```
Case 1 (2J-COL):
                                                                     Case 2 (2J-COL):
Junction 1: Chr13q14.2 (48, 993, 666) / HPV16 E4 (3584)
                                                                     Junction 1: ChrXp22.2 (13, 772, 242) / HPV16 LCR (7244)
             \textcolor{red}{\textbf{TCCTTCAGTTCTTCTGACC}} \textcolor{blue}{\textbf{TTG}} \textbf{GTTATTT} \textbf{CTTATCTTCTGCTAGC}
Chr13a14.2:
                                                                     ChrXp22.2:
                                                                                CAGCCTCCCAGTAGCTGGGACTACAGGCACCCACCAACACACGCCCGGCTA
             TGCATTTAACAGCTCACACAAAGGACGGATTAACTGTAATAGTAACA
                                                                                HPV16 F4:
                                                                     HPV16 LCR:
                                                                     TCCTTCAGTTCTTCTCTGACCTTGACGGATTAACTGTAATAGTAACA
JxChr13/HPV16:
                                                                     Junction 2: HPV16 E1 (1333) / ChrXp22.2 (13, 778, 432)
Junction 2: HPV16 E2 (3224) / Chr13q14.2 (48, 591, 279)
                                                                     HPV16 E1:
                                                                                GCCATGAGACTGAAACACCATGTAGTCAGTATAGTGGTGGAAGTGGGGGTG
              \textbf{AGGGTCAAGTTGACTATTATG}\underline{\textbf{GTT}} \texttt{TATATTATGT}\underline{\textbf{TCAT}} \texttt{GAAG}\underline{\textbf{GA}} \texttt{ATA}
HPV16 E2:
                                                                                 ATCCAACTGCATGGGTGGAGGGTAGTTCCCCTGATTCTGACCTTGAGTTTGT
                                                                     ChrXn22 2
             CTCCACATCCTCTCCAGCACCTGTTGTTTCCTGACTTTTTAATGATCG
Chr13a14.2:
                                                                     Jx HPV16/ ChrX: GCCATGAGACTGAAACACCATGTAGTTCCCCTGATTCTGACCTTGAGTTTGT
Jx HPV16 / Chr13: AGGGTCAAGTTGACTATTATGGTTGTTTCCTGACTTTTTAATGATCG
                                                                    Case 5 (2J-COL):
Case 3 (2J-COL):
Junction 1: Chr1q44 (244,237,555) / HPV18 E4 (3605)
                                                                    Junction 1: Chr4g21.3 (87,581,814) / HPV16 L2 (5427)
                                                                                TGTTTCCAGGGAACAAATGCGTAATTTCACACACAGTTCAAACACACTTTAACTTAA
           Chr4q21.3:
Chr1q44:
HPV18 F4:
            AGCAGCATTGTGGACCTGTCAACCCACTTCTCGGTGCAGCTACACCTACAGGC
                                                                    HPV16 L2:
                                                                                CATCTTTATCAGGTTATATTCCTGCAAATACAACAATTCCTTTTGGTGGTGCAT
Jx Chr1/HPV18:
           ACAAGTCAACGGGACTTGTCAACCCACCTCCAAATACAACCCACTTCTCGGTGC
                                                                    Jx Chr4/HPV16: TGTTTCCAGGGAACAAATGCGTAATTTGTACAACAATTCCTTTTGGTGGTGCAT
Junction 2: Chr1q44 (244, 436, 006) / HPV18 L2 (4258)
                                                                    Junction 2: Chr4q21.3 (87,230,060) / HPV16 E1 (2410)
          TAATAAAAGTATGGTATCCCACCGTGCCGCACGACGCAAACGGGCTTCGGTAA
HPV18 E5
                                                                    HPV16 E1:
                                                                              CCATTTTTGGTTACAACCATTAGCAGATGCCAAAATAGGTATGTTAGATGATGCTA
          TTACTCTCCAATGTGACAGTATTTGGAGGTGGGGCCTTTGGGGGATGATCAGG
Chr1a44:
                                                                              ATTCATCACCATATTGAGAATTTTTTAGTAT
                                                                    Chr4a21.3:
Jx HPV18/Chr1: TAATAAAAGTATGGTATCCCACCGTGAGGTGGGGCCTTTGGGGGATGATCAGG
                                                                    Jx HPV16/Chr4: CCATTTTTGGTTACAACCATTAGCAGATGTATGAAATGAAATGAAGTTTACTGAAT
Case 17 (2J-COL):
                                                                    Case 11 (2J-NL):
Junction 1: Chr4p16.1 (8, 638, 831) / HPV18 E2 (3013)
                                                                    Junction 1: Chr6q21 (113,335,611) / HPV18 E5 (3861)
Chr4p16.1:
            CTTTTATTAAGTTCTTATATTTCTAAATAACTTGGCTTTTATAGAGTTACCTGCT
                                                                               GGCTCCTTAGCACATTTCACCTGCTGTAATTTTTCGTCCTTTTTGTCCTTTTTTGT
                                                                    Chr6a21:
            TTAAACCACCAGGTGGTGCCAGCCTATAACATTTCAAAAAGTAAAGCACATAA
HPV18 E2:
                                                                    HPV18 E5:
                                                                                AGTGAAACACAAAGAACAAAATTTTTAAATACTGTTGCAATTCCAGATAGTGTAC
            CTTTTATTAAGTTCTTATATTTCTAAATAACATTTCAAAAAGTAAAGCACATAA
                                                                    Jx Chr6/HPV18: GGCTCCTTAGCACATTTCACCTGCTGTAATACTGTTGCAATTCCAGATAGTGTAC
Jx Chr4/HPV18:
Junction 2: HPV18 E1 (2289)/ Chr4p16.1 (8,626,438)
                                                                    Junction 2: Chr6q21 (113,390,769) / HPV18 E4 (3612)
HPV18 E1:
            GCAATTCCTGCGATACCAACAAATAGAGTTTATAACATTTTTAGGAGCCTT
                                                                    HPV18 E4:
                                                                               AAGCAGCATTGTGGACCTGTCAACCCACTTCTCGGTGCAGCTACACCTACAGGCA
            Chr4p16.1:
                                                                    Chr6q21:
                                                                                TGTTTTTATTAGCTGCGTGAGAATGGACG<mark>AATACCCGTTTAGGTTTTTTTTTCTTTT</mark>
            Jx HPV18 /Chr4
                                                                    Jx HPV18/Chr6: AAGCAGCATTGTGGACCTGTCAACCCACAATACCCGTTTAGGTTTT
Case 13 (2J-NL):
                                                                      Case 19 (2J-NL):
Junction 1: Chr13q22.1 (73,830,702) / HPV18 E2 (3802)
                                                                      Junction 1: Chr7p21.1 (17,531,668) / HPV18 L2 (4453)
                                                                      Chr7p21.1:
                                                                                AACACAAACACATTACAAATGGACTTTAATTATGTTCCAAATGTGATTTCTTTGCT
Chr13a22.1:
            GATTTCCTCTCAGGAAATGAAAGGAAAGGAAACTAAAGGAGAGAGAGAGGAGACGGGA
                                                                      HPV18 L2:
                                                                                HPV18 E2:
            Jx Chr7/HPV18: AACACAAACACATTACAAATGGACTTTCCATT7GTACATTCCATTGGGTGGGCGT
Junction 2: Chr13q22.1 (74,152,642) / HPV18 E1 (1842)
                                                                      Junction 2: Chr7p21.1 (17,352,218) / HPV18 E1 (1180)
HPV18 E1:
             TTAAGTACATTGTTACACGTACCTGAAACTTGTATGTTAATTCAACCACCAAAA
                                                                      HPV18 E1:
