

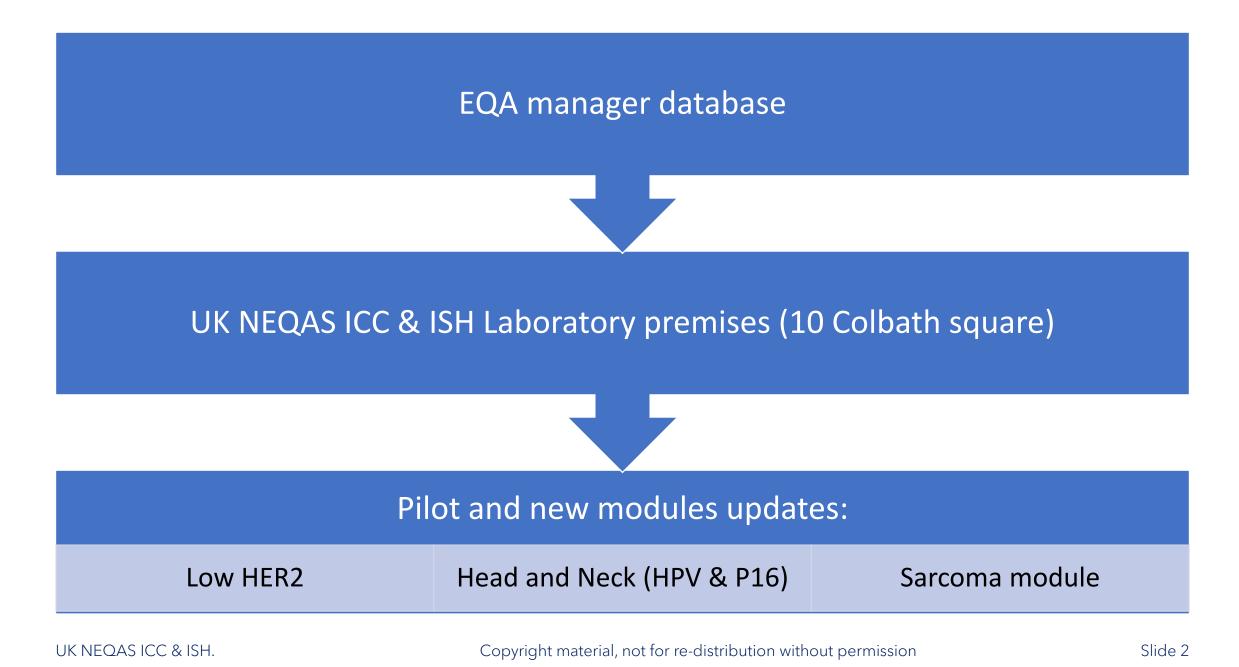


# Scheme Updates

### Fitim Berisha

UK NEQAS ICC & ISH Staff scientist





### New EQA manager database "You spoke we listen"



#### Welcome to UK NEQAS ICC & ISH Over 30 Years of Experience in EQA

We offer assessments in 12 different immunocytochemistry and 3 *in-situ* hybridisation modules. UK NEQAS ICC & ISH welcomes participation from both UK and non-UK based laboratories.

