

Materials List for:

# A Preclinical Mouse Model of Osteosarcoma to Define the Extracellular Vesicle-mediated Communication Between Tumor and Mesenchymal Stem Cells

Tonny Lagerweij<sup>1</sup>, Maria Pérez-Lanzón<sup>2</sup>, S. Rubina Baglio<sup>2</sup>

<sup>1</sup>Neuro-oncology Research Group, VU Medical Center

<sup>2</sup>Exosomes Research Group, Department of Pathology, VU Medical Center

\* These authors contributed equally

Correspondence to: S. Rubina Baglio at [s.baglio@vumc.nl](mailto:s.baglio@vumc.nl)

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## Materials

| Name                                                                                | Company                    | Catalog Number       | Comments                                                                                     |
|-------------------------------------------------------------------------------------|----------------------------|----------------------|----------------------------------------------------------------------------------------------|
| <b>Equipment</b>                                                                    |                            |                      |                                                                                              |
| Ultra Centrifuge                                                                    | Beckman                    | Optima L-90K         |                                                                                              |
| Rotor SW32Ti                                                                        | Beckman                    | 369650               | Referred to in the manuscript as ultra-swinging bucket rotor                                 |
| Transmission electron microscope                                                    | Zeiss                      | EM109                | Or similar TEM                                                                               |
| Digital camera                                                                      | Nikon                      | DMX 1200F            | Or similar camera                                                                            |
| Imaging software TEM                                                                | Nikon                      | ACT-1                |                                                                                              |
| Fluorescence microscope                                                             | Zeiss                      | Imager.D2            | Or similar Fluorescence microscope                                                           |
| Imaging software FM                                                                 | Zeiss                      | ZEN Blue             |                                                                                              |
| Incubator                                                                           | Nuaire                     | 4750E                |                                                                                              |
| Centrifuge                                                                          | Hettick                    | ROTANTA 460R         |                                                                                              |
| -80 Freezer                                                                         | Thermo electro corporation | n.a.                 |                                                                                              |
| FACS                                                                                | BD                         | BD FACScalibur       | Or similar flow cytometer                                                                    |
| Drill                                                                               | Ferm                       | FCT-300              | With 0.8 mm drill                                                                            |
| HSS micro twist drills, 0.8 mm                                                      | Proxxon                    | 28 852               | 0.8 mm drill                                                                                 |
| IVIS camera                                                                         | Xenogen                    | Ivis Lumina          | Referred to in the manuscript as bioluminescence camera. Xenogen is now part of Perkin Elmer |
| Living image software2.60                                                           | Xenogen / Igor Por         | n.a                  | Xenogen is now part of Perkin Elmer                                                          |
| 10 µL Syringe                                                                       | Hamilton                   | Neuros Model 1701 RN |                                                                                              |
| Needle: Hamilton RN Needle for Syringe, 26 Gauge, Pointstyle AS, custom length 2 cm | Hamilton                   | n.a.                 |                                                                                              |
| Caliper                                                                             | Mitutoyo                   | G08004463            |                                                                                              |
| Autoclave                                                                           | Astell                     | n.a.                 |                                                                                              |
| Heat Lamp                                                                           | Philips                    | n.a.                 |                                                                                              |
| <b>Culture media</b>                                                                |                            |                      |                                                                                              |
| Fetal Bovine Serum                                                                  | Hyclone                    | RYG35912             |                                                                                              |
| Platelet Lysate                                                                     | n.a.                       | n.a.                 |                                                                                              |
| IMDM medium                                                                         | Lonza                      | BE12-722F            |                                                                                              |
| alpha-MEM medium                                                                    | Lonza                      | BE02-002F            |                                                                                              |

