**Table S1. Genotypic distribution of the investigated polymorphisms for leprosy patients in comparison to control group to markers associated with susceptibility to leprosy.**

| Gene | Genotype | Case (%) | Control (%) | *p*-value | Model | OR (95%CI) |
|---|---|---|---|---|---|---|
| *miR300* | rs12894467 | 111 | 68 | | | |
| | TT | 44 (39.6) | 30 (44.1) | 0.76 | TT vs TC + CC | 1.10(0.49-2.45) |
| | CT | 45 (40.5) | 26 (38.2) | | | |
| | CC | 22 (19.8) | 12 (17.6) | 0.82 | TT + TC vs CC | 1.10(0.49-2.45) |
| *miR423* | rs6505162 | 93 | 59 | | | |
| | AA | 27 (29.0) | 15 (25.4) | 0.71 | AA vs AC + CC | 1.15(0.40-1.86) |
| | AC | 47 (50.5) | 32 (54.2) | | | |
| | CC | 19 (20.4) | 12 (20.3) | 0.87 | AA + AC vs CC | 1.07(0.45-2.53) |
| *mir604* | rs2368392 | 83 | 54 | | | |
| | AA | 42 (50.6) | 24 (44.4) | 0.48 | AA vs AG + GG | 0.77(0.36-1.61) |
| | AG | 40 (48.2) | 29 (53.7) | | | |
| | GG | 1 (1.2) | 1 (1.9) | 0.69 | AA + AG vs GG | 0.57(0.03-1.67) |
| *pre-miR938* | rs2505901 | 109 | 68 | | | |
| | TT | 26 (23.9) | 27 (39.7) | **<0.01** | TT vs TC + CC | **0.40(0.20-0.81)** |
| | CT | 53 (48.6) | 30 (44.1) | | | |
| | CC | 30 (27.5) | 11 (16.2) | **0.03** | TT + CT vs CC | **0.41(0.18-0.95)** |

| | | | | | | |
|---|---|---|---|---|---|---|
| *miR100* | rs1834306 | 93 | 58 | | | |
| | AA | 44 (47.3) | 25 (43.1) | 0.60 | AA vs AG + GG | 0.83(0.42-1.66) |
| | AG | 36 (38.7) | 26 (44.8) | | | |
| | GG | 13 (14.0) | 7 (12.1) | 0.99 | AA + AG vs GG | 1.01(0.36-2.77) |
| *miR219A1* | rs213210 | 140 | 70 | | | |
| | AA | 91 (81.2) | 58 (84.1) | 0.60 | AA vs AG + GG | 1.25(0.54-2.86) |
| | AG | 21 (18.8) | 9 (13.0) | | | |
| | GG | 0 (0.0) | 2 (2.9) | 0.14 | AA + AG vs GG | 0.00 (0.00) |
| *DROSHA* | rs639174 | 101 | 64 | | | |
| | CC | 32 (31.7) | 30 (46.9) | **0.02** | CC vs CT + TT | **0.45(0.23-0.89)** |
| | CT | 51 (50.5) | 28 (43.8) | | | |
| | TT | 18 (17.8) | 6 (9.4) | 0.16 | CC + CT vs TT | 2.00(0.73-5.51) |
| *miR453* | rs56103835 | 109 | 69 | | | |
| | TT | 60 (55.0) | 32 (46.4) | 0.42 | TT vs CT + CC | 0.77(0.41-1.45) |
| | CT | 38 (34.9) | 30 (43.5) | | | |
| | CC | 11 (10.1) | 7 (10.1) | 0.96 | TT + CT vs CC | 0.98(0.35-2.72) |
| *miR196A2* | rs11614913 | 101 | 66 | | | |
| | CC | 61 (60.4) | 31 (47.0) | 0.08 | CC vs CT + TT | 0.56(0.29-1.08) |