| 139 Gn Gn/Gh   |   |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|
| NON-COMPLETION Reason (if applicable)  | * Select from the list *  |  |  |  |  |  |  |  |
| METHOD<br>Choose Ventana UltraView DAB   | MAIN BUFFER       Choose     Ventana reaction buffer (950-: ♥)       pĦ     0   |  |  |  |  |  |  |  |
| AUTOMATION / MANUAL  |   |  |  |  |  |  |  |  |
| ENDOGENOUS BLOCK<br>None<br>Peroxide AS PER KIT<br>Serum AS PER KIT<br>Other<br>Approx Temp °C<br>Time Mine  | CHROMOGEN and SUBSTRATE         Chromogen       Ventana DAB       •          Cat No       760-500       •       •         Work Cone       0       •       •         Substrate       * Select from the list *       •          Work Cone       0       •       •         pH       0       •       •         Temp       36       • c       •         Time 1       0       Time 2       8       mins |  |  |  |  |  |  |  |
| ANTIGEN RETRIEVAL  | HEAT MEDIATED ANTIGEN RETRIEVAL<br>Choose Ventana CC1 36mins  Model   |  |  |  |  |  |  |  |
| ENZYME ANTIGEN RETRIEVAL<br>Choose NOT APPLICABLE   Conc 0   Prediluted  Diluent CaCl2 Conc 0   Prediluted  Digestion Time NEQAS 0  mins InHouse 0  mins Temp  CaCl2 Conc 0   CaCl2 Conc 0 | Wattage (MW)     0     MW       Pressure (KPa)     0     Litres       Buffer     0     Litres       Buffer     0     mM       PH     0     mM       PH     0     mins       NEQAS heating time from:     0     mins       Cold 0     mins Hot 0     mins       Full Press (PC)     Mins In-house     0     mins       No of Slides     10     per incubation                                      |  |  |  |  |  |  |  |
| Primary Antibody<br>Supplier Ventana Confirm 790-4493 (4B5) V<br>Cat No 790-4493<br>Batch No J04313 Expiry Date 21/08/2023<br>Protein Conc 0 mg/1<br>Prediluted Dilution 1:<br>Time 16 mine Temp 36 °C   | Detection Kit or 2nd Layer         Supplier       Ventana UltraView Kit (760-500) ▼         Cat No       760-500         Batch No       H36857       Expiry Date 30/01/2024         Protein Conc       0       mg/1         Prediluted       ✓       Dilution 1:         Time       8       mins       Temp       36       °C   |  |  |  |  |  |  |  |



#### Old v New



#### **UK NEQAS** Immunocytochemistry & In-Situ Hybridisation Lab Number/Login Name Identity Password Log in Forgot Your Login Credentials? Click below to receive an email reminder EMail Reminder Click here for HELP You are required to have authorisation from UK NEQAS for Immunocytochemistry before you proceed and you are strictly limited to the use set out within that authorisation. Unauthorised access to or misuse of this system is prohibited and constitutes an offence under the Computer Misuse Act 1990.



| Username |   |         |  |  |
|----------|---|---------|--|--|
| fberisha |   |         |  |  |
| Password |   |         |  |  |
|          |   |         |  |  |
|          | 2 | Sign In |  |  |
|          |   |         |  |  |
|          |   |         |  |  |

Forgot Password

#### Home page

| UK NEQAS ICC & ISH   |                        |                                   |           |         |                           |                   |           |                   |                             |                     |     |         |
|--|------------------------|-----------------------------------|-----------|---------|---------------------------|-------------------|-----------|-------------------|-----------------------------|---------------------|-----|---------|
|  | > Method E             | intry Forms                       |           |         |                           |                   |           |                   |                             |                     |     |         |
| Home   | Run No                 | Programme                         |           |         | Date                      | Issued C          | Closing D | ate               | Form Started                | Days Remaining      | t   |         |
| Assessments 🔺  | 141                    | Cytology                          |           |         | 01/03                     | 3/2023 1          | 12/03/202 | 23                |                             | \rm A 30 days overd | lue | Form    |
| Open<br>Closed   | 141                    | ALK IHC NSCLC                     |           |         | 01/03                     | 3/2023 2          | 25/03/202 | 23                |                             | 🛕 17 days overd     | lue | Form    |
| Results<br>Summary<br>Images   |                        |                                   |           |         |                           |                   |           |                   |                             |                     |     |         |
|  |                        |                                   |           |         |                           |                   |           |                   |                             |                     |     |         |
| Analyse  | •                      |                                   |           |         |                           |                   |           |                   |                             |                     |     |         |
| Methods  |                        |                                   |           |         |                           |                   |           |                   |                             |                     |     |         |
| Methods<br>Best methods  | Programn               | ne Summary                        |           |         |                           |                   |           |                   |                             |                     |     |         |
| Analyse Analys | Programn               | ne Summary                        |           |         | Median Sco                | ore               |           |                   | Median Score                | Percentile          |     |         |
| Methods<br>Best methods<br>Iournals  | Programm               |                                   | All       | ll Runs | Median Sco<br>Last 5 Runs | ore<br>Difference |           | All Runs          | Median Score<br>Last 5 Runs | Percentile          |     |         |
| Methods<br>Best methods<br>ournals   | Programm               |                                   | All<br>16 |         |                           |                   | R         | All Runs<br>57.29 |                             |                     | 7   | Results |
| Methods<br>Best methods<br>ournals   | Programm               | e †<br>1 Tract Pathology          |           | 6       | Last 5 Runs               | Difference        | 7         |                   | Last 5 Runs                 | Difference          | 7   | Results |
| Methods<br>Best methods<br>burnals   | Programm<br>Alimentary | ie †<br>/ Tract Pathology<br>SCLC | 16        | 6       | Last 5 Runs<br>18.5       | Difference<br>2.5 | 7         | 57.29             | Last 5 Runs<br>75.61        | Difference<br>18.31 | Я   | _       |

