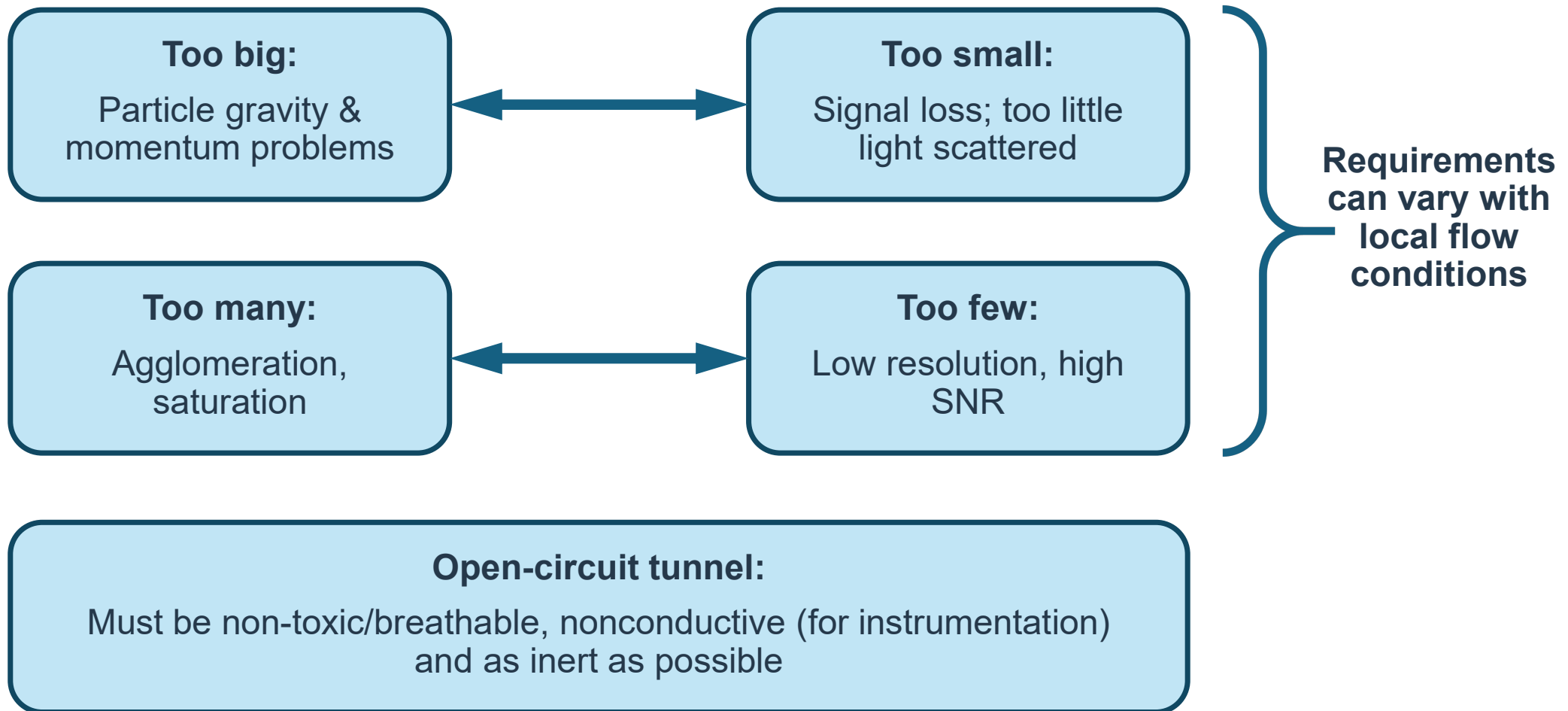




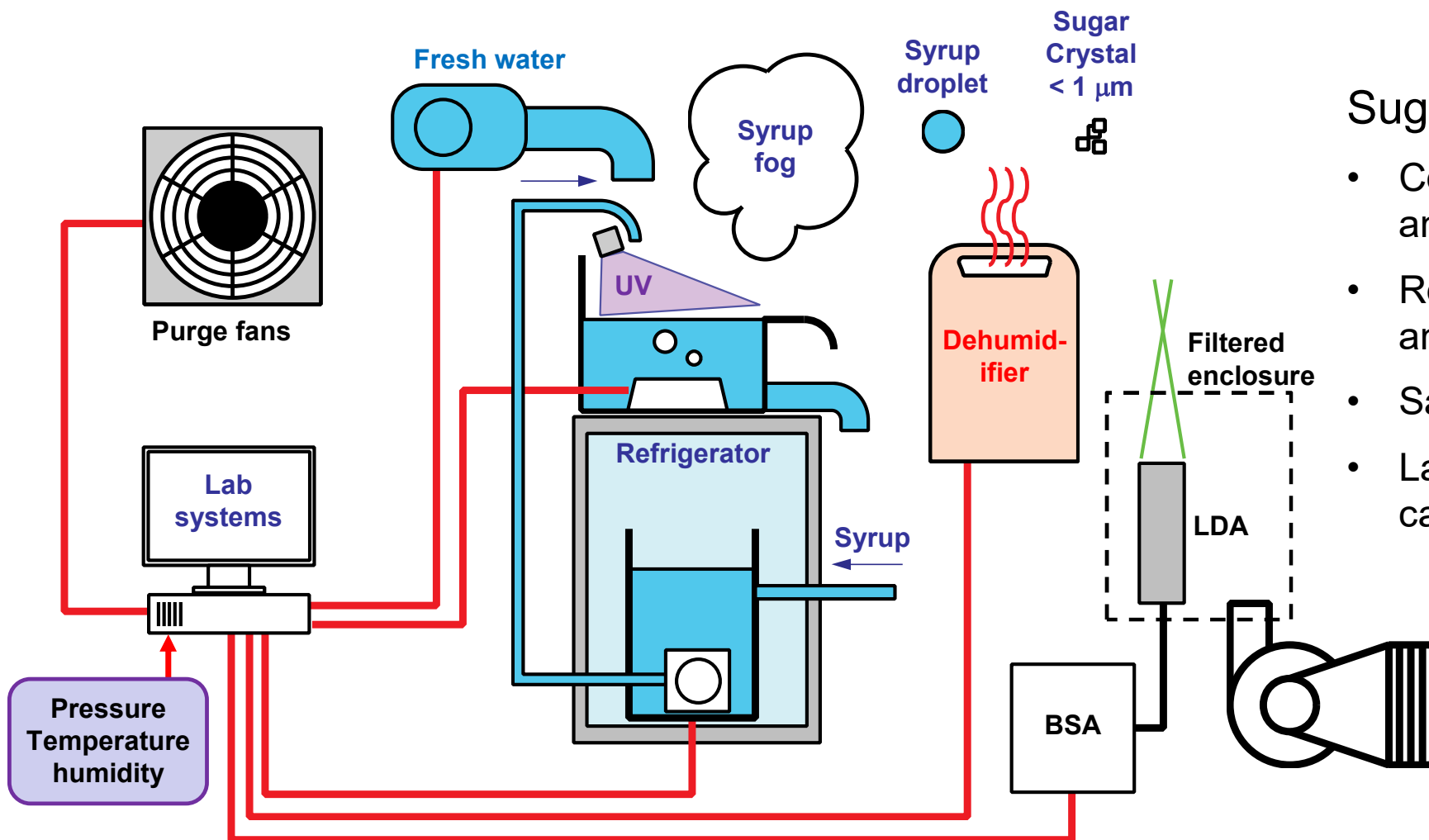
AUTOMATED FLOW SEEDING

Dr. David M. Birch

OVERVIEW



CONTROLLABLE SEEDING



Sugar crystal seeding

- Controllable density and size
- Remotely controlled and fully automated
- Safe and tasty
- Laser optics get caramel-coated...

SAFETY CONSIDERATIONS

EH40 long-term WEL = 10 mg/m³

ATEX / LEL = 60 g/m³

so
$$m(t) = \frac{P}{k} + \left(m_0 - \frac{P}{k}\right) e^{-k}$$

P = mass of sugar consumed per unit time

Measure k from decay rate

At steady-state

$$m(\infty) = \frac{P}{k}$$

$$\frac{\partial m}{\partial t} = P - km$$

Case $P = 0$ (no production)

