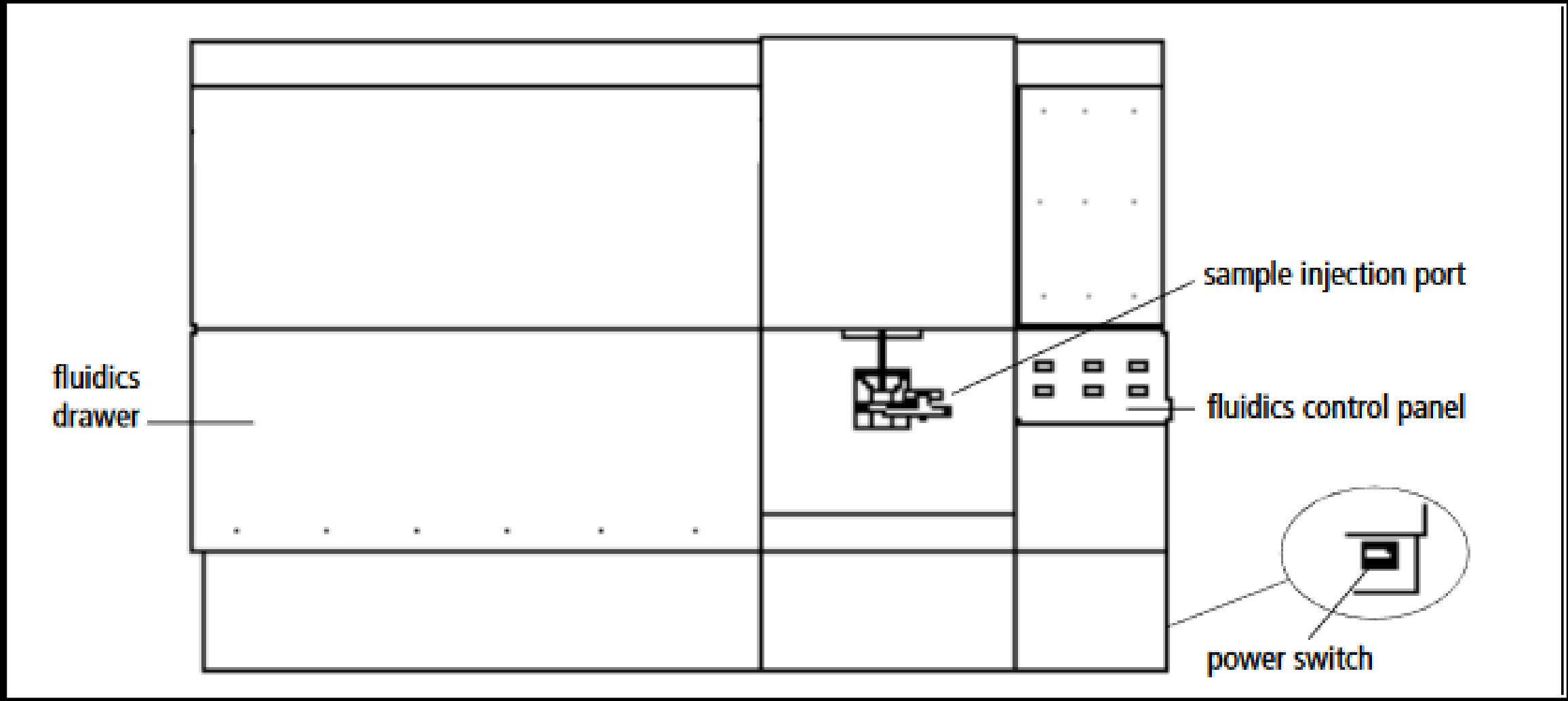
BOSTON UNIVERSITY

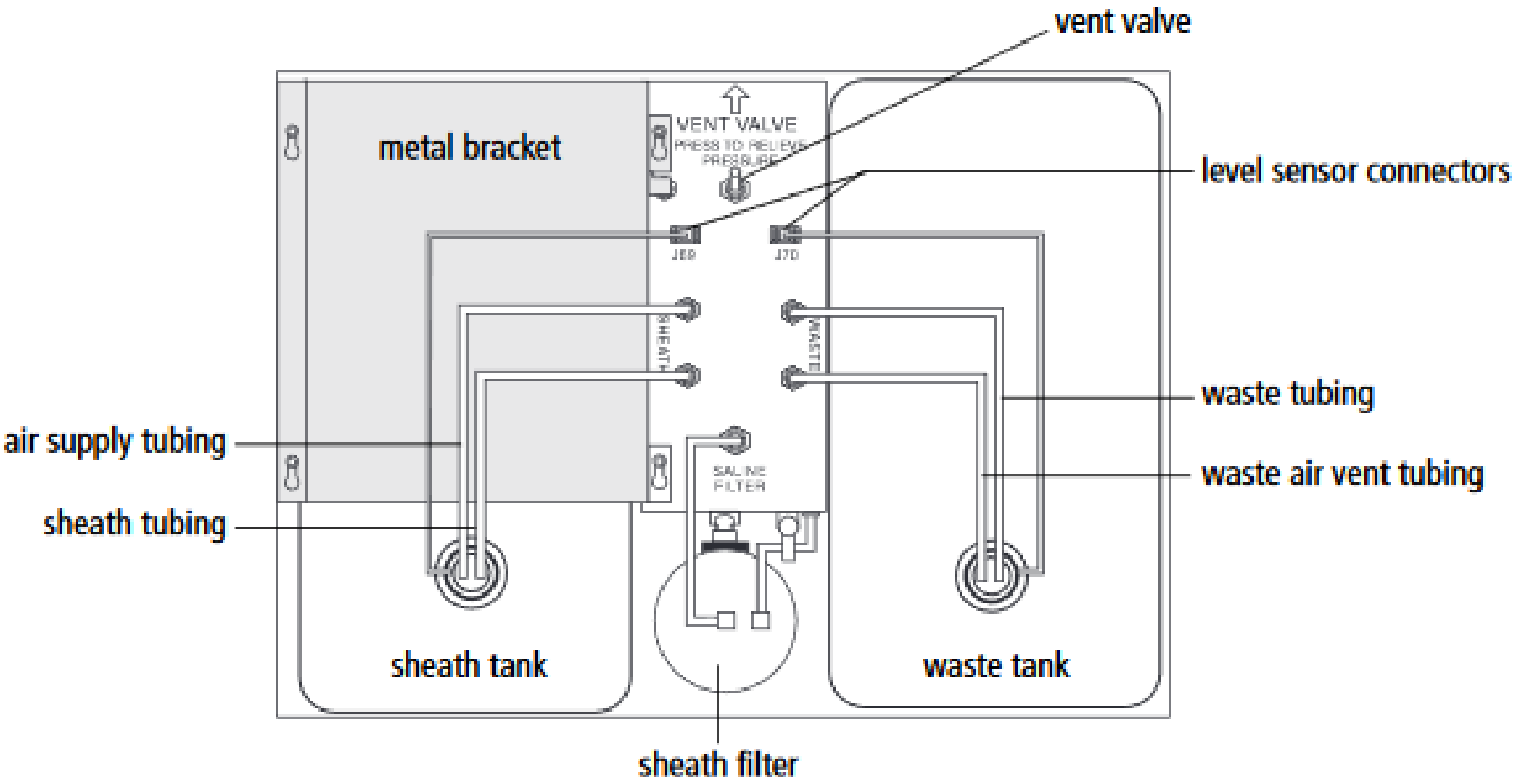
Department of Biology
Proteomics and
Imaging Core Facility

FACSCalibur:
An Operational Overview
PICF Analyzer in LSE444



Front of the FACSCalibur

Figure 1-5 Fluidics Drawer



Fluidics Drawer

Figure 1-3 Sample injection port (SIP)

