

**Table S1A-D** Clinical and demographic data of all patients enrolled in the three selected studies.

**Table S1A** PMID 15307835-Clinical and demographic data of all patients enrolled in the study.

| PMID 15307835 |    |      |     |        |                    |                 |        |             |              |
|---------------|----|------|-----|--------|--------------------|-----------------|--------|-------------|--------------|
| Patient ID    | BX | PB L | Age | Sex    | Immuno suppression | Histo pathology | LD/CAD | Scr (mg/dL) | Days post TX |
| C1            | •  |      | 38  | Female |                    |                 |        | 0.8         |              |
| C2            | •  |      | 42  | Male   |                    |                 |        | 0.9         |              |
| C3            | •  |      | 35  | Female |                    |                 |        | 0.6         |              |
| C4            | •  |      | 39  | Female |                    |                 |        | 0.9         |              |
| C5            | •  | •    | 39  | Male   |                    |                 |        | 1.2         |              |
| C6            | •  |      | 44  | Male   |                    |                 |        | 0.8         |              |
| C7            | •  |      | 36  | Male   |                    |                 |        | 1.2         |              |
| C8            | •  |      | 35  | Female |                    |                 |        | 0.8         |              |
| C9            | •  |      | 50  | Female |                    |                 |        | 0.6         |              |
| AR1           | •  | •    | 42  | Male   | CsA/M MF/P         | BanffIIA        | CAD    | 12          | 285          |
| AR2           | •  | •    | 28  | Male   | FK/MM F/P          | BanffIIA        | LD     | 5.9         | 1467         |
| AR3           | •  | •    | 18  | Male   | CsA/M MF/P         | BanffIA         | CAD    | 2.2         | 119          |
| AR4           | •  | •    | 28  | Female | FK/MM F/P          | BanffIIA        | CAD    | 1.5         | 366          |
| AR5           | •  | •    | 26  | Female | CsA/M MF/P         | Borderline      | CAD    | 2           | 278          |
| AR6           | •  | •    | 55  | Male   | SRL/M MF/P         | Borderline      | CAD    | 2.9         | 68           |
| AR7           | •  | •    | 35  | Male   | SRL/M MF/P         | BanffIA         | CAD    | 2           | 184          |
| TX1           | •  |      | 51  | Male   | CsA/M MF/P         | Normal          | CAD    | 1.5         | 932          |
| TX2           | •  |      | 56  | Male   | CsA/M MF/P         | Normal          | LD     | 1.3         | 911          |
| TX3           | •  |      | 52  | Male   | CsA/M MF/P         | Normal          | CAD    | 1.2         | 902          |
| TX4           | •  |      | 31  | Female | CsA/M MF/P         | Normal          | LD     | 1.1         | 651          |
| TX5           | •  |      | 53  | Female | CsA/M MF/P         | Normal          | LD     | 1.1         | 689          |
| TX6           | •  |      | 32  | Male   | CsA/M MF/P         | Normal          | LD     | 1.6         | 776          |
| TX7           | •  |      | 46  | Female | CsA/M MF/P         | Normal          | CAD    | 1.2         | 713          |
| TX8           | •  |      | 61  | Male   | CsA/M MF/P         | Normal          | CAD    | 0.9         | 733          |
| TX9           | •  |      | 44  | Male   | CsA/M MF/P         | Normal          | LD     | 1.8         | 718          |

