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(71) Applicant *(for all designated States except US)*: **PRESIDENT AND FELLOWS OF HARVARD COLLEGE** [US/US]; 19 Quincy Street, Cambridge, MA 02138 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **TSCHUMPERLIN, Daniel** [US/US]; 82 King Street, Norfolk, MA 02056 (US). **LIU, Fei** [CN/US]; 940 Quaker Lane, Apt 705, Warwick, RI 02818 (US). **MIH, Justin** [US/US]; P.o. Box 200233, Mission Hill, MA 02120 (US).

(74) Agents: **ELRIFI, Ivor, R.** et al.; Mintz, Levin, Cohn, Ferris, Glovsky And Popeo PC, One Financial Center, Boston, MA 02111 (US).

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(54) **Title:** COMPLIANT SURFACE MULTI-WELL CULTURE PLATE

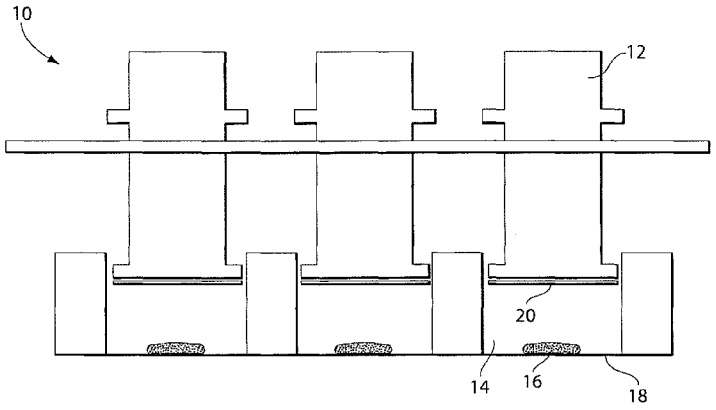


Fig. 1

(57) **Abstract:** A multi-well plate can be loaded with a range of compliant substrates. Commerically- available assays can be used to test cellular responses across a plate with shear modulus from 50 to 51200 Pascals. Cells can be grown in the plates, and can be manipulated and analyzed. Hydrogels can be attached to the bottom of a well. The plates can support the attachment and growth of different cell types and can be compatible with standard 96-well and 384-well plate assays. The mechanical properties of the hydrogels can be reproducible and stable to increase the shelf life of the substrate. The hydrogel can be compatible with growth of a variety of cell types, various attachment ligands such as collagen I, collagen IV, flbronectin, vitronectin, laminin, or RGD peptides and can be coupled to the gel surface.

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