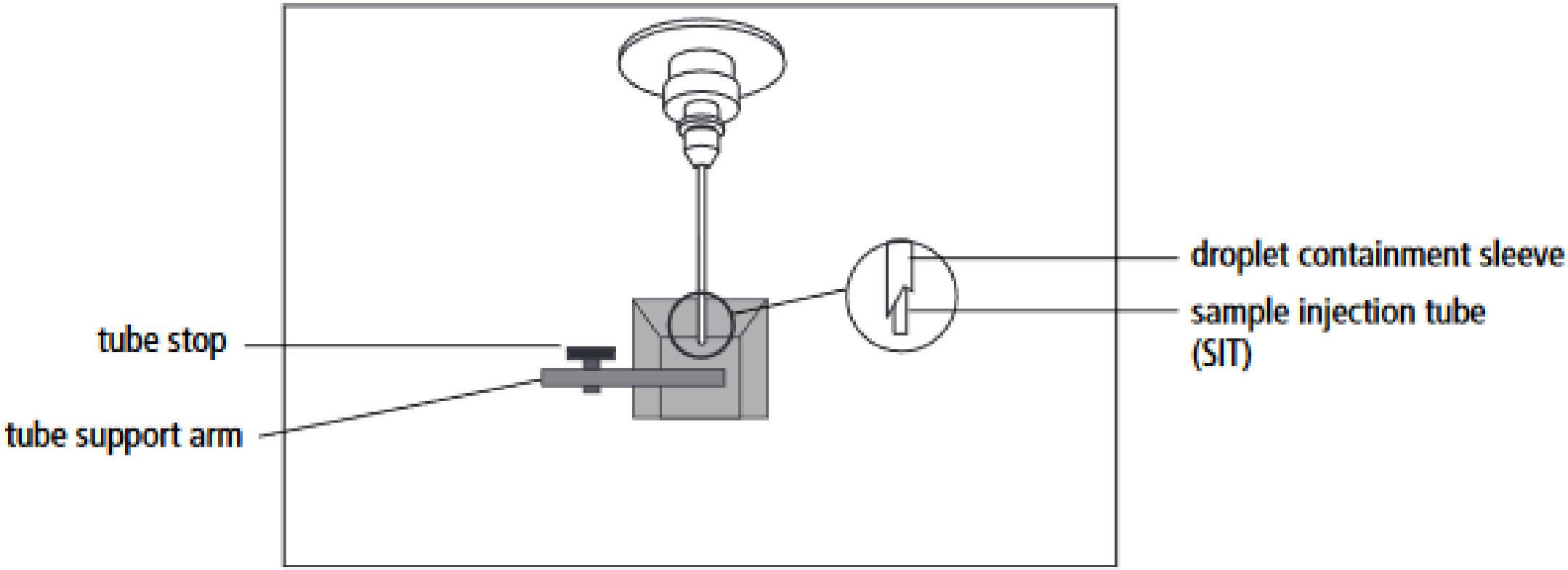
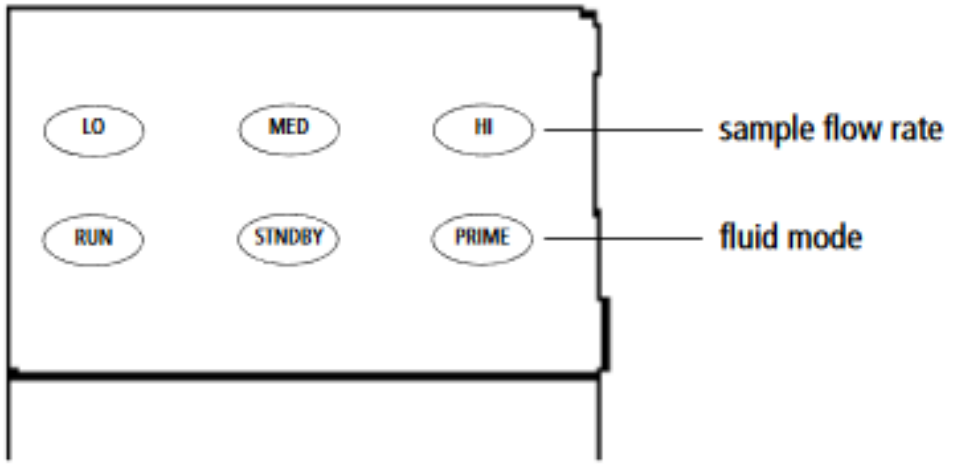


Figure 1-4 Fluidics control panel



Approximate sample flow rate:

- LO: 12 µL ±3 µL/min
- MED: 35 µL ±5 µL/min
- HI: 60 µL ±7 µL/min

Fluidics control panel of the FACSCalibur

FACS has 3 main systems

1. Fluidics
2. Optics
3. Electronics

Fluidics- a pressurized tank of sheath fluid is used to hydrodynamically focus the sample in a single stream through the flow cell where it is hit an excitation beam

FACS has 3 main systems

1. Fluidics
2. Optics
3. Electronics

Any light generated by the interaction of the laser and the stream is detected in the optical system with photomutiplier tubes or photodiodes

FACS has 3 main systems

1. Fluidics
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Electronics all of the signals from the optical detectors are converted to meaningful data points

