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### (54) METHOD AND SYSTEM FOR TIMING SYNCHRONIZATION IN A CELLULAR **NETWORK**

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#### (57)ABSTRACT

An aggregate cell of a cellular network includes a plurality of dispersed modular cells. The modular cells each include a cellular radio and collectively perform the function of a cellular base station. A distributed clock is established by transmitting timing beacons from one or more of the modular cells. Each modular cell receives the timing beacons. Each modular cell that transmits a timing beacon provides a transmission timestamp to a cell controller. Each modular cell that receives a timing beacon provides a reception timestamp to the cell controller. The cell controller schedules signal transmissions from the modular cells based on the transmission and reception timestamps.

