Supplementary Material

# Supplementary Table

**Supplementary Table 1**

Cases with pericentric inversion leading to viable offspring (postnatal and prenatal cases not separated) with recombinant chromosomes. The largest tolerated imbalance per chromosome arm is highlighted for dup-p/del-q in yellow and for del-p/dup-q in violet.

References are given as numbers and are listed below this Table!

Abbreviations: del = deletion; dup = duplication; del/dup = deletion or duplication; dup/del = duplication or deletion; p = short arm of a chromosome; q = long arm of a chromosome

|  |  |  |  |
| --- | --- | --- | --- |
| **Parental inversion** | **distal p-part** | **distal q-part** | **Reference** |
| inv(X)(p11.23q26) | dup | del | 93 |
| inv(X)(p22.3q27) | dup | del | 108 |
| inv(X)(p22.1q28) | dup | del | 1 |
| inv(X)(p22.31q22.3) | dup | del | 92 |
| inv(X)(p21q28) | dup | del | 83 |
| inv(X)(p22q22) | dup | del | 91 |
| inv(X)(p22q24) | dup | del | 90 |
| inv(X)(p22q11) | dup | del | 172 |
| inv(X)(p22.31q27.3) | del | dup | 113 |
| inv(X)(p22q13) | del | dup | 136 |
| inv(X)(p11.2q26) | del | dup | 85 |
| inv(X)(p22.3q26.3) | del | dup | 2 |
| inv(X)(p22.3q27.37) | del | dup | 89 |
| inv(X)(p22q13) | del | dup | 82 |
| inv(X)(p22.2q26) | del | dup | 102 |
| inv(X)(p22.3q26.3) | del | dup | 84 |
|  |  |  |  |
| inv(1)(p36.3q43) | dup | del | 154 |
| inv(1)(p36.3q42.3) | dup | del | 162 |
| n.a. | del | dup |  |
|  |  |  |  |
| n.a. | dup | del |  |
| inv(2)(p25q35) | del | dup | 34 |
| inv(2)(p25.3q33.3) | del | dup | 35 |
|  |  |  |  |
| inv(3)(p25q21) | dup/del | del/dup | 126 (in one patient) |
| inv(3)(p25q21) | dup/del | del/dup | 156 |
| inv(3)(p25q23) | del | dup | 190 |
| inv(3)(p25q23) | del | dup | 191 |
| inv(3)(p25q23) | del | dup | 36 |
| inv(3)(p25q25) | del | dup | 37 |
| inv(3)(p25q25) | del | dup | 38 |
| inv(3)(p25q21) | del | dup | 155 |
| inv(3)(p25q25) | del | dup | 157 |
| inv(3)(p25q25) | del | dup | 158 |
| inv(3)(p26q21) | del | dup | 159 |
| inv(3)(p25q21) | del | dup | 160 |
| inv(3)(p25q21) | del | dup | 161 |
| inv(3)(p25q21) | del | dup | 189 |
|  |  |  |  |
| inv(4)(p1?5q3?5) | dup/del | del/dup | 12  |
| inv(4)(p15.32q35) | dup/del | del/dup | 29 |
| inv(4)(p?q?) | dup | del | 97 |
| inv(4)(p14q35.1) | dup | del | 165 |
| inv(4)(p15.2q32.3) | dup | del | 22 |
| inv(4)(p14q35.1) | dup | del | 96 |
| inv(4)(p15.1q35.1) | dup | del | 32 |
| inv(4)(p15.1q35.1) | dup | del | 33 |
| inv(4)(p15.3q34.2) | dup | del | Decipher Patient ID 269158 |
| inv(4)(p14q35) | dup | del | 199 |
| inv(4)(p14q35) | dup | del | 200 |
| inv(4)(p14q35) | dup | del | 201 |
| inv(4)(p13q35) | dup | del | 202 |
| inv(4)(p13q34) | dup | del | 193 |
| inv(4)(p14q35) | del | dup | 11 |
| inv(4)(p15q35) | del | dup | 12 |
| inv(4)(p16q31.3) | del | dup | 23 |
| inv(4)(p15.2q28.2) | del | dup | 24 |
| inv(4)(p15.2q35) | del | dup | 30 |
| inv(4)(p15.2q35) | del | dup | 25 |
| inv(4)(p16q31.3) | del | dup | 26 |
| inv(4)(p16.2q35.1) | del | dup | 27 |
| inv(4)(p16.3q35.2) | del | dup | 28 |
| inv(4)(p13q28) | del | dup | 31 |
| inv(4)(p15.2q32) | del | dup | 144 |
| inv(4)(p16.3q34.3) | del | dup | 145 |
| inv(4)(p15.3-p16q33) | del | dup | 149 |