#### Select the module and enter the methodology results

| UK NEQAS ICC & ISH        |                      |                          |                           |          |                      |                               |   |
|---------------------------|----------------------|--------------------------|---------------------------|----------|----------------------|-------------------------------|---|
| 2                         | Sample Entry Details |                          |                           |          |                      |                               |   |
| Home                      |                      |                          |                           |          |                      |                               |   |
| Assessments •             |                      | UK NEQA                  | \S                        |          |                      |                               |   |
| Open                      |                      | Immunocytoch             | nemistry & In-Situ Hybrid | disation |                      |                               |   |
| Closed<br>Results         |                      | Cytology                 |                           |          |                      |                               |   |
| Summary                   |                      | Run: 141                 | Participant: 13           |          | Issue: 01/03/2023    | Closing: 12/03/2023           |   |
| Images                    |                      | Antigen Selection        |                           |          | Non-Completion       | Reason (if applicable)        | • |
| Analyse 🔺                 |                      |                          |                           |          |                      |                               |   |
| Methods                   |                      | • Calretinin             |                           |          | Date of Staining     | 11/04/2023                    | Ë |
| Best methods              |                      | Tick here if alternation | ive antigen applied for.  |          | Date of Stanning     |                               |   |
| Journals                  |                      |                          |                           |          |                      |                               |   |
| Participation Certificate |                      | Primary Antibody         |                           |          | Non-Specific Primary | y Antibody Binding            |   |
|                           |                      | Supplier                 | Dako / Agilent            | •        |                      | Was an additional block used? |   |
|                           |                      | Antibody                 | Calretinin                | •        | Blocking Method      | Dako protein block (X0909)    | • |
|                           |                      | Product code             | M7245                     | •        |                      |                               |   |
|                           |                      | Lot number               | 123456                    |          |                      |                               |   |
|                           |                      |                          |                           |          |                      |                               |   |