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|---|---|---|---|---|---|---|
| | CT | 31 (30.7) | 30 (45.5) | | | |
| | TT | 9 (8.9) | 5 (7.6) | 0.64 | CC + CT vs TT | 1.32(0.40-4.35) |
| *AGO* | rs636832 | 102 | 66 | | | |
| | GG | 46 (45.1) | 39 (59.1) | **0.01** | GG vs GA + AA | **0.45(0.23-0.88)** |
| | GA | 43 (42.2) | 21 (31.8) | | | |
| | AA | 13 (12.7) | 6 (9.1) | 0.42 | GG + GA vs AA | 0.66(0.23-1.86) |
| *pri-let-7a1* | rs10739971 | 30 | 37 | | | |
| | GG | 15 (50.0) | 6 (22.2) | **0.02** | GG vs GA + AA | **4.66(1.17-18.66)** |
| | GA | 12 (40.0) | 14 (51.9) | | | |
| | AA | 3 (10.0) | 7 (25.9) | **0.04** | GG + GA vs AA | **5.09(0.95-7.45)** |
| *miR146A* | rs2910164 | 108 | 69 | | | |
| | GG | 47 (43.5) | 29 (42.0) | 0.67 | GG vs GC + CC | 0.87(0.46-1.65) |
| | GC | 54 (50.0) | 35 (50.7) | | | |
| | CC | 7 (6.5) | 5 (7.2) | 0.66 | GG + GC vs CC | 1.31(0.22-2.59) |
| *miR570* | rs4143815 | 111 | 69 | | | |
| | GG | 62 (55.9) | 46 (66.7) | 0.73 | GG vs GC + CC | 1.41(0.73-2.73) |
| | GC | 38 (34.2) | 19 (27.5) | | | |
| | CC | 11 (9.9) | 4 (5.8) | 0.49 | GG + GC vs CC | 1.64(0.49-5.50) |
| *miR200B* | rs9660710 | 103 | 67 | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | CC | 79 (76.7) | 55 (82.1) | 0.62 | CC vs CA + AA | 1.22 (0.54-2.79) |
| | CA | 22 (21.4) | 12 (17.9) | | | |
| | AA | 2 (1.9) | 0 (0.0) | 0.14 | CC + CA vs AA | 1.00 (0.00) |
| *miR26-A1* | rs7372209 | 98 | 62 | | | |
| | CC | 44 (44.9) | 33 (53.2) | 0.32 | CC vs CT + TT | 1.40(0.72-2.72) |
| | CT | 43 (43.9) | 23 (37.1) | | | |
| | TT | 11 (11.2) | 6 (9.7) | 0.41 | CC + CT vs TT | 1.59(0.51-4.94) |
| *miR200C* | rs12904 | 111 | 69 | | | |
| | GG | 36 (32.4) | 11 (15.9) | **0.01** | GG vs AG + AA | **2.77(1.25-6.11)** |
| | AG | 53 (47.7) | 45 (65.2) | | | |
| | AA | 22 (19.8) | 13 (18.8) | 0.92 | GG + AG vs AA | 1.04(0.43-2.15) |
| *DROSHA* | rs10035440 | 110 | 69 | | | |
| | TT | 80 (72.7) | 40 (58.0) | **0.03** | TT vs CT + CC | **2.04(1.03-4.02)** |
| | CT | 29 (26.4) | 27 (39.1) | | | |
| | CC | 1 (0.9) | 2 (2.9) | 0.27 | TT + CT vs CC | 3.82(0.32-3.10) |
| *miR4513* | rs2168518 | 112 | 69 | | | |
| | GG | 51 (45.5) | 43 (62.3) | 0.19 | GG vs GA + AA | 1.56(0.80-3.04) |
| | GA | 53 (47.3) | 20 (29.0) | | | |
| | AA | 8 (7.1) | 6 (8.7) | 0.38 | GG + AG vs AA | 1.68(0.53-5.34) |

| | | | | | | |
|---|---|---|---|---|---|---|
| *miR219-1* | rs107822 | 95 | 64 | | | |
| | CC | 58 (61.1) | 37 (57.8) | 0.73 | CC vs CT + TT | 0.89(0.46-1.74) |
| | CT | 28 (29.5) | 23 (35.9) | | | |
| | TT | 9 (9.5) | 4 (6.2) | 0.52 | CC + CT vs TT | 1.49(0.42-1.55) |
| *miR2053* | rs10505168 | 105 | 66 | | | |
| | TT | 45 (42.9) | 25 (37.9) | 0.66 | TT vs TC + CC | 0.87(0.45-1.67) |
| | TC | 45 (42.9) | 29 (43.9) | | | |
| | CC | 15 (14.3) | 12 (18.2) | 0.63 | TT + CT vs CC | 0.81(0.34-1.90) |
| *miR499* | rs3746444 | 109 | 69 | | | |
| | GG | 79 (72.5) | 53 (76.8) | 0.62 | GG vs GA + AA | 1.20(0.57-2.50) |
| | GA | 26 (23.9) | 14 (20.3) | | | |
| | AA | 4 (3.7) | 2 (2.9) | 0.61 | GG + GA vs AA | 1.62(0.24-10.69) |

*Sample number; *P*-value, OR and 95%CI were obtained with logistic regression adjusted for genetic ancestry.

**Table S2. Genotypic distribution of the investigated polymorphisms for leprosy patients grouped in clinical form PB in comparison to the control group.**

| Gene | Genotype | PB (%) | Control (%) | *p*-value | Model | OR (95%CI) |
|---|---|---|---|---|---|---|
| *miR300* | rs12894467 | 55 | 68 | | | |
| | TT | 18 (32.7) | 30 (44.1) | 0.22 | TT vs TC + CC | 1.63(0.74-3.59) |
| | TC | 24 (43.6) | 26 (38.2) | | | |
| | CC | 13 (23.6) | 12 (17.6) | 0.48 | TT + TC vs CC | 1.39(0.55-3.50) |
| | Alelo T | 0.44 | 0.53 | | | |
| | Alelo C | 0.56 | 0.46 | | | |
| *miR423* | rs6505162 | 49 | 59 | | | |
| | AA | 12 (24.5) | 15 (25.4) | 0.79 | AA vs AC + CC | 1.13(0.45-2.83) |
| | AC | 26 (53.1) | 32 (54.2) | | | |
| | CC | 11 (22.4) | 12 (20.3) | 0.42 | AA + AC vs CC | 1.14(0.42-3.08) |
| | Alelo A | 0.38 | 0.39 | | | |
| | Alelo C | 0.62 | 0.61 | | | |
| *mir604* | rs2368392 | 43 | 54 | | | |
| | AA | 21 (48.8) | 24 (44.4) | 0.64 | AA vs AG + GG | 0.81(0.33-2.00) |
| | AG | 22 (51.2) | 29 (53.7) | | | |
| | GG | 0 (0.0) | 1 (1.9) | 0.23 | AA + AG vs GG | 0.00(0.00) |
| | Alelo A | 0.74 | 0.71 | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Alelo G | 0.26 | 0.29 | | | |
| *pre-miR938* | rs2505901 | 53 | 68 | | | |
| | TT | 11 (20.8) | 27 (39.7) | **<0.01** | TT vs TC + CC | **0.31(0.12-0.75)** |
| | TC | 25 (47.2) | 30 (44.1) | | | |
| | CC | 17 (32.1) | 11 (16.2) | **0.01** | TT + CT vs CC | **0.31(0.12-0.84)** |
| | Alelo T | 0.44 | 0.62 | | | |
| | Alelo C | 0.56 | 0.38 | | | |
| *miR100* | rs1834306 | 48 | 58 | | | |
| | AA | 24 (50.0) | 25 (43.1) | 0.42 | AA vs AG + GG | 0.72(0.32-1.63) |
| | AG | 17 (35.4) | 26 (44.8) | | | |
| | GG | 7 (14.6) | 7 (12.1) | 0.77 | AA + AG vs GG | 1.19(0.37-3.87) |
| | Alelo A | 0.68 | 0.65 | | | |
| | Alelo G | 0.32 | 0.35 | | | |
| *miR219A1* | rs213210 | 55 | 69 | | | |
| | AA | 42 (76.4) | 58 (84.1) | 0.38 | AA + AG vs GG | 1.52(0.59-3.94) |
| | AG | 13 (23.6) | 9 (13.0) | | | |
| | GG | 0 (0.00) | 2 (2.9) | 0.06 | AA vs AG + GG | 0.00 (0.00) |
| | Alelo A | 0.88 | 0.90 | | | |
| | Alelo G | 0.12 | 0.10 | | | |