| inv(4)(p12q35) | del | dup | 148 |
| inv(4)(p16.3q35.2) | del | dup | 150 |
| inv(4)(p15q31) | del | dup | 192 |
| inv(4)(p15.2q25) | del | dup | 194 |
|  | del | dup |  |
| inv(5)(p15.33q35.3) | dup/del | del/dup | 15 |
| inv(5)(p13q22) | dup/del | del/dup | 110 |
| inv(5)(p14q35) | del | dup | 46 |
| inv(5)(p15.1q35.1) | del | dup | 45 |
| inv(5)(p15.1q35.1) | del | dup | 47 |
| inv(5)(p13q33) | del | dup | 44 |
| inv(5)(p15.1q33.3) | del | dup | 39 |
| inv(5)(p15.31q35.1) | del | dup | 6 |
| inv(5)(p15q32) | del | dup | 40 |
| inv(5)(p13q35) | del | dup | 41 |
| inv(5)(p15.3q35) | del | dup | 43 |
| inv(5)(p15.33q35.3) | del | dup | 186 |
|  |  |  |  |
| inv(6)(p23q27) | dup | del | 49 |
| inv(6)(p23q27) | dup | del | 117 |
| inv(6)(p21q27) | dup | del | 169 |
| inv(6)(p21.2q25.3) | dup | del | 166 |
| inv(6)(p23q25.1) | del | dup | 48 |
| inv(6)(p25q25) | del | dup | 167 |
| inv(6)(p23q23) | del | dup | 168 |
|  |  |  |  |
| inv(7)(p15.1q36) | dup | del | 51 |
| inv(7)(p22q32) | dup | del | 9 |
| inv(7)(p15q36) | dup | del | 50 |
| inv(7)(p15.1q34) | dup | del | 147 |
| inv(7)(p13q36) | dup | del | 170 |
| inv(7)(p22q31.3) | del | dup | 123 |
| inv(7)(p22q11.2) | del | dup | 7 |
| inv(7)(p22q22) | del | dup | 19 |
| inv(7)(p22q32) | del | dup | 195 |
|  |  |  |  |
| inv(8)(p12q24.1) | dup | del | 153 |
| inv(8)(p23q22) | del | dup | 141 |
| inv(8)(p23.3q24.1) | del | dup | 135 |
| inv(8)(p23.1q22.1) | del | dup | 101 |
| inv(8)(p23.1q22.1) | del | dup | 125/ 127 – >100 cases! |
| inv(8)(p22q22) | del | dup | 9 |
| inv(8)(p23q22) | del | dup | 53 |
| inv(8)(p22q24.3) | del | dup | 109 |
| inv(8)(p23q22) | del | dup | 139 |
| inv(8)(p23.3q24.1) | del | dup | 52 |
| inv(8)(p23q22) | del | dup | 54 |
| inv(8)(p23.2q22.3) | del | dup | 95 |
| inv(8)(p23.1q22.1) | del | dup | 122 |
| inv(8)(p23.3q21.11) | del | dup | 143 |
| inv(8)(p12q13) | del | dup | 196 |
|  |  |  |  |
| n.a. | dup | del |  |
| inv(9)(p24.3q34.11) | del | dup | 99 |
| inv(9)(p24q34.1) | del | dup | 124 |
| inv(9)(p22q32) | del | dup | 197 |
|  |  |  |  |
| inv(10)(p15.1q26.12) | dup/del | del/dup | 152 |
| inv(10)(p11.2q25.2) | dup | del | 58 |
| inv(10)(p11.2q26) | dup | del | 59 |
| inv(10)(p11.2q26) | dup | del | 60 |
| inv(10)(p11.2q26.3) | dup | del | 87 |
| inv(10)(p15.1q25.2) | dup | del | 128 |
| inv(10)(p11q26) | dup | del | 184 |
| inv(10)(p12q25) | dup | del | 55 |
| inv(10)(p?q?) | del | dup | 173 |
| inv(10)(p15q24) | del | dup | 57 |
| inv(10)(p11.2q26.3) | del | dup | 146 |
| inv(10)(p11q26) | del | dup | 56 |
|  |  |  |  |
| inv(11)(p11q25) | dup | del | 61 |
| inv(11)(p13q23.3) | dup | del | 62 |
| inv(11)(p15.5q24.3) | dup | del | 118 |
| inv(11)(p15q24) | dup | del | 174 |
| inv(11)(p15.5q25) | dup | del | 175 |
| inv(11)(p15.3q24.1) | dup | del | 204 |
| inv(11)(p14.3q24) | dup | del | Present case 2 |
| n.a. | del | dup |  |
|  |  |  |  |
| n.a. | dup | del |  |
| inv(12)(p13.3q24.31) | del | dup | 142 |
| inv(12)(p13.31q24.31) | del | dup | 182 |
| inv(12)(p13q24.3) | del | dup | 176 |
|  |  |  |  |
| inv(13)(p11q22) | dup/del | del/dup | 137 |
| inv(13)(p11q22) | dup/del | del/dup | 171 |
| inv(13)(p12q22) | dup/del | del/dup | 177 |
| inv(13)(p11q22) | dup | del | 138 |
