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 72: ASHISH, GARG, RENU, PEDDADA, NAGESH  
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**54: APTAMERS FOR PURIFYING AND QUANTIFYING GELSOLIN AND ITS VARIANTS**  
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The present invention relates to novel DNA aptamers capable of binding gelsolin tightly and specifically. The invention further relates to the use of these aptamers to estimate the gelsolin levels in a given sample and purify bulk quantities of tagless gelsolin and its variants. The present invention thus eliminates the use of different animals/their tissues to produce gelsolin binding proteins, which are much more expensive and socially unacceptable methods as opposed to the synthesis of a DNA molecule by in vitro PCR. Using this strategy, bulk production of the gelsolin binding matrix can be carried out at much lower cost. Also, the aptamers can be used to block binding of gelsolin to its binding partners for diagnostic and/or therapeutic applications.

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 51: B01D  
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**54: METHOD AND DEVICE FOR SEPARATING IMMISCIBLE LIQUIDS TO EFFECTIVELY ISOLATE AT LEAST ONE OF THE LIQUIDS**  
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Method that includes providing a phase-separation device having a porous membrane with a filter surface. The filter surface has a non-planar contour that forms a receiving cavity. The method also includes providing a liquid mixture into the receiving cavity of the porous membrane. The liquid mixture includes a polar liquid and a non-polar liquid that are immiscible with respect to each other. The filter surface along the receiving cavity has a surface energy that impedes flow of the polar liquid through the filter surface and permit flow of the non-polar liquid into the porous membrane. The method also includes permitting the non-polar liquid to flow into the porous membrane. The polar liquid forms a droplet within the receiving cavity as the non-polar liquid flows into the porous membrane.