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|---|---|---|---|---|---|---|
| *DROSHA* | rs639174 | 50 | 64 | | | |
| | CC | 16 (32.0) | 30 (46.9) | 0.08 | CC vs CT + TT | 0.50(0.22-1.12) |
| | CT | 27 (54.0) | 28 (43.8) | | | |
| | TT | 7 (14.0) | 6 (9.4) | 0.60 | CC + CT vs TT | 0.72(0.21-2.31) |
| | Alelo C | 0.59 | 0.69 | | | |
| | Alelo T | 0.41 | 0.31 | | | |
| *miR453* | rs56103835 | 54 | 69 | | | |
| | TT | 30 (55.6) | 32 (46.4) | 0.52 | TT vs CT + CC | 0.78(0.36-1.67) |
| | CT | 20 (37.0) | 30 (43.5) | | | |
| | CC | 4 (7.4) | 7 (10.1) | 0.53 | TT + CT vs CC | 0.66(0.17-2.53) |
| | Alelo T | 0.74 | 0.68 | | | |
| | Alelo C | 0.26 | 0.32 | | | |
| *miR196A2* | rs11614913 | 52 | 66 | | | |
| | CC | 32 (61.5) | 31 (47.0) | 0.12 | CC vs CT + TT | 0.53(0.24-1.19) |
| | CT | 14 (26.9) | 30 (45.5) | | | |
| | TT | 6 (11.5) | 5 (7.6) | 0.24 | CC + CT vs TT | 2.29(0.56-9.30) |
| | Alelo C | 0.75 | 0.70 | | | |
| | Alelo T | 0.25 | 0.30 | | | |
| *AGO* | rs636832 | 52 | 66 | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | GG | 24 (46.2) | 39 (59.1) | 0.11 | GG vs GA + AA | 0.53(0.24-1.16) |
| | GA | 20 (38.5) | 21 (31.8) | | | |
| | AA | 8 (15.4) | 6 (9.1) | 0.28 | GG + GA vs AA | 0.53(0.16-1.73) |
| | Alelo G | 0.65 | 0.75 | | | |
| | Alelo A | 0.35 | 0.25 | | | |
| *pri-let-7a1* | rs10739971 | 13 | 27 | | | |
| | GG | 9 (69.2) | 6 (22.2) | **<0.01** | GG vs GA + AA | **13.3(1.82-90.0)** |
| | GA | 3 (23.1) | 14 (51.9) | | | |
| | AA | 1 (7.7) | 7 (25.9) | 0.09 | GG + GA vs AA | 6.55(0.53-8.90) |
| | Alelo G | 0.81 | 0.48 | | | |
| | Alelo A | 0.19 | 0.52 | | | |
| *miR146A* | rs2910164 | 52 | 69 | | | |
| | GG | 23 (44.2) | 29 (42.0) | 0.74 | GG vs GC + CC | 1.14(0.40-1.92) |
| | GC | 23 (44.2) | 35 (50.7) | | | |
| | CC | 6 (11.5) | 5 (7.2) | 0.52 | GG + GC vs CC | 0.65(0.18-2.43) |
| | Alelo G | 0.66 | 0.67 | | | |
| | Alelo C | 0.34 | 0.33 | | | |
| *miR570* | rs4143815 | 54 | 69 | | | |
| | GG | 35 (64.8) | 46 (66.7) | 0.82 | GG vs GC + CC | 1.10(0.49-2.47) |

