

## Apparatus for Live Cell Imaging

### Applications:

- Liquid scanning transmission electron microscope (Liquid STEM)
- Prokaryotic and eukaryotic organisms
- Immobilized protein complexes
- Water vapor- or gas-filled systems

### Advantages:

- Live cell imaging
- Greater resolution and imaging speed than confocal laser microscopy

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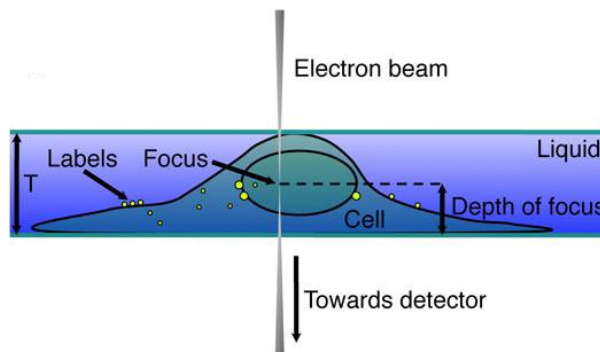


Illustration of the principle of liquid scanning electron microscopy (STEM)

### Summary:

#### *Technology Description*

A liquid scanning transmission electron microscope (liquid STEM) apparatus with live cell capabilities. The invention overcomes both the resolution limit of confocal laser microscopy and the limitation of the imaging of fixed samples of electron microscopy.

#### *Technology Application*

Enables the use of electron microscopy for high-resolution imaging of liquid samples. The technology can be applied to various cells of prokaryotic and eukaryotic organisms, and other materials, such as immobilized protein complexes. This system is not limited to liquid, but can be used in systems partially filled with liquid and gas (e.g., water vapor) or entirely filled with gas. The technology is not limited to biomedical research, but can be applied to the imaging of various samples.

**Stage of Development:** Proof-of-Principle

**Patent Status:** Patent application in progress

**Licensing Status:** Available for licensing in specific fields of use