#### Methodology details

| UK NEQAS ICC & ISH        |                      |  |  |   |                               |
|---------------------------|----------------------|--|--|---|-------------------------------|
| ڊ<br>ا                    | Sample Entry Details |  |  |   |                               |
| Home                      |                      |  |  |   |                               |
| Assessments •             |                      | Antigen Retrieval  |  | Detection Method                              |                               |
| Open<br>Closed            |                      | Please select  | 🔵 None 💿 Heat 💿 Enzyme                         | Supplier                                      | Leica / Novocastra            |
| Results                   |                      | Supplier   | Leica / Novocastra                             | Method  | BOND Polymer Define Detection |
| Summary                   |                      | Buffer Type  | ER1  | Product Code                                  | DS9800 <b>•</b>               |
| Images<br>Analyse         |                      | Duration   | 20 mins 🔻                                      | Chromogen                                     | • DAB (brown) AP (red)        |
| Methods<br>Best methods   |                      | Automation<br>Please select  | None (manual) • Automated                      |   |                               |
| Journals                  |                      | Supplier   | Leica / Novocastra                             |   |                               |
| Participation Certificate |                      | Platform   | Leica Bond III                                 |   |                               |
|                           |                      | Self Assessment Score<br>Assess staining quality us<br>UK NEQAS supplied sam<br>Score<br>Comment | sing the UK NEQAS scoring system (range: 4-20) | <b>In-House sample(s)</b><br>Score<br>Comment | 20 •                          |

