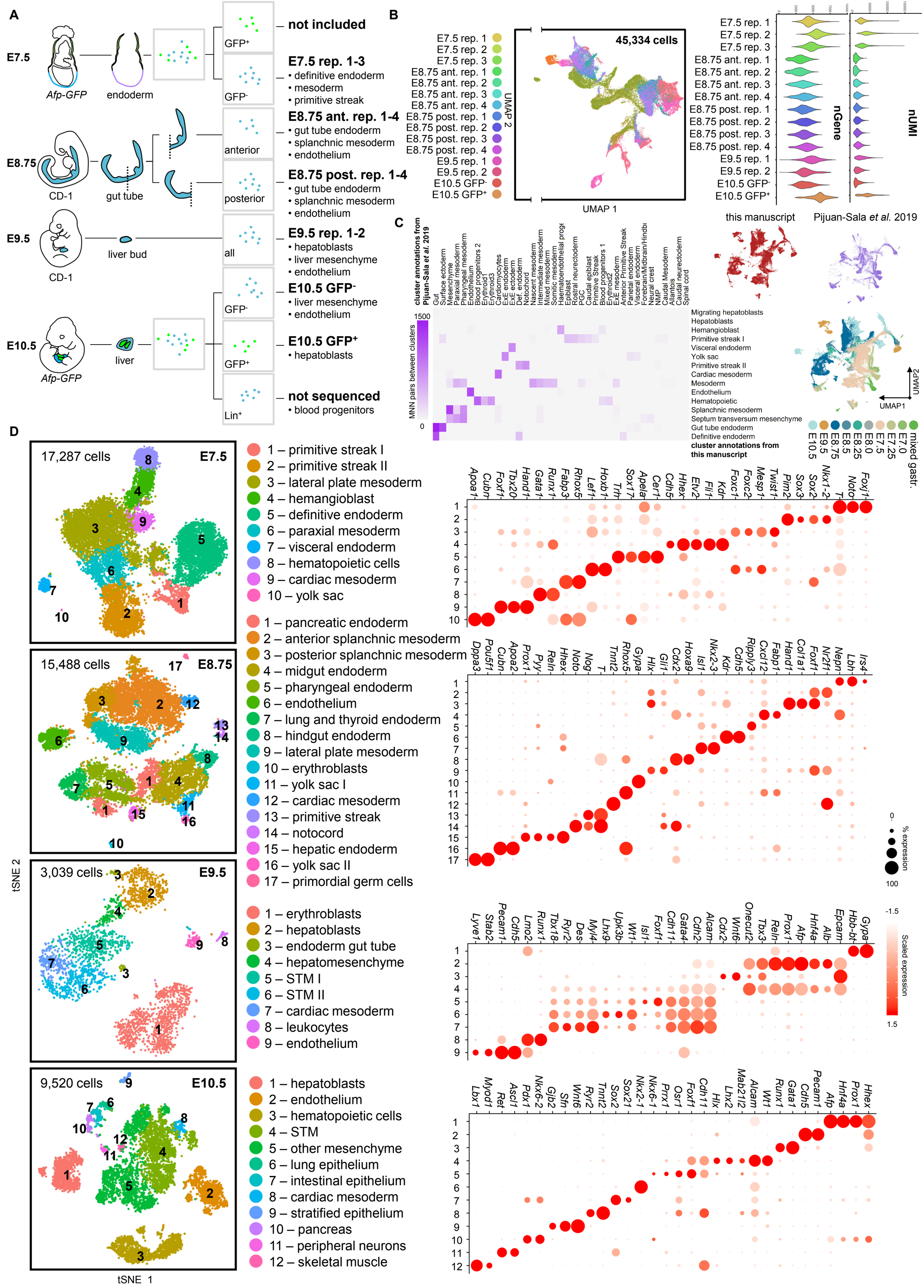
A
E7.5
Afp-GFP
endoderm
GFP+
GFP-
not included
E7.5 rep. 1-3
• definitive endoderm
• mesoderm
• primitive streak
E8.75
CD-1
gut tube
anterior
posterior
E8.75 ant. rep. 1-4
• gut tube endoderm
• splanchnic mesoderm
• endothelium
E8.75 post. rep. 1-4
• gut tube endoderm
• splanchnic mesoderm
• endothelium
E9.5
CD-1
liver bud
all
E9.5 rep. 1-2
• hepatoblasts
• liver mesenchyme
• endothelium
E10.5
Afp-GFP
liver
GFP-
E10.5 GFP-
• liver mesenchyme
• endothelium
GFP+
E10.5 GFP+
• hepatoblasts
Lin+
not sequenced
• blood progenitors
B
E7.5 rep. 1
E7.5 rep. 2
E7.5 rep. 3
E8.75 ant. rep. 1
E8.75 ant. rep. 2
E8.75 ant. rep. 3
E8.75 ant. rep. 4
E8.75 post. rep. 1
E8.75 post. rep. 2
E8.75 post. rep. 3
E8.75 post. rep. 4
E9.5 rep. 1
E9.5 rep. 2
E10.5 GFP-
E10.5 GFP+
UMAP 2
45,334 cells
UMAP 1
nGene
nUMI
this manuscript
Pijuan-Sala et al. 2019
C
cluster annotations from Pijuan-Sala et al. 2019
MNN pairs between clusters
1500
0
Migrating hepatoblasts
Hepatoblasts
Hemangioblast
Primitive streak I
Visceral endoderm
Yolk sac
Primitive streak II
Cardiac mesoderm
Mesoderm
Endothelium
Hematopoietic
Splanchnic mesoderm
Septum transversum mesenchyme
Gut tube endoderm
Definitive endoderm
cluster annotations from this manuscript
UMAP2
UMAP1
E10.5
E9.5
E8.75
E8.5
E8.25
E8.0
E7.5
E7.25
E7.0
mixed gastr.
D
17,287 cells
E7.5
1 – primitive streak I
2 – primitive streak II
3 – lateral plate mesoderm
4 – hemangioblast
5 – definitive endoderm
6 – paraxial mesoderm
7 – visceral endoderm
8 – hematopoietic cells
9 – cardiac mesoderm
10 – yolk sac
15,488 cells
E8.75
1 – pancreatic endoderm
2 – anterior splanchnic mesoderm
3 – posterior splanchnic mesoderm
4 – midgut endoderm
5 – pharyngeal endoderm
6 – endothelium
7 – lung and thyroid endoderm
8 – hindgut endoderm
9 – lateral plate mesoderm
10 – erythroblasts
11 – yolk sac I
12 – cardiac mesoderm
13 – primitive streak
14 – notocord
15 – hepatic endoderm
16 – yolk sac II
17 – primordial germ cells
3,039 cells
E9.5
1 – erythroblasts
2 – hepatoblasts
3 – endoderm gut tube
4 – hepatomesenchyme
5 – STM I
6 – STM II
7 – cardiac mesoderm
8 – leukocytes
9 – endothelium
9,520 cells
E10.5
1 – hepatoblasts
2 – endothelium
3 – hematopoietic cells
4 – STM
5 – other mesenchyme
6 – lung epithelium
7 – intestinal epithelium
8 – cardiac mesoderm
9 – stratified epithelium
10 – pancreas
11 – peripheral neurons
12 – skeletal muscle
tSNE 2
tSNE 1
% expression
Scaled expression