| Patient ID | BX | PB L | Age | Sex    | Immuno suppression | Histo pathology | LD/CAD | Scr (mg/dL) | Days post TX |
|------------|----|------|-----|--------|--------------------|-----------------|--------|-------------|--------------|
| TX10       | •  |      | 21  | Male   | CsA/M MF/P         | Normal          | CAD    | 1.5         | 674          |
| TXPBL1     |    | •    | 38  | Male   | CsA/M MF/P         |                 | CAD    | 1.4         | 461          |
| TXPBL2     |    | •    | 57  | Female | FK/MM F/P          |                 | LD     | 1.3         | 42           |
| TXPBL3     |    | •    | 65  | Male   | CsA/M MF/P         |                 | CAD    | 1.5         | 213          |
| TXPBL4     |    | •    | 65  | Female | FK/MM F/P          |                 | CAD    | 0.8         | 246          |
| TXPBL5     |    | •    | 36  | Female | CsA/M MF/P         |                 | CAD    | 1.1         | 1278         |
| TXPBL6     |    | •    | 68  | Male   | CsA/M MF/          |                 | CAD    | 1.7         | 376          |
| TXPBL7     |    | •    | 39  | Male   | SRL/M MF/P         |                 | CAD    | 0.9         | 36           |
| TXPBL8     |    | •    | 61  | Female | CsA/M MF/P         |                 | CAD    | 0.9         | 1491         |
| TXPBL9     |    | •    | 46  | Male   | SRL/M MF/P         |                 | LD     | 1.2         | 81           |
| NR1        | •  | •    | 55  | Male   | CsA/M MF/P         | CNI toxicity    | LD     | 1.7         | 456          |
| NR2        | •  | •    | 38  | Male   | FK/MM F/P          | CNI toxicity    | LD     | 2.3         | 155          |
| NR3        | •  | •    | 61  | Male   | SRL/M MF/P         | ATN             | LD     | 5.2         | 11           |
| NR4        | •  | •    | 43  | Male   | CsA/M MF/P         | CNI toxicity    | CAD    | 3.8         | 262          |
| NR5        | •  | •    | 35  | Male   | CsA/M MF/P         | ATN             | CAD    | 6.3         | 16           |
| NR6        |    | •    | 35  | Female | FK/MM F/P          | CNI toxicity    | CAD    | 2.6         | 37           |
| NR7        |    | •    | 44  | Male   | SRL/M MF/P         | ATN             | CAD    | 6.3         | 40           |
| NR8        | •  | •    | 22  | Female | FK/MM F/P          | FSGS            | LD     | 3.3         | 78           |
| NR9        |    | •    | 58  | Male   | CsA/M MF/P         | ATN             | CAD    | 5           | 47           |

**Table S1A legend:** BX, biopsy; PBL, peripheral blood lymphocytes; CsA, cyclosporine; MMF, mycophenolate mofetil; P, prednisone; FK, tacrolimus; SRL, sirolimus; CAD, cadaveric; LD, live donor; Scr, serum creatinine; ATN, acute tubular necrosis; CNI, calcineurin inhibitor; FSGS, focal segmental glomerulosclerosis.

**Table S1B** PMID 21672049-Demographic data of donors and recipients stratified by treatment assignment. Continuous data are provided as median (first, third quartile), categorical data are shown as counts.