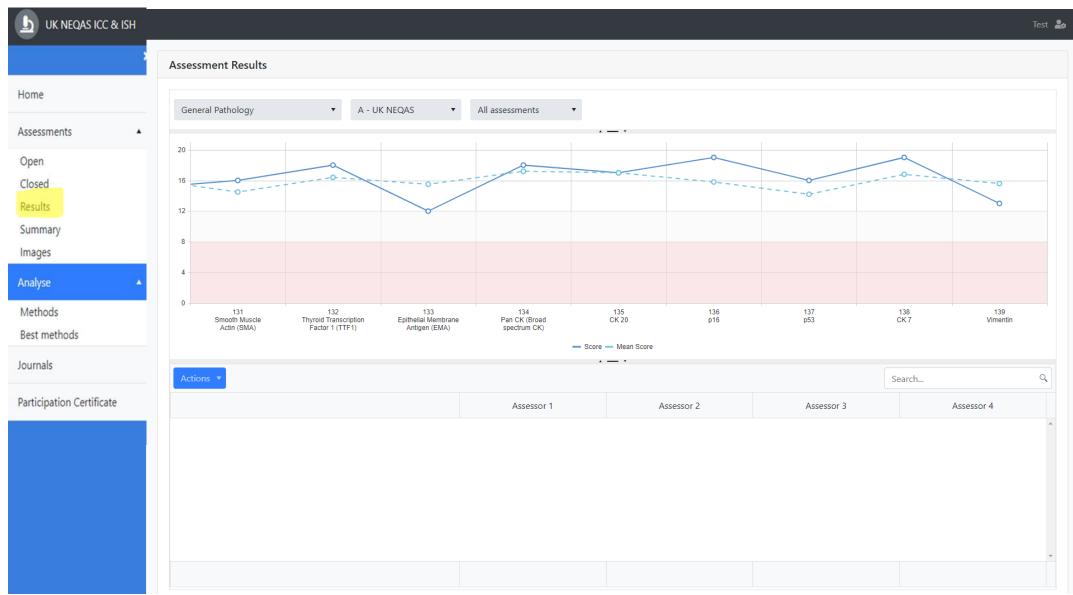
#### Closed assessment

|                        | Closed Assessments           |             |                |            |          |            |
|------------------------|------------------------------|-------------|----------------|------------|----------|------------|
| ome                    | General Pathology 🔹          |             |                |            |          |            |
| sessments 🔺            | Actions 🔻                    |             |                |            | Search   | a          |
| pen                    | Programme †                  | Date Issued | : Closing Date | Form Start | Form Sub | Test Compl |
| osed                   | • Run No: 139                |             |                |            |          |            |
| sults                  | Alimentary Tract Pathology   | 08/08/2022  | 09/09/2022     |            | ~        | ~          |
| mmary                  | ALK IHC NSCLC                | 08/08/2022  | 09/09/2022     |            | ~        | ~          |
| ages                   | Breast HER2 ICC              | 08/08/2022  | 09/09/2022     |            | ~        | ~          |
| alyse 🔺                | Cytology                     | 08/08/2022  | 09/09/2022     |            | ~        | ~          |
| ethods                 | ER - Breast Hormone Receptor | 08/08/2022  | 09/09/2022     |            | ~        | ~          |
| st methods             | Gastric HER2 ICC             | 08/08/2022  | 09/09/2022     |            | ~        | ~          |
| irnals                 | General Pathology            | 08/08/2022  | 09/09/2022     |            |          | ~          |
| ticipation Certificate | Lymphoma                     | 08/08/2022  | 09/09/2022     |            | ~        | ~          |
|                        | MMR                          | 08/08/2022  | 09/09/2022     |            | ~        | ~          |
|                        | Neuropathology               | 08/08/2022  | 09/09/2022     |            |          | ~          |
|                        | PD-L1                        | 08/08/2022  | 09/09/2022     |            | ~        | ~          |
|                        | PDL1 IHC TNBC                | 08/08/2022  | 09/09/2022     |            | ~        | ~          |
|                        | PR - Breast Hormone Receptor | 08/08/2022  | 09/09/2022     |            | ~        | ~          |
|                        | ▼ Run No: 138                |             |                |            |          |            |

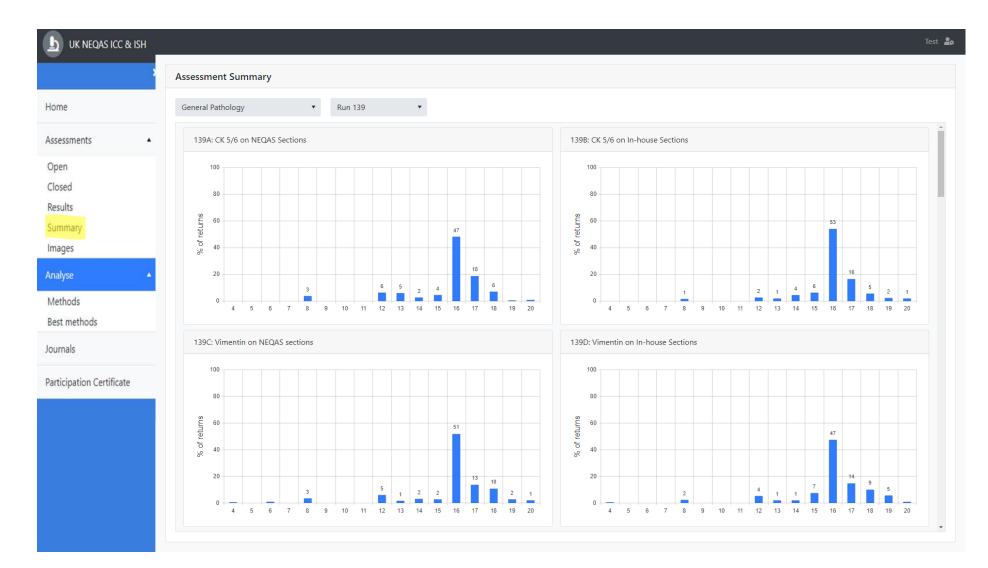
