

### 3. 受精卵クローン法とは

## 受精卵クローン法による胚発生

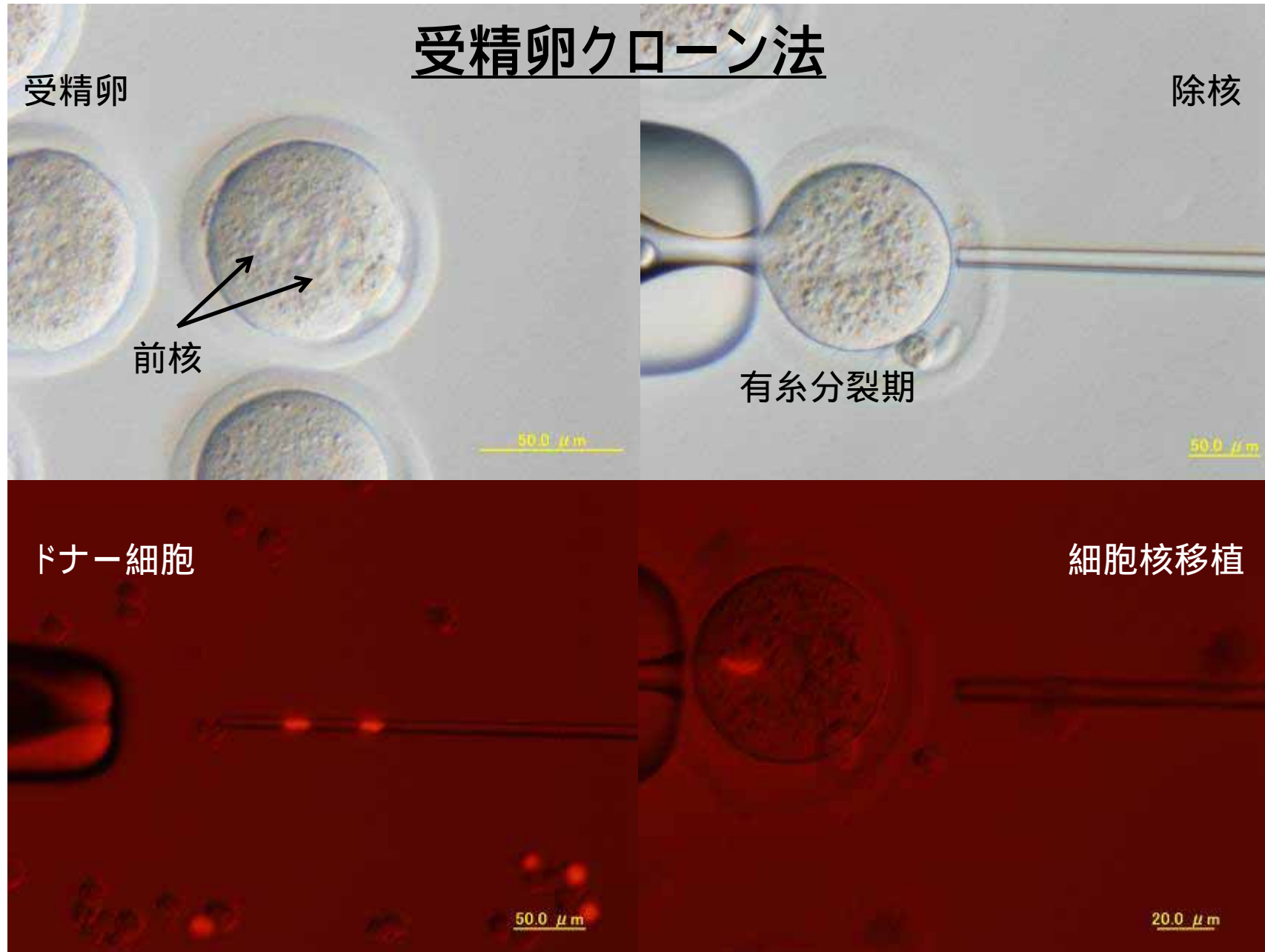
**Table 1 | Developmental potency of zygotes reconstructed with genomes of different developmental and cell cycle stages**

