THE SAINSBURY LABORATORY STANDARD OPERATING PROCEDURE	
TITLE: Infiltration of *Arabidopsis* plants with *Pseudomonas* spp. cultures (Summer Student Activity)	
APPLIES TO STAFF IN: Sainsbury Laboratory	
HEALTH & SAFETY INFORMATION INCLUDED: YES	
REFERENCE No: TSL005	**VERSION No: 1.0**
DATE EFFECTIVE: July 2011	**REVIEW DATE: July 2012**
AUTHOR: Simon Saucet	**APPROVED BY: Simon Foster**
QA AUTHORISATION:	**DATE ADDED TO QA DATABASE:**

1 PURPOSE OF PROCEDURE/METHOD AND ITS SCOPE

Identify Arabidopsis plants that show hypersensitive response to a unique bacterial effector.

2 EQUIPMENT NEEDED

Syringe
Agar plates containing appropriate media and selection for Psedomonas spp. being used.
Blue box/autoclave bag for disposal of biological waste
Kill Box for disposal of liquid biological waste (if using glass beakers)

3 STEPS IN PROCEDURE

The night before:
Set up bacterial cultures on plates containing appropriate selection.

The next day:
Scrape off the bacteria from the plate with 1 ml water.
Adjust the bacterial concentration to OD600=0.2 (10^8 cfu) in water.
Infiltrate Arabidopsis leaves using a 1 ml syringe (without needle).
Dispose of biologically contaminated disposable material in blue boxes.
Dispose of unused bacterial culture in glass beakers in Kill Box.

4 RISK STATEMENT

Lab coats and gloves must be worn at all times. Safety glasses must be worn when infiltrating the plants.

SOP HEALTH RISK ASSESSMENT

[1] Activity:	Hypersensitive response assay	
[2] Location of activity:	Sainsbury laboratory, Lab 2.48 and B35	
[3] Who is involved:	TSL students and summer school students	
[4] Frequency of activity:	once	
[5] Duration of Activity:	2 hours	
[6] Chemical Hazard Name:	**R Phrases and Definitions**	**Quantity Used**
[7] Details of biological agents of risk to human health:		**GMRA Number**
None of the biological agents are a risk to human or animal health		

[8] Other Hazards: Please ■ as necessary

Hot or Cold Burns	☐	Ionising Radiation*	☐	Ultra Violet or Infra Red	☐
Dust	☐	Noise	☐	Pollen Sensitizer	☐
Repetitive Action	☐	Extreme Cold Environment (< 0°C)	☐	Lifting / Manual Handling	☐
Asphyxiation	☐	Cuts	☐	Electrical	☐
Slips / trips / falls	☐	Display Screen Equipment	☐	Other (give details)	☐

[9] Control Measures: Please ■ as necessary

Fume Cupboard	☐	Microbiological Safety Cabinet	☐	Total Containment Cabinet	☐
Ventilated Bench	☐	Spill Tray	☐	Trained personnel only	☐
Signs	☐	Reduce frequency/alternate activity	☐	Reduce duration of activity	☐

Sub divide a load	☐	2 man lift of equipment	☐	Not for more than 1 hour	☐
Regular, short breaks	☐	Alternate activities	☐	Other (give details)	☐

[10] Personal Protection:	Please ■ as necessary				
Lab coat	☒	Safety Glasses	☒	Face Shield	☐
Goggles	☐	Gloves	☒	Thermal Protective Gloves	☐
Ear defenders	☐	Other (give details)	☐		

[11] Is personal monitoring and/or health surveillance required? Yes ☐ No ☒

Details: Students will all time be mentored by PhD students

[12] Restrictions:	Please ■ as necessary				
No lone working	☐	Not to be left unattended	☐	Named persons only	☐
In restricted area	☐	Not by new or expectant mothers	☐	Under constant supervision	☒
Not by under 18's	☐	Other (give details)	☐		

[13] Level of Residual Risk:	Please ■ as necessary				
Low	☒	Medium	☐	High	☐

Name of Assessor: Simon Foster Date: 05/7/11

For specific risk assessment information and R and S phrases information please refer to Risk Assessment on the intranet: (http://intranet/infoserv/support/Safety/Risk/index.htm).

5 DOCUMENTATION

Links to relevant H&S information on intranet or internet

Reference any relevant manuals

Link to: JIC Chemical Tables

Link to: Good Laboratory Practice in the Use of Chemicals:

Link to: Guidance on Good Microbiological Practice

6 RELATED PROCEDURES

7 NOTES

8 APPENDICES

Relevant MSDSs attached