CLAIMS:

What is claimed is:

1. A method for processing extracellular vesicles, comprising:
    a. concentrating extracellular vesicles in a biological fluid;
    b. determining a concentration of the extracellular vesicles;
    c. contacting the extracellular vesicles with a fluorescent staining dye or an antibody for an extracellular vesicle surface marker;
    d. incubating the contacted extracellular vesicles to generate a labeled extracellular vesicle population;
    e. passing the contacted extracellular vesicles through a centrifugal filter comprising a 200-750 kD molecular weight cut off, polyethersulfone filter media, to separate the labeled extracellular vesicle population from excess fluorescent staining dye or excess antibody; and
    f. recovering the labeled extracellular vesicle population,

wherein the extracellular vesicles are not purified prior to the contacting in c.

2. The method of claim 1, wherein the concentrating comprises passing the biological fluid through a tangential flow filter.
3. The method of claim 2, wherein the tangential flow filter has a molecular weight cut-off of about 100 kD to about 500 kD.
4. The method of claim 1, wherein the extracellular vesicles are contacted with the fluorescent staining dye 6-Carboxyfluorescein succinimidyl ester (CFSE).
5. The method of claim 1, wherein the extracellular vesicles are contacted with an anti-CD9 antibody, an anti-CD63 antibody, an anti-CD81 antibody, and/or an anti-IgG1 antibody.

6. The method of any one of claims 1-5, wherein the extracellular vesicles are produced from human embryonic kidney (HEK-293) cells, Human Caucasian colon adenocarcinoma HT-29 cells, or mesenchymal stem cells (MSCs).
7. The method of any one of claims 1-6, wherein the concentration of extracellular vesicles is determined to be at least $1x10^{10}$ extracellular vesicles/mL, prior to the contacting in c.
8. The method of any one of claims 1-7, wherein the biologic fluid is conditioned medium comprising HEK-293, HT-29 or MSC cell growth medium.
9. The method of any one of claims 1-8, wherein the contacted extracellular vesicles are passed through the centrifugal filter for at least 10 minutes at a centrifugal force of at least 10,000 x g.
10. A method for analyzing extracellular vesicles, comprising:
    a. concentrating extracellular vesicles in a conditioned medium with a tangential flow filter;
    b. determining a concentration of the extracellular vesicles;
    c. contacting the extracellular vesicles with a fluorescent staining dye or an antibody for a extracellular vesicle surface marker;
    d. incubating the contacted extracellular vesicles to generate a labeled extracellular vesicle population;
    e. passing the contacted extracellular vesicles through a centrifugal filter comprising a 300 kD molecular weight cut off, polyethersulfone filter media, to separate the labeled extracellular vesicle population from excess fluorescent staining dye or excess antibody;
    f. recovering the labeled extracellular vesicle population; and

g. analyzing the recovered, labeled extracellular vesicle population using a flow cytometer for nanoparticle analysis,

wherein the extracellular vesicles are not purified via size exclusion chromatography prior to the contacting in c.

11. The method of claim 10, wherein the extracellular vesicles are contacted with the fluorescent staining dye 6-Carboxyfluorescein succinimidyl ester (CFSE).
12. The method of claim 10, wherein the extracellular vesicles are contacted with an anti-CD9 antibody, an anti-CD63 antibody, an anti-CD81 antibody, and/or an anti-IgG1 antibody.
13. The method of any one of claims 10-12, wherein the extracellular vesicles are produced from human embryonic kidney (HEK-293) cells, Human Caucasian colon adenocarcinoma HT-29 cells, or mesenchymal stem cells (MSCs).
14. The method of any one of claims 10-13, wherein the concentration of extracellular vesicles in the conditioned medium is determined using a flow cytometer for nanoparticle analysis.
15. The method of any one of claims 10-14, wherein the concentration of extracellular vesicles is determined to be at least $1x10^{10}$ extracellular vesicles/mL, prior to the contacting in c.
16. The method of any one of claims 10-15, wherein the conditioned medium comprises HEK-293, HT-29, or MSC cell growth medium, and the extracellular vesicles are concentrated using a 300 kD molecular weight cut-off tangential flow filter in b.
17. The method of any one of claims 10-16, wherein the contacted extracellular vesicles are passed through the centrifugal filter for at least 10 minutes at a centrifugal force of at least 10,000 x g.

18. The method of any one of claims 10-17, wherein the recovered, labeled extracellular vesicle population is analyzed to determine one or more of labeling efficiency, extracellular vesicle number, extracellular vesicle concentration, and extracellular vesicle size.

19. A method for processing extracellular vesicles, comprising:

    a. concentrating extracellular vesicles in a biological fluid;

    b. determining a concentration of the extracellular vesicles to be at least $5x10^{10}$ extracellular vesicles/mL;

    c. contacting the extracellular vesicles with an antibody for an extracellular vesicle surface marker;

    d. incubating the contacted extracellular vesicles to generate a labeled extracellular vesicle population;

    e. diluting the labeled extracellular vesicle population by at least a factor of 1:300; and

    f. recovering the labeled extracellular vesicle population,

wherein the extracellular vesicles are not purified prior to the contacting in c.

20. A method for processing extracellular vesicles, comprising:

    a. concentrating extracellular vesicles in a biological fluid;

    b. determining a concentration of the extracellular vesicles to be at least $5x10^{10}$ extracellular vesicles/mL;

    c. contacting the extracellular vesicles with an RNA-specific dye;

    d. incubating the contacted extracellular vesicles to generate a labeled extracellular vesicle population;

e. diluting the labeled extracellular vesicle population by at least a factor of 1:300; and

f. recovering the labeled extracellular vesicle population,

wherein the extracellular vesicles are not purified prior to the contacting in c.