

Materials List for:

# Dorsal Root Ganglia Neurons and Differentiated Adipose-derived Stem Cells: An *In Vitro* Co-culture Model to Study Peripheral Nerve Regeneration

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## Materials

| Name                                                              | Company                 | Catalog Number | Comments                                                                                                                                                                                                                   |
|-------------------------------------------------------------------|-------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 100 µm cell strainer                                              | BD Biosciences          | 352360         | 70 µm strainers (ref. 352350) can be used as alternative                                                                                                                                                                   |
| 15 ml plastic tubes                                               | Sarstedt                | 62.554.002     |                                                                                                                                                                                                                            |
| 50 ml plastic tubes                                               | Sarstedt                | 62.547.004     |                                                                                                                                                                                                                            |
| 75 cm <sup>2</sup> flasks                                         | Corning                 | BC301          |                                                                                                                                                                                                                            |
| Retinoic Acid>98% HPLC                                            | Sigma                   | R2625          |                                                                                                                                                                                                                            |
| ARA-C supplement                                                  | Sigma                   | C6645          |                                                                                                                                                                                                                            |
| Recombinant Human FGF-basic (154 aa)                              | Peptotech               | 100-18B        |                                                                                                                                                                                                                            |
| Bovine Serum Albumin (BSA)                                        | Sigma                   | A9205          |                                                                                                                                                                                                                            |
| Collagenase type I                                                | Gibco                   | 17100-017      | Note: this collagenase is only used for fat tissue digestion                                                                                                                                                               |
| Collagenase type IV                                               | Worthington Biochemical | LS004188       | Note: this collagenase is only used to dissociate DRG explants                                                                                                                                                             |
| Foetal Bovine Serum (FBS)                                         | Biosera                 | FB-1001        |                                                                                                                                                                                                                            |
| Forskolin                                                         | Sigma                   | F3917          |                                                                                                                                                                                                                            |
| Glass pipettes                                                    | Fisher Scientific       | FB50253        | Sharp material to be disposed accordingly                                                                                                                                                                                  |
| Glial Growth Factor-2 (GGF-2)                                     | Acorda Therapeutics     |                | GGF-2 was kindly donated by Acorda Therapeutics. For a commercially available alternative, we recommend NRG1-β1 (R & D Systems, Abingdon) for stem cell differentiation to be used at the final concentration of 200 ng/ml |
| Nutrient Mix F12 HAM                                              | Sigma                   | N6658          | Warm at 37 °C in a water bath unless specified                                                                                                                                                                             |
| Hank's Balanced Salt Solution (HBSS)                              | Sigma                   | H9394          | Warm at 37 °C in a water bath unless specified                                                                                                                                                                             |
| N-2 supplement (100x)                                             | Invitrogen              | 17502          |                                                                                                                                                                                                                            |
| Nerve Growth Factor 2.5s Protein, Mouse Submaxillary Glands (NGF) | Millipore               | NC011          |                                                                                                                                                                                                                            |
| Penicillin-Streptomycin (PS)                                      | Sigma                   | P0781          |                                                                                                                                                                                                                            |
| Name                                                              | Company                 | Catalog Number | Comments                                                                                                                                                                                                                   |
| Petri dishes                                                      | Corning                 | 430165         |                                                                                                                                                                                                                            |
| Recombinant Human PDGF-AA                                         | Peptotech               | 100-13A        |                                                                                                                                                                                                                            |

|                                         |                         |           |                                                                                                  |
|-----------------------------------------|-------------------------|-----------|--------------------------------------------------------------------------------------------------|
| Trypsin                                 | Invitrogen              | 25200-056 | Warm at 37 °C in a water bath.<br>This is used for cell detachment<br>from tissue culture flasks |
| Trypsin (2x bovine pancreatic)          | Worthington Biochemical | LS003703  | This is used for DRG dissociation                                                                |
| Minimum Essential Medium Eagle<br>(MEM) | Sigma                   | M8042     | Warm at 37 °C in a water bath<br>unless specified                                                |
| 2-mercaptoethanol                       | Sigma                   | M3148     | Prepare the solution in the<br>biological cabinet                                                |