

RESEARCH ARTICLE

Decellularized porcine kidney-incorporated hydrogels for cell-laden bioprinting of renal cell carcinoma model

Supplementary File

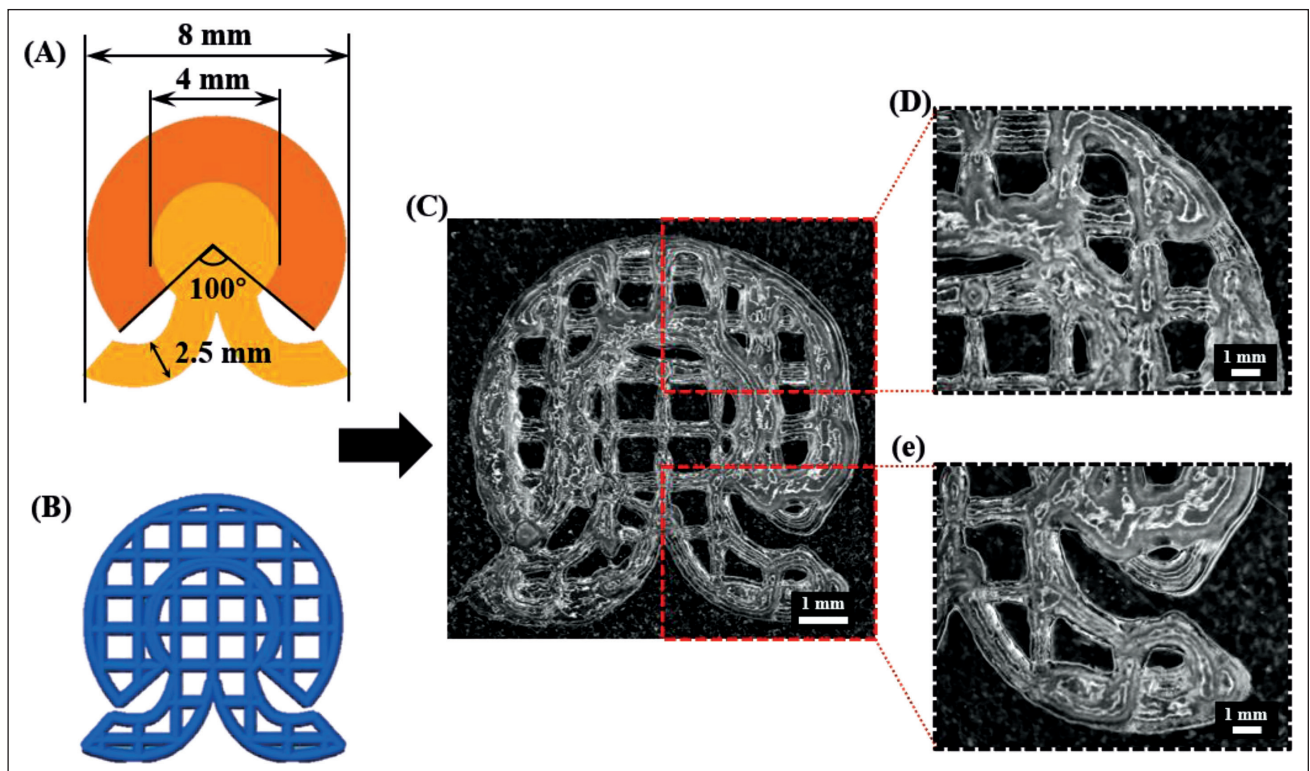


Figure S1. Schematic diagram of nephron structure. (A, B) Design and slice of nephron structure; (C–E) Pictures of the bioprinted nephron structure.

