

**10 minute
prototypes**

Automated systems



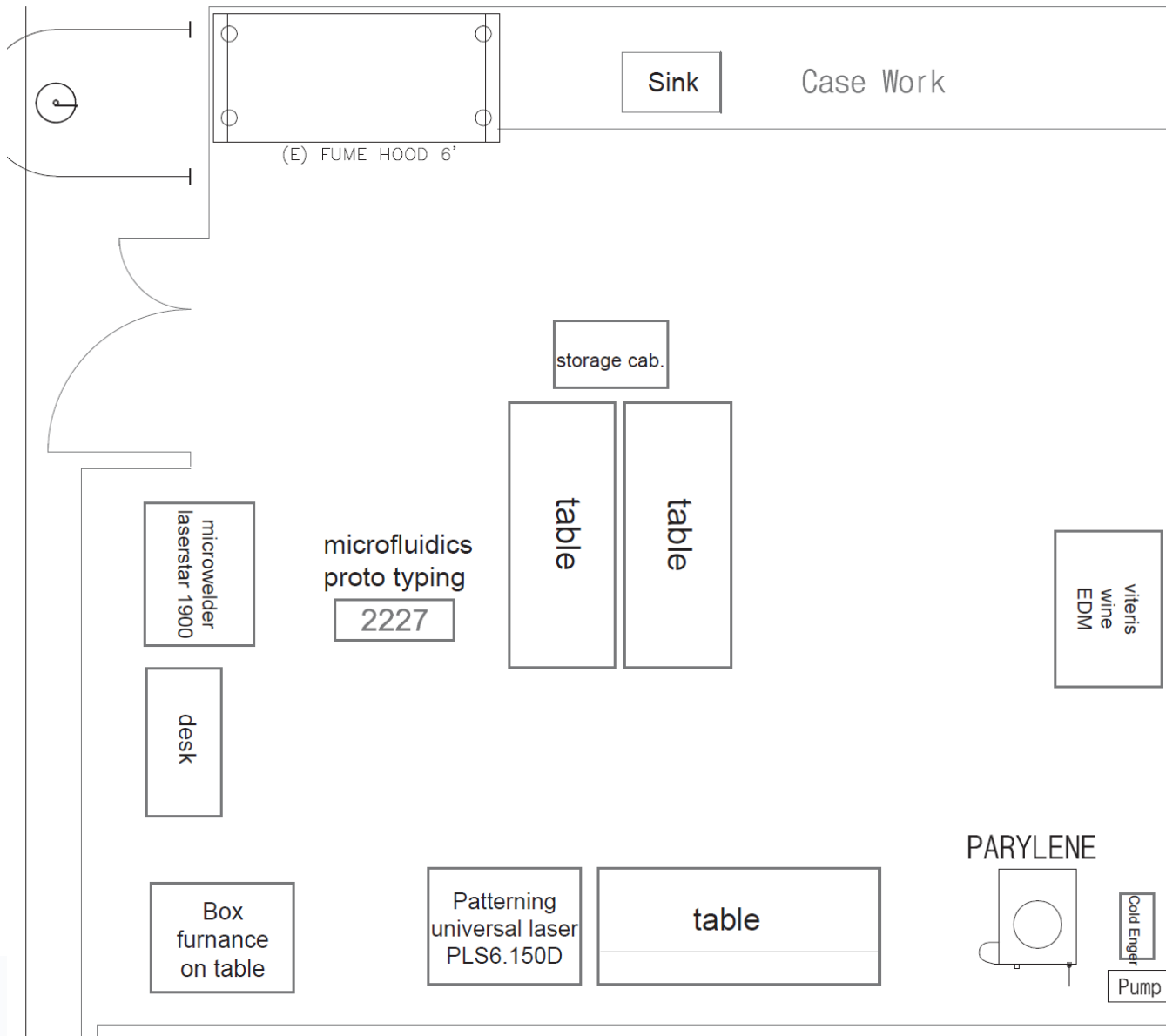
Microfluidics Bay at the Nanofab

Arriving in the next 2 months



**Soft
Lithography
and Laser
Processing**

Layout



Equipment

- Universal Laser PLS6150D
- CEE 200X PDMS Spinner
- Enercon Dyne-A-Mite
- March Plasmod Barrel O₂ RIE
- PDMS Aligner/Bonder
- Hot Lamination Press
- Omnicure 1000

Universal Laser PLS6150D

- Rapid patterning of thin polymer layers (tapes and films)
- Two laser heads for either high power or high precision
- Multiple prototypes simultaneously
- Also drills small holes
- 2.5 D structures in polymers and some glasses



