Α.																		
	Stage of			No.	of.	No. of transferred		No	o. of	No. o	of	No. of		No. of		No. of contributed		
	Embryo	Embryo Ce (collected)			1 1			coll	ected	tdTomato		contribute	contributed		d			
	(collecte			injected	ceii	embryos		embryos		positive		epiblast		VE		epiblast+EXE		
	E6.5			single cell		62		36 (58%)		13 (36%)		13 (100%)		0		1 (7%)		
	E7.5		ASCs	single	cell	58		29 (50%)		7 (24%)		7 (100%)		0		0		
·	04	Ctage of			$\overline{}$	NI.	- 6	NI.		No.		NIf	二	No. of				
	•	Stage of Embryo Cell (collected)		No.	of .	No. of transferred embryos			o. of	No. c		No. of		No. of		No. of cor		ntributed
	,			injected	Cell				ected	tdTomato positive		contributed body		contributed body+yolk sac				c+placenta
- 1				-					oryos									2042
- 1			ASCs	single		30		12 (40%)		6 (50%)		6 (100%)		4 (67%)		4 (67%)		,
- 1	E9.5		ASCs	single		30		15 (50%)		7 (47%)		7 (100%)		7 (100%)		5 (71%)		,
-	E10.5		ASCs	single		60		16 (27%)		5 (31%)		5 (100%)		5 (100%)		5 (100%)		,
l	E8.5-E10.5		ASCs	single	cell	120		43 (36%)		18 (42%)		18 (100%)		16 (89%)		14 (78%)		3%)
В																		
	Stage of Embry		0	No.	of I	No. of transferred		No. of	No. of collected		o. of tdTomato		No. of Gonad		No. of contributed			
	(collect	ed)	Cell line	injecte		embryos			orvos		positive		GPF+		body+yolk sac+placenta			
	E12.5		ASCs	,		36				,	+	6 (46%)		6 (100%)		6 (100%)		
-	E12.5		ASCS	Cs single cel		36			13 (36%)			6 (46%)		0 (100%)			6 (10	0%)
С	C																	
-	Stage of Embryo		Cell line	No.		No. of Transferre embryos		red	No. of	pups	No. of	f chimera No		o. of ♂,♀				
				injecte	d cell									0,4				
	Full term		ASCs	single	cell	56		16 (2		9%) 7		(44%)		5, 2				
												•						
D	Store of			No. of	N-	o, of No.		of No		f No. of		No. of		No. of N		No. of No. of contribu		a a ménila mén al
	Stage of Embryo Cell		line	injected	Transfe		No. of collected embryos		No. of tdTomato					contributed conf				
			"""	cell	embr				positive	Epiblast		EXE	٦			ly+yolk	body+yolk sac +placenta	
	E6.5	SQ3.3-2i/LIF		~15 cells	20		10 (50%		5 (50%)	5 (10		0	+	body	bod	тутуотк	- ',	nacenta
		E7.5 SQ3.3-2i		~15 cells	20			,		, ,		0						
	E10.5 SQ3.3			~15 cells	44		23 (52%	_	18 (78%)	,	70 70,	 		18 (100%) 6 ((33%)		1 (6%)
		E10.5 SQ3.3-		ingle cell	45	,		_	2 (10%)	_		 		2 (100%)		0		0
_ '							(, , , ,	7	_ (,				_	_ ()		_		_
Е																		
	_	Stage of			No. of		No. of		No. of	No		No. of		No. of		No. o	of con	tributed
	Embryo	'	Cell line		ected ce	ell l "	ransferre		collected			contributed		contributed		body+yolk sac+placenta		
	(collected)					embry		;	embryos			body		body+yolk				
	E10.5	I E14	/ESC-ASC	Cs / ~	15 cells	34		- 1	22(65%)	1 11(5	0%)	11(100%) I	11(100%)		10(91%)		

Supplementary information Table 2 The summary of contribution of ASCs and ESC-ASCs in chimeras.

18(38%)

8(44%)

8(100%)

8(100%)

8(100%)

E10.5

SQ3.3/ESC-ASCs

~15 cells

47

(A) Contribution of single ASC (GOF-GFP/tdTomato) to chimeras at E6.5-E7.5 and E8.5-E10.5. (B) Contribution of single ASC (GOF-GFP/tdTomato) in E12.5 chimeras. (C) Full term chimeric pups were derived by single ASC. (D) Summary of chimeras derived from control ESCs, and collected at E6.5-E10.5. (E) Contribution of ESC-ASCs (GOF-GFP/tdTomato) in E10.5 chimeras.