

**Table S1.** Baseline Characteristics of included Studies

| Author                         | No. | Year | Number of patients | Mean age | Gender ratio (Male/Female) | Target joint | Funded or Sponsored | Experimental intervention | Control intervention | Follow-up period |
|--------------------------------|-----|------|--------------------|----------|----------------------------|--------------|---------------------|---------------------------|----------------------|------------------|
| Petrella RJ et al.[17]         | 1   | 2006 | 105                | 63.13    | 58/47                      | Knee         | Yes                 | HA                        | Placebo              | 84days           |
| Sánchez M et al.[18]           | 2   | 2012 | 176                | 59.71    | 80/96                      | Knee         | No                  | PRP                       | HA                   | 180days          |
| Arden NK et al.[19]            | 3   | 2014 | 2108               | 62.68    | 108/110                    | Knee         | No                  | HA                        | Placebo              | 42days           |
| Neustadt D et al.[20]          | 4   | 2020 | 336                | 58.8     | 175/161                    | Knee         | No                  | HA                        | Placebo              | 196days          |
| Trueba Davalillo CÁ et al.[21] | 5   | 2015 | 195                | 62.75    | 82/113                     | Knee         | No                  | HA                        | GCs                  | 360days          |
| Monfort J et al.[22]           | 6   | 2015 | 88                 | 62.8     | 11/77                      | Hand         | No                  | HA                        | GCs                  | 180days          |
| Vaquerizo V et al.[23]         | 7   | 2013 | 96                 | 63.6     | 38/58                      | Knee         | Yes                 | PRP                       | HA                   | 336days          |
| Buendía-López D et al.[24]     | 8   | 2018 | 98                 | 56.73    | 47/51                      | Knee         | No                  | PRP                       | HA                   | 360days          |
| Richette P et al.[25]          | 9   | 2009 | 85                 | 60.14    | 35/50                      | Hip          | Yes                 | HA                        | Placebo              | 90days           |
| McAlindon TE et al.[26]        | 10  | 2020 | 140                | 58.15    | 65/75                      | Knee         | Yes                 | GCs                       | Placebo              | 730days          |

|                                   |    |      |     |       |         |      |     |      |         |         |
|-----------------------------------|----|------|-----|-------|---------|------|-----|------|---------|---------|
| Wu YT et al.[27]                  | 11 | 2018 | 40  | 63.25 | 10/30   | Knee | No  | PRP  | Placebo | 180days |
| Altman RD et al.[28]              | 12 | 2004 | 346 | 63.1  | 156/190 | Knee | Yes | HA   | Placebo | 182days |
| Raeissadat SA et al.[29]          | 13 | 2017 | 69  | 58.2  | 13/56   | Knee | No  | PRP  | HA      | 180days |
| Brander V et al.[30]              | 14 | 2019 | 357 | 60.3  | 146/211 | Hip  | Yes | HA   | Placebo | 182days |
| Louis ML et al.[31]               | 15 | 2017 | 48  | 50.85 | 25/23   | Knee | Yes | PRP  | HA      | 180days |
| Spitzer AI et al.[32]             | 16 | 2010 | 312 | 59    | 151/161 | Hip  | Yes | HA   | GCs     | 182days |
| Emadedin M et al et al.[33]       | 17 | 2018 | 43  | 53.37 | 27/16   | Knee | Yes | MSCs | Placebo | 180days |
| Zheping H et al.[34]              | 18 | 2018 | 16  | 52.0  | 3/13    | Knee | Yes | MSCs | HA      | 365days |
| Bastos R et al.[35]               | 19 | 2019 | 47  | 57.29 | 24/23   | Knee | No  | MSCs | GCs     | 360days |
| Teng-Le Hu et al.[36]             | 20 | 2011 | 200 | 65.0  | 48/152  | Knee | No  | HA   | Placebo | 150days |
| Seyed Ahmad Raeissadat et al.[37] | 21 | 2014 | 139 | 58.76 | 23/116  | Knee | No  | PRP  | HA      | 312days |
| Matas J et al.[38]                | 22 | 2018 | 29  | 55.90 | 13/16   | Knee | No  | MSCs | HA      | 360days |

|                        |    |      |     |       |        |       |     |    |         |         |
|------------------------|----|------|-----|-------|--------|-------|-----|----|---------|---------|
| Cohen MM et al.[39]    | 23 | 2008 | 28  | 50.26 | 25/3   | Ankle | Yes | HA | Placebo | 180days |
| Chevalier X et al.[40] | 24 | 2009 | 251 | 63.54 | 73/178 | Knee  | Yes | HA | Placebo | 182days |
| DeCaria JE et al.[41]  | 25 | 2011 | 30  | 72.43 | 16/14  | Knee  | No  | HA | Placebo | 180days |

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