Table S1 Published cases with two or more sSMCs with proven origin from different chromosomes.

Table S1A Cases with sSMCs that are derived from 2 different chromosomes.

Chromosomal origin and morphology of sSMCs[1]	Number of sSMCs per cell	Cells with sSMC		de novo[3]	Phenotype[4]	Age at referral	Age of mother	Age of father	Reference[5] (case number)	sSMC Database number
		blood	skin[2]							
r(3);mar2(?)	1-2	100%	n.d.	yes	DD, short stature, at age 7 y microcephaly, short neck, low anterior hair line, no facial dysmorphism	birth	n.d.	n.d.	Callen et al. 1991 [116] (case 2)	mult 2-1
r(6);r(X)	1-2	100%	n.d.	yes	DD, epilepsy, microcephaly, dysmorphic signs, bilateral soft tissue syndactyly of toes 2-3-4	birth	n.d.	n.d.	Callen et al. 1991 [116] (case3)	mult 2-4
r(13/21);r(18)	1-2	100%	n.d.	yes	normal development, congenital heart defects, scoliosis, pyloric stenosis, microphallus	20 m	25 y	n.d	Plattner et al. 1993 [25] (case 20)	mult 2-12
r(12);r(13/21)	0-2	60%	n.d.	mat	duodenal atresia, annular pancreas, atrial septal defect, died at day 12 of intraventricular hemorrhage	birth	22 y	n.d.	Plattner et al. 1993 [25] (case 21b)	mult 2-13
	0-2	57%	n.d.	yes	DD, heart murmur, polydactyly, umbilical hernia, mild cerebral palsy, low normal intelligence	22 y	n.d.	n.d.	Plattner et al. 1993 [25] (mother of case 21b)	
r(17);r(X)	0-3	76%	n.d.	yes	speech impediment, short stature, extensive freckling, familial neurofibromatosis 1 (NF1 mutation)	13 y	n.d	n.d.	Wiktor et al. 1993 [117]	mult 2-8
r(6);r(9)	0-2	83%	n.d.	yes	global DD, autistic features, speech at 3 y, mild dysmorphic signs, clinodactyly	4 y	31 y	35 y	Aalfs et al. 1996 [118]	mult 2-3
mar(6);mar2(?)	1-2	100%	n.d.	yes	DD, scoliosis, dysmorphic signs, microcephaly	n.d.	n.d.	n.d.	Haddad et al. 1998 [119] (case 7)	mult 2-5
r(3);r(?) but not 2,8, 13/21,14/22,15,18,20,X,Y	0-2	84%	n.d.	yes	amniocentesis due to advanced maternal age, normal phenotype at birth	prenatal	n.d.	n.d.	Viersbach et al. 1998 [23] (case 28)	mult 2-14
r(1);r(16)	1-2	100%	n.d.	yes	at 23 m growth delay, DD, facial dysmorphic signs; microcephaly, able to walk, speaking two words	birth	26 y	n.d.	Shanske et al. 1999 [26] (monozygotic twin A)	mult 2-11
	0-2	96%	88%	yes	at 23 m growth delay, microcephaly, bifid right thumb, left inguinal hernia, able to walk and babble	birth	26 y	n.d.	Shanske et al. 1999 [26] (monozygotic twin B)	
r(13);r(18)	0-2	86%	n.d.	yes	slight delay in motor development, marked delay in speech and language, clinodactyly 5th finger	4 yr 4 m	30 y	n.d.	Nandi et al. 2001 [120] sSMC database [14]	mult 2-9

Table S1A - Continued - Cases with sSMCs that are derived from 2 different chromosomes.

