Appendix A

**Table A-1**. Measurements of each feature per disease state. Data is presented as mean, standard error, (range) of the median measurement of all volumes in that category.

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|  |  |  | **Morphologic Features** | **Mean Attenuation Coefficient** | **Stratification** |
|  | **Sample size** | **Average age** | **Epithelium depth** | **Loss of epithelial-stromal boundary visualization** | **Overall** | **Epithelium** | **Stroma** | **Epithelial-Stromal** | **Intra-****epithelial** |
|  | # | [years] | [µm] | [%] | [mm-1] | [mm-1] | [mm-1] | [a.u.] | [a.u.] |
| Contralateral | 31 | 58 | 16010(120-260) | 10(0-4) | 3.450.11(2.26-4.17) | 1.200.03(0.99-1.74) | 3.970.15(2.43-5.64) | -0.520.02-(0.69-0.27) | -0.180.01-(0.28-0.10) |
| Benign | 5 | 73 | 20020(140-280) | 84(1-18) | 2.880.20(2.30-3.44) | 1.380.11(1.13-1.66) | 3.190.23(2.60-3.85) | -0.410.03-(0.50-0.32) | -0.170.02-(0.22-0.11) |
| D1 | 8 | 47 | 21010(160-290) | 53(0-23) | 3.620.14(3.23-4.19) | 1.360.09(1.13-1.71) | 4.350.18(3.74-5.26) | -0.530.02-(0.62-0.42) | -0.210.01-(0.25-0.16) |
| D2 | 10 | 58 | 32070(150-790) | 2210(0-99) | 3.440.19(2.55-4.60) | 1.800.21(1.20-3.36) | 4.010.25(2.91-5.70) | -0.410.05-(0.58-0.12) | -0.120.04-(0.29-0.09) |
|  D3/CIS | 7 | 59 | 25030(180-360) | 154(0-27) | 3.130.13(2.61-3.71) | 1.560.06(1.25-1.71) | 3.700.17(3.15-4.53) | -0.430.03-(0.57-0.35) | -0.160.03-(0.25-0.08) |
| Carcinoma | 9 | 56 | 56080(200-800) | 779(21-100) | 3.050.12(2.29-3.38) | 2.480.22(1.63-3.32) | 3.560.18(2.46-4.27) | -0.350.04-(0.51-0.18) | -0.070.03-(0.20-0.05) |

**Table A-2**. Mean measurements of each feature per disease state and sex. Data is presented as mean, standard error, (range) of the median measurement of all volumes in that category.

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|  |  |  |  | **Morphologic Features** | **Mean Attenuation Coefficient** | **Stratification** |
|  | **Sex** | **Sample size** | **Average age** | **Epithelium depth** | **Loss of epithelial-stromal boundary visualization** | **Overall** | **Epithelium** | **Stroma** | **Epithelial-Stromal** | **Intra-****epithelial** |
|  | MF | # | [years] | [µm] | [%] | [mm-1] | [mm-1] | [mm-1] | [a.u.] | [a.u.] |
| Contralateral | M | 14 | 56 | 180 10(120-260) | 10(0-4) | 3.290.17(2.26-4.71) | 1.210.04(1.00-1.50) | 3.790.22(2.43-5.64) | -0.500.02-(0.69-0.35) | -0.170.01-(0.27-0.10) |
| F | 17 | 60 | 140 10(120-200) | 00(0-1) | 3.580.14(2.36-4.61) | 1.190.05(0.99-1.74) | 4.120.20(2.45-5.51) | -0.540.02-(0.68-0.27) | -0.190.01-(0.28-0.11) |
| Benign | M | 3 | 79 | 22030(190-280) | 135(3-18) | 2.760.27(2.30-3.24) | 1.490.14(1.21-1.66) | 3.070.28(2.60-3.58) | -0.370.03-(0.40-0.32) | -0.180.02-(0.22-0.14) |
| F | 2 | 65 | 15010(140-170) | 21(1-3) | 3.060.38(2.69-3.44) | 1.210.07(1.13-1.28) | 3.380.48(2.90-3.85) | -0.470.03-(0.50-0.45) | -0.170.05-(0.22-0.11) |
| D1 | M | 3 | 52 | 24030(180-290) | 44(0-11) | 3.370.09(3.23-3.53) | 1.330.15(1.15-1.63) | 4.090.11(3.89-4.24) | -0.520.05-(0.57-0.42) | -0.200.03-(0.25-0.17) |
| F | 5 | 44 | 20010(163-230) | 64(0-23) | 3.760.19(3.24-4.19) | 1.370.13(1.13-1.71) | 4.510.27(3.74-5.26) | -0.540.02-(0.62-0.50) | -0.210.01-(0.24-0.16) |
| D2 | M | 4 | 64 | 390140 (230-790) | 3522(3-99) | 3.180.15(2.86-3.49) | 2.060.43(1.55-3.63) | 3.640.18(3.40-4.17) | -0.330.07-(0.43-0.12) | -0.070.06-(0.18-0.09) |
| F | 6 | 54 | 28090(150-710) | 139(0-52) | 3.600.28(2.55-4.60) | 1.620.21(1.20-2.28) | 4.260.39(2.91-5.70) | -0.460.07-(0.58-0.22) | -0.150.04-(0.29-0.02) |
| D3/CIS | M | 3 | 52 | 22020(180-240) | 127(0-26) | 3.400.17(3.12-3.71) | 1.510.14(1.25-1.71) | 4.050.29(3.52-4.53) | -0.470.06-(0.57-0.37) | -0.150.04-(0.20-0.08) |
| F | 4 | 65 | 28040(210-360) | 175(6-27) | 2.930.11(2.61-3.13) | 1.600.05(1.48-1.70) | 3.440.11(3.15-3.65) | -0.400.02-(0.44-0.35) | -0.170.04-(0.25-0.08) |
| Carcinoma | M | 6 | 47 | 510120(200-800) | 7413(21-100) | 3.050.16(2.29-3.31) | 2.280.27(1.63-3.17) | 3.600.27(2.46-4.27) | -0.370.05-(0.51-0.18) | -0.090.05-(0.20-0.05) |
| F | 3 | 76 | 67060(600-900) | 8211(60-95) | 3.060.23(2.62-3.38) | 2.890.25(2.44-3.32) | 3.480.11(3.26-3.64) | -0.310.03-(0.36-0.24) | -0.030.01-(0.05-0.02) |

