



Ankit Kumar

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Experience

BACHELORS' THESIS: MCKINNEY LAB, EPFL (SWITZERLAND) – 05/2019-12/2019

- Developed a hydrogel-based perfusable 3D-bioprinted Organ-on-Chip model.
- Investigated host-pathogen interaction dynamics of *M.abscessus* infection in macrophages using long-term timelapse microscopy.

UNDERGRAD RESEARCHER: SATAPATHI LAB, IIT ROORKEE – 12/2016-PRESENT

- Established Lab-on-Chip Systems group in the lab.
- Developed a 3D-printed point-of-care assay with on-chip absorbance measurement.
- Developed a sandwiching approach for assembling 3D printed microfluidics.

UNDERGRAD RESEARCHER: MOLECULAR ENDOCRINOLOGY LAB, IIT ROORKEE – 06/2018-PRESENT

- Working on the development of a Point-of-Care CTC liquid-biopsy device.
- Leading the development of a Metastasis-on-Chip platform.

JOINT SECRETARY, CO-CONVENOR: TINKERING LAB; IIT ROORKEE – 12/2018-06/2020

- Conducted 3D printing and advanced prototyping workshops.
- Supervised institute's additive manufacturing facilities.

CO-FOUNDER AND CTO: LABX SCIENTIFIC – 08/2017-01/2019

- Developed a Smart Spin-Coater with real-time film thickness control.

Education

Indian Institute of Technology Roorkee – B.Tech Engineering Physics (First Division)
June, 2020

LBS School, New Delhi – High School (95.6%)
April, 2016

Skills

Cell Culture (BSL2/P2)	C++, ImageJ Macro, MATLAB
3D Printing, 3D Bioprinting	COMSOL, Autodesk Fusion 360
AFM (basic), Confocal Microscopy	NI LabVIEW (Core I Certification)
Arduino, Sensor Interfacing	Simulink, NI Multisim, OpenSCAD

Patent Applications

- '3D Printed Peristaltic Pump with Automated Gear Assembly Fabrication'
[Indian Patent Application No: 201811031020.](#)
- 'Cell Cytotoxicity Assay Device and Method of Manufacturing'
[Indian Patent Application No: 201911036596.](#)

References

Prof. John McKinney
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