| PMID 21672049                                              |                   |                   |         |
|------------------------------------------------------------|-------------------|-------------------|---------|
|                                                            | Tacrolimus        | Placebo           | P-value |
| <b>Donor</b>                                               | 13                | 13                |         |
| Gender (f/m)                                               | 5-Aug             | 7/6 0             | 691*    |
| Pretreatment steroids (no/yes)                             | 8-May             | 9-Apr             | 1.000†  |
| Cause of death<br>(else/intracranial haemorrhage/trauma)   | 2/9/4             | 3/9/2             | 0.762†  |
| Comorbidities<br>(DM/hypertension/MCI/stroke/none/unknown) | 1/6/1/4/3/3       | 0/3/2/0/6/3       | 0.231†  |
| Age [years]                                                | 53 (38, 64)       | 50 (33, 57)       | 0.396   |
| Steatosis in donor liver [%]                               | 1 (0, 5)          | 5 (0, 10)         | 0.554   |
| ALT [IU/l]                                                 | 20 (18, 50)       | 42.5 (16, 61)     | 0.608   |
| AST [IU/l]                                                 | 34 (29, 61)       | 35 (23, 76)       | 0.959   |
| Bilirubin [mg/dl]                                          | 0.60 (0.43, 0.83) | 0.54 (0.30, 0.80) | 0.758   |
| Creatinine [mg/dl]                                         | 0.75 (0.62, 1.20) | 0.99 (0.70, 1.78) | 0.238   |
| INR                                                        | 0.0(0.0, 1.2)     | 0.0 (0.0, 1.1)    | 0.887   |
| Quick value [%]                                            | 71 (65, 89)       | 82 (73, 99)       | 0.397   |
| PTT [s]                                                    | 35 (22.4, 38.2)   | 36.2 (24, 47)     | 0.699   |
| <b>Recipient</b>                                           | 13                | 13                |         |
| Gender (f/m)                                               | 9-Apr             | 10-Mar            | 1.000†  |
| Age [years]                                                | 55.5 (50, 59)     | 55 (53, 60)       | 0.959   |
| CIT [h]                                                    | 8.0 (6.3, 9.0)    | 7.8 (5.8, 9.8)    | 0.878   |
| MELD                                                       | 20 (16; 23)       | 16 (14; 20)       | 0.137   |
| Indication for OLT                                         |                   |                   |         |
| PHCC                                                       | 2                 | 3                 | 1.000†  |
| HCCA                                                       | 1                 | 3                 | 0.593†  |
| ALCI                                                       | 4                 | 6                 | 0.688†  |
| PBCI                                                       | 2                 | 1                 | 1.000†  |
| OTCI                                                       | 3                 | 0                 | 0.220†  |
| AUCI                                                       | 1                 | 0                 | 1.000†  |
| Operation data                                             |                   |                   |         |
| Operation time [min]                                       | 330 (260; 445)    | 340 (285; 420)    | 0.719   |
| WIT [min]                                                  | 71 (65; 78)       | 77 (70; 90)       | 0.157   |
| Blood products                                             |                   |                   |         |
| Packed cells                                               | 0 (0; 4)          | 2 (0; 8)          | 0.572   |
| FFP                                                        | 6 (2; 10)         | 8 (6; 12)         | 0.457   |
| Platelets                                                  | 0 (0; 0)          | 0 (0; 0)          | 0.939   |

**Table S1B legend:** AST, aspartate transaminase; ALT, alanine transaminase; PTT, partial thromboplastin time; INR, international normalized ratio; MELD, model for end-stage liver disease; OLT, orthotopic liver transplantation; PHCC, post hepatitis C cirrhosis; HCCA, hepatocellular carcinoma; ALCI, alcoholic cirrhosis; PBCI, primary biliary cirrhosis; OTCI, other cirrhosis: unknown causes; AUCI, autoimmune cirrhosis; WIT, warm ischaemic time; FFP, fresh frozen plasma. \*Chi-square test, †Fisher's exact test

**Table S1C** PMID 21114641-Demographics of SRL and CSA recipients

| PMID 21114641-Demographics of SRL and CSA recipients |                                                 |                      |                          |                                            |                     |                       |                                            |                                       |                                 |
|------------------------------------------------------|-------------------------------------------------|----------------------|--------------------------|--------------------------------------------|---------------------|-----------------------|--------------------------------------------|---------------------------------------|---------------------------------|
| Study group                                          | Recipient age at inclusion (years) <sup>1</sup> | Recipient gender     | Donor age <sup>1,*</sup> | Time posttransplant <sup>1,*</sup> (years) | Graft number        | A + B + DR mismatches | Serum creatinine at inclusion <sup>1</sup> | Proteinuria at inclusion <sup>1</sup> | Drug trough levels <sup>2</sup> |
| SRL (n = 4)                                          | 61 (8.9)                                        | 13 Male<br>11 female | 50.3 (11.7)              | 9.75 (2.6)                                 | 23 First<br>1 third | ≤2: 17 ≥3: 7          | 1.43 (0.35) mg/dL                          | 710 (769) mg/day                      | 10 (1.7) ng/mL                  |
| CSA (n = 3)                                          | 61.1 (14)                                       | 9 Male<br>4 female   | 23.8 (12.4)              | 16.4 (3.3)                                 | 11 First<br>2second | ≤2: 5 ≥3: 6<br>NA: 2  | 1.4 (0.6) mg/dL                            | 519 (452) mg/day                      | 119 (36) ng/mL                  |

**Table S1C-D legend** \*p-Value <0.05.<sup>1</sup>Mean (SD).<sup>2</sup>Mean (SD) of drug trough levels obtained during the 6 months prior to inclusion.

