|  |
| --- |
| ***Insert Laboratory Specific Name Here*** |
| **MinION Employee Training Form** |

|  |  |
| --- | --- |
| **Employee Name** | **Training Start Date** |
|  |  |

**Section I – Base Knowledge (Video and Reading Requirements)** *[select videos and documents relevant to your lab processes; add other videos and documents as appropriate]*

|  |  |  |
| --- | --- | --- |
| **Video Title** | **Trainee Initials** | **Date Watched** |
| [**MinION: A Portable, Real-Time DNA/RNA Sequencing Device**](https://www.youtube.com/watch?v=Wq35ZXyayuU) |  |  |
| [**Flongle: For Rapid Nanopore Sequencing of Smaller Samples**](https://www.youtube.com/watch?v=62ATIxGYLKY) |  |  |
| [**Loading an Oxford Nanopore Flow Cell**](https://www.youtube.com/watch?v=CC11Jlydqrc) |  |  |
| [**RNA Sequencing with Nanopore Technology**](https://www.youtube.com/watch?v=2WGl9L5d4Zo) |  |  |
| **Document Name** | **Trainee Initials** | **Date Read** |
| MinION Flow Cell Check Protocol |  |  |
| MinION Rapid Sequencing Protocol |  |  |
| MinION 1D Genomic DNA by Ligation Protocol |  |  |
| Oxford Nanopore Community Discussion Board |  |  |

**Section II – Observation: Trainee observes the trainer perform all steps in the sequencing SOP**

|  |  |  |
| --- | --- | --- |
| **Discussion Points** | **Trainer Initials** | **Date** |
| What can be done if the library does not absorb by capillary action in the SpotON priming port? |  |  |
| Describe how the MinION identifies signals from the library fragment during sequencing. |  |  |
| Why do you open the flow cell priming port and then add 200µL? |  |  |
| Why is it important to have greater than 800 active pores? |  |  |
| What could cause a large number of unavailable/inactive pores after loading the flow cell? |  |  |

**Section III – Performance under Supervision: Trainee performs all steps in the sequencing SOP under direct trainer supervision**

Previously run, well characterized sample(s) will be provided to the trainee. The trainee will:

1. Extract the DNA
2. Perform optional DNA Fragmentation/DNA repair **(1D)**
3. Perform Library Preparation
4. Load the prepared library onto the MinION
5. Perform all necessary Quality Control Checkpoints throughout the process

Successful performance criteria: All samples result in good quality sequence data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Performance Assessment** | **Yes** | **No** | **Trainer Initials** | **Date** |
| Extracted DNA met quality requirements | 🞏 | 🞏 |  |  |
| Fragmented/Repaired DNA met quality requirements (1D) | 🞏 | 🞏 |
| Sequence data metrics met quality requirements | 🞏 | 🞏 |
| **Comments:** | | | | |

**Section IV – Independent Performance: Trainee individually executes all steps in the sequencing SOP**

Sample(s) will be provided to the trainee. The trainee will:

1. Extract the DNA
2. Perform optional DNA Fragmentation/DNA repair **(1D)**
3. Perform Library Preparation
4. Load the prepared library onto the MinION
5. Perform all necessary Quality Control Checkpoints throughout the process

Successful performance criteria: All samples result in good quality sequence data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Performance Assessment** | **Yes** | **No** | **Trainer Initials** | **Date** |
| Extracted DNA met quality requirements | 🞏 | 🞏 |  |  |
| Fragmented/Repaired DNA met quality requirements (1D) | 🞏 | 🞏 |
| Sequence data metrics met quality requirements | 🞏 | 🞏 |
| **Comments:** | | | | |

**Section V – Instrument Preventive Maintenance: Trainee individually executes all steps in the preventive maintenance SOP**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Performance Assessment** | **Yes** | **No** | **Trainer Initials** | **Date** |
| Performed Post Run Wash | 🞏 | 🞏 |  |  |
| **Comments:** | | | | |

**Section VI – Employee Attestation**

|  |  |  |  |
| --- | --- | --- | --- |
| **Attestations** | **Yes** | **No** | **Trainee Initials** |
| I read and understand the procedures listed in the required reading. | **🞏** | **🞏** |  |
| I had an opportunity to discuss my questions with the trainer. | **🞏** | **🞏** |  |
| I am satisfied with the explanations provided to me; all my questions were answered. | **🞏** | **🞏** |  |
| I understand the risks and mitigation practices that eliminate/minimize these risks. | **🞏** | **🞏** |  |
| I agree to comply with risk mitigation controls to eliminate/minimize these risks. | **🞏** | **🞏** |  |

**Section VII – Review and Signatures**

|  |  |  |
| --- | --- | --- |
| **Trainee Name** | **Signature** | **Date** |
|  |  |  |
| **Trainer Name** | **Signature** | **Date** |
|  |  |  |
| **Quality Assurance** | **Signature** | **Date** |
|  |  |  |