| | | | | | | |
|---|---|---|---|---|---|---|
| | GC | 17 (31.5) | 19 (27.5) | | | |
| | CC | 2 (3.7) | 4 (5.8) | 0.32 | GG + GC vs CC | 2.38(0.41-13.01) |
| | Alelo G | 0.80 | 0.80 | | | |
| | Alelo C | 0.20 | 0.20 | | | |
| *miR200B* | rs9660710 | 55 | 67 | | | |
| | CC | 42 (76.4) | 55 (82.1) | 0.36 | CC vs CA + AA | 1.27 (0.48-3.37) |
| | CA | 11 (20.0) | 12 (17.9) | | | |
| | AA | 2 (3.6) | 0 (0.00) | 0.27 | CC + CA vs AA | 0.00 (0.00) |
| | Alelo C | 0.86 | 0.90 | | | |
| | Alelo A | 0.14 | 0.10 | | | |
| *miR26-A1* | rs7372209 | 49 | 62 | | | |
| | CC | 19 (38.8) | 33 (53.2) | 0.16 | CC vs CT + TT | 1.78(0.79-3.99) |
| | CT | 24 (49.0) | 23 (37.1) | | | |
| | TT | 6 (12.2) | 6 (9.7) | 0.59 | CC + CT vs TT | 1.42(0.39-5.14) |
| | Alelo C | 0.63 | 0.71 | | | |
| | Alelo T | 0.37 | 0.28 | | | |
| *miR200C* | rs12904 | 54 | 69 | | | |
| | GG | 20 (37.0) | 11 (15.9) | **< 0.01** | GG vs GA + AA | **3.42(1.36-8.57)** |
| | GA | 25 (46.3) | 45 (65.2) | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | AA | 9 (16.7) | 13 (18.8) | 0.53 | GG + GA vs AA | 1.39(0.50-3.89) |
| | Alelo G | 0.60 | 0.48 | | | |
| | Alelo A | 0.30 | 0.52 | | | |
| *DROSHA* | rs10035440 | 54 | 69 | | | |
| | TT | 36 (66.7) | 40 (58.0) | 0.32 | TT vs CT + CC | 1.50(0.66-3.39) |
| | CT | 17 (31.5) | 27 (39.1) | | | |
| | CC | 1 (1.9) | 2 (2.9) | 0.66 | TT + CT vs CC | 1.73(0.14-7.12) |
| | Alelo T | 0.82 | 0.77 | | | |
| | Alelo C | 0.18 | 0.23 | | | |
| *miR4513* | rs2168518 | 55 | 69 | | | |
| | GG | 26 (47.3) | 43 (62.3) | 0.40 | GG vs GA + AA | 0.71(0.32-1.58) |
| | GA | 28 (50.9) | 20 (29.0) | | | |
| | AA | 1 (1.8) | 6 (8.7) | **0.03** | GG + AG vs AA | **7.65(0.83-70.5)** |
| | Alelo G | 0.73 | 0.77 | | | |
| | Alelo A | 0.27 | 0.23 | | | |
| *miR219-1* | rs107822 | 49 | 64 | | | |
| | CC | 30 (61.2) | 37 (57.8) | 0.77 | CC vs CT + TT | 0.89(0.40-1.99) |
| | CT | 12 (24.5) | 23 (35.9) | | | |
| | TT | 7 (14.3) | 4 (6.2) | 0.18 | CC + CT vs TT | 2.50(0.63-9.84) |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Alelo C | 0.73 | 0.76 | | | |
| | Alelo T | 0.26 | 0.24 | | | |
| *miR2053* | rs10505168 | 52 | 66 | | | |
| | TT | 27 (51.9) | 25 (37.9) | 0.21 | TT vs TC + CC | 0.61(0.28-1.33) |
| | TC | 19 (36.5) | 29 (43.9) | | | |
| | CC | 6 (11.5) | 12 (18.2) | 0.55 | TT + CT vs CC | 0.72(0.24-2.19) |
| | Alelo T | 0.70 | 0.60 | | | |
| | Alelo C | 0.30 | 0.40 | | | |
| *miR499* | rs3746444 | 52 | 69 | | | |
| | GG | 37 (71.2) | 53 (76.8) | 0.36 | GG vs GA + AA | 1.51(0.62-3.69) |
| | GA | 12 (23.1) | 14 (20.3) | | | |
| | AA | 3 (5.8) | 2 (2.9) | 0.27 | GG + GA vs AA | 3.15(0.37-27.04) |
| | Alelo G | 0.83 | 0.87 | | | |
| | Alelo A | 0.17 | 0.13 | | | |

*Sample number; *P*-values, OR and 95%CI were obtained with logistic regression adjusted for genetic ancestry.

**Table S3. Genotypic distribution of the investigated polymorphisms for leprosy patients grouped in clinical form MB in comparison to the control group.**

| **ID** | **Genotype** | **MB (%)** | **Control (%)** | ***p*-value** | **Model** | **OR (95%CI)** |
|---|---|---|---|---|---|---|
| *miR300* | rs12894467 | 54 | 68 | | | |
| | TT | 26 (46.4) | 30 (44.1) | 0.66 | TT vs TC + | 1.02(0.40-1.) |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | CC | |
| | CT | 21 (37.5) | 26 (38.2) | | | |
| | CC | 9 (16.1) | 12 (17.6) | 0.79 | TT + TC vs CC | 1.12(0.33-2.32) |
| | Alelo T | 0.67 | 0.63 | | | |
| | Alelo C | 0.33 | 0.37 | | | |
| *miR423* | rs6505162 | 44 | 59 | | | |
| | AA | 15 (34.1) | 15 (25.4) | 0.40 | AA vs AC + CC | 0.69(0.29-1.65) |
| | AC | 21 (47.7) | 32 (54.2) | | | |
| | CC | 8 (18.2) | 12 (20.3) | 0.96 | AA + AC vs CC | 0.97(0.35-2.73) |
| | Alelo A | 0.58 | 0.53 | | | |
| | Alelo C | 0.42 | 0.47 | | | |
| *mir604* | rs2368392 | 40 | 54 | | | |
| | AA | 21 (52.5) | 24 (44.4) | 0.50 | AA vs AG + GG | 0.74(0.30-1.81) |
| | AG | 18 (45.0) | 29 (53.7) | | | |
| | GG | 1 (2.5) | 1 (1.9) | 0.79 | AA + AG vs GG | 1.46(0.29-1.74) |
| | Alelo A | 0.75 | 0.71 | | | |
| | Alelo G | 0.25 | 0.29 | | | |
| *pre-miR938* | rs2505901 | 56 | 68 | | | |
| | TT | 15 (26.8) | 27 (39.7) | 0.07 | TT vs TC + CC | 0.49(0.22-1.08) |

