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Declarations under Rule 4.17:

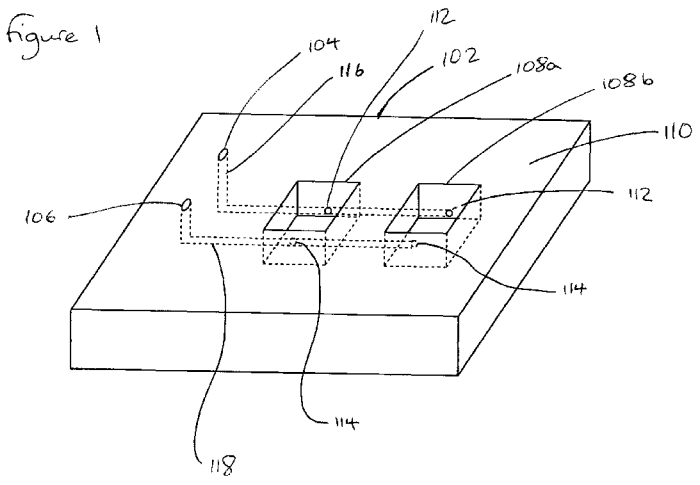
— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

— *of inventorship (Rule 4.17(iv))*

[Continued on next page]

(54) **Title**: A BIOLOGICAL MICROFLUIDICS CHIP AND RELATED METHODS



(57) **Abstract**: A biological microfluidics chip (100) comprising a substrate (102), a microfluidic inlet port (104) defining an opening in a surface of the substrate (102), and a microfluidic outlet port (106) defining an opening in a surface of the substrate (102). The biological microfluidics chip (100) also comprises a plurality of wells (108) extending from a top surface (110) of the substrate, wherein each well (108) is bounded by one or more walls, and an inlet opening (112) and an outlet opening (114) are provided in a wall of each of the plurality of wells (108). An inlet microfluidic channel (116) is provided in the substrate (102) to connect the microfluidic inlet port (104) to each of the inlet openings (112) in the walls of the wells, and an outlet microfluidic channel (118) is provided in the substrate to connect each of the outlet openings (114) in the walls of the wells to the microfluidic outlet port (106).

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