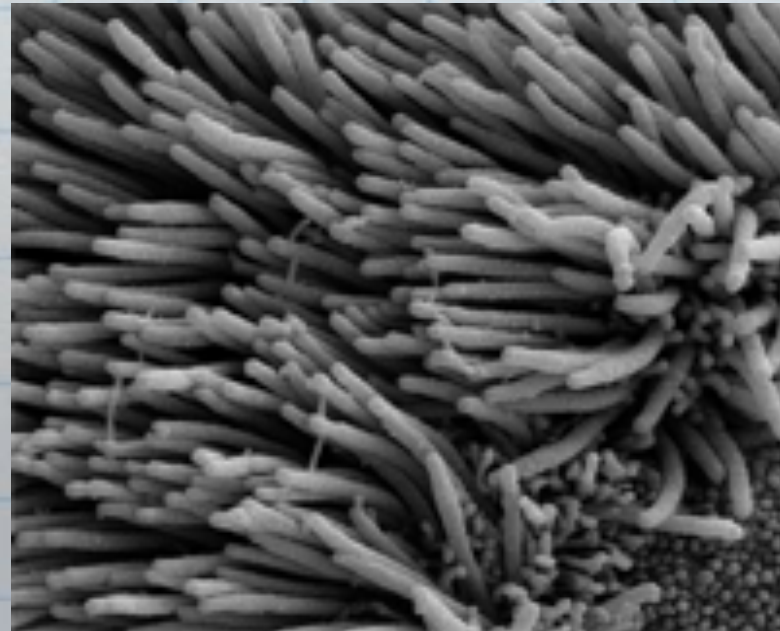
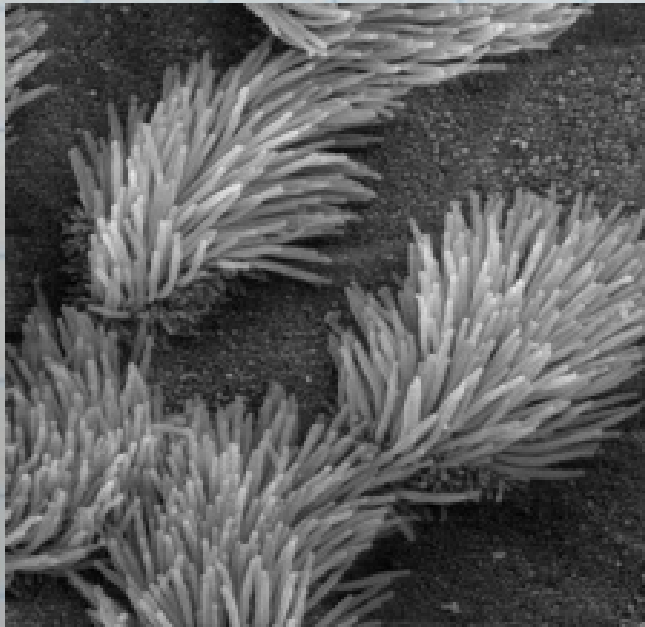