Chromosomal origin and morphology of sSMCs[1]	Number of sSMCs per cell	Cells with sSMC		de novo[3]	Phenotype[4]	Age at referral	Age of mother	Age of father	Reference[5] (case number)	sSMC Database number
		blood	skin[2]							
r(6);min(11)	0-2	64%	n.d.	yes	motor delay, craniofacial dysmorphic signs, atrial septum defect, hypoplastic left kidney, persistent ductus arteriosus, normal verbal abilities at 5 y	5 y	34 y	n.d.	Maurer et al. 2001 [121]	mult 2-10
r(3);r(13)	0-2	55%	n.d.	yes	DD, speech delay, hyperactivity, facial dysmorphic signs (flat face, prominent nose, retrognathia)	5 y	31 y	n.d.	Levy et al. 2002 [122]	mult 2-2
min(9);min(20)	1-2	n.d.	80%	yes	amniocentesis due to abnormal triple test results, hygroma colli, pregnancy terminated	prenatal	n.d.	n.d.	Starke et al. 2003 [2] (case 34)	mult 2-6
i(10)/min(18)	0-1	n.d.	50%	yes	amniocentesis due to ultrasound abnormalities, microcephaly, heart defect, spontaneous abortion	prenatal	n.d.	n.d.	Starke et al. 2003 [2] (case 35)	mult 2-7
r(9);r(18)	1-2	100%	n.d.	n.d.	3-day newborn suspected of Down syndrome, no additional clinical information	3 d	n.d.	n.d.	Hall et al. 2005 [123]	mult 2-15
der(11); mar2(?)	0-2	n.d.	n.d.	n.d.	mild psychomotor delay, no additional clinical information	n.m.	n.d.	n.d.	Sanz et al. 2005 [124] (case 4)	mult 2-16
inv dup(15);r(X)	0-2	93%	80%	pat?	amniocentesis due to advanced maternal age, at 8 y no abnormalities, only growth delay	prenatal	n.d.	n.d.	A. Dufke (Tübingen); sSMC database [14]	mult 2-17
r(5);min(6)	0-3	87%	n.d.	n.d.	adipositas, minor dysmorphic signs, at 6y mental and developmental retardation	6 y	n.d.	n.d.	Liehr et al. 2006 [33]	mult 2-19
r(8);r(Y)	0-2	92%	n.d.	yes	learning difficulties, speech delay, gynaecomastia, eunechoid overgrowth, facial dysmorphic features	10 y	17 y	n.d.	Weimer et al. 2006 [125]	mult 2-20
mar(13/21);mar(17)	2	n.d.	100%	n.d.	amniocentesis due to abnormal ultrasound findings, duodenal atresia, polyhydramnion, stillbirth	prenatal	n.d.	n.d.	Huang et al. 2006 [126] (case 105)	mult 2-22
mar(13/21); mar(non-acrocentric)	1-2	n.d.	53%	n.d	amniocentesis due to positive serum screening, prenatal ultrasound normal, normal at 3 m	prenatal	n.d.	n.d. `	Huang et al. 2006 [126] (case 106)	mult 2-23
mar(18);mar2(?)	0-2	n.d.	67%.	n.d.	amniocentesis due to advanced maternal age, ultrasound normal, pregnancy terminated	prenatal	n.d.	n.d.	Huang et al. 2006 [126] (case 107)	mult 2-24

Table S1A - Continued - Cases with sSMCs that are derived from 2 different chromosomes.

Chromosomal origin and morphology of sSMCs[1]	Number of sSMCs per cell	Cells with sSMC		de novo[3]	Phenotype[4]	Age at referral	Age of mother	Age of father	Reference[5] (case number)	sSMC Database number
		blood	skin[2]							
min(1);min(8)	0-2	n.d.	68%	yes	amniocentesis, tetraology of Fallot, hernia diaphragmatica, baby died a few days after birth	prenatal	n.d.	n.d.	Mehnert (Neu Ulm); sSMC database [14]	mult 2-25
r(7);min(13)	1-2	100%	11%	n.d.	mild mental retardation, slightly dysmorphic facial features; r(7) in 11/100 buccal mucosa cells	adult	n.d.	n.d.	M. Sagai (Israel); sSMC database [14]	mult 2-26
min(11);min(17)	1-2	100%	n.d.	n.d.	multiple congenital abnormalies	n.d.	n.d.	n.d.	Ballif et al. 2006 [27] (10) Ballif et al. 2007 [86] (6)	mult 2-27
min(4);r(18)	0-2	97%	n.d.	yes	moderate psychomotor retardation, short stature, facial dysmorphic signs	2 y 6 m	n.d.	n.d.	Pietrzak et al.2007 [127](MK) Tönnies et al.2007 [128] (15)	mult 2-18
r(8); min(21)	0-3	96%	n.d.	yes	psychomotor retardation,facial dysmorphism, partial corpus callosum agenesis, brachycephaly,hypotonia	n.d.	n.d.	n.d.	Pietrzak et al.2007 [127](NP) Tönnies et al.2007 [128] (16)	mult 2-21
mar(14/22);mar(20)	2	n.d.	6%	n.d.	amniocentesis because of serum screening result, no dysmorhorphic sings, normal development at 9 m	prenatal	n.d.	n.d.	Baldwin et al. 2008 [13] (case 23)	mult 2-43
der(13);mar2(?)	2	100%	n.d.	yes	moderate DD, macrocephaly; bilateral Axenfeld-Rieger anomaly in eye; short, thick corpus callosum	2y	n.d.	n.d.	Tsuchiya et al. 2008 [103] (case 2)	not in database
min(8);min(11)	1-2	100%	n.d.	n.d.	prematurity, no additional information available	4 m	n.d.	n.d.	J. Anderson (Brisbane); sSMC database [14]	mult 2-28
inv dup(14/22); inv dup(15)	1-2	100%	n.d.	n.d.	normal phenotype, parental karyotyping because of inv dup(14/22) was present in child	42y	n.d.	n.d.	Gloning (Munich) ; sSMC database [14]	mult 2-29
min(13);min(17)	0-2	65%	n.d.	yes	DD, verbal apraxia, autism, hyperactivity, hypotonia, otitis media, mild dysmorphic signs	7y 11m	25 y	n.d.	Kogan et al. 2009 [19]	mult 2-30
r(8);min(9)	0-2	n.d.	n.d.	n.d.	no information available	n.d.	n.d.	n.d.	C. Fuster (Spain); sSMC database [14]	mult 2-31
min(8);min(20)	0-2	70%	n.d.	n.d.	multiple congenital malformations	1 y	n.d.	n.d.	A. Polityko (Minsk); sSMC database [14]	mult 2-32