| inv(13)(p11q21) | del | dup | 115 |
| inv(13)(p13q21) | del | dup | 63 |
| inv(13)(p11q21) | del | dup | 64 |
| inv(13)(p12q13) | del | dup | 65 |
| inv(13)(p11q22) | del | dup | 114 |
| inv(13)(p13q22) | del | dup | 130 |
| inv(13)(p12q14) | del | dup | 66 |
| inv(13)(p11q22) | del | dup | 67 |
| inv(13)(p12q22) | del | dup | 129 |
|  |  |  |  |
| inv(14)(p11.1q24) | dup | del | 149 |
| inv(14)(p11.2q32.1) | del | dup | 107 |
| inv(14)(p12q31) | del | dup | 98 |
| inv(14)(p11.2q24) | del | dup | 3 |
| inv(14)(p11q31) | del | dup | 140 |
| inv(14)(p11q24) | del | dup | 178 |
|  |  |  |  |
| n.a. | dup | del |  |
| inv(15)(p11.2q24) | del | dup | 179 |
| inv(15)(p11.2q25) | del | dup | 180 |
| inv(15)(p12q25.3) | del | dup | 181 |
|  |  |  |  |
| inv(16)(p13.1q22) | dup | del | 68 |
| inv(16)(p13q22) | del | dup | 69 |
| inv(16)(p13q22) | del | dup | 183 |
|  |  |  |  |
| inv(17)(p11q25) | dup | del | 71 |
| inv(17)(p13.3q25.1) | dup | del | 163 |
| inv(17)(p13.3q25.1) | dup | del | 185 |
| inv(17)(p13.3q25.3) | del | dup | 9 |
| inv(17)(p13.3q25.1) | del | dup | 70 |
|  |  |  |  |
| inv(18)(p11.22q23) | dup/del | del/dup | 16 |
| inv(18)(p11.2q22) | dup/del | del/dup | 20 |
| inv(18)(p11q21) | dup/del | del/dup | 132 |
| inv(18)(p11.2q22) | dup/del | del/dup | 198 |
| inv(18)(p12q12) | dup | del | 131 |
| inv(18)(p11.21q22.1) | dup | del | 18 |
| inv(18)(p11q12) | dup | del | 133 |
| inv(18)(p11q21) | dup | del | 134 |
| inv(18)(p11.21q22.3) | dup | del | Present case 1 |
| inv(18)(p11.31q21.33) | dup | del | 151 |
| inv(18)(p11.2q21) | del | dup | 4 |
| inv(18)(p11q11) | del | dup | 72 |
| inv(18)(p11.32q22) | del | dup | 104 |
| inv(18)(p11.2q21.3) | del | dup | 73 |
| inv(18)(p11.2q21.2) | del | dup | 21 |
| inv(18)(p11.2q12.2) | del | dup | 74 |
| inv(18)(p11.2q21.3) | del | dup | 86 |
| inv(18)(p11.21q21.31) | del | dup | 88 |
| inv(18)(p11.31q11.2) | del | dup | 121 |
| inv(18)(p11.2q21.2) | del | dup | 187 |
| inv(18)(p11.2q21.1) | del | dup | 188 |
|  |  |  |  |
| n.a. | dup | del |  |
| inv(19)(p13.3q13.3) | del | dup | 13 |
| inv(19)(p13.3q13.43) | del | dup | 106 |
|  |  |  |  |
| inv(20)(p13q13.3) | dup/del | del/dup | 8 |
| inv(20)(p11.2q13.3) | dup | del | 100 |
| inv(20)(p12q13.3) | dup | del | 75 |
| inv(20)(p13q13.12~13.33) | del | dup | 94 |
| inv(20)(p12.2q13.33) | dup | del | 103 |
| inv(20)(p13q13.1) | del | dup | 112 |
| inv(20)(p13q13.33) | del | dup | 105 |
|  |  |  |  |
| n.a. | dup | del |  |
| inv(21)(p12q21.1) | del | dup | 119 |
| inv(21)(p11q21) | del | dup | 76 |
| inv(21)(p12q22.1) | del | dup | 5 |
| inv(21)(p11.2q22.1) | del | dup | 42 |
| inv(21)(p12q22) | del | dup | 77 |
| inv(21)(p11q22) | del | dup | 120 |
| inv(21)(p11q22) | del | dup | 164 |
|  |  |  |  |
| inv(22)(p11.2q13.31) | dup | del | 10 |
| inv(22)(p11q21) | dup | del | 80 |
| inv(22)(p13q13.1) | del | dup | 14 |
| inv(22)(p13q12) | del | dup | 17 |
| inv(22)(p13q12) | del | dup | 78 |
| inv(22)(p13q12.2) | del | dup | 79 |
| inv(22)(p13q12) | del | dup | 81 |
| inv(22)(p11q13.1) | del | dup | 111 |
| inv(22)(p13q12.2) | del | dup | 116 |
| inv(22)(p13q13.2) | del | dup | 203 |

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