|                                             |                                    |                  |                                                         |
|---------------------------------------------|------------------------------------|------------------|---------------------------------------------------------|
| DMEM medium                                 | Lonza                              | BE12-614F        |                                                         |
| pen/strep/glutamine                         | GIBCO                              | 10378-016        |                                                         |
| heparin                                     | LEO                                | 012866-08        |                                                         |
| Trypsin/EDTA (10x)                          | GIBCO                              | 15400-054        |                                                         |
| <b>Cells</b>                                |                                    |                  |                                                         |
| adipose derived MSCs                        | n.a.                               | n.a.             |                                                         |
| GFP-positive MSCs                           | n.a.                               | n.a.             |                                                         |
| human fibroblasts                           | n.a.                               | n.a.             |                                                         |
| 143B cells                                  | ATCC                               | CRL-8303         |                                                         |
| FLUC-143B cells                             | ATCC                               | CRL-8303         | Transduced                                              |
| <b>Disposables</b>                          |                                    |                  |                                                         |
| Culture flasks 175 cm2                      | CELLSTAR                           | 660175           |                                                         |
| 50 mL tubes                                 | Greiner bio-one                    | 210261           |                                                         |
| Freeze tubes                                | Thermoscientific                   | 377224           |                                                         |
| Ultra-Clear tubes                           | Beckman                            | 344058           | Referred to in the manuscript as ultra-centrifuge tubes |
| 0,22 µm filter                              | Millex                             | SLGV033RS        |                                                         |
| 200 mesh Formvar-carbon-coated nickel grids | EMS (Electron Microscopy Sciences) |                  |                                                         |
| 0.5 mL insulin syringes with 29G Needle     | Terumo                             | U-100            |                                                         |
| Petri dish                                  | Sigma - Aldrich                    | P7612            |                                                         |
| Filter paper                                | Thermo fisher Scientific           | 50363215         |                                                         |
| <b>Reagents / kits</b>                      |                                    |                  |                                                         |
| paraformaldehyde                            | Alfa Aeser                         | 43368.9M         |                                                         |
| PBS                                         | Braun                              | 220/12257974/110 |                                                         |
| glutaraldehyde                              | EMS (Electron Microscopy Sciences) | 16300            |                                                         |
| uranyl oxalate                              | EMS (Electron Microscopy Sciences) | 22510            |                                                         |
| urany acetate                               | EMS (Electron Microscopy Sciences) | 22400            |                                                         |
| methyl cellulose                            | EMS (Electron Microscopy Sciences) | 1560             |                                                         |
| PKH67                                       | Sigma                              | mini67-1kt       | Referred to in the manuscript as GFLD                   |
| BSA                                         | Sigma                              | A8412            |                                                         |
| CBA - human inflammatory cytokine kit       | BD                                 | 551811           |                                                         |
| Formaldehyde 37%                            | VWR                                | 104003100        |                                                         |
| Carbon Steel surgical blades                | Swann-Morton                       | 206              | Referred to in the manuscript as surgical knife         |
| anti-human vimentin antibody                | Santa Cruz                         | sc-6260          | Clone V9                                                |
| Antibody diluent                            | DAKO                               | S0809            |                                                         |
| HRP-labeled anti mouse IgG antibody         | Life Technologies                  | 32230            |                                                         |
| DAB-kit                                     | DAKO                               | K500711          |                                                         |
| hematoxylin                                 | Sigma                              | GHS232           |                                                         |
| EDTA-buffer                                 | n.a.                               | n.a.             |                                                         |

|                                                                                             |                                              |             |                                          |
|---------------------------------------------------------------------------------------------|----------------------------------------------|-------------|------------------------------------------|
| Citrate buffer                                                                              | n.a.                                         | n.a.        |                                          |
| rabbit polyclonal anti-GFP antibody                                                         | Abcam                                        | n.a.        | Ab290                                    |
| DAPI                                                                                        | Life Technologies                            | D1306       |                                          |
| Paracetamol, 120 mg / 5 ml syrup                                                            | Bayer                                        | n.a.        | Sinaspril, paracetamol solution for kids |
| Isoflurane 1000 mg/g                                                                        | Vumc pharmacy                                | n.a.        |                                          |
| buprenofine hydrochloride, 0.3 mg/ml                                                        | Indivior UK Limited                          | n.a.        |                                          |
| lidocaine-HCL 2%                                                                            | Vumc pharmacy                                | n.a.        |                                          |
| 70% ethanol                                                                                 | VWR                                          | 93003.1006  |                                          |
| Tissue glue                                                                                 | Derma+Flex, formulated medical cyanoacrylate | Vygon       | LB604060                                 |
| Eyedrops: Vidisec Carbogel, 2 mg/ml                                                         | Bausch+Lomb                                  | n.a.        |                                          |
| D-luciferin, potassium salt                                                                 | Gold Biotechnology                           | LUCK-1      |                                          |
| Glass slides                                                                                | Thermo scientific                            | 630-0954    |                                          |
| Stainless steel loops                                                                       | n.a.                                         | n.a.        |                                          |
| <b>Mice experiments</b>                                                                     |                                              |             |                                          |
| Mice, Hsd:Athymic Nude-Foxn1nu, female, 6 weeks at arrival, bacterial status conform FELASA | ENVIGO                                       | n.a.        |                                          |
| Paper-pulp smart home (cage enrichment)                                                     | Bio Services                                 | n.a.        |                                          |
| Alpha-dri bedding material                                                                  | Shepperd Speciality Papers                   | n.a.        |                                          |
| Mouse food: Teklad global 18% protein rodent diet                                           | ENVIGO                                       | 2918-11416M |                                          |
| Sutures                                                                                     | Ethicon                                      | V926H       |                                          |
| Scissors                                                                                    | Sigma-Aldrich                                | S3146-1EA   | (or similar)                             |
| Tweezers                                                                                    | Sigma-Aldrich                                | F4142-1EA   | (or similar)                             |