



Forensic Science Regulator

Biology Specialist Group (BioSG) meeting

Note of the meeting held on 22nd July 2025 in 23 Stephenson Street, Birmingham and Online via MS Teams

1. Welcome and introductions

- 1.1. The chair welcomed all the members to the second meeting of the Biology Specialist Group (BioSG) of the Statutory Regulator's remit. A list of attendees by organisation is available at Annex A.
- 1.2. As there were new members to the group, the Chair asked the members to briefly introduce themselves and the organisations which they were representing.

2. Minutes and actions

- 2.1. The group re-read the published minutes from the previous meeting, it was noted by the OFSR science lead that due to the group meeting twice a year, there was an aim to publish minutes within 2 months of the meeting, to assist with current workloads of the stakeholders and the OFSR as well as providing transparency to the public on the BioSG's progress.
- 2.2. No other comments were raised regarding the minutes.
- 2.3. The action log was reviewed with relevant updates provided to the group. Resulting in a review of the actions.
- 2.4. A log of the remaining outstanding actions is provided as annex B.
- 2.5. There was long discussion regarding jurisdictional compliance with the Code and accreditation challenges, which included the complexities of regulatory

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compliance and accreditation for forensic providers outside England and Wales, focusing on dual standards, legislative limitations, and the need for risk mitigation and clearer guidance, which highlighted the following key points:

- **Legislative and Regulatory Boundaries:** it was clarified that the statutory code applies only to forensic science activities undertaken in England and Wales, not to evidence delivered into court from other jurisdictions, resulting in an anomaly where providers outside cannot achieve compliance or accreditation.
- **Dual Standards and Risk Register:** concerns were raised about the dual standard created by current legislation, where some providers can self-declare compliance while others must meet formal requirements, prompting the following action:

ACTION 14: OFSR to add jurisdictional compliance to the overarching biology risks and opportunities register.

- **Defence Experts and Mitigation Strategies:** body fluid distribution working group (WG) Chair suggested inviting defence experts operating outside the jurisdiction to engage with mitigation strategies, allowing them to outline steps taken in their own jurisdictions to address risks, even if they cannot be formally assessed against the code.
- **Future Policy and Legislative Change:** the OFSR scientific support confirmed these issues have been brought to the Regulator's attention and will be addressed in version three of the code, although the OFSR science lead noted there is currently no appetite for legislative change.

2.6. There was another discussion regarding activity level reporting, it was highlighted there was ongoing work to collate feedback and develop interpretation guidance for activity level reporting, considering the structure and scope of documents across biology subgroups and planning future actions and meetings. The main points were:

- **Collation and Analysis of Feedback:** the OFSR science lead described the ongoing process of gathering and analysing responses on activity

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level reporting, noting the need to identify commonalities and gaps in current practice before briefing the interpretation specialist group.

- Subgroup Contributions and Deadlines: the NHBSSG co-chair explained that the non-human biology subgroup is drafting interpretation guidance and will submit it for review, but expressed uncertainty about meeting deadlines due to the complexity and breadth of the work.
- DNA Mixture Interpretation Guidance: The OFSR science lead and scientific support discussed the ongoing revision and potential integration of the DNA mixture interpretation guidance, agreeing that both overarching and specialist documents are needed, with cross-referencing to ensure consistency.
- Discussion on whether to hold an interim meeting to review findings before the next full meeting.

2.7. The following actions were generated from the activity level reporting discussion:

ACTION 16: OFSR to generate an activity level reporting briefing and the creation of a TWG to review the data and collated information

ACTION 17: OFSR to determine members of activity level reporting TWG by sending out an email to members for nominations

ACTION 18: OFSR to send meeting invitations to activity level reporting TWG end Nov/ early Dec 2025

3. Specialist Group meetings and work updates

Non-human Biology Sub-Specialist Group

3.1. The Co-Chairs of the Non-human Biology Sub-Specialist Group provided an update for the members of the Biology Specialist Group regarding their current workstreams and potential issues raised within their meetings. The main points of the update were:

- The NHBSSG met 27th June 2025, it was an in-person meeting held at London Zoo.

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- During their meeting the NHBSSG created spreadsheets cataloguing proficiency tests, international standards, and reference databases to support consistency and resource sharing across the non-human biology group.
- The NHBSSG started working on the FSA interpretation guidance using examples from each sub-specialism of the NHBSSG. With the co-chairs developing examples of interpretation types within their specialisms to disseminate among members, aiming to clarify how different interpretations fit into reporting and guidance.
- The group worked through their identified specialist discipline challenges spreadsheet which had been produced from their previous meetings, that assisted with the development of the group's workplan and it was decided to merge this with the NHBSSG risks and opportunities register for consistency
- The OFSR science lead also reported on the completion of actions related to the recovery and storage of evidence, including updates to the scenes of crime handbook and NPCC retention guidance, with input from the NHBSSG and discussions about accessibility and central ownership.