Table S1A - Continued - Cases with sSMCs that are derived from 2 different chromosomes.

Chromosomal origin and morphology of sSMCs[1]	Number of sSMCs per cell	Cells with sSMC		de novo[3]	Phenotype[4]	Age at referral	Age of mother	Age of father	Reference[5] (case number)	sSMC Database number
		blood	skin[2]							
dic(4;4);inv dup(13/21)	2	100%	n.d.	n.d.	induced abortion at 22 weeks of gestation; facial dysmorphism, no pathological abnormalities	prenatal	n.d.	n.d.	Horacek (Czech Rep.); sSMC database [14]	mult 2-33
min(13);der(20)	0-2	93%	n.d.	n.d.	abnormal phenotype, no additional information	n.d.	n.d.	n.d.	Neill et al. 2010 [129] (case 25862)	mult 2-34
min(13);mar(X)	0-2	21%	n.d.	n.d.	abnormal phenotype, no additional information	n.d.	n.d.	n.d.	Neill et al. 2010 [129] (case 27978)	mult 2-35
der(4);min(13)	0-2	63%	n.d.	n.d.	abnormal phenotype, no additional information	n.d.	n.d.	n.d.	Neill et al. 2010 [129] (case 31633)	mult 2-36
inv dup(13/21); inv dup(Y)	0-2	63%	n.d.	yes	nanosomia, no additional information available	n.d.	n.d.	n.d.	Liehr (Jena); sSMC database [14]	mult 2-37
min(16);min(20)	2	100%	n.d.	yes	nanosomia, no additional information available	n.d.	n.d.	n.d.	Z. Borochowitz (Israel); sSMC database [14]	mult 2-38
min(6);min(20)	0-2	91%	n.d.	n.d.	clinically normal phenotype, no developmental retardation, referred because of recurrent abortion	28 y	n.d.	n.d.	Guediche et al. 2012 [113]	mult 2-39
r(4);min(11)	0-2	n.d.	>60%	n.d	prenatal karyotyping due to previous pregnancy with trisomy 21, normal ultrasound observations	prenatal	n.d.	n.d.	Duba (Linz,Austria); sSMC database [14]	mult 2-40
min(15);min(20)	0-2	67%	n.d.	yes	mental retardation, dysmorphic features	3 m	n.d.	n.d.	Mkrtchyan (Yerevan); sSMC database [14]	mult 2-41
r(5);r(20)	2	n.d.	100%	yes	severe intrauterine growth retardation, no additional information available	prenatal	n.d.	n.d.	Zolotukhina et al. 2013 [130] (case 4)	mult 2-42
der(1);der(7)	0-2	85%	n.d.	n.d.	normal woman; infertile	31 y	n.d.	n.d.	Wagner/Stibbe (Hannover); sSMC database [14]	mult 2-45
der(10);der(12)	1-2	100%	100%	yes	at birth overgrowth; normal development at 1 y	prenatal	n.d.	n.d.	case provided by family; sSMC database [14]	mult 2-46

Table S1B Cases with sSMCs that are derived from 3 different chromosomes.

