What is claimed is:

1. A process for preparing a batch of cryopreserved platelets, comprising:

a) pooling at least 2 platelet units into one vessel and at least another platelet unit into another vessel, wherein there are at least 5 platelet units, and the platelet units are from more than one donor;

b) centrifuging each vessel to obtain a supernatant comprising plasma, and a pellet comprising platelets;

c) resuspending the pellet in each vessel to form a resuspension wherein the resuspension has a target weight based on a number of units pooled or provided in the vessel;

d) pooling the resuspension from each vessel to form a pooled resuspension in a pooled resuspension vessel;

e) adding dimethyl sulfoxide (DMSO) to the pooled resuspension vessel having the pooled resuspension until a target weight of DMSO is added based on a weight of the pooled resuspension, to obtain a pooled resuspension having DMSO;

f) distributing the pooled resuspension having DMSO from the pooled resuspension vessel among a number of cryo-vessels; and

g) freezing the pooled resuspension having DMSO in the cryo-vessels, to form the batch of cryopreserved platelets,

wherein the distributing is performed to a number of cryo-vessels that are equivalent to a total number of platelet units provided in step a), and

wherein the freezing is performed by subjecting the pooled resuspension having DMSO to a temperature of less than or equal to -60°C.

2. The process of claim 1, wherein adding DMSO is done to achieve a concentration of DMSO in the pooled resuspension having DMSO in the range of 5% to 7%.

3. The process of claim 1, wherein the platelet units are apheresis platelet units (APUs) or buffy-coat derived platelet concentrates (BC-PC).

4. The process of claim 1, wherein in step f), distributing is performed until a target fill weight is achieved in each cryo-vessel, and wherein the target fill weight is determined by the weight of the pooled resuspension having DMSO, and wherein the target fill weight is determined by dividing the weight of the pooled resuspension having DMSO by the number of platelet units provided in step a), wherein the weight of the pooled resuspension having DMSO has a coefficient of variance in the cryo-vessels within the batch of less than 3%.

5. The process of claim 1, wherein before step c), removing a part of the supernatant comprising plasma is performed until a target weight of the pellet and a remainder plasma is achieved.

6. The process of claim 1, wherein before step c), removing a part of the supernatant comprising plasma is performed until a target weight of the pellet and a remainder plasma is achieved, wherein the target weight is in the range of 15.9g to 27.9g times the number of units pooled or provided in the vessel, and wherein the removing the part of the supernatant is performed until a weight of +/-1 g of the target weight of the pellet and remainder supernatant is achieved.

7. The process of claim 1, wherein the process is performed more than once to form more than one batch of the cryopreserved platelets, and wherein the coefficient of variance of a mean DMSO concentration in the cryopreserved platelets in the cryo-vessels across at least 5 batches is less than 1%.

8. The process of claim 7, wherein the coefficient of variance of volume of the pooled resuspension having DMSO in the cryo-vessels across at least 5 batches is in the range of 0.1%-5%.

9. The process of claim 8, wherein the cryopreserved platelets in each cryo-vessel upon thawing exhibits a platelet count of equal to or more than 1.7×10^{11} platelets/cryo-vessel.

10. A collection of cryo-vessels, comprising

a plurality of cryo-vessels, wherein each cryo-vessel in the collection comprises frozen platelets,

wherein the frozen platelets in each cryo-vessel have a set of biomolecule profiles indicative of more than 1 platelet donor, wherein a batch of cryo-vessels has an identical set of biomolecule profiles, and wherein each batch of the collection has a different set of biomolecule profiles than any other batch in the collection,

wherein the collection comprises at least 2 batches of cryo-vessels,

wherein each batch of cryo-vessels comprises at least 5 cryo-vessels,

wherein the coefficient of variance of a mean dimethyl sulfoxide (DMSO) concentration in the cryo-vessels across the batches is less than 0.5%.

11. The collection of cryo-vessels of claim 10, wherein the collection comprises at least 5 batches of the cryo-vessels.

12. The collection of cryo-vessels of claim 10, wherein each cryo-vessel in the collection comprises DMSO in the range of 5% to 7%.

13. The collection of cryo-vessels of claim 10, each cryo-vessel in the collection has:

a) a freeze volume in the range of 20 ml to 35 ml;

b) no visible aggregates;

c) a concentration of DMSO in the range of 5.65% to 6.52%; and

d) a maximum DMSO content of 2.53 grams.

14. The collection of cryo-vessels of claim 11, wherein the coefficient of variance of a freeze volume in a cryo-vessel across at least 5 batches is in the range of 0.1%-5%.

15. The collection of cryo-vessels of claim 10, wherein the frozen platelets in each cryo-vessel upon thawing exhibits a platelet count of equal to or more than 1.7×10^{11} platelets/cryo-vessel.