to meeting:	Agreed Action
Both parties should have familiarised themselves with	
relevant <u>UCL policy</u> .	

Areas for discussion with Line Manager	Agreed Action
Timings	
Date of intended start of leave or annual leave if it is to be taken prior to extended leave starting?	
Work distribution	
What areas of work are to be handed over and to whom? It is the line manager's responsibility to help re-allocate this work. It is worth considering what recognition the person taking on extra tasks might get. For example, if a paper needs to be finished.	
Are there any pieces of work the employee will take away with them on leave? Will time be reclaimed as Keeping In Touch (KIT) days? For example, a paper that is nearly ready to submit. Please note: there is no obligation for the employee to do this if she/he does not wish to.	
Are any areas of work to be suspended during maternity leave, and if so, which ones?	

Student supervision	
Do you have any PhD students (primary / secondary)? What are the arrangements for their on-going supervision? Any arrangements for continued supervision require a contingency plan.	
Do you have any other students (masters / undergrad)? What are the arrangements for their on-going supervision? Any arrangements for continued supervision require a contingency plan.	
Research grants	
Do you have a research grant? If so, can it be suspended for the period of your leave?	
Do you have other staff on the grant? What would be the implications for them if the grant was suspended? Their UCL contracts cannot be terminated - can they be assigned other duties?	
Can a colleague <i>e.g.</i> senior postdoc employed by grant or fellow academic take over management of the grant?	
Has the research grant provider been informed of your leave, if required?	
Does the research grant provide funds to cover maternity leave and maternity cover? Are these funds being utilised <i>i.e.</i> to fund a replacement post?	
Do you see any major impact if you unexpectedly commence maternity leave earlier than planned, what are the implications / contingency plans?	
Keeping in Touch	
For general keeping in touch who would you like to contact you? Would you rather no-one contacts you?	
How would you like to keep in touch with work if you wish to do so? Email/Phone/Text	
How frequently do you want that person to contact you?	

Employee	Line Mana	ger
Signatures:		
And / or reduced hours on return?		
Are you considering applying for flex return?	ible working on	
How do you plan to take accrued and return? Note: you continue to accrue annual on maternity/parental/adoption leave	leave when you are	
Returning to work		
Do you have a mentor, if not would the	his be helpful?	
Are you hoping to attend conference leave – are these to be included in K	•	
Are you intending to apply for promo Consider impact of maternity leave a submit application to ensure no detri	and how / when to	
When is the next appraisal due? Consider whether this should be und maternity leave.	dertaken prior to	
Career Development		
appropriate? There is no obligation to check these receive them at all.	e when on leave or to	
For ongoing projects, would you like emails by team members so you car	•	



PREGNANCY IN THE LAB

A guide to reproductive toxic chemical, biological, and radiological hazards

Last updated: March 2022

This list was compiled with the collaboration of several members of staff working at the IoN. It aims to cover most toxic hazards an expectant member of staff can encounter in our lab spaces.

Please note that <u>this is not an exhaustive list</u>. If you are aware of any other hazardous elements that should be included in this list, please contact the IoN Labs Operations Manager (Stephanie Czieso: <u>s.czieso@ucl.ac.uk</u>) or the IoN HR Manager (Laura Allum: <u>l.allum@ucl.ac.uk</u>).

1. CHEMICAL HAZARDS:

a) Broad categories of chemicals that may induce adverse effects during pregnancy:

Alkylating agents

Anaesthetic gases

Arsenic

Benzene

Carbon monoxide

Chlorinated hydrocarbons

Diethylstilbestrol

Dimethyl sulfoxide

Dioxin

Fungicide

Heavy metals (lead,

cadmium etc.)

Organic mercury compounds

Organophosphate

Pesticides

Polychlorinated biphenyls

b) Examples of chemicals that may induce adverse effects during pregnancy [1].