Figure 1-7 Optics system with FL4 option

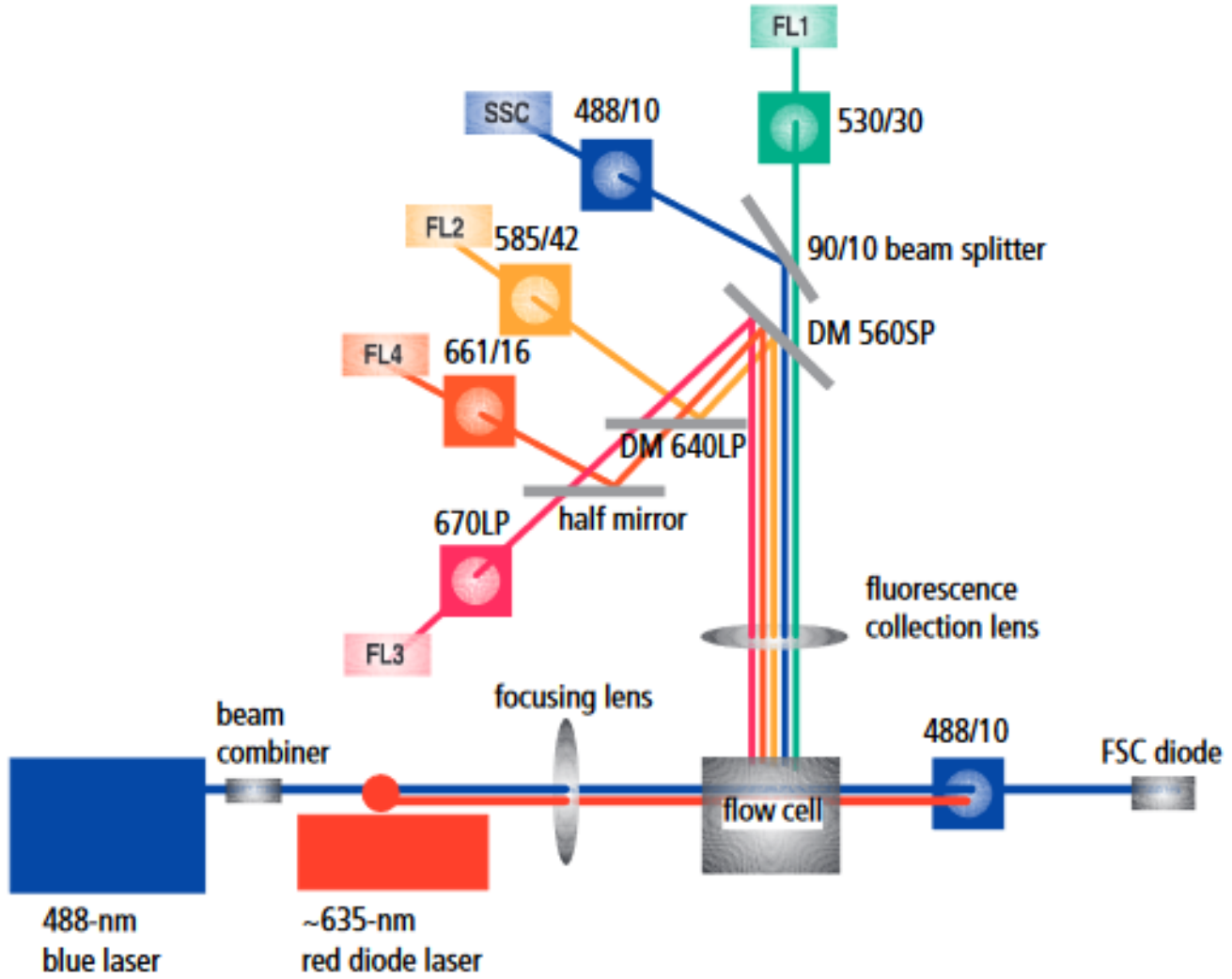
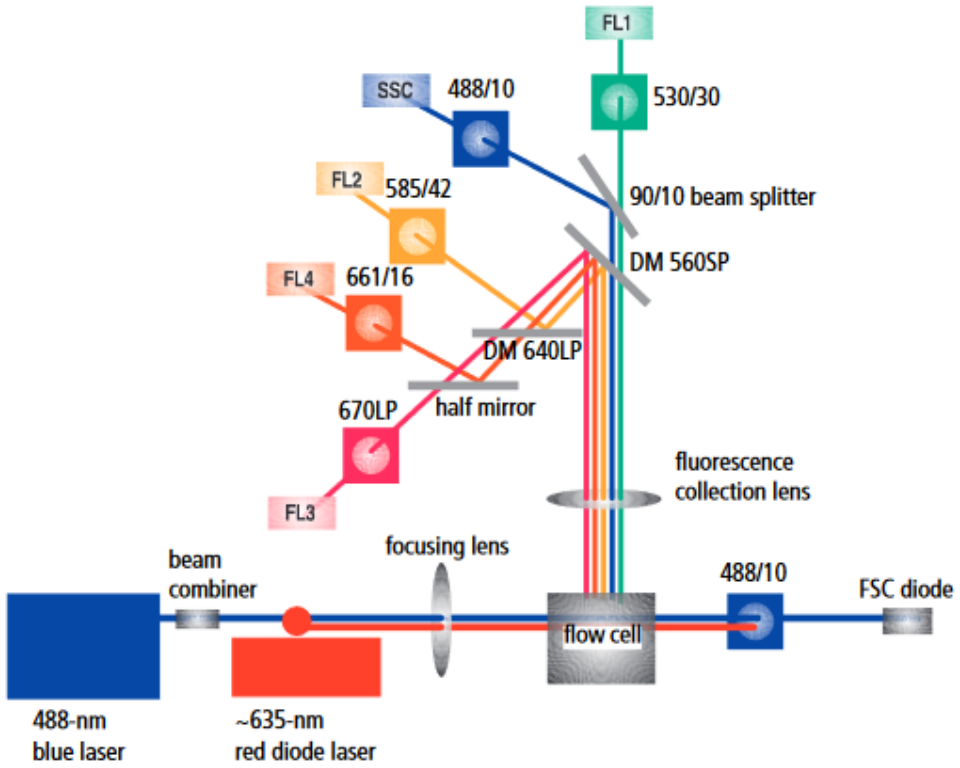
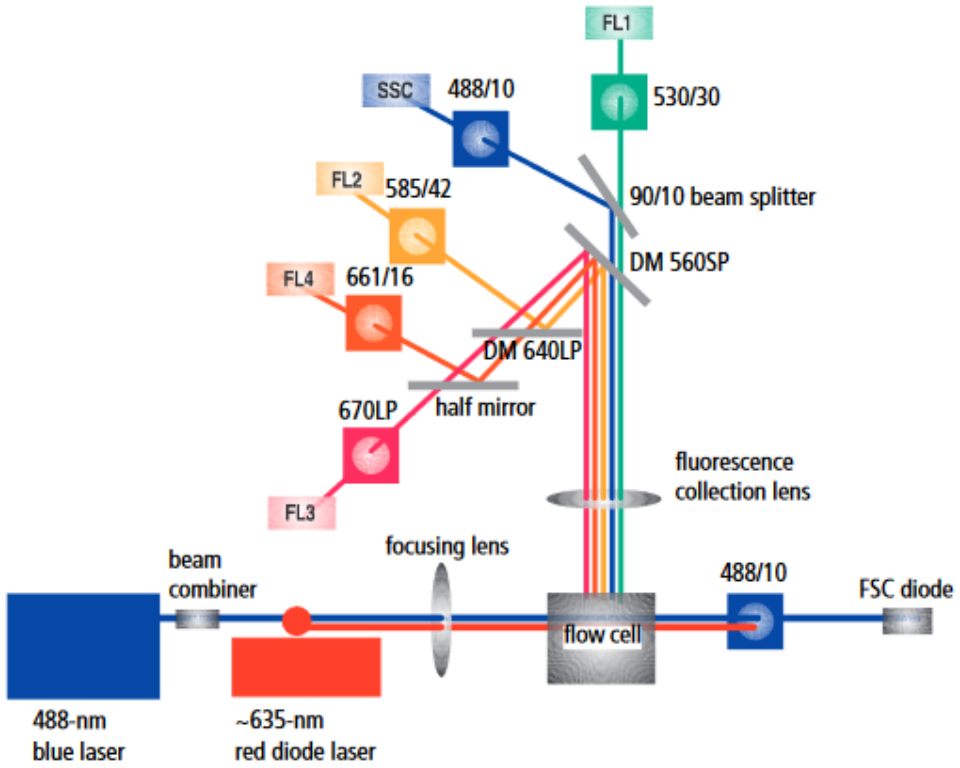


Figure 1-7 Optics system with FL4 option



- Forward scatter-roughly corelates with size-linear mode
- Side scatter-reflects cell complexity-linear mode
- Fl1-4 operated in log mode unless a special case (cell cycle)

Figure 1-7 Optics system with FL4 option



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