- 3.2. One of the co-chairs to the NHBSSG highlighted to the members of the BioSG that during the meeting the NHBSSG discussed training needs for niche experts, as currently there is an issue with niche specialisms becoming non-existent and the need for peer review. It was proposed within the meeting to use the EU Forensic UNLOCK programme as a model for non-forensic specialists to become peer reviewers. It was noted that the group will explore developing a syllabus based on the UNLOCK programme if it is not continued
- 3.3. There was a lengthy discussion regarding this point and it was reiterated that non-forensic specialists should have awareness of forensic responsibilities before training begins.

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- 3.4. The chair of the body fluid distribution WG provided an update for the members of the Biology Specialist Group regarding their current workstreams and potential issues raised within their meetings. The main points of the update were:
- BPA Guidance Publication: the body fluid distribution WG Chair reported the successful publication of the revised 'FSR-C-102 Bloodstain Pattern Analysis: codes of practice' into statutory BPA guidance on the FSR website noting the new reference and title as: 'FSR-GUI-0021 – blood pattern analysis'. They also highlighted its competency-focused structure and the collaborative effort involved in its development.
 - Group Restructuring and Leadership: the group will be restructured with the addition of a co-chair, which was announced. The current body fluid distribution WG chair will continue to lead on distribution and the co-chair will lead on examination and testing. This will now form the human biology sub-specialist group, the revised membership had taken place; with the first meeting to be held September 2025.
 - Future Priorities and Collaboration: the group will focus on upcoming work on compliance mechanisms, competency monitoring, validation of opinion, and activity level reporting, including collaboration with the Netherlands register of core experts and the interpretation group.
- 3.5. The body fluid distribution WG chair and the OFSR Science lead discussed the pending lessons learned report from a miscarriage of justice case, noting its importance and the need for publication before the transition to a new Regulator. This generated the following action:
- ACTION 19:** OFSR to chase for information regarding R v P for the creation of a lessons learned document
- 3.6. The OFSR Science Lead then led the discussion on recent work on the classification and presumptive testing of samples loaded to the national DNA database, including new requirements for validated tests and the development

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of guidance documents and notifications for service providers. The following key points were raised during the discussion:

- Risk Matrix and Sample Classification: the creation of a risk matrix to identify cases at risk due to lack of presumptive testing was described to the BioSG, which led to new requirements for validated tests on samples loaded to the database from August 2024 onwards.
- Guidance Document Development: it was noted that as an outcome of this a priority for the human bio specialist group is to develop a guidance document on fluid identification and presumptive testing, with a delivery date set for January 2026 and a notification to be issued by the Regulator.

ACTION 15: OFSR to add Body fluid Identification guidance to the workplan with the deadline of publication as January 2026

- SFR Caveats and Historic Data: there was a discussion for the need for caveats in streamlined forensic reports to highlight cases with uncertain sample types, and the BioSG debated the feasibility of reviewing historic cases already reported.

Medical Forensics Specialist Group

3.7. The chair of the medical forensics SG (MFSG) provided an update for the members of the Biology Specialist Group regarding their current workstreams and potential issues raised within their meetings. The main points of the update were:

- Chair Transition and Acknowledgements: Current chair introduced the incoming chair of the MFSG and expressed gratitude to colleagues for their support and collaboration during their tenure.
- Compliance and Accreditation Challenges: The group is addressing challenges in preparing for compliance with the Code and achieving accreditation in sexual assault referral centres, and working to clarify the distinction between clinical and forensic activities.

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- Guidance Document Updates: Ongoing updates to key guidance documents (FSR-GUI-0017 and FSR-GUI-0020) are underway, with a focus on interpretation, opinion, and competence, in response to recent notifications and upcoming code changes.

DNA Sub-Specialist Group

3.8. The chair of the DNA Sub-Specialist Group provided an update to the members of the Biology SG regarding their current workstreams and potential issues raised within their meetings. The main points of the update were:

- DNASSG had a meeting on 10th July which was in person in Birmingham.
- Document Revision and Publication: The group is actively revising six out of thirteen DNA guidance documents, with relationship testing (FSR-G-228) and allele frequency reporting (FSR-G-213) documents nearing completion and publication.
- Technical Working Groups: Small technical working groups have been convened to focus on the remaining specific documents, meeting regularly to draft and update content, including new data for DNA 24 systems.
- Future Withdrawals and General Software Guidance: Plans are in place to withdraw outdated documents and develop more general software guidance applicable across forensic disciplines, pending the completion of related workstreams.