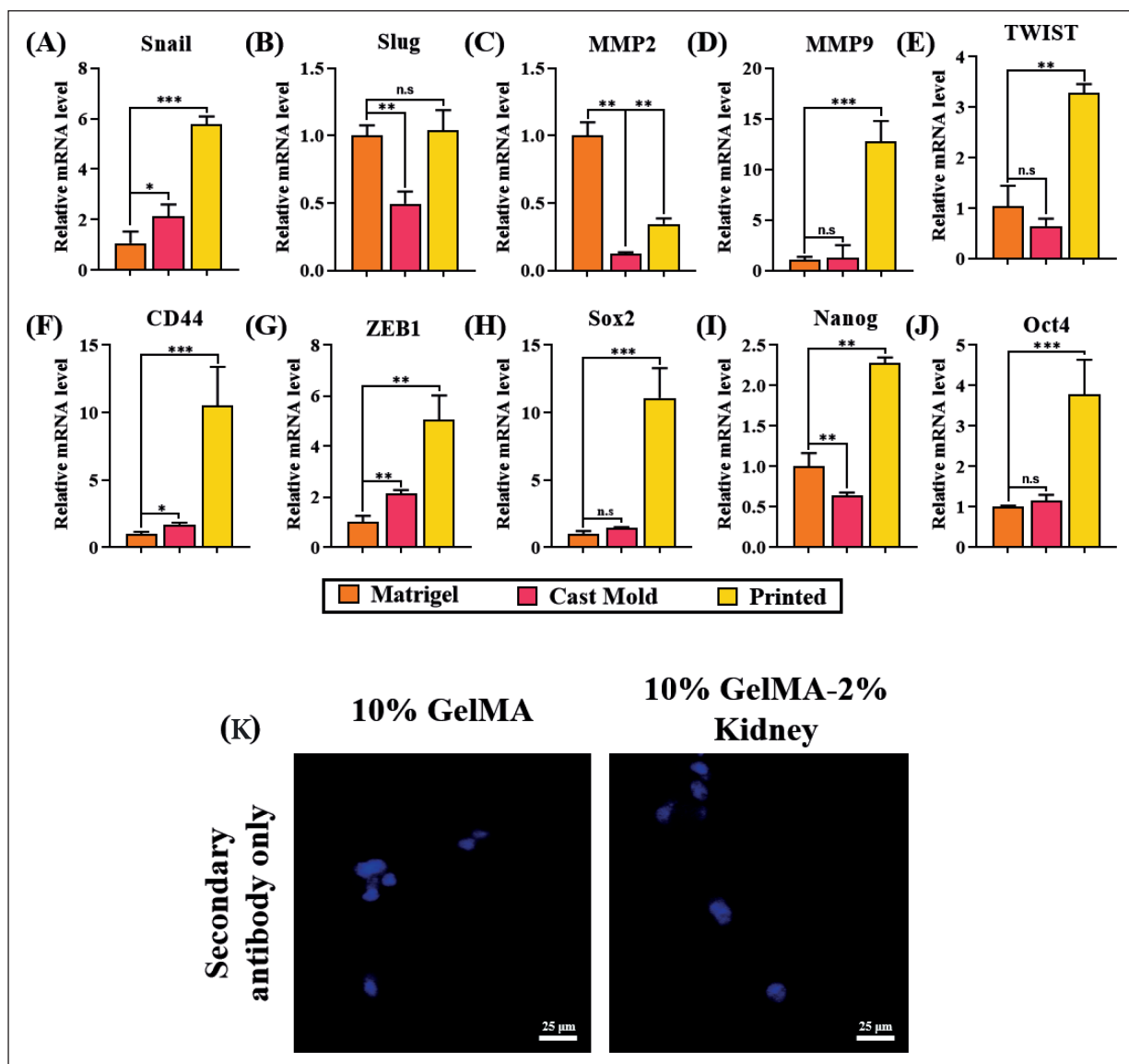


Figure S2. EMT-related gene expression and secondary antibody assay. (A–J) The EMT-related and stemness-related gene expression for ACHN in Matrigel, casted mold using 10% GelMA-2% Kidney, and bioprinted nephron model using of 10% GelMA-2% Kidney; (K) Secondary antibody assay for ACHN cells in bioprinted 10% GelMA and 10% GelMA-2% Kidney.

Table S1. Catalog numbers and companies for the materials used

Materials	Catalog number	Company
Methacrylic anhydride	M102519	Aladdin (China)
Gelatin	G108395	Aladdin (China)
Sodium dodecyl sulfate (SDS)	L3771-500G	Sigma (Germany)
Polydimethylsiloxane (PDMS)	Sylgard-184	Sylgard (USA)
Lithium phenyl-2,4,6-trimethylbenzoylphosphinate (LAP)	EFL-LAP	Engineering For Life (China)
ACHN cells	CL-0021	Procell (China)
Dulbecco's modified Eagle medium (DMEM)	C11995500BT	Gibco (USA)
0.25% trypsin-EDTA	25200056	Gibco (USA)
Penicillin/streptomycin	15140122	Gibco (USA)
Cell counting kit-8 (CCK-8)	C0038	Beyotime (China)
Paraformaldehyde (PFA)	P1110	Beijing Solarbio (China)
4,6-Diamidino-2-phenylindole (DAPI)	C0060	Beijing Solarbio (China)
Phalloidin-FITC	CA1660	Beijing Solarbio (China)
Phosphate-buffered saline (PBS)	P1020	Beijing Solarbio (China)
GAPDH	5174S	Cell Signaling Technology (USA)
CD44	3578S	Cell Signaling Technology (USA)
CDH1	3195S	Cell Signaling Technology (USA)
Vimentin	5741S	Cell Signaling Technology (USA)
CDH2	13116S	Cell Signaling Technology (USA)
Secondary antibody	ab150077	Abcam (UK)
Primer	-	Beijing Tsingke Biotech (China)
Power SYBR Green PCR Master Mix	4367659	Life (USA)
TRIzol	15596018	Life (USA)
FastKing gDNA Dispelling RT SuperMix kits	KR118	Beijing TIANGEN (China)
DNA extraction kits	DP304	Beijing TIANGEN (China)
Fetal bovine serum (FBS)	FSP500	Shanghai ExCell Bio (China)
BCA Protein Assay kits	23225	Thermo Fisher Scientific (MA, USA)
Matrigel	356234	Corning (NY, USA)