- 1,2,3-Trichloropropane
- 1-Bromopropane
- 2,3-Epoxy-1-propanol
- 2-Bromopropane
- 2-Ethoxyethanol
- 2-Ethoxyethyl acetate
- 2-Hexanone

2-Methoxyethanol

3-Amino-1,2,4-triazole

Acrylamide

Allyl glycidyl ether

Benomyl

Borates tetrasodium salts

Boron oxide

Cadmium

Carbon disulphide

Carbon monoxide

Chloroform

Cyclohexylamine

Di(2-ethylhexyl)phthalate

Dimethylformamide

Di-n-butyl phthalate

Dinitrotoluene

Ethyl acetate

Formamide

Hexane 110-54-3

Lead arsenate

Lead chromate

Mefepristone/RU-486

Methyl isocyanate

N,N-Dimethyl acetamide

Nickel carbonyl

Nitrobenzene

Nitrotoluene

Organic/inorganic forms of mercury

Phenylethylene

Piperazine dihydrochloride

Toluene

Vanadium pentoxide

Managers and pregnant worker should ensure the safety sheets are read for every chemical that is to be used. Risk assessments are in place for chemicals and stipulate what precautions must be taken.

All chemicals with the following Risk Phrases / Hazardous Phrases must be avoided while pregnant:

- R40: limited evidence of a carcinogenic effect.
- R45: may cause cancer.
- R46: may cause heritable genetic damage
- R49: may cause cancer by inhalation
- R60: may impair fertility
- R61: may cause harm to the unborn child
- R62: possible risk of impaired fertility
- R63: possible risk of harm to the unborn child
- R64: may cause harm to breastfed babies
- R68: possible risk to irreversible effects

Pregnancy in the lab 2

- H360: May damage fertility or the unborn child
- H361: Suspected of damaging fertility or the unborn child
- H361d: Suspected of damaging the unborn child
- H362: May cause harm to breast-fed children

2. BIOLOGICAL HAZARDS:

Work with biological agents is covered by the Control of Substances Hazardous to Health Regulations 2002 and general advice on control measures can be found in the COSHH Approved Code of Practice.

Biological agents are classified according to the risks to human health, animals, plants and the environment. COSHH classifies human pathogens into four hazard groups.

The four hazard groups of human pathogens and the basis of their classification are as follows.

- ✓ Hazard group 1 (HG 1): Biological agent that is unlikely to cause human disease.
- ✓ Hazard group 2 (HG 2): Biological agent that can cause human disease and may be a hazard to employees but is unlikely to spread to the community and there is usually effective prophylaxis or treatment available.
- ✓ Hazard group 3 (HG 3): Biological agent that can cause severe human disease and may be a serious hazard to employees and it may spread to the community but there is usually effective prophylaxis or treatment available.
- √ Hazard group 4 (HG 4): Biological agent that causes severe human disease and is a serious hazard to employees and it is likely to spread to the community and there is usually no effective prophylaxis or treatment available.

Any biological agent belonging to the hazard groups 2,3 and 4 should be handled with care. Many biological agents can affect the unborn child if the mother is affected during pregnancy.

Some biological agents known to pose risk to expectant mother include:

Chicken pox

Coccidiodomycosis

Cytomegalovirus

Ebola virus

Hepatitis B virus

Hepatitis C virus

Hepatitis E virus

Herpes

Human Immunodeficiency Virus

Listeria

Malaria

Measles

Parvovirus B19

Rubella

Toxoplasma gondii

Zika virus

Pregnancy in the lab 3

3. RADIOLOGICAL HAZARDS

See reference [2].

4. ADDITIONAL GUIDANCE TO SAFELY WORK IN WET LABS:

Pregnant/breastfeeding women should avoid:

- Work with any tissue fixative solution
- Handle tissues that have been fixed
- Be present during cutting of formalin-fixed samples
- · Enter rooms where formalin is stored
- Mount immunohistochemistry slides using DPX solution
- Handle samples with reducing agents such as ß-Mercaptoethanol. Once samples are loaded in western gel then it is safer to handle.

