

## Coating Protocol

# CELLINK PrintGlue

*This is a suggested procedure, please adjust according to your experimental needs.*

### Protocol aim

The aim of this protocol is to provide instructions for coating of 3D bioprinting substrates with CELLINK<sup>®</sup> PrintGlue, and subsequent use of coated substrates for bioprinting. CELLINK PrintGlue is specifically intended for increasing attachment of constructs printed with bioinks from the CELLINK and GelXA series.

### Materials needed

- CELLINK PrintGlue\*
- Substrate of choice (well plates are preferable)
- Dry incubator/lab drying oven
- Bioink of choice\*
- Crosslinking agent for CELLINK and GelXA series bioinks\*
- Cells + cell culture medium
- Pipette + pipette tips

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\*The product can be purchased in the CELLINK store at [www.cellink.com/store/](http://www.cellink.com/store/).

### Coating protocol

Step	Title	Material	Description
1	Prepare coating solution	- CELLINK PrintGlue	Shortly vortex CELLINK PrintGlue to ensure homogenous mixing.
2	Dispensing	- Pipette - Pipette tips	Define the well area of the used substrate. Dispense 90 $\mu\text{L}/\text{cm}^2$ of CELLINK PrintGlue.
3	Spreading	- Substrate of choice	Coat the substrate by gently hitting it from all directions.
4	Heat treatment	- Dry incubator/lab drying oven	Close the substrate, seal it with stretched parafilm and place in dry incubator/oven.

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			Let it dry at 55°C for 2h or longer, until completely dry.
5	Storage	- Sealed plastic bag	For eventual storage at room temperature, keep the substrate in a sealed plastic bag to prevent any external effect on the coating. However, best results are obtained if used directly after heat treatment.

## Printing protocol

Step	Title	Material	Description
1	Print	- Bioink/cell loaded bioink - Crosslinking agent	Print and crosslink on the coated substrate, following the bioink specific printing protocol. Make sure to not scratch the surface.  Note: Use of CELLINK PrintGlue is recommended for ionically crosslinked CELLINK and GelXA series bioinks.
2	Maintenance	- Cell culture medium	Add/remove media by tilting the substrate and positioning the pipette in the bottom corner. For better results do not use laboratory aspirator.