Cilium/Flagellum

Jimmy Xu/Guthrie Stanback

Cilium: Function and Structure

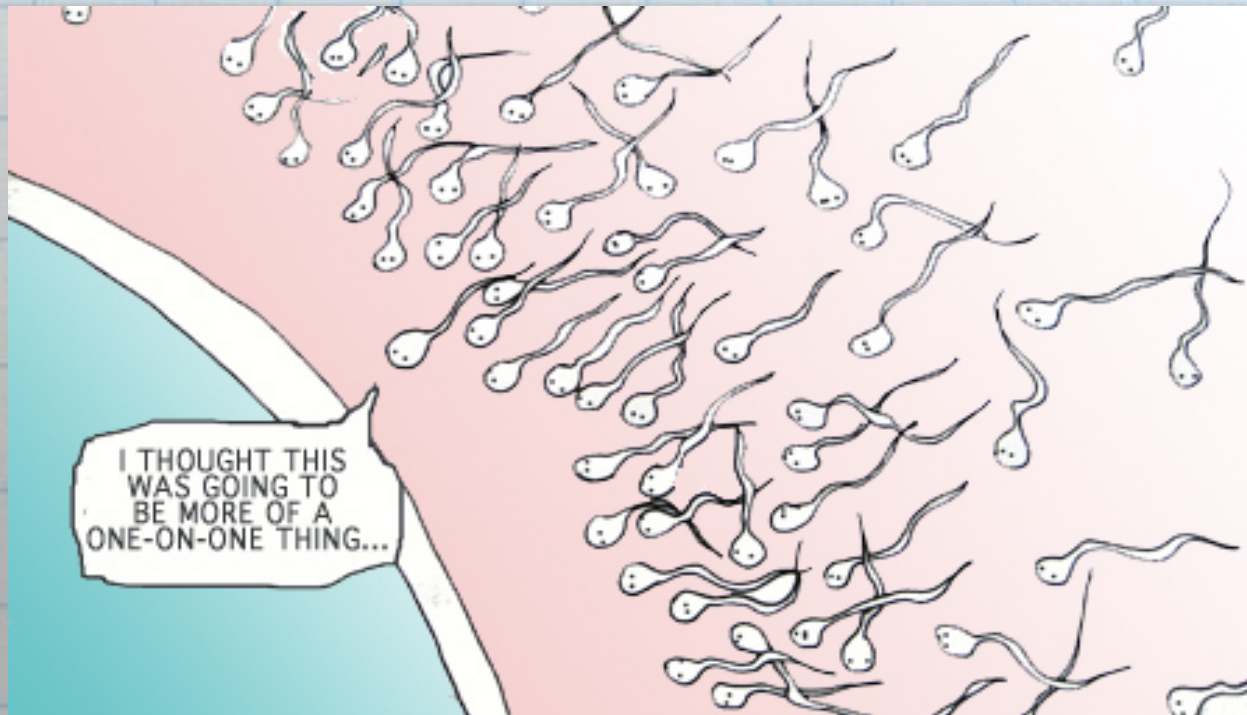
- Rigid spikes or flexible whip like protrusions
- They gather sensory information or direct flow in the surrounding fluid
- Found in the trachea and sweep out harmful microorganisms