Consider if there are reagents you might use instead of those listed above:

- Consider using a safer alternative reducing agent: e.g. DTT instead of ß-Mercaptoethanol.
- Consider using alternative transfer buffer without methanol or substituting methanol for ethanol.
- Be aware of possible increased sensitivity to odours of ß-Mercaptoethanol and TEMED that may result in nausea. Avoid areas where others are using these reagents.

Please let us know if there are any additional considerations that should be mentioned in this document. You can contact the IoN Labs Operations Manager (Stephanie Czieso: s.czieso@ucl.ac.uk) or the IoN HR Manager (Laura Allum: I.allum@ucl.ac.uk).

References:

- 1. Rim K-T (2017) Reproductive Toxic Chemicals at Work and Efforts to Protect Workers' Health: A Literature Review. *Safety and Health at Work* 8: 143-150.
- 2. Working safely with ionising radiation Guidelines for expectant or breastfeeding mothers. Health and Safety Executive. https://www.hse.gov.uk/pubns/indg334.pdf

Pregnancy in the lab 4



RISK ASSESSMENT GUIDE

Compiled list of possible hazards and existing control measures for pregnant workers and breastfeeding parents

Last updated: March 2022

It is the line manager duty to review the existing risk assessment(s) for an employee's work and consider any risks to their health and safety, or that of their unborn child. Further information about Risk Assessments is available here:

https://www.ucl.ac.uk/estates/safetynet/quidance/pregnant_workers/index.htm

Please note that this is not an exhaustive list. If you are aware of any other hazardous elements that should be included in this list, please contact the IoN Labs Operations Manager (Stephanie Czieso: s.czieso@ucl.ac.uk) or the IoN HR Manager (l.allum@ucl.ac.uk).

1) EXAMPLES OF HAZARDS TO PREGNANT WORKERS / NEW MOTHERS - FOR OFFICE BASED **WORK**

Hazard:	Trip /	'Slip I	Hazards
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Potential injury to expectant staff/student and unborn child as a result of tripping over objects

slipping on spillages.

Existing control measures:

- Annual Office inspections are carried out to ensure good office organization and layout and to identify and remove potential trip hazards, all actions are recorded on RiskNet.
- Office areas are on a regular cleaning schedule organised by UCL.
- All office workers are encouraged to perform a daily visual check of the workplace to ensure there are no trip or slip hazards.
- Any trip hazards (such as boxes blocking a corridor, damaged or uneven flooring) should be reported to the Office manager / facilities to have them removed.
- Any slip hazards (such as a spillage) should be reported to facilities. Cleaning staff will then be sent to remove the spillage.
- Workers should report any lighting issues (e.g bulbs needing to be replaced) to facilities so that they can be replaced.

Hazard: Movement and postures, mental and physical fatigue

Fatigue from standing or physical work may contribute to miscarriage, premature birth or low birth weight.

Existing control measures:

Managers ensure hours and volume of work are not excessive and that employees have some control over organisation of work.

Pregnant workers should avoid long periods of time standing.

Pregnant workers are advised to take regular breaks and do exercises to relief back, leg and foot pressure. Vary the type of work where possible (office/lab).

There are rest rooms available throughout UCL campus

https://www.ucl.ac.uk/humanresources/sites/humanresources/files/breastfeeding_on_return_to_work-information_1.0.pdf

There are Maternity Rooms available at IoN Queen Square House, Floor 7, rooms 709 and 710.

Hazard: Excessive noise

No specific risk but prolonged exposure to loud noise may cause increased blood pressure/tiredness and stress.

Existing control measures:

Compliance with the current requirements of the Noise at Work Regulations 2005 is considered sufficient to meet the needs of new or expectant mothers.

Hazard: Display Screen Equipment (DSE) and Workstations

Increased susceptibility to musculoskeletal disorders and deep vein thrombosis (DVT).

Potential injury or harm to pregnant workers (e.g postural, repetitive strain injuries) through awkwardly designed workspaces, the need for alternative office equipment (e.g chairs, foot rests / wrist support) or issues with the general workplace (e.g extremes of workplace temperature).

