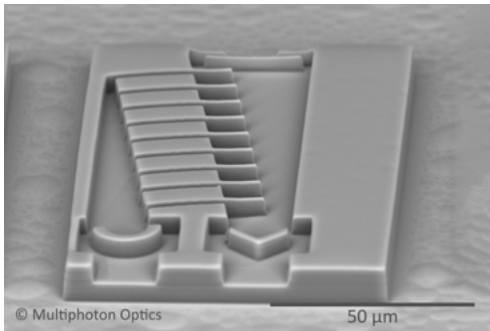


Biomedical Engineering

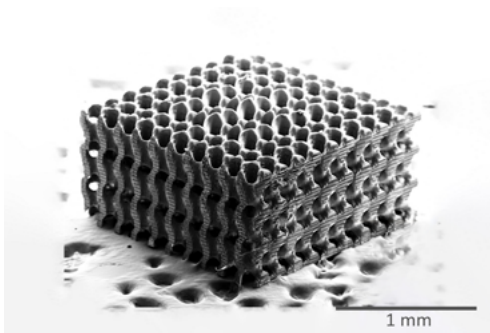
High Precision 3D Printing

Nano - Micro - Meso - Macro



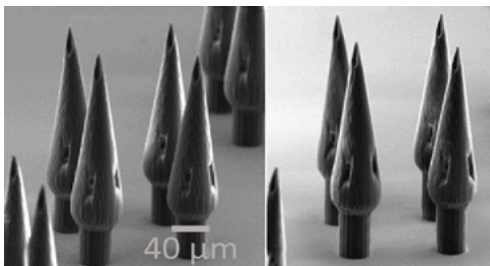
Microfluidics

- From 2D via 2.5D to 3D μ -fluidic structures
- Large variety of designs possible
- Smallest channel and wall width < 1 μ m
- Surface roughness tunable from below 10 nm to larger values



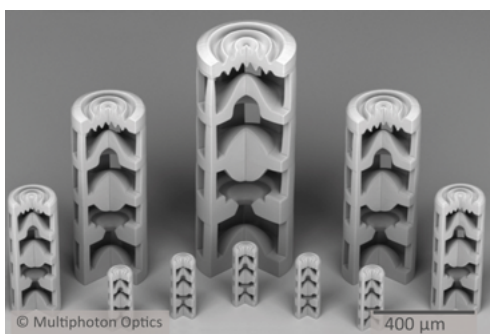
Tissue Engineering

- Custom design of scaffold structures
- Patient-individualized scaffolds enabling cellular differentiation on scaffold (in vivo/in vitro) restoration of injured tissue



Drug Delivery

- Painless minimal invasive drug delivery systems with arbitrary shape and size
- Use of biocompatible and biodegradable materials
- Regulation of drug dosage over time



Endoscopy and Intraoral Cameras

- Application on optical fibers and on imaging chips, microoptics for illumination
- Direct Laser Writing (DLW) on active and passive optical interfaces with automatic alignment
- Element diameters from sub- μ m to mm
- Surface roughness tunable from < 10 nm to higher values for in situ fabricated lens mounts