4. Workplan – draft BioSG and sub-group workplans for 2025/26, including guidance documents

4.1. The group worked through the draft workplan of the BioSG and the sub group workplans for 2025/26. There was a large discussion regarding streamlining the workplan to solely focus on the overarching tasks of the BioSG and pieces of

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work which would need to be cited by the BioSG prior to sign off and managing referrals and cross-cutting issues.

- 4.2. It was agreed that the subgroup chairs and members of those groups should keep their autonomy and manage their own detailed workplans.

5. Interpretation Specialist Group

- 5.1. The Chair then led the group on the discussion regarding the work that is being produced by the FSR's Interpretation Specialist Group, reiterating the group are producing an overarching interpretation guidance document which will replace FSR-C-118, in which each of the disciplines will produce their own Forensic Science Activity (FSA) specific interpretation guidance.
- 5.2. There was a thorough discussion on whether to have one overarching biology interpretation document which included annexes to each FSA or separate documents per FSA. The group reached a consensus, and decided to use a tiered approach; a high-level interpretation document, a biology-level document, and FSA-specific guidance (e.g., DNA, non-human biology, medical forensics etc.).
- 5.3. It was highlighted the production of this overarching Biology guidance would be a challenge as biology is a broad field and some areas (e.g., DNA vs. entomology) require distinct approaches.
- 5.4. The group shared the goal to standardise terminology and improve clarity within the guidance as the current cross-cutting terminology has different interpretations within the disciplines.
- 5.5. The Chair provided a brief update regarding the interpretation workshop held on 19th May 2025 in Birmingham, they highlighted it was an overall positive day for each of the disciplines with the production of their discipline specific interpretation guidance, noting the collaboration between disciplines, thus assisting those who are in earlier stages of developing interpretation guidance.

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- 6.1. The chair of the DNA Sub-Specialist Group, also represented the AFSP DNA working group provided an update to the members of the Biology SG. The main points were:
- Last meeting of the AFSP DNA Working Group was held in June 2025
 - Proficiency Assessments: The AFSP DNA working group has conducted collaborative exercises in place of proficiency tests, focusing on areas lacking robust proficiency test provision. Over the past two years, they assessed the use of probabilistic genotyping software for autosomal mixture interpretation and recently completed an exercise on Y-STR interpretation, identifying differences between participating organisations.
 - Y-STR Guidance Development: Based on findings from the Y-STR exercise, it was reported the group will consider developing or amending Y-STR guidance to address highlighted areas within the exercise.
 - DNA Degradation Study: A three-stage experimental plan was initiated to study DNA degradation in stored samples. The first stage standardised quantification systems across seven organisations using reference material, while the second stage examined the stability of extracted DNA under various storage conditions over 60 days, using two DNA sources and three concentrations at ten time points. Early results show variability across organisations and phase three will examine the stability in crime stains and body fluids.
 - Data Analysis and Funding: The group is currently analysing a large dataset from the degradation study, noting some differences in DNA behaviour between organisations and observing expected degradation at room temperature. The study is partially funded by vendors such as Promega and ThermoFisher providing materials and kits, well as the use of internal resources.

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6.2. The Body Fluid Forum representative provided an update to the members of the BioSG. The main points of the update were:

- There were 2 meetings held in May 2025 and June 2025.
- EAFS Conference Workshop: The Body Fluid Forum organised a workshop at the EAFS conference which focused on background sampling strategies. This generated significant discussion about the lack of documented guidance for practitioners and highlighting variability in complex cases. The paper produced from the workshop is to be submitted to FSI special issue.
- Mouth Swab Data Collection: The FFLM Forensic Science Subcommittee proposed removing mouth swabs from early evidence kits, prompting the group to begin collating data on success rates for mouth swabs versus rinses to justify any changes, with ongoing discussions about practical and technical considerations. During the meeting the Chair of the MFSG circulated the paper which supported the removal of mouth swabs.
- Background DNA on Bras Project: A new research project was approved to study background DNA and body fluids on bras, including scenarios involving sexual acts and general population sampling, with a multi-stage plan and a lengthy timeline.
- Collaborative Exercise Challenges: A collaborative exercise involving saliva swabs highlighted difficulties in standardising approaches across organisations due to differences in DNA screening techniques and interpretation, with feedback provided to the AFSP representative for further consideration.