Existing control measures:

All pregnant workers are required to complete a DSE assessment which is overseen by the Departmental / Group administrators. Any actions arising from the assessment are completed by the DA / PI / Lab Manager.

Review DSE assessment as pregnancy progresses.

Workstation should provide adequate adjustment to allow for increase in abdominal size.

Pregnant workers are advised to use footrest and lumbar support to prevent back pain. Advice is given on posture to prevent musculoskeletal problems.

Pregnant workers are advised to adjust working practices to avoid continuous sitting at workstation (risk of DVT).

Pregnant workers are made aware of free eye tests available at UCL.

Regular work schedule reviews are conducted throughout the pregnancy with line managers so that any changes in need (e.g. extra breaks, different equipment such as a more supportive chair) can be addressed.

Pregnant workers should take regular breaks and do exercises to relief back, leg and foot pressure.

Facilities issues such as poorly controlled room temperature, poor lighting or workspace lay-out, are addressed via estates via the work request system.

Hazard: Temperature and humidity

Lower tolerance to heat and humidity resulting in discomfort/faint.

Existing control measures:

Temperature of the working environment to be suitably controlled.

Individual may require access to fresh air for periods during the working day.

Individual to have ready access to fresh drinking water.

Provision of equipment to provide local heating/cooling as necessary.

Hazard: Lone and Out of Hours working

Pregnant workers lone working may face additional difficulties raising an alarm in the event that they require assistance. This may potentially lead to further injury or harm. This includes accidents, spills, fire or other incidents which require support.

Existing control measures:

All efforts should be made to avoid lone working and where possible a buddy system should be used.

All lone or out of hours work activities must be Risk Assessed and Management approval agreed prior to work commencing (please see Lone worker CoP guidance). Lone workers should follow the lone working activities guidance available from UCL Safety Services website. For lower risk activity office work, the worker can have a remote buddy contactable by phone (e.g WhatsApp, MS Teams).

Lone working contact is recommended as follows:

- 1. Contact your PI / manager (or other buddy) when you arrive in your department.
- 2. Make follow up contact every 30 60 minutes to say you are OK.
- 3. Contact your PI / manager (or other buddy) when you leave work.
- 4. 4) Contact your PI / manager (or other buddy) when you arrive home.

Hazard. Stress

Individual vulnerable to stress due to hormonal, psychological and physiological changes during pregnancy.

Existing control measures:

Monitoring and reduction of risks in relation to work demands, relationships with colleagues/manager and requirements of the role.

Pregnant workers are encouraged to ask for assistance - contact UCL Workplace Wellbeing.

Hazard: Manual lifting, handling or carrying

Musculo-skeletal injury or strain from pushing, pulling or lifting.

Existing control measures:

All manual lifting, handling or carrying should be carried out using the appropriate equipment by either co-workers (providing the activity has been risk assessed and it is safe to do so) or UCL porters/facilities. This assistance can be arranged through the UCL Work Request System.

Pregnant workers should regularly review their workstation to ensure that items are easily accessible and stored at appropriate heights. Any issues should be reported to the office manager.

Hazard: Working at height

Loss of agility and/or balance leading to bruising or fractures resulting from falls whilst activities are being undertaken at height.

(Note: this hazard should be eliminated wherever possible)

Existing control measures:

Avoid any tasks that would require to be working at height.

Modify task to avoid aspects of working at height.

Move frequently used items to lower shelves for easier access.

Ask for assistance for items stored on high shelves. Assistance from other personnel should be sought first but step stools are provided if required and storage of materials/equipment at height is minimized.

Hazard: Fire

If trapped, pregnant workers could suffer fatal injury from smoke inhalation or burns. Pregnant workers may face additional difficulties exiting the building during an emergency.

Existing control measures:

Regular work reviews will include a mobility assessment. If the pregnant worker is having difficulties exiting the building using the emergency routes (doorways and stairs) then a Personal Emergency Evacuation Plan (PEEP) will be carried out with support from Safety Services and Facilities.

Additional evacuation equipment may be required - as identified by the PEEP which the Department will need to supply along with appropriate training and support prior to the pregnant worker being permitted to recommence work.

