

**NDMRB-RA-043**  
**Risk Assessment: RT-PCR and Real Time PCR**

**Scope**

This Risk assessment refers the use of PCR and real-time PCR machines.

<b>Name of assessor:</b>	Stefania Militi	<b>Date of Assessment:</b>	March 2016	<b>Review Date:</b>	Every 3 years
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**Risk Matrix:**

Risk Matrix		Likelihood			
		High	Medium	Low	Negligible
Consequence	Severe	High	High	Medium	Effectively Zero
	Moderate	High	Medium	Medium/low	Effectively Zero
	Insignificant	Medium/Low	Low	Low	Effectively Zero
	Negligible	Effectively Zero	Effectively Zero	Effectively Zero	Effectively Zero

**Risk Assessment:**

Hazard (Cause and consequence)	Affected Groups	Existing controls	Risk	Further Action
<p><b>Skin Burns from Hot Surfaces of PCR Cycler or Real time PCR machine</b>                      If tubes are unloaded prior to machine cool down period finger tips can suffer minor burns.</p> <p>Contact with the heating block when at high temperature during a thermalcycle (eg. adding polymerase to 'hotstart' PCR).</p> <p>Ignoring heat warning</p>	Staff and collaborators	<ul style="list-style-type: none"> <li>• Lab coats and gloves</li> <li>• Protective lid/cover for the machine and thermal cyclers during run. When a thermal cycling program is initiated, the door to machine is locked so it should not be possible to contact heating block during cycling.</li> <li>• Use of forceps to remove tubes if hot.</li> <li>• Temperature is held at 4°C at the end of the run after which the tubes are removed.</li> <li>• Temperature is always displayed on the machine</li> </ul>	Low	All staff using this instrumentation must be trained before use.
<p><b>Repeated Pipetting:</b>                      Long term repetitious pipetting results in injury to wrist and/or thumb</p>	Staff and collaborators	<ul style="list-style-type: none"> <li>• Use a multistep pipette if available</li> </ul> <p>See the following documentation for further details and advice:</p> <ul style="list-style-type: none"> <li>• NDMRB-SOP-040 Good pipetting techniques</li> <li>• NDMRB-RA-076 RSI caused by prolonged periods of pipetting</li> </ul>	Low	Ensure that all staff are aware of good practice while pipetting for long periods of time.

Signed By Author:

Approved by (sign and print):

Reviewed by:

Review date: