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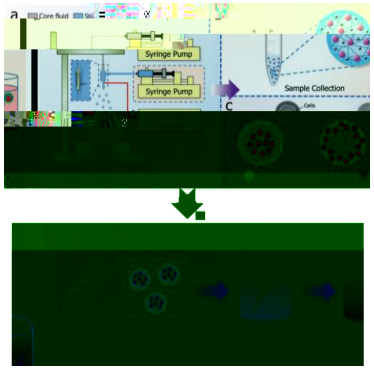
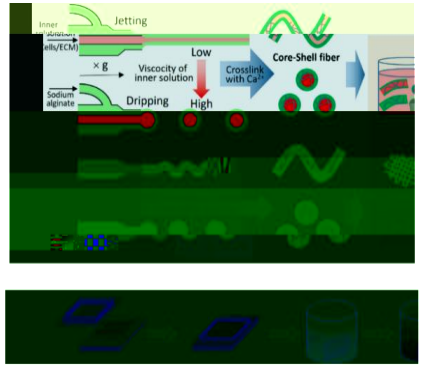
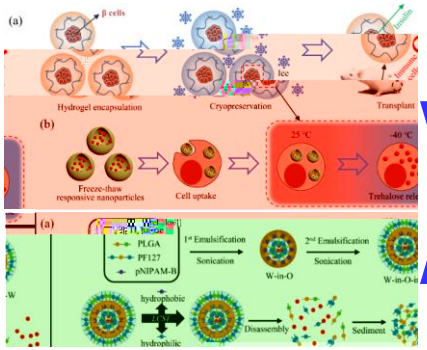
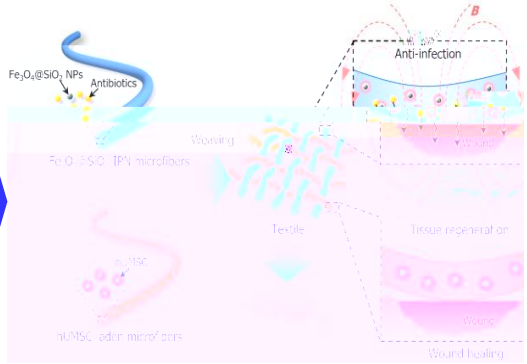
Science Advances Advanced Science Small Biosensors & bioelectronics

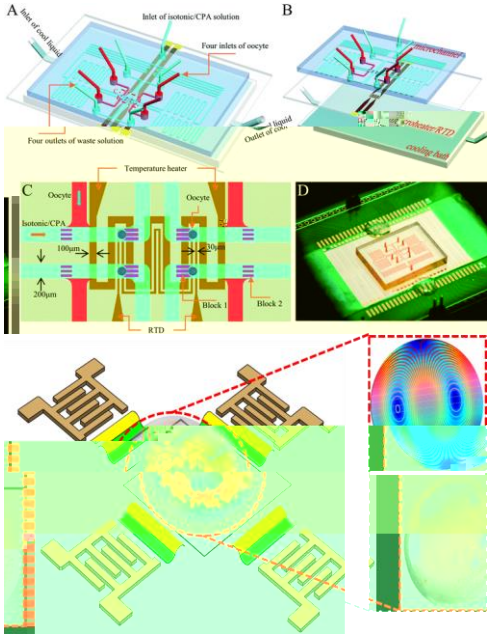
SCI

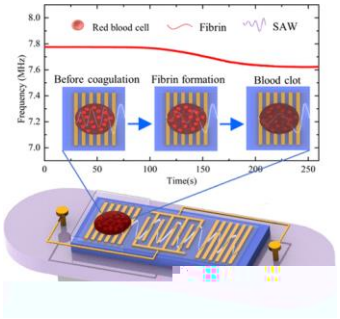

Syringe Pump
Syringe Pump
Sample Collection

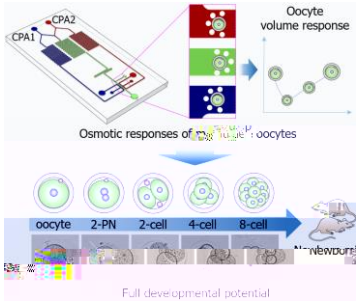

Jetting
Viscocity of inner solution
Low
High
Dripping
Crosslink with Ca2+
Core-Shell fiber
Sodium alginate


(a)
β cells
Hydrogel encapsulation
Cryopreservation
Transplant
(b)
Freeze-thaw responsive nanoparticles
Cell uptake
25 °C
-40 °C
Trehalose
PLGA
PF127
pNIPAM-B
1st Emulsification
Sonication
W-in-O
2nd Emulsification
Sonication
W-in-O-in
hydrophobic
hydrophilic
Disassembly
Sediment


Fe3O4@SiO2 NPs
Antibiotics
Anti-infection
Weaving
Textile
Tissue regeneration
Wound healing


A
B
Inlet of isotonic/CPA solution
Four inlets of oocyte
Four outlets of waste solution
Temperature heater
C
D
Oocyte
Isotonic/CPA
100μm
200μm
Block 1
Block 2
RTD


Red blood cell
Fibrin
SAW
Frequency (MHz)
Time(s)
Before coagulation
Fibrin formation
Blood clot


CPA1
CPA2
Oocyte volume response
Osmotic responses of
oocytes
oocyte
2-PN
2-cell
4-cell
8-cell
Full developmental potential

PHINOVEL

ESCO