Lone working / out of hours working should be avoided if at all possible.

Hazard: SARS-CoV-2 Transmission in the Workplace

When there is more than one person working within a department / area at the same time (including contractors and staff from other organisations) there is an increased possibility of SARS-CoV-2 transmission. This risk is

Existing control measures:

Staff/students are to observe the most up to date UCL policy during the COVID19 pandemic.

Staff/students are encouraged to get tested twice weekly for coronavirus, continue to wear face

exacerbated by the fact that up to 50% of SARS-CoV-2 infections are asymptomatic.

masks inside UCL buildings (unless alone or exempt) and follow good hand and respiratory hygiene. This includes at break times and when using toilets/washing facilities.

Staff are advised to:

- Avoid contact with anyone who is displaying symptoms of coronavirus (COVID-19). These symptoms include high temperature and/or new and continuous cough.
- Wash your hands more often, with soap and water for at least 20 seconds or use a hand sanitiser. This applies when you arrive in work, get home, when you blow your nose, sneeze or cough, eat or handle food.
- Avoid touching your eyes, nose, and mouth with unwashed hands.
- Cover your cough or sneeze with a tissue, then throw the tissue in a bin and wash your hands.
- Do not share food or drink, stagger your break times and clean down surfaces after using shared areas.

Hazard: Individual requirements

Different job roles have dissimilar risks, a Risk Assessment must meet suitable and sufficient. Let your manager know as soon as possible that you may be pregnant so that a review of the risk assessment for your work can be carried out.

Existing control measures:

Carry out individual risk assessments as required.

2) EXAMPLES OF HAZARDS TO PREGNANT WORKERS / NEW MOTHERS - FOR LAB BASED WORK (list of additional risks – your RA should also include the risks described in point 1 of this document)

Hazard: Biological Hazards

- Any biological agent belonging to the hazard groups 2,3 and 4: Many biological agents can affect the unborn child if the mother is affected during pregnancy.

This includes agents such as Rubella, Toxoplasma, Hepatitis B, H.I.V., Herpes, T.B., Syphilis, Chickenpox and Typhoid.

The risk assessment should take account of the nature of the substance, how infection is spread, how likely contact is and what control measures there are. If there is a known risk of exposure it is appropriate for the pregnant worker to avoid exposure.

Existing control measures:

- Specific COSHH Risk Assessments are required to be reviewed by the worker and followed by strict adherence to control measures. These control measures may include physical containment, hygiene measures, and using vaccines if exposure justifies this.
- If there is a known high risk of exposure to a highly infectious agent, then it will be appropriate for the pregnant worker to avoid exposure altogether.
- No work to be undertaken in any Class Level 2 room.

Hazard: Chemical Hazards

Maternal exposure to certain chemicals and drugs during pregnancy and lactation can have detrimental effects on the health of the fetus/baby.

Many chemicals may be transferred from mother to the child across the placenta and via breast milk.

Work with chemical substances that are classed as hazardous to health is covered by the Control of Substances Hazardous to Health Regulations 2002. General advice on control measures can be found in the COSHH Approved Code of Practice.

Users should note that correctly managed work with a chemical should entail very little exposure to hazardous chemical substances and that use is not necessarily the same as exposure. This distinction should be kept in mind when carrying out the assessment.

During pregnancy particular care should be taken to guard against exposure to chemicals by using engineering control measures, where possible (e.g. fume cupboards, enclosed processes etc.), by using personal protection (e.g. gloves, lab coats, face shields, etc.) or by avoiding contact with the most hazardous chemicals altogether.

Existing control measures:

COSHH Risk Assessments are required to be reviewed by the worker and follow by strict adherence to control measures. Prevention of exposure is the top priority.

Managers and pregnant worker should ensure the safety sheets are read for every chemical that is to be used.

Risk assessments are in place for chemicals and stipulate what precautions must be taken.

The worker may have to be assigned other duties away from the source of potential exposure for the duration of the pregnancy and nursing period.

