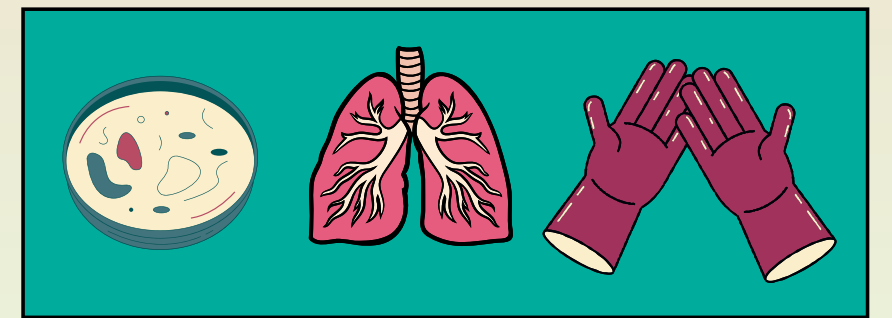
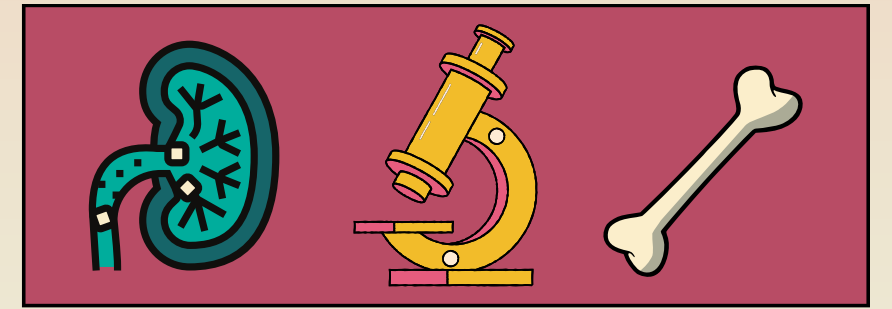
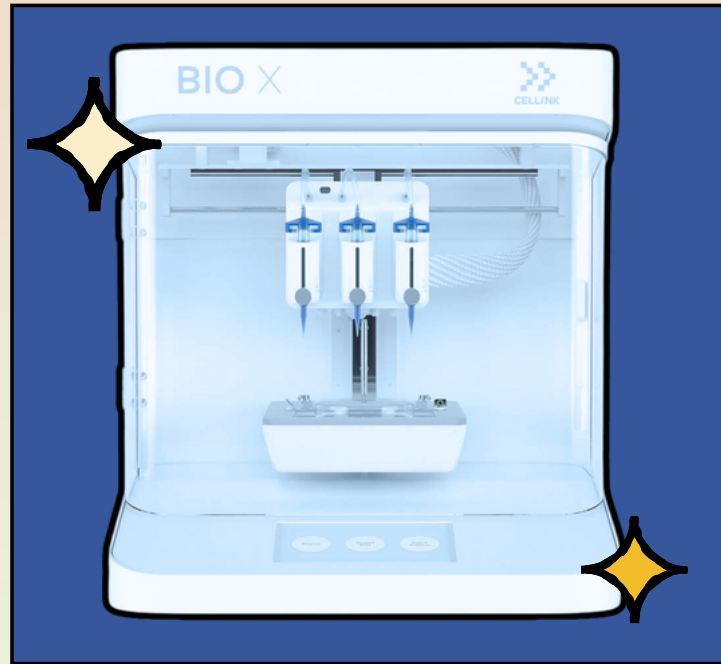


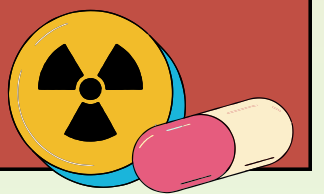
THE LITTLE PRINTS[👑]

INTRODUCTION

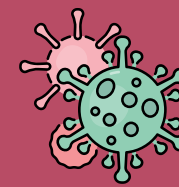
Bioprinting utilizes cells, molecular factors, and biomaterials as 'ink' to build living tissues for various applications. Bioprinting offers multiple advantages: it allows for the precise manufacturing of complex structures (ex. blood vessels), it produces constructs that mimic key physiological characteristics of human tissues, and it enables clinicians and researchers to fabricate tissues on-demand. Bioprinting has already been used to produce various human tissues such as bone, cartilage, bladder, urethra, and simple laboratory models of the kidney and heart. While it still has a long way to go, bioprinting is a continuously expanding field that is increasingly being used both in the clinical and research settings.



APPLICATIONS



Organ
transplantation
and implants



Laboratory
disease modeling



Pharmaceutical
screening

ONGOING PROJECTS

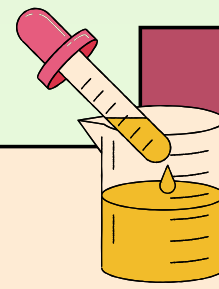
SKIN PATCH

Multidrug-resistant bacteria present a critical problem to modern medicine. In place of antibiotics, bacteriophages may offer an alternative solution to combatting wound infections. Creating an accurate skin model opens up new possibilities for bacteriophage studies by presenting a more physiologically relevant site for wound infection modeling.

3D-HEP-DD

Accurate liver models are invaluable to the process of drug discovery. This research is usually done using 2-dimensional cell cultures or animal models. However, cells function in 3-dimension inside the body. A 3-D liver model allows researchers to test drugs in a physiologically relevant environment, ensuring that results accurately reflect a drug's response in the human body.

METHODOLOGY



1. Propagation of cells in 2D culture
2. Harvesting of cells
3. Preparation of bioink
4. Mixing of cells and bioink
5. Bioprinting
6. Characterization
7. Downstream applications

CONTACT

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