### Sample entry details

| L UK NEQAS ICC & ISH      |                      |                     |                             |                           |                     |
|---------------------------|----------------------|---------------------|-----------------------------|---------------------------|---------------------|
| *                         | Sample Entry Details |                     |                             |                           |                     |
| Home                      |                      |                     |                             |                           |                     |
| Assessments               |                      | UK NEQAS            |                             | tion                      |                     |
| Open                      |                      | immunocytocne       | mistry & In-Situ Hybridisat | uon                       |                     |
| Closed                    |                      | Lymphoma            |                             |                           |                     |
| Results<br>Summary        |                      | Run: 139            | Participant: 13             | Issue: 08/08/2022         | Closing: 09/09/2022 |
| Images                    |                      | CD8 Cyclin D1       |                             |                           |                     |
| Analyse 🔺                 |                      | Non-Completion      |                             |                           |                     |
| Methods<br>Best methods   |                      |                     |                             |                           |                     |
|                           |                      | Reason              |                             |                           |                     |
| Journals                  |                      |                     |                             |                           |                     |
| Participation Certificate |                      | Method              |                             | Main Buffer               |                     |
|                           |                      | Leica Bond Refine   |                             | Bond Wash Buffer (AR9590) | рН 0                |
|                           |                      | Automation / Manual |                             |                           |                     |
|                           |                      | Instrument          | Leica Bond III              |                           |                     |