Chromosomal origin and morphology of sSMCs[1]	Number of sSMCs per cell	Cells with sSMC		de novo[3]	Phenotype[4]	Age at referral	Age of mother	Age of father	Reference[5] (case number)	sSMC Database number
		blood	skin[2]							
r(4);r(17);r(20)	0-3	n.d.	n.d.	yes	amniocentesis for advanced mat. age, termination of pregnancy 21 weeks, minor dysmorphic signs	prenatal	38 y	n.d.	Mackie-Ogilvie et al. 1997 [131] (case 1)	mult-3-1
mar(12); mar(13/21); mar(19)	2-3	n.d.	100%	yes	amniocentesis due to abnormal ultrasound, after birth DD, brain abnormality, dysmorphic features	prenatal	n.d.	n.d.	Huang et al. 2006 [126] (case 103)	mult 3-2
mar(4);mar(8); mar(non-acrocentric)	2-4	n.d.	100%	yes	amniocentesis due to advanced maternal age, prenatal ultrasound normal, normal at 20 m	prenatal	n.d.	n.d.	Huang et al. 2006 [126] (case 104)	mult 3-3
mar(3);mar(7);mar(8)	1-3	n.d.	100%	yes	amniocentesis for increased Down risk, ventricular septal defect, clitomegaly, pulmonary defects	prenatal	n.d.	n.d.	Toksoy et al. 2007 [132]	mult 3-4
mar(4);mar(8);mar(11)	0-3	97%	n.d.	yes	DD, Pierre-Robin sequence, ventricular septum defect, delayed speech, autism, dysmorphic signs	4 m	32 y	n.d.	Hochstenbach et al. 2016 [22] (postnatal case)	mult 3-5
mar(5);mar(8);min(9)	0-3	95%	n.d.	yes	mental retardation, facial dysmorphism, obesity, hypospadias, syndactyly 2nd-3rd toes	4 y	n.d.	n.d.	Sheth et al. 2011 [31] (case P-14)	mult 3-6
min(2);min(3);min(7)	1-3	100%	n.d.	yes	short stature, short webbed neck, low hair line, short hands, short fingers and 3-4 toes,hypotonia	15 y	n.d.	n.d.	Sheth et al. 2011 [31] (case P-15)	mult 3-7
der(1);der(12);der(18)	0-3	93%	n.d.	yes	severe mental retardation, seizures, no speech, multiple facial dysmorphic signs	4 y	n.d.	n.d.	Schwanitz et al. 2013 [21]	mult 3-10
min(2);idic(18;18); mar3(?)	1-3	100%	n.d.	yes	no clinical symptoms	n.d.	n.d	n.d.	Castronovo et al. [87] 2013 (case 15)	mult 3-11
min(7);min(8);min(10)	1-3	100%	n.d.	n.d.	no information	n.d.	n.d.	n.d.	Soler (Porto,Portugal) sSMC database [14]	mult 3-12

Table S1C Cases with sSMCs that are derived from 4 different chromosomes.

Chromosomal origin and morphology of sSMCs[1]	Number of sSMCs per cell	Cells with sSMC		de novo[3]	Phenotype[4]	Age at referral	Age of mother	Age of father	Reference[5] (case number)	sSMC Database number
		blood	skin[2]							
r(8);r(14 /22);r(15);r(X)	1-4	100%	n.d.	yes	microcephaly, small stature, ptosis, scoliosis, hip dislocation, radial deviation of hands, seizures	birth	33 y	29 y	Plattner et al. 1993 [25] (case 22)	mult 4-10
r(4);r(8);r(10);r(X)	0-4	n.d.	n.d.	yes	no developmental delay at 4 y except for motor delay because of joint laxity, dysmorphic signs	birth	34 y	n.d.	Mackie-Ogilvie et al. 1997 [131] (case 2)	mult 4-1
r(?5);r(7);r(15);r(22)	2-6	100%	~97%	n.d.	DD, hypotonia, macroglossia, low set ears	7 m	n.d.	n.d.	Reddy et al. 2003 [17] (case 1)	mult 4-2
min(1);min(5); min(6);min(7)	0-5	90%	n.d.	n.d.	mental retardation, impaired speech, dysmorphic signs	58 y	n.d.	n.d.	Reddy et al. 2003 [17] (case 2)	mult 4-3
min(6);min(8); min(11);min(12)	4	100%	n.d.	yes	psychomotor delay in youth, bilateral strabismus, cryptorchism, hypogenitalism, claw toes	1 y 7 m	n.d.	n.d.	Fernández-Toral et al. 2010 [133]	mult 4-5
der(4);der(5); der(8);der(13	1-4	100%	n.d.	yes	DD, mental retardation, facial abnormalities, abnormally placed anus, ASD	7 m	n.d.	n.d.	E. Mansilla Aparicio (Madrid); sSMC database [14]	mult 4-7
min(3);r6);r(9);min(13)	0-4	70%	n.d.	n.d.	no clinical symptoms	adult.	n.d.	n.d.	M. Vesijc (Belgrade,Serbia) sSMC database [14]	mult 4-8
r(11);r(12);r(X);mar4(?)	0-4	96%	95-98%	yes	mild mental retardation, obesity, heart defect, club foot left, asymmetrical growth of lower legs	20 y	19 y	n.d.	Joziasse et al. 2009 [134] Hochstenbach et al. 2013 [20]	mult 4-9