| | | | | | | |
|---|---|---|---|---|---|---|
| | TC | 28 (50.0) | 30 (44.1) | | | |
| | CC | 13 (23.2) | 11 (16.2) | 0.21 | TT + CT vs CC | 0.56(0.22-1.42) |
| | Alelo T | 0.52 | 0.62 | | | |
| | Alelo C | 0.48 | 0.38 | | | |
| *miR100* | rs1834306 | 45 | 58 | | | |
| | AA | 20 (44.4) | 25 (43.1) | 0.87 | AA vs AG + GG | 0.94(0.41-2.12) |
| | AG | 19 (42.2) | 26 (44.8) | | | |
| | GG | 6 (13.3) | 7 (12.1) | 0.84 | AA + AG vs GG | 0.88(0.26-2.98) |
| | Alelo A | 0.66 | | 0.65 | | |
| | Alelo G | 0.34 | | 0.35 | | |
| *miR219A1* | rs213210 | 57 | 69 | | | |
| | AA | 49 (86.0) | 58 (84.1) | 0.78 | AA vs AG + GG | 0.87(0.31-2.41) |
| | AG | 8 (14.0) | 9 (13.0) | | | |
| | GG | 0 (0.00) | 2 (2.9) | 0.09 | AA vs AG vs GG | 0.00 (0.00) |
| | Alelo A | 0.93 | 0.90 | | | |
| | Alelo G | 0.07 | 0.10 | | | |
| *DROSHA* | rs639174 | 51 | 64 | | | |
| | CC | 16 (31.4) | 30 (46.9) | **0.03** | CC vs CT + TT | **0.43(0.19-0.98)** |
| | CT | 24 (47.1) | 28 (43.8) | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | TT | 11 (21.6) | 6 (9.4) | 0.08 | CC + CT vs TT | 0.39(0.13-1.18) |
| | Alelo C | 0.55 | 0.69 | | | |
| | Alelo T | 0.45 | 0.31 | | | |
| *miR453* | rs56103835 | 55 | 69 | | | |
| | TT | 30 (54.5) | 32 (46.4) | 0.47 | TT vs CT + CC | 0.77(0.37-1.59) |
| | CT | 18 (32.7) | 30 (43.5) | | | |
| | CC | 7 (12.7) | 7 (10.1) | 0.64 | TT + CT vs CC | 1.30(0.42-1.43) |
| | Alelo T | 0.71 | 0.68 | | | |
| | Alelo C | 0.29 | 0.32 | | | |
| *miR196A2* | rs11614913 | 49 | 66 | | | |
| | CC | 29 (59.2) | 31 (47.0) | 0.15 | CC vs CT + TT | 1.39(0.29-2.03) |
| | CT | 17 (34.7) | 30 (45.5) | | | |
| | TT | 3 (6.1) | 5 (7.6) | 0.71 | CC + CT vs TT | 1.32(0.40-4.35) |
| | Alelo C | 0.76 | 0.70 | | | |
| | Alelo T | 0.24 | 0.30 | | | |
| *AGO* | rs636832 | 50 | 66 | | | |
| | GG | 22 (44.0) | 39 (59.1) | **0.04** | GG vs GA + AA | **0.45(0.21-0.99)** |
| | GA | 23 (46.0) | 21 (31.8) | | | |
| | AA | 5 (10.0) | 6 (9.1) | 0.98 | GG + GA vs AA | 1.01(0.28-3.61) |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Alelo G | 0.67 | 0.75 | | | |
| | Alelo A | 0.33 | 0.25 | | | |
| *pri-let-7a1* | rs10739971 | 17 | 27 | | | |
| | GG | 6 (35.3) | 6 (22.2) | 0.23 | GG vs GA + AA | 2.54(0.53-12.3) |
| | GA | 9 (52.9) | 14 (51.9) | | | |
| | AA | 2 (11.8) | 7 (25.9) | 0.13 | GG + GA vs AA | 3.95(0.58-27.1) |
| | Alelo G | 0.62 | 0.48 | | | |
| | Alelo A | 0.38 | 0.52 | | | |
| *miR146A* | rs2910164 | 56 | 69 | | | |
| | GG | 24 (42.9) | 29 (42.0) | 0.74 | GG vs GC + CC | 1.110.53-2.30) |
| | GC | 31 (55.4) | 35 (50.7) | | | |
| | CC | 1 (1.8) | 5 (7.2) | 0.66 | GG + GC vs CC | 4.26(0.47-38.5) |
| | Alelo G | 0.71 | 0.67 | | | |
| | Alelo C | 0.29 | 0.33 | | | |
| *miR570* | rs4143815 | 57 | 69 | | | |
| | GG | 27 (47.4) | 46 (66.7) | **0.03** | GG vs GC + CC | **0.45(0.21-0.96)** |
| | GC | 21 (36.8) | 19 (27.5) | | | |
| | CC | 9 (15.8) | 4 (5.8) | 0.08 | GG + GC vs CC | 0.34(0.10-1.28) |
| | Alelo G | 0.66 | 0.80 | | | |