Pregnant workers should not aid in the clean-up of spills of any of the chemicals listed above – inform the lab manager in the event of a spill and leave the area until clean-up is complete.

Consider substitution of harmful agents if possible. If not possible then control exposure by:

- technical measures (working in fumehood);
- good laboratory practice;
- use of Personal Protective Equipment (gloves, laboratory coat, safety glasses) at all times to avoid contact with skin and eyes.

CHEMICALS TO AVOID:

All chemicals with the following Risk Phrases / Hazardous Phrases <u>must be avoided</u> while pregnant:

- R40: limited evidence of a carcinogenic effect.
- R45: may cause cancer.
- R46: may cause heritable genetic damage
- R49: may cause cancer by inhalation
- R60: may impair fertility
- R61: may cause harm to the unborn child
- R62: possible risk of impaired fertility
- R63: possible risk of harm to the unborn child
- R64: may cause harm to breastfed babies
- R68: possible risk to irreversible effects
- H360: May damage fertility or the unborn child
- H361: Suspected of damaging fertility or the unborn child
- H361d: Suspected of damaging the unborn child
- H362: May cause harm to breast-fed children

Also avoid exposure to the following chemical agents:

- Anaesthetics
- Toxic chemicals
- Mercury
- Antimitotic (cytotoxic) drugs

- Pesticides
- Carbon monoxide
- Lead
- For other hazardous chemicals that do not have the risk/hazard phrases mentioned (e.g. β -mercaptoethanol, Methanol, TEMED) follow existing risk assessments and precautions strictly to avoid exposure.
- When working in laboratories exposure to solvent fumes (e.g. ethanol) should be avoided by leaving the room.

SUBSTITUTIONS TO BE CONSIDER:

- Consider using a safer alternative reducing agent: e.g. DTT instead of β -mercaptoethanol.
- Consider using alternative transfer buffer without methanol or substituting methanol for ethanol.
- Be aware of possible increased sensitivity to odours of β -mercaptoethanol and TEMED that may result in nausea. Avoid areas where others are using these reagents.

Hazard: Exposure to anesthetic gases

Potentially harmful to reproductive activity.

Exposure to waste anesthetic gases have an increased risk of miscarriage. We don't know what levels of anesthetic gases are safe during pregnancy.

Try to reduce or eliminate exposure as much as possible.

Existing control measures:

The pregnant worker must avoid exposure. Lab manager must ensure adequate ventilation of surgery areas. Check equipment regularly.

Scavenger systems, devices used to gather and remove waste anesthetic gases from treatment rooms, must be maintained and monitored to make sure they are working properly.

If exposure cannot be avoided during pregnancy, respirators can be worn to reduce the amount of certain chemicals that workers breathe in.

Properly maintain anesthesia machines, breathing circuits, and waste-gas scavenging systems to minimize leaks of anesthetic gases into the operating rooms.

Hazard: Cryogenic substances

The use of cryogenic substances (e.g liquid nitrogen) poses a serious hazard to all workers including those who are pregnant. Liquid nitrogen can cause physical burns and also poses a serious risk of displacing oxygen quickly in an enclosed area.

Existing control measures:

Pregnant workers should try to avoid working with liquid nitrogen.

If this is not possible, they should never work with liquid nitrogen alone. When visiting the liquid nitrogen stores or opening up the liquid nitrogen dewars, always take a second person with you, and ensures oxygen monitor alarm is on, to avoid asphyxiation. The

liquid nitrogen dewars should always be brought into the main lab area before opening.

Whenever using liquid nitrogen full PPE must always be worn including a lab coat, long sleeved cryogloves with nitrile gloves underneath and a face shield.

Hazard: Non-ionising and ionising radiation (alpha, beta, gamma and x-rays)

Radiation is harmful to pregnant workers and the unborn child.

Ionising radiation is strictly controlled to present minimal risk to all workers. Pregnant workers should be especially careful of keeping exposure to ionizing radiation to "As low as reasonably practicable".

