I/We claim:

1. A method comprising:

obtaining, in real-time, image frames pertaining to a pre-defined target area (204) defined on a collection tube (202) during an ovum pick-up (OPU) step of an in-vitro fertilization (IVF) procedure, wherein the target area (204) corresponds to a region indicating entry of a follicular fluid into the collection tube (202);

processing the image frames to detect occurrence of a flow of the follicular fluid; and

upon detection of the occurrence of the flow of the follicular fluid, generating a first alert signal to notify a medical practitioner.

2. The method as claimed in claim 1, wherein processing the image frames to detect the flow of the follicular fluid in the collection tube (202) comprises identifying a flow rate of the follicular fluid in the collection tube (202) based on a pixel difference between two consecutive image frames over time.

3. The method as claimed in claim 2, wherein identifying the flow rate of the follicular fluid in the collection tube (202) comprises analyzing grey, black, and white colored pixels in each of the image frames.

4. The method as claimed in claim 1, wherein the method comprises processing the image frames to detect presence of blood in the follicular fluid, upon occurrence of the flow of the follicular fluid.

5. The method as claimed in claim 4, wherein processing the image frames to detect the presence of blood in the follicular fluid comprises analyzing red, green, and blue (RGB) colored pixels in each of the image frames.

6. The method as claimed in claim 5, wherein the method comprises generating a second alert signal periodically to notify detection of blood in the follicular fluid.

7. The method as claimed in claim 1, wherein the method comprises providing volumetric analysis of the follicular fluid collected in the collection tube (202).

8. The method as claimed in claim 1, wherein the method comprises performing a background correction on the image frames prior to processing the image frames.

9. The method as claimed in claim 1, wherein the method comprises computing a percentage of red pixels in the image frames over a time period for which the flow of the follicular fluid is detected.

10. A system (100) comprising:

a camera (~~100~~102) to capture image frames;

a processing engine (120), coupled to the camera (102), to:

obtain, in real-time, the image frames pertaining to a pre-defined target area (204) defined for a collection tube (202) during an ovum pick-up (OPU) step of an in-vitro fertilization (IVF) procedure, wherein the target area (204) corresponds to a region indicating entry of a follicular fluid into the collection tube (202); and

process the image frames to detect occurrence of a flow of the follicular fluid; and

a notification engine (122) to generate a first alert signal to notify a medical practitioner, upon detection of occurrence of the flow of the follicular fluid.

11. The system (100) as claimed in claim 10, wherein the system (100) comprises at least one camera fixture (104) for holding the camera (102) in a pre-defined position corresponding to an inlet of the follicular fluid in the collection tube (202).

12. The system (100) as claimed in claim 10, wherein the system (100) comprises a display unit (112) to display the flow of the follicular fluid into the collection tube (202), wherein the display unit (112) is positioned in proximity to a follicle monitoring screen.

13. The system (100) as claimed in claim 10, wherein, to detect the flow of the follicular fluid in the collection tube (202), the processing engine (120) is to identify a flow rate of the follicular fluid in the collection tube (202) based on a pixel difference between two consecutive image frames over time.

14. The system (100) as claimed in claim 13, wherein the processing engine (120) is to analyze grey, black, and white (GBW) colored pixels in each of the image frames ~~shift~~, to detect the flow of follicular fluid into the collection tube (202).

15. The system (100) as claimed in claim 10, wherein the processing engine (120) is to detect presence of blood in the follicular fluid along with the flow of the follicular fluid, upon occurrence of the flow of the follicular fluid.

16. The system (100) as claimed in claim 15, wherein, to detect the presence of blood in the follicular fluid, the processing engine (120) is to analyze red, green, and blue (RGB) colored pixels in each of the image frames.

17. The system (100) as claimed in claim 15, wherein the notification engine (122) is to generate a second alert signal periodically to notify detection of blood in the follicular fluid.

18. The system (100) as claimed in claim ~~10~~12, wherein the notification engine (122) is to provide volumetric analysis of the follicular fluid collected in the collection tube (202) on the display unit (112).

19. The system (100) as claimed in claim 10, wherein the processing engine (120) is to compute a percentage of red pixels in the image frames over a time period for which the flow of the follicular fluid is detected.

20. The system (100) as claimed in claim 10, wherein the processing engine (120) is to perform a background correction on the image frames prior to processing the image frames.