                                                                                 GTGTTGCATGTTTTAAAACGAAAGTTTGCAGGAGGCAGCACAGAAAACAGTC
Chr13q22.1:
              GCTTCAAGTAAAGGAGATCTCACAGTCTATCTTATAAAGTTTTATCTTATAAAG
                                                                      Chr7p21.1:
             Jx HPV18/Chr13:
                                                                      Jx HPV18/Chr7: GTGTTGCATGTTTTAAAACGAAAGTTTTATCTTATAAAGTTTTATCTTATAAAG
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Fig S2 (continued)

Case 23 (MJ-CL):

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Junction 1: Chr2q22.3 (146,417,585) / HPV16 E1 (1081)
                                                                         Junction 1: Chr3q27.3 (187,613,922) / HPV31 E2 (2805)
HPV16 E1:
            GAGACAGCACATGCGTTGTTTACTGCACAGGAAGCAAAACAACATAGAGATGC
                                                                         HPV31 E2:
                                                                                     ATTGGAAACATATTCGACTTGAATGTGTATTAATGTATAAAGCAAGAGAAATG
                                                                                     TAATGCTAGATGACGAGTTAGTGGGTGTA
                                                                         Chr3q27.3:
            AGCATATACTGTAAAAAAAAAGAGTCT<mark>AAAATAGATCAAAATTGTGGTTAACAAA</mark>
Chr2q22.3:
                                                                         Jx HPV31/ Chr3: ATTGGAAACATATTCGACTTGAATATGTAATGCACCAGCATGGCACATGTATA
Jx HPV16/ Chr2: GAGACACCACGCGTTGTTT<mark>ACT</mark>GTCATGTTAAAAATAGATCAAAATTGTGGTT
                                                                         * SNP in HPV31 position 2805 (G>A)
Junction 2: Chr2q22.3 (146,422,052) / HPV16 E1 (1181)
                                                                         Junction 2: Chr3q27.3 (187,600,502) / HPV31 E2 (3664)
            AATCAAATTTTTTTAAAAGAAGATCAATAACTTTTTGAAGACGAAGTATTGA
Chr2q22.3:
                                                                                    Chr3q27.3:
                                                                         HPV31 E2:
                                                                                    ATTGTATGAACAAGTGTCATCTACATGGCATTGGACATGTACAGATGGAAAACAT
HPV16 E1:
            GTGATATTAGTGGATGTGTAGACAATAATATTAGTCCTAGATTAAAAGCTATA
                                                                         Jx Chr3/HPV31: ATCAAGATCTAGAACAGTTGCATTACGCATTGGACATGTACAGATGGAAAACAT
Jx Chr2/HPV16: AATCAAATTTTTTTTAAAAGAAGATCAATATTAGTCCTAGATTAAAAGCTATA
Case 28 (MJ-CL):
                                                                     Case 29 (MJ-CL):
Junction 1: Chr5q12.3 (66,508,046) / HPV16 E6 (331)
                                                                     Junction 1: Chr8q24.21 (128,676,026) / HPV16 E1 (1473)
HPV16 E6:
             AAAGTTTTATTCTAAAATTAGTGAGTATAGACATTATTGTTATAGTTTGTTATAG
                                                                     Chr8q24.21:
                                                                                  GAAAAAAACCCATCAAATCCCTCTGCCTTGTGGGTCTCACAGGAGGCAAACT
             CCAATGCTCCAGCTCATGCAGTCACGTAAGAGAAATTCCCTCTTACTTGGCCT
Chr5a12.3:
                                                                                  TTTTAAATGTACTAAAAACTAGTAATGCAAAGGCAGCAATGTTAGCAAAATTTA
                                                                     HPV16 F1:
             AAAGTTTTATTCTAAAATTAGTGAGTATAGAGAAATTCCCTCTTACTTGGCCT
Jx HPV16/ Chr5:
                                                                     Jx Chr8/ HPV16: GAAAAAAAACCCATCAAATCCCTCTGCAAAGGCAGCAATGTTAGCAAAATTTA
Junction 2: Chr5q12.3 (66,547,382) / HPV16 E1 (1516)
                                                                     Junction 2: Chr8q24.21 (128,760,118) / HPV16 E1 (955)
           AATTTAAAGAGTTATACGGGGTGAGTTTTTCAGAATTAGTAAGACCATTTAAAAG
HPV16 E6:
                                                                     HPV16 E1:
                                                                                  GTAGTGGAAAAAAAAAACAGGGGATGCTATATCAGATGACGAGAACGAAAATGA
Chr5q12.3:
           Chr8q24.21:
                                                                                  GCAGGAGCCTGTAATCCCAGCTACTCGGGAGTCTGAGGCAGAGAATTACTTGA
Jx HPV16/ Chr5: AATTTAAAGAGTTATACGGGGTGAGTTCTTCCATTTGTTTTGTATTCTCTTTTATT
                                                                                  GTAGTGGAAAAAAAACAGGGGCAGAGAATTCTCTGAGGCAGAGAATTACTTGA
                                                                     Jx HPV16/ Chr8:
*SNP in HPV16 position 1520 (T>C)
                                                                      Case 33 (MJ-SC):
Case 30 (MJ-SC):
                                                                      Junction 1: Chr1q42.3 (236,318,610) / HPV16 LCR (7164)
Junction 1: ChrXq12 (67,757,299) / HPV31 E2 (2848)
           AAGAGAAATGGGAATACACAGTATTAACCACCAGGTGGTGCCAGCGTTGTCAGT
                                                                      Chr1q42.3:
                                                                                 AAGTAGAAGCAGCTTAATGAATATTTGTCCTAATGCTTTCACCTCGCAGATAGAC
HPV31 E2:
ChrXa12:
           CTGTATACCATGCCAGGCACTTTATTAGTTGCTTTACAAACAGTATCTCTGATTG
                                                                       HPV16 LCR:
                                                                                 Jx HPV31/ ChrX: AAGAGAAATGGGAATACACAGTATTGTATTGTGTTGCTTTACAAACAGTATCTCT
Junction 2: Chr20q13.32 (56,885,148) / HPV16 E4 (3355)
                                                                      Junction 2: Chr20q11.21 (30,208,967) / HPV16 E4 (3411)
HPV31 E4:
            ATTGTTACAAAGCTACCAACAGCCAACAACACCCACCACATCGAATTCCAAAA
                                                                      Chr20q11.21:
                                                                                    GGTAGAATGTCTTTCAAGTTGGATTTGTCTGAGATTTTCTTGTGATCAAATT
            CGGATCCCCCTGTCCCCTCATCCCTTCCCCCCCCCCCACGTCCAAGACGCTG
                                                                      HPV16 F4:
                                                                                   TATTAGGCAGCACTTGGCCAACCACCCCCCCCCCCCCATACCAAAGCCGTC
Jx HPV31/ Chr20: ATTGTTACAAAGCTACCAACAGCCCTTCCCCCCCTCCACGTCCAAGACGCTG
                                                                       Jx Chr20/HPV16: GGTAGAATGTCTTTCAAGTTGGATTTCCGCCGCGACCCATACCAAAGCCGTC
 Case 34 (MJ-SC):
 Junction 1: Chr8q23.1 (107,273,933) / HPV16 E1 (1166)
 HPV16 F1:
             GTCCACTTAGTGATATTAGTGGATGTGTAGACAATAATATTAGTCCTAGATTAAA
 Chr8q23.1:
             TTCTAAGCCTTGGTCACTGGCTGCCTGGAAATACACTTGGTGCTGTTGCGGCAG
 Jx HPV16/ Chr8: GTCCACTTAGTGATATTAGTGGATGTGGAAATACACTTGGTGCTGTTGCGGCAG
 Junction 2: Chr2q36.3 (228,020,331) / HPV16 L1 (6286)
 Chr2q36.3:
              CGCTGGAGTTCACGCCCAAGGCAATTCCAGGAGGGTCTGAAAGGTCCAGAGAATT
 HPV16 L1:
              TGGACTTTACTACATTACAGGCTAACAAAAGTGAAGTTCCACTGGATATTTGTAC
 Jx Chr2/HPV16: CGCTGGAGTTCACGCCCAAGGCAACAAAGTGAAGTTCCACTGGATATTTGTAC
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Case 24 (MJ-CL):