Recipient (cell cycle stage)	Donor (cell cycle stage)	Method	No. manipulated	No. cleaved (% of manipulated)	Morulae, day 3.5	Blastocysts, day 3.5	Morulae and blastocysts (% of cleaved)	No. of embryos transferred (recipients)	No. of pregnant recipients	Pups
Zyg. (M)*	Zyg. (M)	Inj.	46	21 (46)	0	17†	81			
Zyg. (M)‡	Zyg. (M)	Inj.	93	66 (71)	36	17	80	48 (4)	4	16
Zyg. (I)‡	Zyg. (I)	Elec.	20	17 (85)	2	12	82	5 (1)	1	1
Zyg. (M)	2-cell (M)	Inj.	90	70 (78)	19	51	100	65 (5)	4	12
Zyg. (I)	2-cell (I)	Inj.	42	30 (70)	10	3	43	8 (1)	0	0
Zyg. (I)	2-cell (I)	Elec.	13	12 (92)	3†	3†	50			
Zyg. (M)	8-cell (M)	Inj.	30	13 (43)	2	7	69	9 (2)	2	2
Zyg. (I)	8-cell (I)	Inj.	30	16 (53)	0	0	0			
Zyg. (M)	ESC (M)	Inj.	1,093	323 (30)	92	109	62	174 (11)	4	9
Zyg. (I)	ESC (I)	Inj.	47	16 (34)	0	0	0			
Zyg. (I)	ESC (M)	Inj.	55	35 (64)	0	0	0			
Ooc. (MII) <sup>27</sup>	ESC (I)	Inj.	275	212§			34	73 (9)		9
Zyg. (M)	Fib. (M)	Inj.	775	231 (30)	72†	26†	42			
♂♀ Zyg. (M)	ESC (M)	Inj.	23	15 (65)	6	8	93			
♂♂ Zyg. (M)	ESC (M)	Inj.	75	27 (37)	7	11	66			

(Nature ; 447, 2007.)

受精卵	ドナー細胞	桑実胚と胚盤胞への発生率
間期	間期/有糸期	0 %
有糸期	有糸期	42 %
3前核胚 (有糸期)	有糸期	93 %、66 %

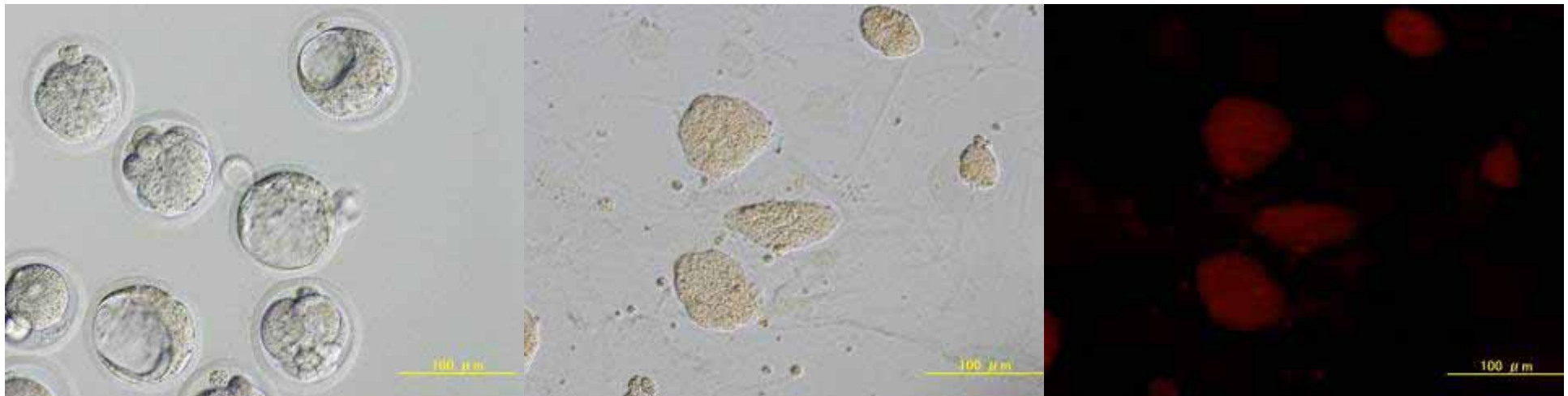
3. 受精卵クローン法とは



# 受精卵クローン法

マウス受精卵クローン法による胚発生 (@ 成育)

受精卵	ドナー細胞	胚盤胞への発生率	ES細胞樹立
有糸期	有糸期	21 / 54 (39%)	7 / 15 (47%)



桑実胚/胚盤胞

受精卵クローン由来ES細胞