Table S1D Cases with sSMCs that are derived from 5 different chromosomes.

Chromosomal origin and morphology of sSMCs[1]	Number of sSMCs per cell	Cells with sSMC		de novo[3]	Phenotype[4]	Age at referral	Age of mother	Age of father	Reference[5] (case number)	sSMC Database number
		blood	skin[2]							
min(6);min(7);min(10); min(12);min(19)	2-5	100%	100%	yes	psychomotor retardation, dysmorphic signs, heart defect, agenesis of corpus callosum, situs inversus	6 m	18 y	n.d.	Beverstock et al. 2003 [15]	mult 5-1
min(1/5/19);r(12); min(13);min(16);min(X)	4-9	n.d.	n.d.	n.d.	studied in chorionic villi, hypertroph fetus,increased nuchal translucency, hexadactyly, omphalocoele	prenatal	n.d.	n.d.	Mau-Holzmann (Tübingen) sSMC database [14]	mult 5-2
der(12);der(19);der(21); der(22); der(X)	3-6	n.d.	n.d.	n.d.	no information	3 y	n.d.	n.d.	Anguiano et al. 2012 [135]	mult 5-4
min(4);min(6);min(9); min(14);min(22)	1-6	n.d.	100%	yes	amniocentesis due to advanced maternal age, termination of pregnancy, fetus not investigated	prenatal	37 y	n.d.	Hochstenbach et al. 2016 [22] (prenatal case)	mult 5-3

Table S1E Cases with sSMCs that are derived from 6 different chromosomes.

Chromosomal origin and morphology of sSMCs[1]	Number of sSMCs per cell	Cells with sSMC		de novo[3]	Phenotype[4]	Age at referral	Age of mother	Age of father	Reference[5] (case number)	sSMC Database number
		blood	skin[2]							
der(1);?r(2);der(5); der(6);der(12); inv dup(14)	1-6	100%	100%	n.d.	moderate mental retardation, no obvious dysmorphic signs, normal neurological findings	47 y	n.d.	n.d.	Vermeesch et al. 1999 [32]	mult 6-1
der(3);der(12), der(13/21)der(22); der(X);mar6(?)	1-6	100%	n.d.	yes	mild DD, impaired speech, velar deficiency , syndactyly $2n^{d}$-3^{rd} toes,dysmorphic signs	7 y	n.d.	n.d.	Le Du et al. 2009 [136]	mult 6-2

Table S1F Cases with sSMCs that are derived from 7 different chromosomes.

Chromosomal origin and morphology of sSMCs[1]	Number of sSMCs per cell	Cells with sSMC		de novo[3]	Phenotype[4]	Age at referral	Age of mother	Age of father	Reference[5] (case number)	sSMC Database number
		blood	skin[2]							
?r(1);?r(3);r(11); min(14);min(20); min(21);min(X)	3-7	100%	n.d.	yes	amniocentesis for enlarged kidneys, no dysmorphic signs at birth, unilateral hydronephrosis, normal development at 1 y	prenatal	29 y	n.d.	Ulmer et al. 1997 [114]	mult 7-1
der(1/5/19);der(2); der(4);der(6);der(9); der(10);der(13/21)	3-7	100%	100%	n.d.	no gross abnormalities except hypospadias and undescended testis, normal development at 2 y	prenatal	n.d.	n.d.	Chen et al. 2006 [115]	mult 7-2

Table S1G Cases in which one of the multiple sSMCs are complex and contain DNA from two different chromosomes.