Soft Lithography

- CEE 200X PDMS Spinner
 - Precision dispensing and film thickness
- Enercon Dyne-A-Mite
 - Glue free bonding in seconds



Soft Lithography

- March Plasmod Barrel O2 RIE
 - Rapid and precise bonding of PDMS and glass
- PDMS Aligner/Bonder
 - Allows multilayer devices
- Vacuum oven VWR 1410



Hot Lamination Press

- Multilevel, inexpensive devices from thin polymer layers
- Rapid processing and high control



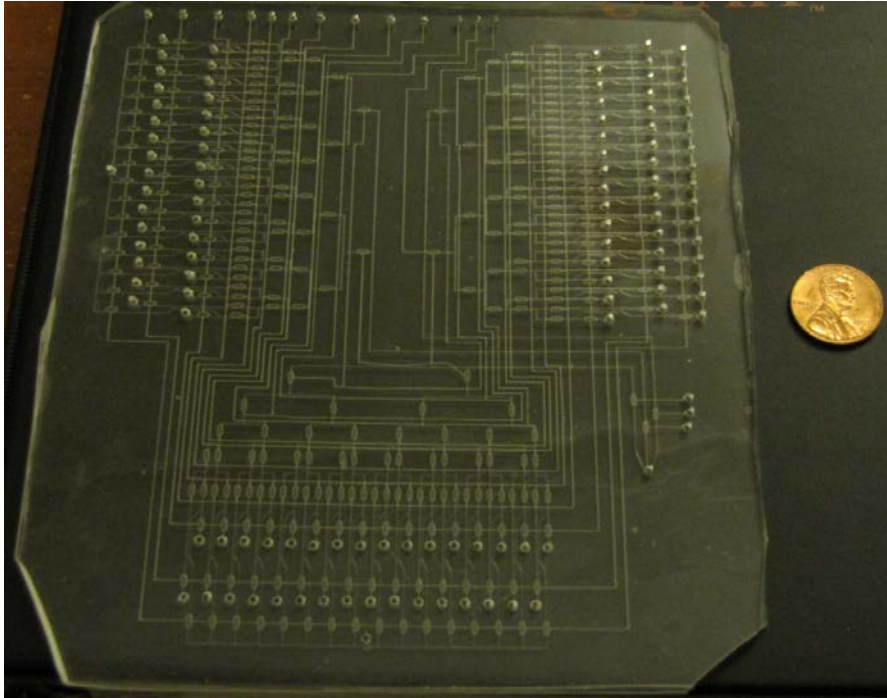
Omnicure 1000

- Spot curing and gluing using UV curable materials

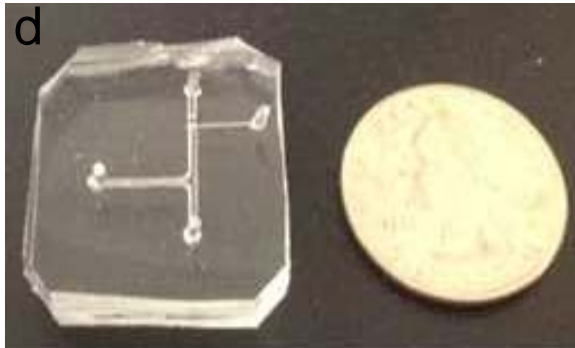
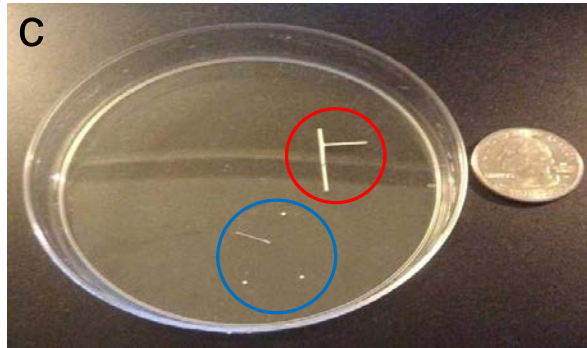
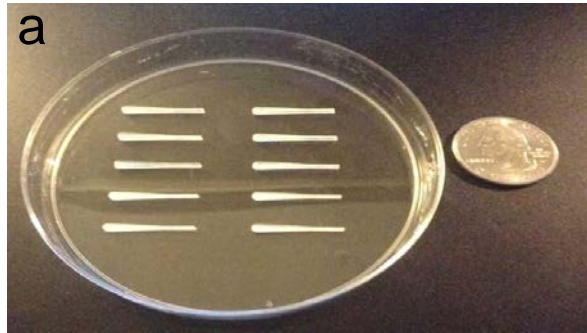


What Can You Do?

- Complex, multiprocess microfluidics using a variety of polymers and glasses



2.5 D Molds and Structures



Holes

