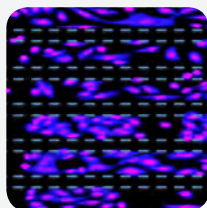
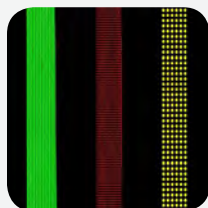
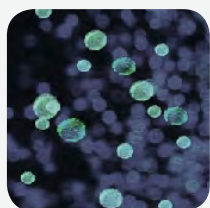
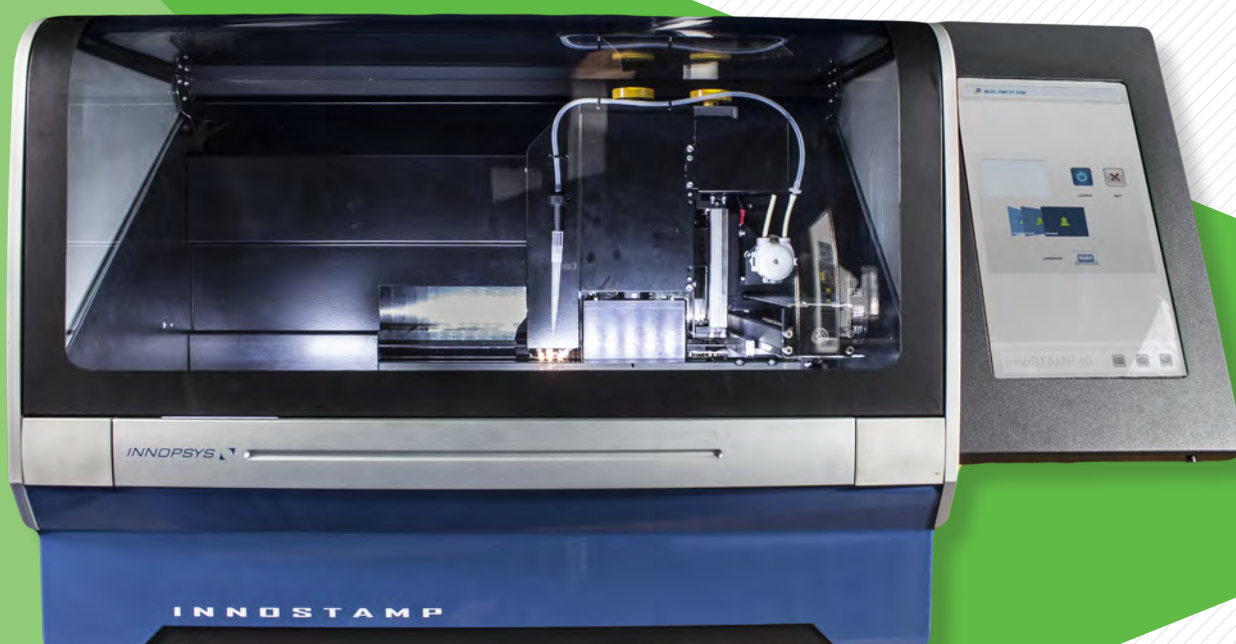


# InnoStamp<sup>®</sup> 40

*“Design your molecular patterns”*



Microcontact printing  
technology dedicated  
to **biology**



# Empowering Applications

## Cell Biology



With microcontact printing, all patterns are feasible up to 100nm. Through deposition of growth factors in nano-patterns, it is possible to control cellular adhesion in order to study cell development, migration, differentiation and even cell polarization in neurons or bacteria...

## Biopatterning



The InnoStamp40 can be used to manufacture DNA or protein microarrays. It can deposit between 64 to 250 different biomolecules in one step. The InnoStamp40 is the perfect tool for the manufacturing of biosensors, point-of-care devices and cell based arrays.

## Chemistry



Microcontact printing can be used to pattern chemical molecules or can be integrated into a synthesis process. In this case, the InnoStamp40 allows the user to generate catalysis, bifunctional Janus beads, "click" chemistry, pollutants sensors and gaz sensors.