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|---|---|---|---|---|---|---|
| | Alelo C | 0.34 | 0.20 | | | |
| *miR26-A1* | rs7372209 | 49 | 62 | | | |
| | CC | 25 (51.0) | 33 (53.2) | 0.85 | CC vs CT + TT | 1.40(0.72-2.72) |
| | CT | 19 (38.8) | 23 (37.1) | | | |
| | TT | 5 (10.2) | 6 (9.7) | 0.66 | CC + CT vs TT | 1.59(0.51-4.94) |
| | Alelo C | 0.70 | 0.71 | | | |
| | Alelo T | 0.30 | 0.29 | | | |
| *miR200C* | rs12904 | 57 | 69 | | | |
| | GG | 16 (28.1) | 11 (15.9) | 0.06 | GG vs GA + AA | 2.28(0.93-5.58) |
| | GA | 28 (49.1) | 45 (65.2) | | | |
| | AA | 13 (22.8) | 13 (18.8) | 0.73 | GG + GA vs AA | 0.86(0.35-2.11) |
| | Alelo G | 0.52 | 0.48 | | | |
| | Alelo A | 0.48 | 0.52 | | | |
| *DROSHA* | rs10035440 | 56 | 69 | | | |
| | TT | 44 (78.6) | 40 (58.0) | **0.01** | TT vs CT + CC | **2.88(1.22-6.79)** |
| | CT | 12 (21.4) | 27 (39.1) | | | |
| | CC | 0 (0.0) | 2 (2.9) | 0.11 | TT + CT vs CC | 0.00(0.00) |
| | Alelo T | 0.89 | 0.77 | | | |
| | Alelo C | 0.11 | 0.24 | | | |

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|---|---|---|---|---|---|---|
| *miR4513* | rs2168518 | 57 | 69 | | | |
| | GG | 25 (43.9) | 43 (62.3) | 0.17 | GG vs GA + AA | 0.57(0.26-1.27) |
| | GA | 25 (43.9) | 20 (29.0) | | | |
| | AA | 7 (12.3) | 6 (8.7) | 0.87 | GG + AG vs AA | 0.91(0.27-3.03) |
| | Alelo G | 0.66 | 0.77 | | | |
| | Alelo A | 0.34 | 0.23 | | | |
| *miR219-1* | rs107822 | 46 | 64 | | | |
| | CC | 28 (60.9) | 37 (57.8) | 0.59 | CC vs CT + TT | 0.89(0.46-1.74) |
| | CT | 16 (34.8) | 23 (35.9) | | | |
| | TT | 2 (4.3) | 4 (6.2) | 0.54 | CC + CT vs TT | 1.49(0.42-5.25) |
| | Alelo C | 0.78 | 0.76 | | | |
| | Alelo T | 0.22 | 0.24 | | | |
| *miR2053* | rs10505168 | 53 | 66 | | | |
| | TT | 18 (34.0) | 25 (37.9) | 0.53 | TT vs TC + CC | 0.87(0.34-1.90) |
| | TC | 26 (49.1) | 29 (43.9) | | | |
| | CC | 9 (17.0) | 12 (18.2) | 0.96 | TT + CT vs CC | 0.81(0.34-1.86) |
| | Alelo T | 0.58 | 0.59 | | | |
| | Alelo C | 0.42 | 0.41 | | | |
| *miR499* | rs3746444 | 57 | 69 | | | |

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|---|---|---|---|---|---|---|
| | GG | 42 (73.7) | 53 (76.8) | 0.80 | GG vs GA + AA | 1.20(0.57-2.50) |
| | GA | 14 (24.6) | 14 (20.3) | | | |
| | AA | 1 (1.8) | 2 (2.9) | 0.84 | GG + GA vs AA | 1.62(0.24-10.69) |
| | Alelo G | 0.86 | 0.87 | | | |
| | Alelo A | 0.14 | 0.13 | | | |

*Sample number; *P*-values, OR and 95%CI were obtained with logistic regression adjusted for genetic ancestry.

**Table S4. Genotypic distribution of the investigated polymorphisms between leprosy patients grouped according clinical form MB and PB.**

| **ID** | **Genotype** | **PB (%)** | **MB (%)** | ***p*-value** | **Model** | **OR (95%CI)** |
|---|---|---|---|---|---|---|
| *miR300* | rs12894467 | 55 | 53 | | | |
| | TT | 18 (32.7) | 25 (47.2) | 0.09 | TT vs CT + CC | 0.48(0.20-1.14) |
| | CT | 24 (43.6) | 20 (37.7) | | | |
| | CC | 13 (23.6) | 8 (15.1) | 0.08 | TT + CT vs CC | 0.39(0.13-1.16) |
| | Alelo T | 0.54 | 0.66 | | | |
| | Alelo C | 0.46 | 0.34 | | | |
| *miR423* | rs6505162 | 49 | 41 | | | |
| | AA | 12 (24.5) | 15 (36.6) | 0.46 | AA vs AC + CC | 0.69(0.26-1.87) |
| | AC | 26 (53.1) | 18 (43.9) | | | |
| | CC | 11 (22.4) | 8 (19.5) | 0.99 | AA + AC vs CC | 1.00(0.33-3.08) |
| | Alelo A | 0.51 | 0.59 | | | |

