

Materials List for:

# Design and Use of Multiplexed Chemostat Arrays

Aaron W. Miller<sup>1</sup>, Corrie Befort<sup>1</sup>, Emily O. Kerr<sup>1</sup>, Maitreya J. Dunham<sup>1</sup>

<sup>1</sup>Department of Genome Sciences, University of Washington

Correspondence to: Maitreya J. Dunham at [Maitreya@uw.edu](mailto:Maitreya@uw.edu)

URL: <https://www.jove.com/video/50262>

DOI: [doi:10.3791/50262](https://doi.org/10.3791/50262)

## Materials

Name	Company	Catalog Number	Comments
3/32" x 7/32" silicone tubing	VWR	63009-260	Tubing: Order: (50' coil pack)
1/2" x 5/8" silicone tubing (extra large)	VWR	63009-299	Tubing: Order: (50' coil pack)
1/4" x 3/8" silicone tubing (medium)	VWR	63009-279	Tubing: Order: (50' coil pack)
Orange green marprene pump tubing	Watson-Marlow	978.0038.00+	Tubing: Order: 6x(pack of 6)
Female luer, 1/8" barb	Cole Parmer	HV-45500-04	Connectors: Order: 4x(pack of 25)
Male luer lock, 1/8" barb	Cole Parmer	HV-45503-04	Connectors: Order: 1x (pack of 25)
Reducing connector, PVDF, 1/4" to 1/8"	Cole Parmer	EW-30703-50	Connectors: Order: 1x (pack of 10)
Barbed Y connector, 1/8" ID	Cole Parmer	HV-30703-92	Connectors: Order: 3x(pack of 10)
Medium tubing clamps	VWR	63022-405	Clamps: Order: 1x(pack of 12)
Day Pinchcock (metal clamp for tubing)	VWR	21730-001	Clamps: Order: 1x(pack of 10)
Male inline valved quick-connector, Fits tubing: 1/4 in.	Fisher	05-112-39	Connectors: Order: 1x(pack of 25)
Female inline valved quick-connector, Fits tubing: 1/4 in. I.D., Polypropylene	Fisher	05-112-37	Connectors: Order: 1x(pack of 5)
Silent Air Pumps	<a href="http://www.aquariumguys.com">Aquarium Guys.com</a>	212422	Air Supply: Order: 4 pumps
PTFE filters, 0.45 µm, for air filtration	Cole Parmer	HV-02915-22	Air Supply: Order: 1x(box of 100)
1L Flask with sidearm	Fisher	10-181F	Air Supply: Order: 2x(Pack of 6)
#8 silicone stopper, 3/8 in hole, for sidearm flasks	Fisher	K953715-0801	Air Supply: Order: 8 stoppers
4-Port manifold	Cole Parmer	EW-06464-85	Air Supply: Order: 8 manifolds
55 ml Screw cap culture tubes	Corning Life Sciences	9825-25	Culture Chamber: Order: 2x(pack of 48)
Regular hypodermic white hub needle, 16G, 5 in. length for effluent line	Fisher	14-817-105	Culture Chamber: Order: 1x(pack of 100)
Spinal tap needle	VWR	BD40836	Culture Chamber: Order: 4x(pack of 10)
Regular hypodermic pink needle	Fisher	14-817-104	Culture Chamber: Order: 1x(pack of 100)
Foam Silicone stopper size "2", pink	Cole Parmer	EW-06298-06	Culture Chamber: Order: 2x(pack of 20)
8-Well tube Rack	VWR	82024-452	Culture Chamber: Order: 4 racks
10L Reservoir bottle with bottom hose outlet: vacuum safe	VWR	89001-530	Media: Order: 2 or more

Yellow foam silicone stopper, non-standard size 12	Cole Parmer	EW-06298-22	Media: Order: 2 or more
Carboy Venting Filter	Fisher	SLFG 050 10	Media: Order: 1x(pack of 10)
Electrical tape, green	<a href="http://Amazon.com">Amazon.com</a>	10851-BA-10	Media: Order 1 roll.
Bottle top filter, 1L, .2 µm, 45 mm	VWR	29442-978	Media: Order: (1 case of 12)
5000 ml Reservoir bottle with bottom outlet: vacuum safe	VWR	89003-384	Media: (Optional)
Blue Foam Silicone stopper, nonstandard size 10 1/2	Cole Parmer	EW-06298-18	Media: (Optional)
205S/CA16, 16 Cartridge pump	Watson-Marlow	020.3716.00A	Media Pump: Order: 1
16-channel 205CA Extension pump head	Watson-Marlow	023.1401.000	Media Pump: Order: 2 extension pump heads
Silicone aquarium sealer	Fisher	S18180B	Media Pump: Order: 1
6-block dry bath	VWR	12621-120	Heatblock: Order: 2 for 32 ministats or 1 for 16.
Block for drybath, 6 x 25 mm test tube per block	VWR	12621-120	Heatblock: Order: 12 for 32 ministats or 6 for 16.
Nylon Membrane Filters, 0.45 µm Pore Size; Dia.: 25 mm	Fisher	R04SP02500	Harvesting: Order: 1x(pack of 100) (optional)
Nylon Membrane Filters, 0.45 µm Pore Size; 45 mm	Fisher	R04SP04700	Harvesting: Order: 1x(pack of 100) (optional)
47 mm, large filter apparatus	Fisher	XX10 047 30	Harvesting: Order: 1 (optional)
Glass filter holder, 25 mm, small filter apparatus	VWR	26316-692	Harvesting: Order: 1 (optional)
Dewar flask, 1L for Liquid Nitrogen	VWR	63380-052	Harvesting: Order: 1 (optional)