UKAS

6.3. The UKAS representative provided an update to the members of the BioSG. The main points of the update were:

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- Peer Evaluation Outcome: UKAS underwent a peer evaluation in November 2024, resulting in the renewal of its status as a signatory to the European Corporation of Accreditation Multilateral Agreement, ensuring international recognition for accredited organisations.
- FSR Code Transition: UKAS is managing the transition from version one to version two of the FSR code, with organisations required to submit transition templates and confirm compliance with updated DNA-specific requirements, effective from October 2025.
- Quality Incident Themes: Approximately 100 quality incidents are logged annually, with recent trends highlighting issues in sample handling, lost exhibits, inappropriate packaging, and problems with storage, particularly in fridges and freezers, as well as inaccurate reporting and non-compliance with documented procedures.
- Representational Changes: UKAS representative announced their departure from UKAS in August, and announced their likely successor who will continue the new technical focal point for DNA, blood pattern analysis, and body fluids, ensuring continuity in group representation.

Chartered Society of Forensic Science

6.4. The Chartered Society representative provided an update to the members of the BioSG. The main points of the update were:

- Annual Conference: scheduled for 7th November in Leeds, which is titled '2020 vision: learn from the past but don't live there', featuring case reflections and future outlooks, with a keynote from the Home Office's Deputy Chief Scientific Advisor.
- Noted that there was a working group currently revising and reviewing chartered forensic practitioner eligibility and status.
- Science & Justice Special Edition: focus on sustainability issues in forensic science and criminal justice. Noted that this may be of relevance to practitioners but it may be of particular interest to academics.

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6.5. The FCN representative provided an update to the members of the BioSG. The main points of the update were:

- **Leadership Changes:** Chief Constable Nick Dean is leaving as forensic portfolio lead, with Chief Constable Paul Gibson appointed as the new lead, bringing expertise in genetics and biology, and a vacancy for the marketplace lead now advertised.
- **FCN Delivery Plan Progress:** The FCN is advancing its 2025-26 delivery plan, focusing on quality, digital forensics, marketplace, and workforce, with forensic reform and data collection prioritised but awaiting further direction.
- **Y-STR Reference Database:** The Y-STR project aims to create a UK reference collection of 10,000 male profiles, currently approximately 8,000 collected. Implementing a postal sample system and incentivisation scheme, with academic partnerships and targeted outreach to diverse population groups.
- **Intelligence Database Plans:** Plans are underway for a national intelligence database for Y-STR profiles, designed to complement autosomal DNA records, with funding pending and statistical research commissioned to support database development.
- **Research Participant Database:** A research participant database project with Liverpool John Moores University experienced low response rates for intimate sample provision, prompting analysis of participant reluctance and plans for broader outreach and publication.
- **SFR Board Work:** Performance data collection underway. Template updates to shift focus from accreditation to code compliance.
- **Retention Guidelines:** Version 2 published.
- **Packaging Issues:** Highlighted as a recurring problem.

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- 7.1. No other research and development was raised by the members.

Applicability discussion

- 7.2. This was led by the OFSR science lead, stating the role for applicability of the ongoing research to the group as well as the consideration as to whether there would be a future requirement to either update the FSAs or to indicate future development of guidance documents.
- 7.3. It was noted current research addresses techniques, technologies that are being used and updated or the review for current technologies.
- 7.4. It was noted there was a need to refine the membership of the BioSG to include representatives from the police, to ensure the group has a wider view of relevant research occurring within the biology portfolio.

8. Risks and opportunities

- 8.1. The chair then led the group to focus on the overarching Biology risks and opportunities register (paper 4) which was shared prior to the meeting.
- 8.2. During this review of what had currently been addressed within the other biology meetings. There were further concerns raised about the following:
- Unregulated forensic services (e.g., self-swab kits bypassing SARCs), where the organisations have UKAS accreditation within civil court procedures but not criminal courts.
 - Loss of expertise in niche forensic areas.
 - Lack of funding for research and validation.
 - Dependence on universities for specialist services.
- 8.3. The following points were included to the register during the meeting, however, it was noted that there needed to be revisions to identified risks/opportunities on the register that related to the MFSG and the NHBSSG. This created the following action:

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ACTION 21: OFSR scientific support to update NHBSSG and MFSG risks on the overarching biology risks and opportunities register

