**To whom it may concern,**

**Editorial comments are presented below in black. Our response is presented below each comment in red. Thank you and Please inform us if there are any questions or concerns.**

* **Dr. Anil Shrirao and Dr. Frank Kung**

Editorial comments:  
  
The manuscript has been modified by the Science Editor to comply with the JoVE standard. Please maintain the current formatting throughout the manuscript. The updated manuscript 55513\_R0\_092816 is located in your Editorial Manager account. In the revised PDF submission, there is a hyperlink to download the .docx file. Please download the .docx file and use this updated version for future revisions.The file is also attached.  
  
Changes to be made by the Author(s):  
  
• Please take this opportunity to thoroughly proofread the manuscript to ensure that there are no spelling or grammatical errors.

The manuscript has been edited and proofread thoroughly to ensure no spelling or grammatical errors.  
  
• Please ensure that the references appear in the following format: [Lastname, F.I., LastName, F.I., LastName, F.I. Article Title. Source. Volume (Issue), FirstPage – LastPage, doi: DOI (YEAR).] For more than 6 authors, list only the first author then et al.  
o Please abbreviate all journal titles.  
o Please include volume, issue numbers, and DOIs for all references.

References have been updated to match the guidelines provided.

• Please define all abbreviations at first use, such as CEA, CNRS, BSA.

All abbreviations have been defined at first use.  
  
• Please revise the table of the essential supplies, reagents, and equipment. The table should include the name, company, and catalog number of all relevant materials/software in separate columns in an xls/xlsx file. Please include items such as CAD drawing software, laser printer, photo transparency, master writer, negative photoresist developer, negative photoresist, dessicator, silanization agent, glass slides, adhesive tape, rubber roller, UV lamp, cell strains, adhesive tape, culture medium, hole punch.

Table of essential supplies have been updated to include all of the items mentioned as well as additional relevant supplies.  
  
• JoVE is unable to publish manuscripts containing commercial sounding language, including trademark or registered trademark symbols (TM/R) and the mention of company brand names before an instrument or reagent.  
o Please replace all commercial sounding language in your manuscript with generic names that are not company-specific. All commercial products should be sufficiently referenced in the table of materials/reagents.  
o Editor has deleted several names such as AUTOCAD, SolidWorks, CorelDraw, Inventor, Scotch tape.  
o Please replace the name “scotch tape”, with a generic term such as “adhesive tape”

Manuscript has been edited to remove all commercial sounding language including trademarks and brand names.  
  
• Please add more details to the following protocol steps. There should be enough detail in each step to supplement the actions seen in the video so that viewers can easily replicate the protocol.  
o Step 1.1: Please include the CAD drawing tool you used in the table of materials.  
o Step 1.2: Please edit this step to detail the steps you have performed. Optional steps can be mentioned as a note, please avoid the use of the word “or”. Notes will not be part of the filming.  
o Step 1.3: Please mention the size of wafer to be used (or that will be during filming, after manuscript acceptance). This will help a reader replicate the exact steps.  
o Step 1.5: Please consider using an example of a microchannel and corresponding negative photoresist material to be used, please mention quantity/size and other specifications if appropriate.  
o Step 1.7: Please mention the photoresist material you used.  
o Step 1.8: Please mention the speed to be used and total duration. Please describe this step along with any equipment used. Was a centrifuge used here?  
o Step 1.9: Please provide a reference for temperature and other settings for soft baking, or mention the settings.  
o Step 1.11: Please clarify this step. Was a UV lamp used? What were the intensity settings?  
o Step 1.12: Please describe the equipment used, and settings such as temperature and time for this.  
o Step 1.13: Please add more details to this step. What kind of photoresist developer is used?  
o Step 2.7: Please mention the baking temperature.  
o Step 3.1: Please restate this as “Mix polydimethylsiloxane (PDMS) elastomer and its curing agent in a ratio of 10:1 (w:w), stir the mixture vigorously, and then degas…”  
o Step 3.3: Please avoid the use of the word “or”, instead edit the step to include either “oven” or “hot plate”.  
o Step 3.4: Please mention the tool used.  
o Step 3.5: Please mention where the holes need to punched.  
o Step 3.6: Please mention which device is to be sterilized.  
o Step 4.1: Please explain how this is done? Is an adhesive used?  
o Step 4.2: What is the composition of the substrate solution used here? While this may vary across users, please provide an example of the solution you used, so that a reader learning this technique can attempt to replicate and learn it.  
o Step 4.5: Please mention the substrate used and necessary incubation conditions. Alternatively, this can be added to table 1 if appropriate.  
o Step 4.6: Is this done with your hands? Please mention any tools if used.  
o Step 6: Is this an alternative to Step 5? Please consider adding a note to indicate that these are different techniques.

All comments have been carefully considered and the protocol has been updated to address the editorial comments provided.  
  
• After you have made all of the recommended changes to your protocol (listed above), please re-evaluate the length of your protocol section. There is a 10-page limit for the protocol text, and a 3- page limit for filmable content. If your protocol is longer than 3 pages, please highlight 2.75 pages or less of text (which includes headings and spaces) in yellow, to identify which steps should be visualized to tell the most cohesive story of your protocol steps. Please see JoVE’s instructions for authors for more clarification. Remember that the non-highlighted protocol steps will remain in the manuscript and therefore will still be available to the reader.

Filmable protocol text has been highlighted in yellow as per the guideline provided. The length of the filmable text is less than 2.75 pages.

• Please expand the figure legends to adequately describe the figures. Each figure or table must have an accompanying legend including a short title, followed by a short description of each panel and/or a general description.

Figure legends have been expanded to include more details and fulfil the requirements as per the editorial comments.  
  
• If you are re-using figures from a previous publication, please obtain explicit permission to re-use the figure from the previous publisher (this can be in the form of a letter from an editor or a link to the editorial policies that allows you to re-publish the figure). Please upload the text of the re-print permission (may be copied and pasted from an email/website) as a Word document to the Editorial Manager site in the "Supplemental files (as requested by JoVE)" section. Please also cite the figure appropriately in the figure legend, i.e. "This figure has been modified from [citation]."

Explicit permission has been obtained and is uploaded along with the revised document. In addition, figure legends include the appropriate citations as required by the editor.  
  
• Please include a figure label (a) on figure 3.

The figure label (a) has been added to figure 3.  
  
• Table 1 appears to be 2 tables, please split the tables and upload each as individual excel files. Please adjust the call-out to the tables in the text accordingly.

Table 1 has been split into 2 tables as suggested and the appropriate call-outs have been updated accordingly.  
  
• Please expand your discussion to cover the following in detail and in paragraph form: 1) modifications and troubleshooting, 2) limitations of the technique, 3) significance with respect to existing methods, 4) future applications and 5) critical steps within the protocol.

The discussion has been significantly expanded to include the details requested by the editor.   
  
• Please move the figure permission statement from under disclosures to the correct figure legends.

Figure permission statements are now included in the correct figure legend and removed from the disclosures.