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|---|---|---|---|---|---|---|
| | Alelo C | 0.49 | 0.41 | | | |
| *mir604* | rs2368392 | 43 | 37 | | | |
| | AA | 21 (48.8) | 19 (51.4) | 0.52 | AA vs AG + GG | 0.73(0.28-1.94) |
| | AG | 22 (51.2) | 17 (45.9) | | | |
| | GG | 0 (0.0) | 1 (2.7) | 0.14 | AA + AG vs GG | 0.00(0.00) |
| | Alelo A | 0.74 | 0.74 | | | |
| | Alelo G | 0.26 | 0.26 | | | |
| *pre-miR938* | rs2505901 | 53 | 53 | | | |
| | TT | 17 (32.1) | 12 (22.6) | 0.18 | TT vs CT + CC | 1.90(0.74-4.90) |
| | CT | 25 (47.2) | 27 (50.9) | | | |
| | CC | 11 (20.8) | 14 (26.4) | 0.07 | TT + CT vs CC | 2.56(0.89-7.38) |
| | Alelo T | 0.56 | 0.48 | | | |
| | Alelo C | 0.44 | 0.52 | | | |
| *miR100* | rs1834306 | 48 | 42 | | | |
| | AA | 24 (50.0) | 18 (42.9) | 0.45 | AA vs AG + GG | 1.41(0.57-3.45) |
| | AG | 17 (35.4) | 19 (45.2) | | | |
| | GG | 7 (14.6) | 5 (11.9) | 0.65 | AA + AG vs GG | 0.74(0.20-2.76) |
| | Alelo A | 0.68 | 0.65 | | | |
| | Alelo G | 0.32 | 0.35 | | | |
| *DROSHA* | rs639174 | 50 | 48 | | | |
| | CC | 16 (32.0) | 14 (29.2) | 0.73 | CC vs CT + TT | 0.85(0.32-2.22) |
| | CT | 27 (54.0) | 23 (47.9) | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | TT | 7 (14.0) | 11 (22.9) | 0.85 | CC + CT vs TT | 1.11(0.35-3.51) |
| | Alelo C | 0.59 | 0.53 | | | |
| | Alelo T | 0.41 | 0.47 | | | |
| *miR453* | rs56103835 | 54 | 52 | | | |
| | TT | 30 (55.6) | 28 (53.8) | 0.69 | TT vs CT + CC | 0.84(0.36-1.96) |
| | CT | 20 (37.0) | 17 (32.7) | | | |
| | CC | 4 (7.4) | 7 (13.5) | 0.27 | TT + CT vs CC | 2.16(0.53-8.86) |
| | Alelo T | 0.74 | 0.70 | | | |
| | Alelo C | 0.26 | 0.30 | | | |
| *miR196A2* | rs11614913 | 52 | 46 | | | |
| | CC | 32 (61.5) | 27 (58.7) | 0.59 | CC vs CT + TT | 1.27(0.52-3.08) |
| | CT | 14 (26.9) | 16 (34.8) | | | |
| | TT | 6 (11.5) | 3 (6.5) | 0.73 | CC + CT vs TT | 1.27(0.52-3.08) |
| | Alelo C | 0.75 | 0.76 | | | |
| | Alelo T | 0.25 | 0.24 | | | |
| *AGO* | rs636832 | 52 | 47 | | | |
| | GG | 24 (46.2) | 20 (42.6) | 0.52 | GG vs GA + AA | 1.33(0.55-3.18) |
| | GA | 20 (38.5) | 22 (46.8) | | | |
| | AA | 8 (15.4) | 5 (10.6) | 0.97 | GG + GA vs AA | 1.02(0.27-3.80) |
| | Alelo G | 0.65 | 0.66 | | | |
| | Alelo A | 0.35 | 0.34 | | | |
| *pri-let-7a1* | rs10739971 | 13 | 16 | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | GG | 9 (69.2) | 6 (37.5) | **0.01** | GG vs GA + AA | **5.21(1.59-7.86)** |
| | GA | 3 (23.1) | 9 (56.2) | | | |
| | AA | 1 (7.7) | 1 (6.2) | 0.55 | GG + GA vs AA | 2.68(0.11-6.46) |
| | Alelo G | 0.81 | 0.65 | | | |
| | Alelo A | 0.19 | 0.36 | | | |
| *miR146A* | rs2910164 | 52 | 53 | | | |
| | GG | 23 (44.2) | 24 (45.3) | 0.25 | GG vs GC + CC | 0.60(0.24-1.46) |
| | GC | 23 (44.2) | 28 (52.8) | | | |
| | CC | 6 (11.5) | 1 (1.9) | **0.04** | GG + GC vs CC | **0.14(0.01-1.36)** |
| | Alelo G | 0.66 | 0.72 | | | |
| | Alelo C | 0.34 | 0.28 | | | |
| *miR570* | rs4143815 | 54 | 54 | | | |
| | GG | 35 (64.8) | 26 (48.1) | 0.17 | GG vs GC + CC | 1.79(0.77-4.17) |
| | GC | 17 (31.5) | 20 (37.0) | | | |
| | CC | 2 (3.7) | 8 (14.8) | 0.28 | GG + GC vs CC | 2.38(0.44-12.79) |
| | Alelo G | 0.80 | 0.66 | | | |
| | Alelo C | 0.20 | 0.34 | | | |
| *miR200B* | rs9660710 | 55 | 45 | | | |
| | CC | 42 (76.4) | 35 (77.8) | 0.98 | CC vs CA + AA | 1.01 (0.35-2.91) |
| | CA | 11 (20.0) | 10 (22.2) | | | |
| | AA | 2 (3.6) | 0 (0.0) | 0.10 | CC + CA vs AA | 0.00 (0.00) |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Alelo C | 0.86 | 0.88 | | | |
| | Alelo A | 0.14 | 0.11 | | | |
| *miR26-A1* | rs7372209 | 49 | 46 | | | |
| | CC | 19 (38.8) | 23 (50.0) | 0.10 | CC vs CT + TT | 0.47(0.19-1.18) |
| | CT | 24 (49.0) | 18 (39.1) | | | |
| | TT | 6 (12.2) | 5 (10.9) | 0.52 | CC + CT vs TT | 0.64(0.17-2.50) |
| | Alelo C | 0.63 | 0.70 | | | |
| | Alelo T | 0.37 | 0.30 | | | |
| *miR200C* | rs12904 | 54 | 54 | | | |
| | GG | 20 (37.0) | 15 (27.8) | 0.26 | GG vs AG + AA | 1.66(0.68-4.06) |
| | AG | 25 (46.3) | 26 (48.1) | | | |
| | AA | 9 (16.7) | 13 (24.1) | 0.41 | GG + AG vs AA | 1.54(0.54-4.37) |
| | Alelo G | 0.60 | 0.52 | | | |
| | Alelo A | 0.40 | 0.48 | | | |
| *DROSHA* | rs10035440 | 54 | 53 | | | |
| | TT | 36 (66.7) | 41 (77.4) | 0.63 | TT vs CT + CC | 0.80(0.31-2.05) |
| | CT | 17 (31.5) | 12 (22.60 | | | |
| | CC | 1 (1.9) | 0 (0.0) | 0.47 | TT + CT vs CC | 0.00(0.00) |
| | Alelo T | 0.82 | 0.89 | | | |
| | Alelo C | 0.17 | 0.11 | | | |
| *miR4513* | rs2168518 | 55 | 54 | | | |
| | GG | 26 (47.3) | 23 (42.6) | 0.70 | GG vs GA + AA | 1.56(0.80-3.04) |

