

# Risk Assessment: Making up Histological Stains

## 1. Identify Task:

Making up the histochemical stains Congo red and Haematoxylin and potassium hydroxide solution by dissolving powders in water and/or ethanol.

## 2. Identify Hazards:

Exposure to ethanol and the powdered Congo red, haematoxylin and KOH. The haematoxylin must be boiled in water and hot aluminium sulphate must be added so there is a danger of scalds and burns. The haematoxylin stain must then be filtered using an electrical pump system so there is potential for electric shock, spillage of haematoxylin solution and splashes with hot liquid.

## 3. Identify people affected:

Staff and students working in the lab.  
Anyone with shared access to the lab area.

## 4. Evaluate the Risks:

Harmful levels of exposure any of these chemicals is unlikely due to the small quantities being used. There is a risk of a serious burn/scald but this is again reduced due to the small quantities being used. This procedure need only be carried out occasionally as the stains can be stored for several months.

## 5. Control Measures:

i) Appropriate PPE will be used:

- Gloves – heat protective gloves when handling the hot beaker, and chemical protective gloves otherwise
- Lab coat
- Glasses if there is a risk of splash in the eye.

ii) Ethanol will be decanted in the fume cupboard.

Powders will be handled with care to avoid creating aerosols and limit inhalation.

Solutions will be stored in clearly labelled bottles once made up.

iii) The haematoxylin will be left to cool before filtering so as reduce the risk of any scalds and where possible filtering will be carried out in the fume cupboard.

## RECORD OF PERSONNEL INVOLVED

Name	Position and Qualifications	Experience	Start Date	Finish Date
Mary Finnegan	PhD Student	3 years lab experience	June 2010	Jan 2013
Jake Brooks	PDRA	6 year's lab experience	Oct 2016	-

**Reviewed 11/05/2021:** Dr Finnegan is no longer in the laboratory. Newer members of the laboratory will need to become familiar with the content so that they can be formally added to this approval by Prof. Collingwood before performing the procedure.



11<sup>th</sup> May 2021