#### Assessment Results



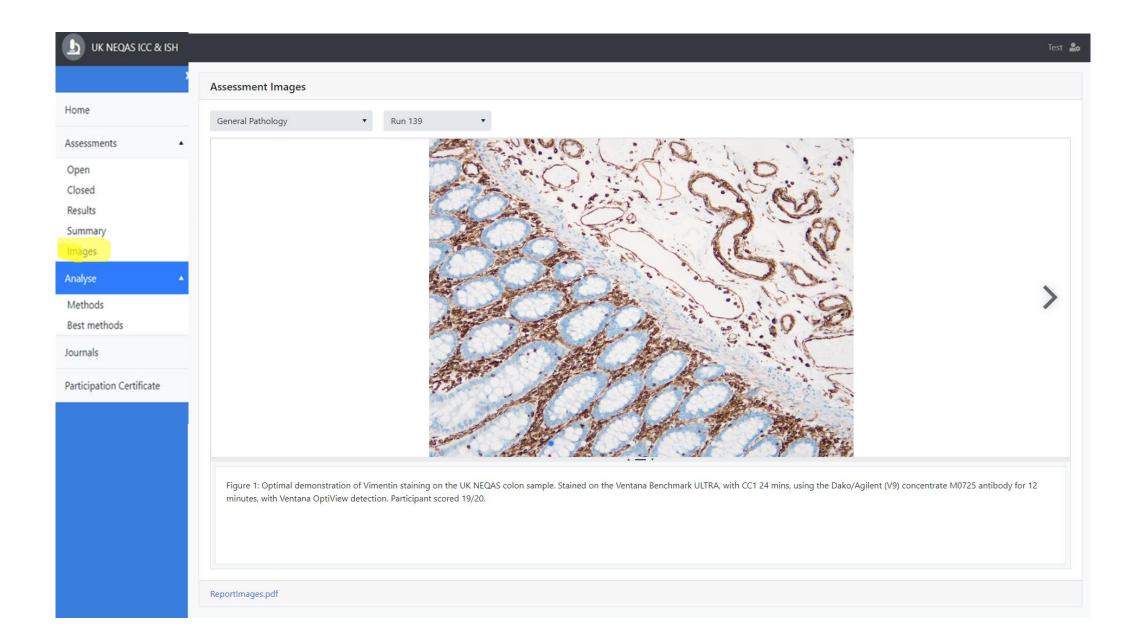
#### Assessment summary



#### Assessment Summary

| 2                         | Assessment Summary                         |       |            |  |       |            |
|---------------------------|--|-------|------------|--|-------|------------|
| lome                      | General Pathology    Run 139               | •     |            |  |       |            |
| Assessments •             | Antibody Summary for CK 5/6                |       |            | Antibody Summary for Vimentin                |       |            |
| Open                      | Value                                      | Count | Percentage | Value  | Count | Percentage |
| losed                     | value                                      |       | -          |  |       | -          |
| Results                   |  | 13    | 4.58       | Dako/Agilent (V9) concentrate M0725          | 48    | 16.9       |
| ummary                    | BioGenex CK5/6 (AN588)                     | 1     | 0.35       | Dako/Agilent (V9) Autostainer link IR630     | 9     | 3.17       |
| mages                     | Cell Marque CK 5/6 (356M)                  | 3     | 1.06       | Dako/Agilent (V9) Omnis GA630                | 22    | 7.75       |
| nalyse 🔺                  | Cell Marque CK 5/6 (356M)                  | 2     | 0.7        | Leica (SRL33) concentrate VIM-572-L-CE       | 5     | 1.76       |
| Methods                   | Dako / Agilent CK 5/6 (IR780)              | 13    | 4.58       | Leica (V9) concentrate VIM-V9-L-CE           | 7     | 2.46       |
| Best methods              | Dako / Agilent CK 5/6 (IS780)              | 7     | 2.46       | Leica (V9) Bond RTU PA0640                   | 38    | 13.38      |
| ournals                   |  |       |            |  |       |            |
| Participation Certificate | Heat Mediated Retrieval Summary for CK 5/6 |       |            | Heat Mediated Retrieval Summary for Vimentin |       |            |
|                           | Value                                      | Count | Percentage | Value  | Count | Percentage |
|                           | Ventana CC1 64 mins                        | 62    | 21.83      | Leica / Novocastra ER1 20 mins               | 41    | 14.44      |
|                           | Leica / Novocastra ER2 20 mins             | 44    | 15.49      | Ventana CC1 64 mins                          | 34    | 11.97      |
|                           | Dako / Agilent Dako Omnis                  | 21    | 7.39       | Ventana CC1 32 mins                          | 32    | 11.27      |
|                           | Ventana CC1 Standard                       | 16    | 5.63       | Dako / Agilent Dako Omnis                    | 27    | 9.51       |
|                           | Leica / Novocastra ER2 30 mins             | 14    | 4.93       | Ventana CC1 36 mins                          | 16    | 5.63       |
|                           | Dako / Agilent Dako PTLink                 | 13    | 4.58       | Dako / Agilent Dako PTLink                   | 12    | 4.23       |

#### **Run Images**



#### Best methods

| UK NEQAS ICC & ISH        |                             |       |                 |                                       |                    | Test 🛓   |  |
|---------------------------|-----------------------------|-------|-----------------|---------------------------------------|--------------------|----------|--|
| 53                        | Best Methods                |       |                 |                                       |                    |          |  |
| Home                      | D                           |       |                 |                                       |                    |          |  |
| Assessments               | Programme                   |       |                 | General Pathology                     | •                  |          |  |
| Open                      | Antigen                     |       |                 | CD34                                  | <b>•</b>           |          |  |
| Closed                    | Automation Instrument       |       |                 | Ventana Benchmark XT                  | ×                  |          |  |
| Results                   | Primary Antibody            |       |                 | CD34                                  | •                  |          |  |
| Summary                   |                             |       |                 |                                       | •                  |          |  |
| Images                    | Detection Kit or 2nd L      | ayer  |                 | Ultraview Universal DAB Detection kit | •                  |          |  |
| Analyse 🔺                 |                             |       |                 |                                       |                    |          |  |
| Methods                   |                             |       |                 |                                       |                    |          |  |
| Best methods              |                             |       |                 |                                       |                    |          |  |
| Journals                  |                             |       |                 | · —                                   |                    |          |  |
| Participation Certificate | Actions 🔻                   |       |                 |                                       |                    | Search Q |  |
| Participation Certificate | Field                       | Match | Method 1        |                                       | Method 2           |          |  |
|                           | ▼ Run                       |       |                 |                                       |                    | A        |  |
|                           | ID                          | ~     | 93              |                                       | 93                 |          |  |
|                           | <ul> <li>Antigen</li> </ul> |       |                 |                                       |                    |          |  |
|                           | Name                        | ~     | CD34            |                                       | CD34               |          |  |
|                           | ▼ Primary Antibody          |       |                 |                                       |                    |          |  |
|                           | Supplier Name               | ~     | Leica / Novocas | tra                                   | Leica / Novocastra |          |  |
|                           | Product Name                | ~     | CD34            |                                       | CD34               |          |  |
|                           | Dilution                    |       | 50              |                                       | 40                 | -        |  |

