## Supplemental Table 1

cy0905
days post-transplant

| Treatment | Purpose | Dose | Route | -30 | .. | - 7 | .. | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | .. | 9 | .. | 19 | .. | 26 | .. | 42 | .. | 58 | .. | 62 | 63 | .. | 74 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { ART-TDF } \\ \text { FTC } \\ \hline \end{gathered}$ | Antiretroviral | $\begin{aligned} & 20 \mathrm{mg} / \mathrm{kg} \\ & 40 \mathrm{mg} / \mathrm{kg} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{SQ} \\ & \mathrm{SQ} \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ART- RAL | Anti- retroviral | 100 mg | oral |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trimethoprim/ sulfamethoxazole | Gut decontamination | $\begin{gathered} 8 \\ \mathrm{mg} / \mathrm{kg} \\ \hline \end{gathered}$ | oral |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ceftriaxone | Antibiotic | $\begin{gathered} 50 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | IM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total body irradiation | Immune conditioning | $\begin{gathered} \hline \text { 5Gy for } 2 \\ \text { days } \\ \hline \end{gathered}$ | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TCRa/ $\beta$-depleted HSCs |  | $\begin{gathered} 2 \times 10^{\wedge} 8 \\ \text { cells } \end{gathered}$ | IV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyclophosphamide | Immune suppressant | $\begin{gathered} 50 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | IV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tacrolimus | Immune suppressant | $\begin{gathered} 0.01 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | IM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fluconazole | Anti-fungal | $\begin{gathered} 5 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | oral |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Blood transfusion |  |  | IV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Necropsy |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

cy0906
days post-transplant

| Treatment | Purpose | Dose | Route | -42 | .. | -7 | .. | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | .. | 12 | .. | 19 | .. | 26 | .. | 33 | .. | 38 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { ART-TDF } \\ \text { FTC } \end{gathered}$ | Antiretroviral | $20 \mathrm{mg} / \mathrm{kg}$ <br> $40 \mathrm{mg} / \mathrm{kg}$ | $\begin{aligned} & \hline \mathrm{SQ} \\ & \mathrm{SQ} \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ART- RAL | Antiretroviral | 100 mg | oral |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trimethoprim/ sulfamethoxazole | Gut decontamination | $\begin{gathered} 8 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | oral |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ceftriaxone | Antibiotic | $\begin{gathered} 50 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | IM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total body irradiation | Immune conditioning | 5Gy for 2 days | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TCR $\alpha / \beta$-depleted HSCs |  | $\begin{gathered} 2 \times 10^{\wedge} 8 \\ \text { cells } \\ \hline \end{gathered}$ | IV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyclophosphamide | Immune suppressant | $\begin{gathered} 50 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | IV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tacrolimus | Immune suppressant | $\begin{gathered} 0.01 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | IM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fluconazole | Antifungal | $\begin{gathered} 5 \\ \mathrm{mg} / \mathrm{kg} \\ \hline \end{gathered}$ | oral |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Blood transfusion |  |  | IV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Necropsy |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

cy0915

| Treatment | Purpose | Dose | Route | -24 | .. | - 7 | .. | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | .. | 11 | .. | 19 | .. | 28 | .. | 34 | 35 | .. | 37 | .. | 42 | .. | 45 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { ART- TDF } \\ \text { FTC } \\ \hline \end{gathered}$ | Antiretroviral | $20 \mathrm{mg} / \mathrm{kg}$ $40 \mathrm{mg} / \mathrm{kg}$ | $\begin{aligned} & \mathrm{SQ} \\ & \mathrm{SQ} \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ART-RAL | Antiretroviral | 100 mg | oral |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trimethoprim/ sulfamethoxazole | $\begin{gathered} \text { Gut } \\ \text { decontamination } \end{gathered}$ | $\begin{gathered} 8 \\ \mathrm{mg} / \mathrm{kg} \\ \hline \end{gathered}$ | oral |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ceftriaxone | Antibiotic | $\begin{gathered} 50 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | IM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total body irradiation | Immune conditioning | $5 \text { Gy for } 2$ days | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TCR $\alpha / \beta$-depleted HSCs |  | $\begin{gathered} 2 \times 10^{\wedge} 8 \\ \text { cells } \end{gathered}$ | IV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyclophosphamide | Immune suppressant | $\begin{gathered} 50 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | IV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tacrolimus | Immune suppressant | $\begin{gathered} 0.01 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | IM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fluconazole | Antifungal | $\begin{gathered} 5 \\ \mathrm{mg} / \mathrm{kg} \\ \hline \end{gathered}$ | oral |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Blood transfusion |  |  | IV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Eltrombopag | Support platelet engraftment | $1.5 \mathrm{mg} / \mathrm{kg}$ | oral |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Necropsy |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

cy0930

| Treatment | Purpose | Dose | Route | -20 | .. | -14 | .. | - 7 | .. | -2 | -1 | 0 | 1 | 2 | 3 | 4 | 5 | .. | 11 | .. | 18 | .. | 25 | .. | 33 | .. | 39 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { ART- TDF } \\ \text { FTC } \end{gathered}$ | Antiretroviral | $20 \mathrm{mg} / \mathrm{kg}$ <br> $40 \mathrm{mg} / \mathrm{kg}$ | $\begin{aligned} & \hline \mathrm{SQ} \\ & \mathrm{SQ} \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ART-RAL | Antiretroviral | 100 mg | oral |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Trimethoprim/ sulfamethoxazole | Gut decontamination | $\begin{gathered} 8 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | oral |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ceftriaxone | Antibiotic | $\begin{gathered} 50 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | IM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cefazolin | Antibiotic | $\begin{gathered} 330 \\ \mathrm{mg} / \mathrm{ml} \end{gathered}$ | IM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total body irradiation | Immune conditioning | $\begin{gathered} \text { 5Gy for } 2 \\ \text { days } \end{gathered}$ | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TCRa/ß-depleted HSCs |  | $\begin{gathered} 2 \times 10^{\wedge} 8 \\ \text { cells } \end{gathered}$ | IV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cyclophosphamide | Immune suppressant | $\begin{gathered} 50 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | IV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tacrolimus | Immune suppressant | $\begin{gathered} 0.01 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | IM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fluconazole | Antifungal | $\begin{gathered} 5 \\ \mathrm{mg} / \mathrm{kg} \end{gathered}$ | oral |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Blood transfusion |  |  | IV |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| N-acetyl L-cysteine | Support platelet engraftment | $50 \mathrm{mg} / \mathrm{kg}$ | oral |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Necropsy |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