| | | | | | | |
|---|---|---|---|---|---|---|
| | GA | 28 (50.9) | 25 (40.3) | | | |
| | AA | 1 (1.8) | 6 (11.1) | 0.09 | GG + GA vs AA | 5.37(0.56-9.89) |
| | Alelo G | 0.73 | 0.66 | | | |
| | Alelo A | 0.27 | 0.34 | | | |
| *miR219-1* | rs107822 | 49 | 43 | | | |
| | CC | 30 (61.2) | 26 (60.5) | 0.83 | CC vs CT + TT | 0.91(0.36-2.30) |
| | CT | 12 (24.5) | 15 (34.9) | | | |
| | TT | 7 (14.3) | 2 (4.7) | 0.07 | CC + CT vs TT | 0.23(0.04-1.31) |
| | Alelo C | 0.73 | 0.78 | | | |
| | Alelo T | 0.27 | 0.22 | | | |
| *miR2053* | rs10505168 | 52 | 50 | | | |
| | TT | 27(51.9) | 17 (34.0) | 0.06 | TT vs TC + CC | 2.31(0.95-5.61) |
| | TC | 19 (36.5) | 24 (48.0) | | | |
| | CC | 6 (11.5) | 9 (18.0) | 0.51 | TT + TC vs CC | 1.50(0.45-5.06) |
| | Alelo T | 0.70 | 0.58 | | | |
| | Alelo C | 0.30 | 0.42 | | | |
| *miR499* | rs3746444 | 52 | 54 | | | |
| | GG | 37 (71.2) | 40 (74.1) | 0.97 | GG vs GA + AA | 1.01(0.39-2.61) |
| | GA | 12 (23.1) | 13 (24.1) | | | |
| | AA | 3 (5.8) | 1 (1.9) | 0.25 | GG + GA vs AA | 0.25(0.02-3.05) |
| | Alelo G | 0.82 | 0.86 | | | |
| | Alelo A | 0.17 | 0.14 | | | |

*Sample number; *P*-values, OR and 95%CI were obtained with logistic regression adjusted for age and sex.

**Table S5. Characterization of the polymorphisms studied.**

| Gene | ID | Alleles | Function | MAF* |
|---|---|---|---|---|
| *miR20b/miR-17-5P* | rs3660 | C>G | 3 Prime UTR Variant | 48% |
| *miR300* | rs12894467 | C>T | Non-Coding Transcript exon variant | 39% |
| *miR423* | rs6505162 | C>A | Non-Coding Transcript variant | 50% |
| *mir604* | rs2368392 | G>A | Non-Coding Transcript Variant | 32% |
| *pre-miR938* | rs2505901 | C>T | Intron Variant | 40% |
| *miR605* | rs2043556 | T>C | Non Coding Transcript Variant | 25% |
| *miR100* | rs1834306 | A>G | Intron Variant | 45% |
| *miR219A1* | rs213210 | A>G | Regulatory Region Variant | 17% |
| *DROSHA* | rs639174 | C>T | Intron Variant | 46% |
| *miR453* | rs56103835 | T> C | Non-Coding Transcript Exon Variant | 30% |
| *miR196A2* | rs11614913 | C>T | Non-Coding Transcript Exon Variant | 33% |
| *AGO1* | rs636832 | A>G | Intron Variant | 36% |
| *pri-let-7a-1* | rs10739971 | G>A | Intron Variant | 26% |
| *miR146A* | rs2910164 | C>G | Mature miRNA Variant | 29% |
| *miR570* | rs4143815 | G>C | 3 prime UTR ariant | 28% |
| *miR200B* | rs9660710 | A>C | Regulatory Region Variant | 10% |
| *miR26-A1* | rs7372209 | C>T | Intron Variant | 20% |
| *miR200C* | rs12904 | G> A | 3 Prime UTR Variant | 49% |
| *DROSHA* | rs3805500 | G>A | Intron Variant | 49% |
| *DROSHA* | rs10035440 | T>C | Intron Variant | 15% |
| *miR4513* | rs2168518 | G> A | Non-Coding Transcript Exon Variant | 24% |
| *miR219-1* | rs107822 | C>T | TF Binding Site | 37% |
| *miR149* | rs2292832 | T>C | Intron Variant | 38% |
| *miR2053* | rs10505168 | C>T | Non Coding Transcript Variant | 39% |

| | | | | |
|---|---|---|---|---|
| *miR499* | rs3746444 | A>G | Mature miRNA Variant | 18% |

*Minor Allele Frequency according 1000 Genomes Project.