Supplementary Material

# Supplementary Tables

**Supplemental Table S1.** Patient baseline characteristics in relation to FcγRIIA polymorphism.

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| --- | --- | --- | --- | --- | --- |
| **Characteristic** | **All patients**(n = 1,940) | **R/R131**(n = 399) | **H/R131**(n = 999) | **H/H131**(n = 542) | ***P*** |
| Female recipient sex, n (%) | 762 (39) | 154 (39) | 385 (39) | 221 (41) | 0.67 |
| Recipient age, mean ± SD (years) | 46.8 ± 13.7 | 47.3 ± 13.5 | 46.7 ± 13.9 | 46.8 ± 13.6 | 0.83 |
| Geographic origin, n (%) Europe Northern America | 1,729 (89)211 (11) | 359 (90)40 (10) | 880 (88)119 (12) | 490 (90)52 (10) | 0.31 |
| First renal allograft, n (%) | 1,681 (87) | 338 (85) | 873 (87) | 470 (87) | 0.41 |
| Underlying renal disease, n (%) Glomerulonephritis Polycystic kidneys Diabetes mellitus Other | 626 (32)241 (12)174 (  9)899 (46) | 124 (31)48 (12)47 (12)180 (45) | 324 (32)116 (12)85 (  9)474 (47) | 178 (33)78 (14)42 (  8)244 (45) | 0.28 |
| Donor sex, n (%) Female Male | 768 (40)1,169 (60) | 139 (35)260 (65) | 407 (41)590 (59) | 222 (41)319 (59) | 0.088 |
| Donor age, mean ± SD (years)  | 40.4 ± 16.7 | 40.6 ± 16.3 | 39.9 ± 17.0 | 41.4 ± 16.3 | 0.27 |
| Cold ischemia time, mean ± SD (hours) | 20.3 ± 8.0 | 21.1 ± 7.9 | 19.9 ± 7.6 | 20.3 ± 8.9 | 0.041 |
| HLA A+B+DR mismatches, n (%) 0 – 1 2 – 4 5 – 6 | 227 (12)1,440 (74)273 (14) | 50 (13)301 (75)48 (12) | 125 (13)735 (74)139 (14) | 52 (10)404 (74)86 (16) | 0.25 |
| Panel-reactive antibodies, n (%) = 0% > 0% | 1,370 (76)438 (24) | 284 (77)85 (23) | 701 (75)235 (25) | 385 (77)118 (23) | 0.66 |
| Initial immunosuppression, n (%) Cyclosporine A Tacrolimus No calcineurin inhibitor | 1,540 (79)304 (16)96 (  5) | 323 (81)60 (15)16 (  4) | 783 (78)160 (16)56 (  6) | 434 (80)84 (15)24 (  4) | 0.67 |
|  Azathioprine Mycophenolic acid No antimetabolite agent | 903 (47)648 (33)389 (20) | 191 (48)122 (31)86 (22) | 465 (47)331 (33)203 (20) | 247 (46)195 (36)100 (18) | 0.48 |
| Induction therapy, n (%) IL-2R antibody Depleting anti-lymphocyte agent Without | 161 (  8)499 (26)1,252 (65) | 32 (  9)99 (26)245 (65) | 85 (  9)209 (22)648 (69) | 44 (  9)111 (22)359 (70) | 0.49 |

R, arginine; H, histidine; SD, standard deviation; HLA, human leukocyte antigen; IL-2R, interleukin 2 receptor

