Local Rules for AriaIII and Influx cell sorters BRC Cambridge NIHR Phenotyping Hub

Laser Safety Officer     Simon McCallum.     07872525130

Version:    24th September 2021

Scope

These local rules cover the AriaII, Aria III, Aria Fusion and Influx instruments in the NIHR Cambridge BRC Phenotyping Hub housed in both the JCBC and e6 sites. They implement the University's laser safety policy at a practical level and form part of the University's duties under Section 2(3) of the Health and Safety at Work etc Act 1974.

Description

AriaII and AriaIII have 4 embedded lasers (402, 488, 561 and 633nm).
AriaIII fusion has 5 embedded lasers (355, 405, 488, 561, 633)
Influx has 4 embedded lasers (402, 488, 561, 633)

Authorised Users

Only authorised Users may operate and maintain this equipment. Authorised users must have attended the University of Cambridge Laser Users course. All users are required to undergo Hepatitis B vaccination and demonstrate immunity (Occupational Health service).

Laser Controlled Area

There is no permanent Laser-controlled area, although access to the room is limited.

Procedures/Maintenance in Operation

Training in the normal use of the machine does not involve direct laser exposure. No additional safety equipment (i.e. goggles) is required or recommended.

ii Waste handling

At the end of a sorting session, 6 Virkon tablets should be added to each Plastic Waste tanks.
Machines with Metal waste tanks should add 50ml of Distel disinfectant instead.
Staff with musculoskeletal issues should not empty waste tanks or refill sheath tanks

iii Removal of machines from hood
These machines can be moved via rails onto an external table. When BD require to do this, nearby machines cannot be used and only directly involved staff can be present

Contingency plan
In the event of a suspected laser related injury or emergency the Laser Safety Officer, Simon McCallum 07872525130 and Departmental Safety Officer John O’Brien must be alerted. Power should be cut off via the red 'emergency stop' on the machine. All laser injuries should be investigated clinically. A short table is present in the departmental laser safety file and on the hub internet site:

https://www.med.cam.ac.uk/nihr-cambridge-brc-cell-phenotyping-hub/cytometry-lasersafety/

This lists the laser wavelengths of each machine along with likely ocular injuries from direct beam exposure.

User declaration
I have read and understand the above local rules

Name in print Simon McCallum
Date 24th September 2021

Date of next review: 1st October 2021