# Nano/Micro Patterning

A fully automated microcontact printing solution

- Maximum resolution of 140 nm
- Customizable patterns in size and shape
- Multiple molecules deposition, molecular networks
- High Precision Printing

# Easy Automation

Make molecular stamping easy

- Reproducible and uniform process
- From preliminary testing to small industrial series
- Shorter development time due to user-friendly system
- High-precision printing by magnetic force

# Versatility

Print any molecule on any surface

- Compatible with a wide range of inks and supports:  
*Inks: proteins, DNA, antibodies, nanoparticles, silane, thiols...*  
*Surface materials: glass slide, coverslips, polymer membranes, plastic, silicon wafer...*
- Biocompatible deposition
- Flexible programming



**1 Loading zone**

- Option 1: Up to 4 rectangular stamps (1" x 3")
- Option 2: 1 rounded stamp (max. diameter 4")
- Attachment by magnetic force

**2 Inking zone**

- Compatible with 96-, 384-well microplates
- Temperature-controlled (from 0° to 50°C)
- Limited evaporation by regulation around dew point
- Time and magnetic field controlled step

**3 Alignment zone**

- Automatic Alignment by 2 cameras
- Multidirectional: X-Y-Rotation
- Precision: +/- 20 μm

**High Resolution Module**

- Precision +/- 5 μm

**4 Drying zone**

- Options: Blower / Nitrogen gas / External source
- Antipollution system

**Filtration Module**

- Oil and particle filters

**5 Printing zone**

- 4 microscope slides or a 4"- wafer (max. surface size: 4" x 4")
- Homogeneous printing
- Pressure-controlled from 0 to 120 kPa: related to iron concentration in stamp

**Module for Molding**

- Substrate heating: up to 120°C
- Liquid pipetting: from 30μL to 1mL

**7 Unloading zone**

- Same as loading parameters

**6 Cleaning zone**

- Washing step with or without flux
- Acido-basic buffer or ethanol as a solvent

## Service activities



- Custom printing & Stamp manufacturing
  - Micropatterned substrate supply
  - Process development / R&D
  - Licensing

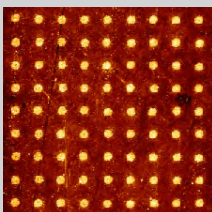
**BIO**SOFT



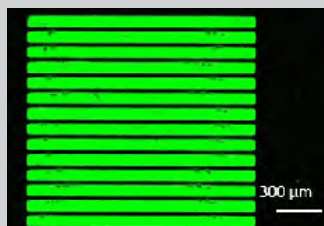
Our joint-lab  
Free trial of the InnoStamp®40 in  
Laas-CNRS laboratory,  
Toulouse, France



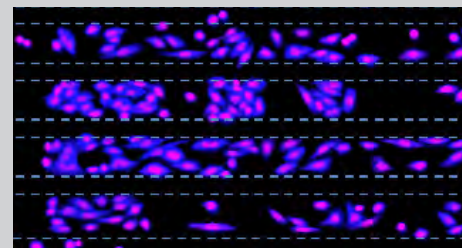
Challenge us with  
your application!



Printing of strepta-  
vidin dots of 1  $\mu$ m  
diameter and 3  $\mu$ m  
pitch.

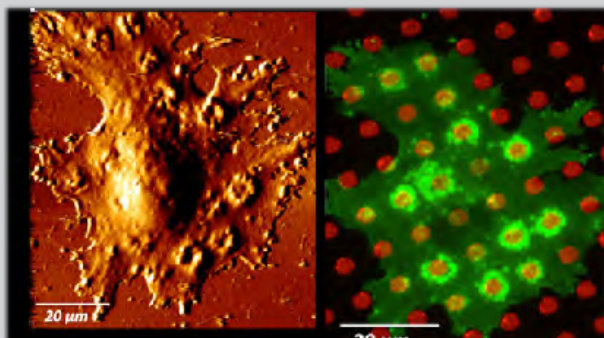


Printing of laminin  
rhodamine lines.



70  $\mu$ m  
Draq 5 (nucleus) GFP (cytoplasm)

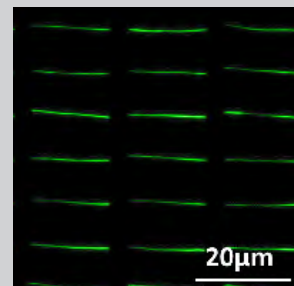
Printing of collagen adhesive lines  
separated with PLL-g-PEG pas-  
sivation agent. After incubation,  
cells stick to the adhesive patterns.



Control of the adhesive sites (green) of a human  
living macrophage by the patterning of ECM pro-  
teins (red) on a glass surface.

## Applications

Printing of single  
actin filaments.



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Specifications subject to change  
without notice. Contact us for the  
most recent specifications.

For Research use only

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