**Table A-3**. Measurements of other pathologic results in contralaterals. Data is presented as mean, standard error, (range) of the median measurement of all volumes in that category.

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|  |  |  | **Morphologic Features** | **Mean Attenuation Coefficient** | **Stratification** |
|  | **Sample size** | **Average age** | **Epithelium depth** | **Loss of epithelial-stromal boundary visualization** | **Overall** | **Epithelium** | **Stroma** | **Epithelial-Stromal** | **Intra-****epithelial** |
|  | # | [years] | [µm] | [%] | [mm-1] | [mm-1] | [mm-1] | [a.u.] | [a.u.] |
| Acanthosis | 13 | 57 | 17010(120-260) | 10(0-4) | 3.420.16(2.37-4.57) | 1.180.05(0.99-1.50) | 3.960.21(2.56-5.42) | -0.530.02-(0.68-0.36) | -0.190.01-(0.27-0.13) |
| No Acanthosis | 18 | 58 | 15010(120-260) | 10(0-4) | 3.440.16(2.26-4.71) | 1.220.04(1.02-1.74) | 3.950.22(2.43-5.64) | -0.520.03-(0.69-0.27) | -0.170.01-(0.28-0.10) |
| Keratosis | 15 | 55 | 16010(120-260) | 10(0-4) | 3.630.15(2.92-4.71) | 1.170.04(0.99-1.50) | 4.230.19(3.24-5.64) | -0.560.02-(0.69-0.44) | -0.190.01-(0.27-0.11) |
| Nokeratosis |  16 | 60 | 16010(120-200) | 10(0-4) | 3.240.16(2.26-4.21) | 1.230.05(1.02-1.74) | 3.680.21(2.43-4.95) | -0.490.03-(0.63-0.27) | -0.170.01-(0.28-0.10) |

**Table A-4**. Measurements against future progression status for mild and moderate dysplastic lesions (P = progressors, NP = non-progressors). Data is presented as mean, standard error, (range) of the median measurement of all volumes in that category. ‘Difference’ is the pairwise subtraction of contralateral median value from lesion median value for each volume.

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|  |  |  |  | **Morphologic Features** | **Mean Attenuation Coefficient** | **Stratification** |
|  | **Progression status** | **Sample size** | **Average age** | **Epithelium depth** | **Loss of epithelial-stromal boundary visualization** | **Overall** | **Epithelium** | **Stroma** | **Epithelial-Stromal** | **Intra-****epithelial** |
|  | PNP | # | [years] | [µm] | [%] | [mm-1] | [mm-1] | [mm-1] | [a.u.] | [a.u.] |
| Contralateral | P | 4(1 D1, 3 D2) | 55 | 15020(120-200) | 00(0) | 3.320.16(2.99-3.60) | 1.090.07(0.99-1.29) | 3.770.18(3.45-4.10) | -0.550.03-(0.60-0.46) | -0.180.02-(0.21-0.14) |
| NP | 11(6 D1, 5 D2) | 54 | 16010(120-260) | 10(0-3) | 3.810.16(3.05-4.61) | 1.180.05(1.00-1.50) | 4.470.20(3.47-5.51) | -0.580.02-(0.68-0.44) | -0.180.01-(0.24-0.13) |
| Lesion | P | 4(1 D1, 3 D2) | 55 | 19020(160-230) | 75(0-21) | 3.450.19(3.02-3.86) | 1.320.13(1.13-1.70) | 4.040.24(3.56-4.59) | -0.510.04-(0.56-0.38) | -0.180.01-(0.21-0.16) |
| NP | 11(6 D1, 5 D2) | 54 | 22020(150-290) | 52(0-22) | 3.600.15(2.86-4.60) | 1.470.10(1.13-2.25) | 4.350.21(3.40-5.70) | -0.500.03-(0.62-0.28) | -0.180.02-(0.29-0.03) |
| Difference | P | 4(1 D1, 3 D2) | 55 | 4020(30-50) | 75(0-21) | 0.130.19(0.03-0.27) | 0.240.13(0.13-0.41) | 0.270.24(0.11-0.51) | 0.040.04(0.01-0.07) | 0.0050.01(-0.04-0.05) |
| NP | 11(6 D1, 5 D2) | 54 | 6020(-80-140) | 52(-3-22) | -0.210.15(-0.60-0.36) | 0.300.10(-0.12-1.15) | -0.120.21(-0.77-0.26) | 0.080.03(-0.05-0.32) | 0.0030.02(-0.09-0.18) |