## New EQA manager

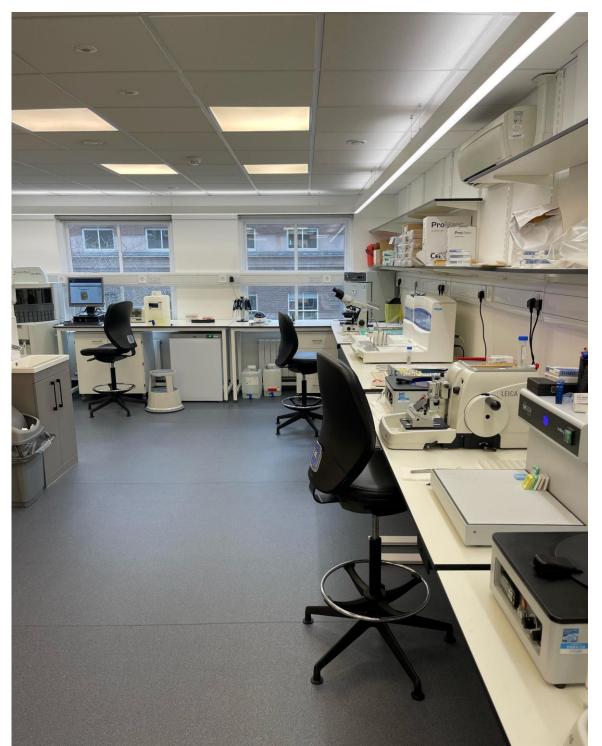
- The new web server should improve the participant's experience
- Create you own custom reports
- Ability to change the password
- Participant user guide will be sent to all participant

| UK NEQAS ICC & ISH        |  |
|---------------------------|--|
| ×                         |  |
| Home                      |  |
| Assessments •             |  |
| Analyse 🔹                 |  |
| Journals                  |  |
| Participation Certificate |  |

#### UK NEQAS ICC & ISH new laboratory premises







# Delivery





#### Ventana BenckMark ULTRA



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() Dako



X



Gemini AS Automated Stainer



# Why the new lab?

- The addition of lab will enable UK NEQAS ICC & ISH to become more efficient.
- Introduction of the new modules.
- Will allow us to carry out research investigation into the factors that can have an impact IHC expression (few years ago an investigation on the slides adhesion was carried out).
- Organise workshops for educational purposes.
- Experience the issue that participants face and help with troubleshooting.

# Module updates

- Low HER2 –Andy Dodson
- Head & Neck (P16 & HPV) Deepa Nayar & Dr Lissette Collins
- Sarcoma module



New pilot sarcoma module



Why?



No sarcoma IHC EQA scheme available.

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There is an increasing number of sarcoma IHC markers used in routine labs.



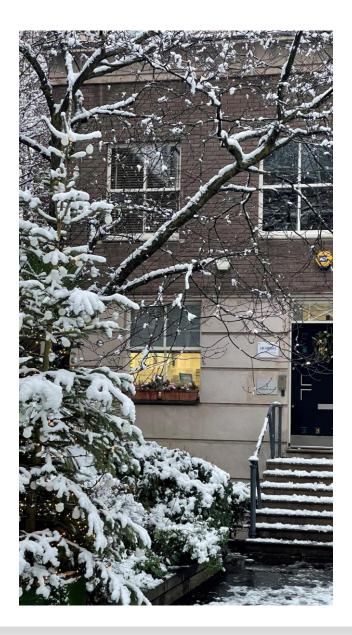
The need for labs to comply with ISO 15189 standards.

### Sarcoma markers

- Brachyury
- CAMTA1
- CD99
- ERG
- FOSB
- c-FOS
- H-Caldesmon
- G34W
- K36M

- H3K27me3
- SMARCAB1/INI1
- MUC4
- Myogenin/MyoD1
- STAT6
- SOX-10
- TFE3
- TLE1
- pan-TRK





Thank you for your attention