Chromosomal origin and morphology of sSMCs[1]	Number of sSMCs per cell	Cells with sSMC		de novo[3]	Phenotype[4]	Age at referral	Age of mother	Age of father	Reference[5] (case number)	sSMC Database number
		blood	skin[2]							
der(1);der(7); der(11)r(4;11);der(X)	2-4	100%	100%.	yes	fusion of frontal lobes and thalami, partial agenesis of corpus callosum, bilateral cleft lip anomaly	birth	n.d.	n.d.	Tsuchiya et al. 2008 [103] (case 4)	mult 4-4
der(2); der(14/22)t(14/22;19)	2	100%	n.d.	yes	DD, facial asymmetry, urinary reflux, agenesis of corpus callosum, obesity	3 y	n.d.	n.d.	Davidsson et al. 2010 [104]	mult 2-44
der(11);der(19); der(11;19)	1-4	100%	n.d.	yes	severe DD, epilepsy, hypotonia, facial dysmorphic signs, atrial septal defect, cryptorchism	birth	27 y	29 y	Fei et al. 2011 [137]	mult 3-8
dic r(15)ins(15;5) (?;q35.3q35.3);min1(18); min2(18)	1-3	100%	n.d.	n.d.	mental retardation, delayed speech, hyperactivity, mild dysmorphic signs, mild syndactyly 2^{nd}-3^{rd} toe	2 y 10 m	16 y	n.d.	Hu et al. 2011 [105]	mult 3-9
der(1);der(6);der(9); possibly material from 17 in one of these	3-6	100%?	n.d.	n.d.	respiratory distress, suspected sepsis	birth	n.d.	n.d.	Penton et al. 2014 [138] (patient 1)	mult 3-13
der(1);der(8);der(13); der(X;6;16)	3-6	100%?	n.d.	n.d.	ventricular septal defect, patent ductus arteriosus, low set ears, widely spaced nipples	birth	n.d.	n.d.	Penton et al. 2014 [138] (patient 2)	mult 6-3

Table S1H Cases in which the chromosomal origin (of most) of the multiple sSMCs was not identified.

Chromosomal origin and morphology of sSMCs[1]	Number of sSMCs per cell	Cells with sSMC		de novo[3]	Phenotype[4]	Age at referral	Age of mother	Age of father	Reference[5] (case number)	sSMC Database number
		blood	skin[2]							
rings, origin n.d.	0-2	95%	n.d.	yes	development within normal limits, short stature, facial dysmorphisms, frontal bossing, micrognatia	20 m	n.d.	n.d.	Daniel et al. 1994 [139] (case 8)	not in database
mar1(?);mar2(?)	2	n.d.	7%	n.d.	prenatal ultrasound normal, seizures, abnormal EEG	prenatal	n.d.	n.d.	Huang et al. 2006 [126] (case 108)	not in database
up to 3 markers, origin n.d.	1-3	n.d.	100%	yes	amniocentesis for advanced maternal age	prenatal	38 y	39 y	Hook and Cross 1987 [140] case BDI 40083	not in database
r(5),mar2(?), mar3(?),mar4(?)	4	100%	n.d.	yes	DD, facial dysmorphic signs, microcephaly, café au lait spots	7 y	n.d.	n.d.	Vundinti et al. 2012 [141]	mult 4-6
rings and rods, origin n.d.	0-5	97%	81%	yes	DD, pulmonic stenosis, brachycephaly, webbed neck, camptodactyly, expressive language delay	4 y 4 m	25 y	29 y	Mascarello et al.1987 [142]	not in database
up to five markers, origin n.d.	3-5	n.d.	100%	mat	amniocentesis due to advanced maternal age	prenatal	36 y	n.d.	Hook and Cross 1987 [140] case BDI 41926	not in database
rings, possibly also rods, origin n.d.	1-5	100%	n.d.	yes	DD, psychomotor retardation, language delay short stature, brachycephaly, facial dysmorphism	28 y	24 y	29 y	Tozzi et al. 1988 [143]	not in database

Notes:

1 these sSMCs may occur in different combinations per cell; sSMCs can have a ring-shaped appearance (r), rod-shaped (miniature, abbreviated min), they can be isodicentrics (idic), isochromosomes (i) or inverted duplication chromosomes (inv dup); in case the morphology has not determined, they are named markers (mar); see the corresponding entry in the sSMC Database [14] for the methods used to identify the chromosome of origin

2 skin: in prenatally detected cases this refers to cultured amniocytes; n.d. not determined

3 in almost all cases studied the multiple sSMCs arose *de novo*, there is one case of maternal transmission of multiple sSMCs (abbreviated mat)

4 DD developmental delay; m month; y year

5 cases are listed following the chronological order of publication