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| **STANDARD OPERATING PROCEDURE**  Juli Br Live Cell Movie Analyzer |
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| PURPOSE |
| This document describes the operational setup and operation for Juli Br Live Cell Movie Analyzer. This document includes starting up the system, using the Juli Br Live Cell Movie Analyzer and shutting down the system. |
| SCOPE |
| The procedure applies to all users of the Juli Br Live Cell Movie Analyzer. |
| SAFETY |
| To ensure ongoing safety of operators, users are required to fill out the Safety Questionnaire completely and *signed by the supervisor.* This must be done 2-3 weeks prior to the commencement of any work in the facility. |
| TRAINING / COMPETENCIES |
| All personnel require training prior to independent operation of the instrument. Training is conducted by the Cell Imaging Advanced Specialist with competency demonstration necessary before authorisation.  Competency is assessed via demonstration of independent instrument operation, in conjunction with verbal explanation of all aspects of operation and troubleshooting common faults. All instrument operation is to be conducted by trained operators. |
| EQUIPMENT & SUPPLIES |
| The Juli Br Live Cell Movie Analyzer is located inside the top incubator, shared lab J2.06, Level 2 of WIMR. |
| PROCEDURE |
| Detail regarding the setting up of the Juli Br Live Cell Movie Analyzer can be found in the instrument’s manuals. |



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| 1. **Starting Juli Br**   Turn on the Power button. Place the sample on the stage(s). FocusingAdjust the focus for each scope unit if 2nd unit is also connected to station unit. Press Channel tab to select each scope unit.Adjust the illumination intensity using the Exposure and Brightness bar of Focusing menu.  * Set the viewing region of image by pressing the **Zoom** in/out button and dragging preview window. * Adjust focus of the image using the **Focus** knob of the Scope(s) or **Focus** interface in the software.   (coarse focus interface) (fine focus interface)   * Press the **Capture** and **Save** button to acquire the image if it is necessary.  Getting confluence valuePress Confluence button of Focusing menu. If the value of confluence should be more accurate, try again after adjusting parameters of Settings menu. Press the Capture and Save button to acquire the image with confluence circle if it is necessary.Making time lapse imaging (Monitoring)IMPORTANT!Warm up scope unit(s) for 1 hour in incubator before making a movie. If not, it might be cause of uncertain data or unclear movie.Cell culture flask should be wetted by the culture media before making movie.Each scope channel can be viewed by pressing Channel tab if 2nd scope unit is connected to station unit.  * Press **Setting** button of **Monitoring** menu. * Press the **Name** form to type file name and **Save** button. * Choose the monitoring type among **Growth rate**, **Wound healing** and **Movie only**. * Set up **Total time** and **Time interval**. Time Interval should be set up more than 1 minute for the best quality result in case of monitoring growth rate and wound healing. But In case of dual monitoring, more than 5 min is recommended. * Press the **Apply** button to save all of options. * Press the **Rec**. button to begin recording. * Recorded data can be opened in **Data menu.**  1. **Accessing to/save data**   All of saved data could be checked in **Data menu**.   * Data screenshot (must insert USB first)      * Select the desired capture region using moving icon. * Select the screen size of snapshot using size icon . Snapshot capture process can be cancelled by pressing cancel icon * After then double tap the selected region. * Type the name for saving it, then press **Save button**. * Check confirmation message “Screenshot is saved successfully!” * Save data to USB (must insert USB first). Select the folder or file by tapping it once. Several folders or files can be selected at once using **Multi select button**. Press the **Save to USB button**.  1. **Shut down**  * Turn off by pressing the Power button on the side of the Station. * Filling the Log sheet | | | | |
| DATA & RECORDS MANAGEMENT | | | | |
| Data is to be temporarily saved to the internal memory for up to 7 days; Users then must transfer the images from the internal memory to their destination via a provided USB. | | | | |
| REFERENCES | | | | |
| Quick manual and full manual can be found in the 2nd drawer of the trolley where the Station is located. | | | | |
| DOCUMENT CONTROL | | | | |
| |  |  | | --- | --- | | Document Reference: | WIMR-SOP-SP-WIF- | | Status: | Approved | | Endorsed by: |  | | Approval Authority: |  | | Signature of Approval Authority: |  | | Approval Date: |  | | Issue Date: |  | | Review Date: |  | | Author: | Hong Yu | | Policy Owner: | Scientific Platforms | | Functional Unit: | Westmead Imaging Facility | | Enquiries Contact: | Name: Hong Yu  Position: Cell Imaging Advanced Specialist  Email: hong.yu@sydney.edu.au  Phone: 8627 3211 |   . | | | | |
| REVISION HISTORY | | | | |
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| Revision  Date | Version No. | Amended by: | Change | |
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