**Table S1D** PMID 21114641-Immunosuppressive regimens prior to the adoption of monotherapy of SRL and CSA recipients enrolled in the study

| PMID 21114641- Immunosuppressive regimens prior to the adoption of monotherapy |                   |                                            |                      |
|--------------------------------------------------------------------------------|-------------------|--------------------------------------------|----------------------|
| Study group                                                                    | Induction therapy | Maintenance immunosuppression <sup>1</sup> | Treatment assignment |
| CSA                                                                            | –                 | SRL + CSA                                  | De novo              |
| CSA                                                                            | –                 | Tac + CSA                                  | De novo              |
| CSA                                                                            | –                 | CSA                                        | De novo              |
| CSA                                                                            | –                 | CSA                                        | De novo              |
| CSA                                                                            | –                 | CSA                                        | De novo              |
| CSA                                                                            | ALS               | CSA                                        | De novo              |
| CSA                                                                            | –                 | CSA                                        | Conversion from Tac  |
| CSA                                                                            | ALS               | CSA                                        | De novo              |
| CSA                                                                            | ALS               | CSA                                        | De novo              |
| CSA                                                                            | –                 | SRL + PDN + CSA                            | Conversion from Tac  |
| CSA                                                                            | –                 | CSA                                        | De novo              |
| CSA                                                                            | –                 | CSA + PDN                                  | De novo              |
| CSA                                                                            | –                 | SRL + PDN                                  | Conversion from SRL  |
| SRL                                                                            | –                 | SRL + CSA + CSA                            | Conversion from CSA  |
| SRL                                                                            | –                 | SRL + PDN                                  | De novo              |
| SRL                                                                            | –                 | SRL + PDN                                  | De novo              |
| SRL                                                                            | –                 | SRL + CSA                                  | De novo              |
| SRL                                                                            | –                 | SRL + CSA                                  | Conversion from CSA  |
| SRL                                                                            | –                 | SRL + PDN                                  | De novo              |
| SRL                                                                            | –                 | SRL + CSA                                  | Conversion from CSA  |
| SRL                                                                            | –                 | SRL + PDN                                  | Conversion from CSA  |
| SRL                                                                            | –                 | SRL + CSA + PDN                            | Conversion from CSA  |
| SRL                                                                            | –                 | SRL + PDN                                  | Conversion from CSA  |
| SRL                                                                            | –                 | SRL + CSA + PDN                            | De novo              |
| SRL                                                                            | –                 | SRL + CSA                                  | Conversion from CSA  |

|             |                   |                                            |                      |
|-------------|-------------------|--------------------------------------------|----------------------|
| SRL         | –                 | SRL + CSA                                  | Conversion from CSA  |
| SRL         | –                 | SRL + PDN                                  | Conversion from CSA  |
| SRL         | –                 | SRL + PDN                                  | Conversion from CSA  |
| SRL         | –                 | SRL + PDN                                  | Conversion from CSA  |
| Study group | Induction therapy | Maintenance immunosuppression <sup>1</sup> | Treatment assignment |
| SRL         | –                 | SRL + PDN                                  | Conversion from CSA  |
| SRL         | –                 | SRL + PDN                                  | De novo              |
| SRL         | –                 | SRL + PDN                                  | Conversion from CSA  |
| SRL         | –                 | SRL + CSA                                  | Conversion from CSA  |
| SRL         | –                 | SRL + PDN                                  | Conversion from CSA  |
| SRL         | –                 | SRL + PDN                                  | De novo              |
| SRL         | BAS               | SRL + CSA                                  | Conversion from CSA  |

**Table S1D legend** Tac = tacrolimus; PDN = prednisone; CSA = cyclosporine A; SRL = sirolimus; ALS = polyclonal anti-lymphocyte serum; BAS = basiliximab; OKT3 = muromonab-CD3.<sup>1</sup>Maintenance immunosuppressive regimen 1 year prior to initiation of CSA or SRL monotherapy.