

CLAIMS

1. An automated specimen preparation system (10) for preparing a specimen from a sample in a sample container (12), the system (10) comprising:

a specimen transfer device (40') configured for holding a specimen collector (54) thereon and for being positioned within the sample container (12), wherein the specimen transfer device (40') comprises a central bore (60') having an open distal end and a closed proximal end (62'), a pressure monitoring port (66') fluidly coupled to the central bore (60') at the proximal end (62') of the central bore (60'), and a fluid waste evacuation port (68') fluidly coupled to the proximal end (62') of the central bore (60');

a vacuum source fluidly coupled to the fluid waste evacuation port (68'); and

a pressure monitoring device fluidly coupled to the pressure monitoring port (66')

characterized in that

the pressure monitoring port (66') comprises a reduced diameter portion (67') coupled directly to the central bore (60').

2. The system (10) of claim 1, wherein the reduced diameter portion (67') is configured for preventing liquid from entering the pressure monitoring port (66') from the central bore (60').

3. The system (10) of claim 1 or 2, wherein the reduced diameter portion (67') has a diameter between 0.1016 cm and 0.2032 cm.

4. The system (10) of any of claims 1-3, wherein the waste fluid evacuation port (68') has a bottom wall (69') that is contiguous with a bottom wall (61') of the central bore (60').

5. The system (10) of any of claims 1-4, further comprising a source of positive pressure fluidly coupled to the pressure monitoring port (66').

6. The system (10) of any of claims 1-5, wherein the specimen is a cytological specimen, and the sample is a cytological sample.

7. The system (10) of any of claims 1-6, further comprising the specimen collector (54), wherein the specimen collector (54) has a hollow cylindrical body and a membrane having pores of a selected size to capture desired particles for the specimen and to pass smaller particles and fluids, wherein the specimen transfer device (40') is configured for receiving the hollow cylindrical body of the disposable specimen collector (54).

8. The system (10) of claim 7, further comprising a rotating tool head (30) on which the specimen transfer device (40') is mounted, the rotating tool head (30) being rotatable about an axis of rotation (33) in a first angular position to locate the specimen collector (54) within the sample container (12).

9. The system (10) of claim 8, further comprising an analytical element (50), the rotatable tool head (30) being rotatable about the axis of rotation (33) in a second angular position to locate the specimen collector (12) to transfer the specimen to the analytic element (50).