**Supplemental Table S2.** Patient baseline characteristics in relation to FcγRIIIB polymorphism.

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| **Characteristic** | **All patients**(n = 1,940) | **NA2/NA2**(n = 816) | **NA1/NA2**(n = 872) | **NA1/NA1**(n = 252) | ***P*** |
| Female recipient sex, n (%) | 762 (39) | 325 (40) | 344 (39) | 91 (36) | 0.56 |
| Recipient age, mean ± SD (years) | 46.8 ± 13.7 | 47.4 ± 13.8 | 46.5 ± 13.5 | 46.3 ± 14.0 | 0.34 |
| Geographic origin, n (%) Europe Northern America | 1,729 (89)211 (11) | 738 (90)78 (10) | 771 (88)101 (12) | 220 (87)32 (13) | 0.25 |
| First renal allograft, n (%) | 1,681 (87) | 694 (85) | 770 (88) | 217 (86) | 0.14 |
| Underlying renal disease, n (%) Glomerulonephritis Polycystic kidneys Diabetes mellitus Other | 626 (32)241 (12)174 (  9)899 (46) | 265 (32)100 (12)62 (  8)389 (48) | 267 (31)113 (13)89 (10)403 (46) | 94 (37)29 (12)23 (  9)106 (42) | 0.27 |
| Donor sex, n (%) Female Male | 768 (40)1,169 (60) | 319 (39)497 (61) | 359 (41)511 (59) | 90 (36)161 (64) | 0.28 |
| Donor age, mean ± SD (years)  | 40.4 ± 16.7 | 40.2 ± 16.7 | 41.1 ± 16.6 | 39.0 ± 16.8 | 0.21 |
| Cold ischemia time, mean ± SD (hours) | 20.3 ± 8.0 | 20.5 ± 7.8 | 20.0 ± 8.3 | 20.2 ± 7.8 | 0.30 |
| HLA A+B+DR mismatches, n (%) 0 – 1 2 – 4 5 – 6 | 227 (12)1,440 (74)273 (14) | 95 (12)602 (74)119 (15) | 108 (12)652 (75)112 (13) | 24 (10)186 (74)42 (17) | 0.44 |
| Panel-reactive antibodies, n (%) = 0% > 0% | 1,370 (76)438 (24) | 578 (76)183 (24) | 607 (75)203 (25) | 185 (78)52 (22) | 0.61 |
| Initial immunosuppression, n (%) Cyclosporine A Tacrolimus No calcineurin inhibitor | 1,540 (79)304 (16)96 (  5) | 638 (78)130 (16)48 (  6) | 702 (81)134 (15)36 (  4) | 200 (79)40 (16)12 (  5) | 0.55 |
|  Azathioprine Mycophenolic acid No antimetabolite agent | 903 (47)648 (33)389 (20) | 374 (46)273 (33)169 (21) | 415 (48)284 (33)173 (20) | 114 (45)91 (36)47 (19) | 0.82 |
| Induction therapy, n (%) IL-2R antibody Depleting anti-lymphocyte agent Without | 161 (  8)499 (26)1,252 (65) | 74 (10)186 (24)505 (66) | 68 (  8)185 (22)575 (69) | 19 (  8)48 (20)172 (72) | 0.40 |

NA, neutrophil antigen; SD, standard deviation; HLA, human leukocyte antigen; IL-2RA, interleukin 2 receptor

**Supplemental Table S3.** Genotype frequencies of Fc gamma receptor polymorphisms.

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| --- | --- | --- |
| **Fc gamma receptor** | **Recipients**(n = 1,940) | **Donors**(n = 1,940) |
| FcγIIIA, n (%)F/F158V/F158V/V158*P* value of HWE | 799 (41)884 (46)257 (13)0.62 | 789 (41)916 (47)235 (12)0.24 |
| FcγIIA, n (%)R/R131H/R131H/H131*P* value of HWE | 399 (21)999 (51)542 (28)0.12 | 442 (23)951 (49)547 (28)0.47 |
| FcγIIIB, n (%)NA2/NA2NA1/NA2NA1/NA1*P* value of HWE | 816 (42)872 (45)252 (13)0.43 | 844 (44)848 (44)248 (13)0.13 |

F, phenylalanine; V, valine; R, arginine; H, histidine; HWE, Hardy-Weinberg equilibrium; NA, neutrophil antigen

# Supplementary Figures



**Supplementary Figure 1.** Comparison of the graft survival between study patients and not selected patients who would have been eligible.



**Supplementary Figure 2.** Death-censored graft survival, overall graft survival and patient survival in relation to genotypic groups of *FCGR2A*-H/R131 and *FCGR3B*-NA1/NA2.



**Supplementary Figure 3.** Impact of FcγR polymorphisms FCGR2A-H/R131 and FCGR3B-NA1/NA2 on 1-year serum creatinine and on need for rejection treatment during the first post-transplant year.



**Supplementary Figure 4.** Kaplan-Meier analysis of death-censored graft survival in 438 recipients with anti-HLA antibodies at the time of transplantation and 229 recipients with rejection treatment during the first post-transplant year, comparing the two homozygous groups and the heterozygous group of FCGR2A-H/R131 and FCGR3B-NA1/NA2.



**Supplementary Figure 5.** Donor-derived FcγRIIA and FcγRIIIB polymorphisms and death-censored kidney allograft survival.