Non-ionising radiation includes optical radiation (including ultraviolet and infra-red sources and lasers) and electromagnetic fields and waves (e.g. radio-frequency (RF) radiation). Pregnant or breastfeeding women are at no greater risk from exposure to optical radiation than other workers.

Existing control measures:

No work with radiation and radiation producing equipment to be carried out during pregnancy.

Hazard: Cell line, primary and transformed cultures

Uncontaminated cell cultures do not appear to present a significant hazard as even direct dermal inoculation may result in only local inflammation, however, the long-term consequences of direct inoculation are uncertain.

The main risk presented by cell cultures is because of their ability to sustain the survival and/or replication of a number of adventitious agents.

The major agents of concern are viruses, but other agents, e.g. mycoplasmas such as Mycoplasma pneumoniae, should also be considered.

In addition to these infection risks, other hazards that should also be assessed include:

- components of the cell culture media products of animal origin can act as a source of microbial contamination.
- 2) cell products that could be biologically active.

Existing control measures:

Normal laboratory practice and wear appropriate PPE: lab coat, hand washing, gloves and proper disposal of any biological waste.

Hazard. Genetic Modified Organisms (GMOs)

N/A.

Existing control measures:

Hazard: Physical shocks and vibration

Regular exposure to physical shocks or low frequency vibration, or excessive movement may increase the risk of miscarriage

Existing control measures:

Pregnant women or those who have recently given birth should avoid work likely to involve uncomfortable whole-body vibration, especially at low frequencies, or where the abdomen is exposed to shocks or jolts. (E.g. riding in or driving off-road vehicles). Breastfeeding women are at no greater risk than other workers form this hazard.

Hazard: Static magnetic field

The MHRA recommends a risk assessment for pregnant staff but do not recommend any general limitations or specific actions (Page15, MHRA 2021).

Based on the literature and local scanning procedures we identify these main risks for pregnant staff (in addition to risks applying to all staff): the high acoustic noise level and potential RF heating effects in the vicinity of the RF coil during scanning, and risks due to the fast switching gradients (De Wilde et al., 2005; MHRA, 2021). Therefore, as a measure of risk control pregnant staff must not enter the magnet room during scanning at our Centre, avoiding all of the aforementioned risks. This is also in accordance with the current MHRA recommendation for pregnant staff (p. 15, (MHRA 2021).

However, even when no scans are performed, the high static magnetic field may theoretically pose a risk, since it is always present in superconducting magnets. An epidemiological study on MR staff did not find a substantial increase in adverse reproductive outcomes (Kanal et al., 1993), suggesting that the static magnetic field does not adversely affect the foetus or mother.

Although there is no conclusive evidence of negative side effects, based on the precautionary principle, pregnant staff should not enter the 5 Gauss fringe field of the magnet in the first trimester, since it is a critical period and the foetal development. In the later trimesters pregnant staff have the option to work or not work inside the inner controlled area (when no scan is performed), following a risk assessment. This is more conservative than current recommendations from the MHRA (p. 16, MHRA 2021) and IMRSER (Los Angeles, CA; p. 106, (Shellock, 2007)) which allows staff to enter the controlled area at any

Existing control measures:

Pregnant member of staff <u>does not enter</u> magnet room during 1st trimester, after this period is dependent on individual choice.

Pregnant member of staff <u>do not enter</u> magnet room at any time during scanner operation (RF and switching gradient fields) at any stage during pregnancy.

stage during pregnancy, but not during scanning at any stage.			
Hazard: Handling of MRI Phantoms			
Risk of contamination when handling MRI phantoms	Existing control measures: As a precaution, we also advise that pregnant staff should not handle the MRI phantoms (or if absolutely necessary with extra care), since the majority contain dopants that have adverse health effects when spilled. Please refer to the manufacturer's manuals (Siemens Medical Systems, Erlangen, Germany) for more details.		
Hazard: MEG scanner			
Exposure to cryogenic liquids and gases, asphyxiation and burns	Existing control measures: There are no special risks for pregnant staff operating the MEG scanner.		

