

Knochen- und Skeletterkrankungen

3M-Syndrom [GP048] (~12 kb)

CUL7, OBSL1, CCDC8

Adams-Oliver-Syndrom [GP024] (~16 kb)

ARHGAP31, DLL4, DOCK6, EOGT, NOTCH1, RBPJ

Arthrogyrosis multiplex congenita (AMC) [GP049XL]

ECEL1, FBN2, MYBPC1, MYH3, MYH8, PIEZO2, TNNI2, TNNT3, TPM2

Chondrodysplasia punctata [GP050] (~7 kb)

AGPS, ARSE, EBP, GNPAT, PEX7

Klippel-Feil-Syndrom [GP169] (~13 kb)

GDF3, GDF6, MEOX1, MYO18B, PAX1, RIPPLY2

Multiple epiphysäre Dysplasie [GP051] (~18 kb)

1. *COMP*, 2. *COL2A1, COL9A1, COL9A2, COL9A3, MATN3, SLC26A2*

Metaphysäre Dysplasie [GP055] (~10 kb)

COL10A1, MMP9, MMP13, PTH1R, RMRP, RUNX2, SBDS

Osteogenesis imperfecta [GP057] (~24 kb)

1. *COL1A1*, 2. *COL1A2*, 3. *BMP1, CRTAP, FKBP10, IFITM5, LEPRE1 (P3H1), PLOD2, PPIB, SERPINF1, SERPINH1, SP7*

Radiale Fehlbildungen [GP058] (~9 kb)

SALL4, TBX5, SALL1

Noonan-Syndrom und RASopathien [GP092]

Noonan-Syndrom [GP092a] (nach EBM 11355 und 11356)

1. *PTPN11*
2. *BRAF, KRAS, NRAS, PIK3CA, PTPN11, RAF1, RASA1, RIT1, SOS1*

RASopathien [GP092b] (ohne Gene für Noonan-Syndrom) (~17kb)

CBL, HRAS, MAP2K1, MAP2K2, NF1, SHOC2, SPRED1