- 8.4. The UKAS representative questioned the group's ability to address certain risks, suggesting that some may need escalation to external bodies like the Home Office or National Research Council, while the OFSR science lead emphasised the importance of making risks visible to the Regulator for potential action or referral.
- 8.5. Regulatory and Accreditation Issues: OFSR Science Lead and UKAS representative discussed the process for reporting concerns to UKAS, with the UKAS representative confirming that integrity issues in accredited organisations can lead to suspension or termination of accreditation, and encouraging direct communication of concerns for investigation.
- 8.6. There was a lengthy discussion regarding the self-swabbing kit example relates to the issues unregulated forensic services, discussing risks related to sample quality, accreditation claims, and bypassing support services. The UKAS representative encouraged direct communication of concerns confirming UKAS' ability to investigate and suspend accreditation if integrity issues were found. The following action was generated:

ACTION 24: OFSR and MFSG chair to provide information regarding self-swabbing kits company and processing lab to UKAS.

- 8.7. The group noted such activities created broader implications which may bypass FSAs and regulatory requirements, with potential parallels in other forensic areas, and agreed to monitor and address these risks in the central register, while maintaining specific examples for subgroup action.
- 8.8. The AFSP BFF representative noted they could ask members of the AFSP BFF whether they have received and processed self-swabbing kits. As well as ensuring they are aware of the current situation and to encourage escalation to the FSR if they receive any self-swabbing kits for processing. The following action was generated:

ACTION 20: AFSP BFF representative to ask members of the BFF regarding whether any self-swabbing kits have been processed within their forensic units

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- 8.9. The group also agreed to refine the register, categorise risks by relevance to the code and FSAs, and develop response plans, with actions ranging from monitoring to escalation, and plans for further discussion among subgroup chairs, which generated the following action:

ACTION 22: OFSR to meet with the chairs of the biology groups to expand on the overarching biology risks and opportunities register.

9. Any Other Business

- 9.1. The next meeting was discussed to be scheduled 15th January 2026.

ACTION 23: OFSR Scientific Support to send official invitations to members for January 2026 meeting.

- 9.2. No other business was raised.

- 9.3. The chair thanked the members and closed the meeting.

- 9.4. A log of the actions recorded during this meeting is provided as annex C.

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Biology SG Chair

A representative from the Office of the Forensic Science Regulator (OFSR) (Biology Scientific Lead)

DNA Sub-Specialist Group Chair (also representing as the Association of Forensic Science Providers (AFSP) DNA Working Group Chair)

A representative from the Forensic Capability Network (FCN)

A representative from the Association of Forensic Providers (AFSP) Body Fluid Forum

Online

Co-Chair from the Non-Human Biology Sub-Specialist Group.

A representative from the Chartered Society of Forensic Sciences (CSoFS)

Body Fluid Distribution Working Group Chair

Medical Forensics Specialist Group Chair

A representative from the United Kingdom Accreditation Service (UKAS)

A representative from the Defence Science and Technology Laboratory (Dstl)

A representative from Forensic Science Northern Ireland (FSNI)

A representative from the UK Health Security Agency (UKHSA)

A representative from the Office of the Forensic Science Regulator (OFSR) (Scientific Support)

Apologies received

A representative from Forensic Science Ireland (FSI)

Co-Chair from the Non-Human Biology Sub-Specialist Group.

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ACTION 3: OFSR to update the workplan for the next meeting of the Biology SG.

Annex C – Summary of meeting actions

ACTION 14: OFSR to add jurisdictional compliance to the overarching biology risks and opportunities register.

ACTION 15: OFSR to add Body fluid Identification guidance to the workplan with the deadline of publication as January 2026

ACTION 16: OFSR to generate an activity level reporting briefing and the creation of a TWG to review the data and collated information

ACTION 17: OFSR to determine members of activity level reporting TWG by sending out an email to members for nominations

ACTION 18: OFSR to send meeting invitations to activity level reporting TWG end Nov/ early Dec 2025

ACTION 19: OFSR to chase for information regarding R v P for the creation of a lessons learned document

ACTION 20: AFSP BFF representative to ask members of the BFF regarding whether any self-swabbing kits have been processed within their forensic units

ACTION 21: OFSR scientific support to update NHBSSG and MFSG risks on the overarching biology risks and opportunities register

ACTION 22: OFSR to meet with the chairs of the biology groups to expand on the overarching biology risks and opportunities register.

ACTION 23: OFSR Scientific Support to send official invitations to members for January 2026 meeting.

ACTION 24: OFSR and MFSG chair to provide information regarding self-swabbing kits company and processing lab to UKAS