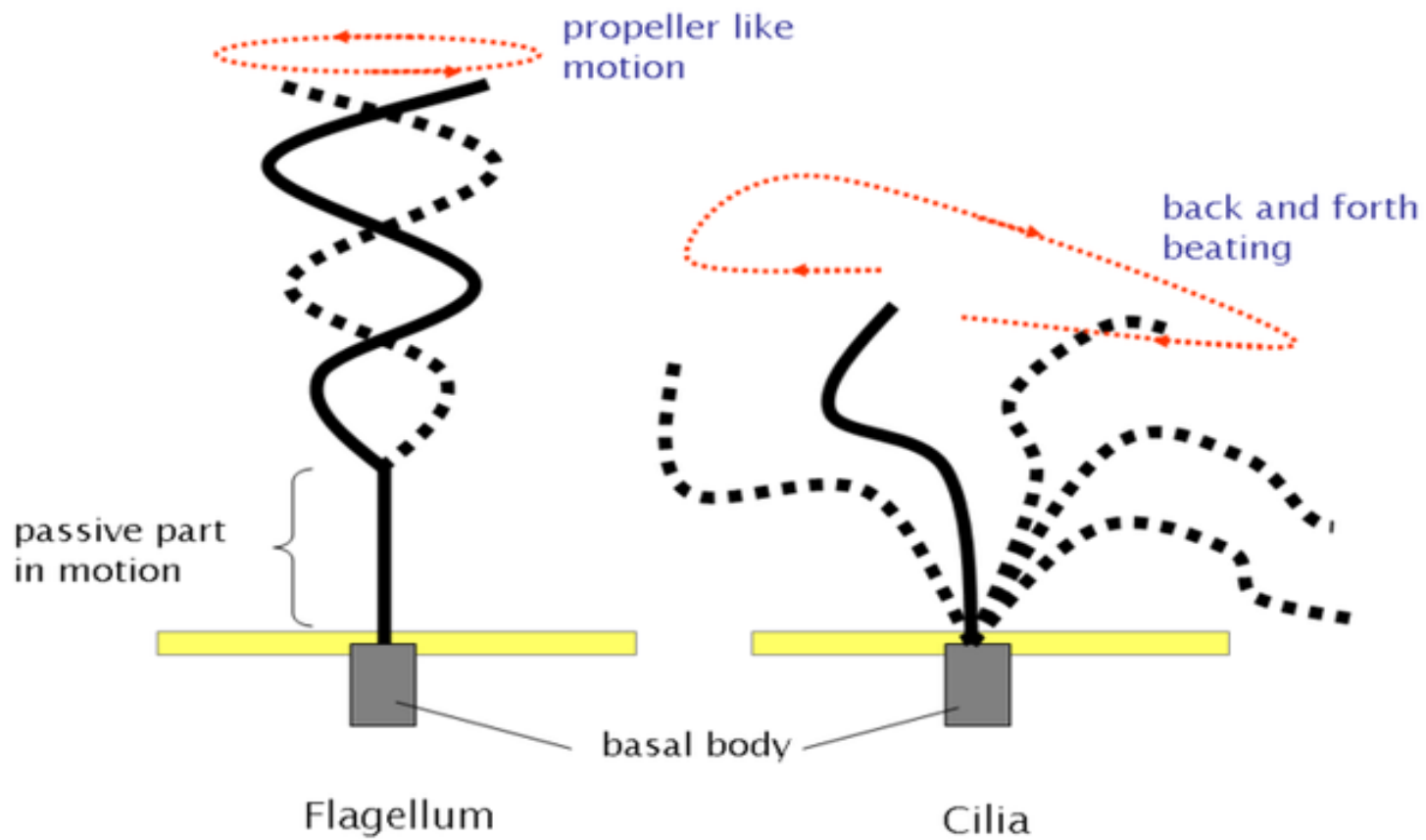


http://www.scientificamerican.com/media/inline/how-a-cells-primary-cilium-functions-as-a-molecular-antenna_1.jpg

Flagellum: Function and Structure

- A long, threadlike appendage that functions as an organ of locomotion
- Flagellum/cilium make up a group of organelles called undulipodia

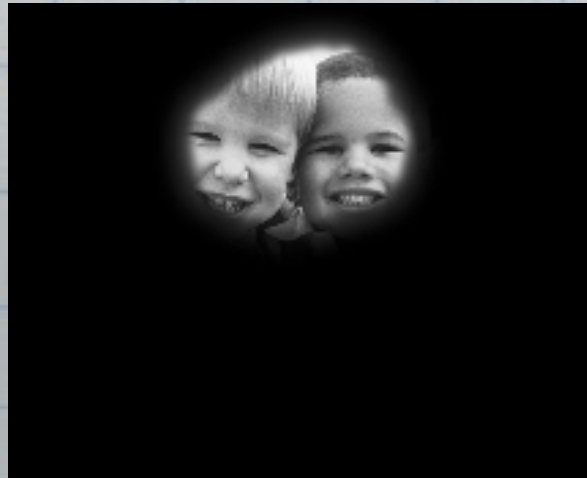




Movement

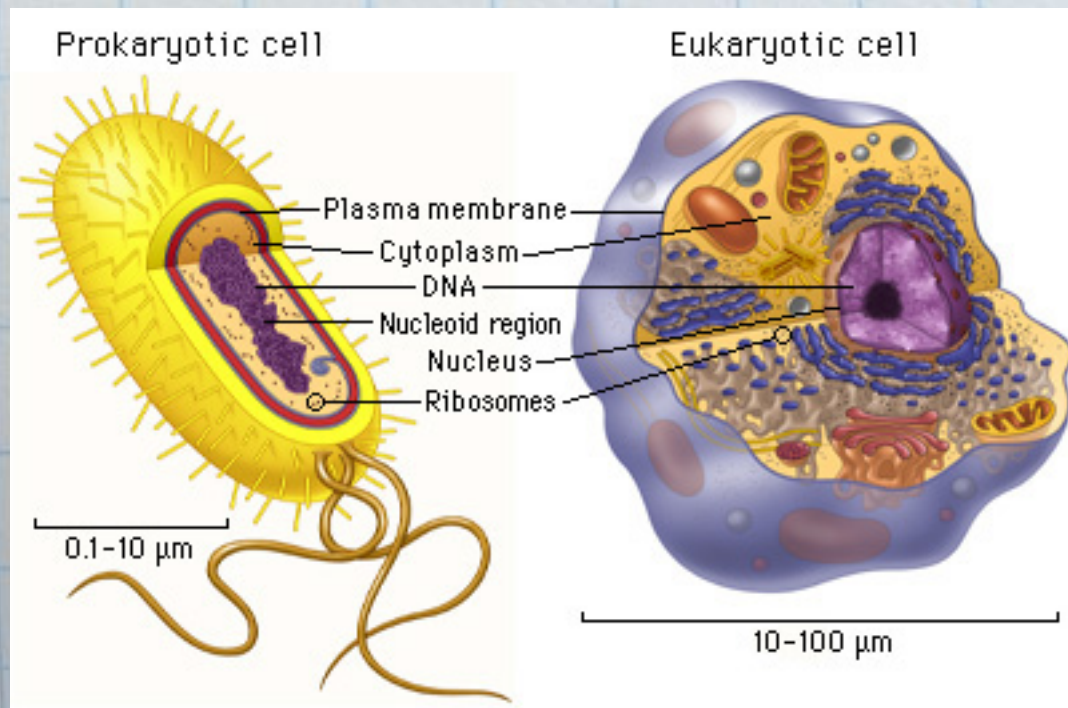
Dysfunction of the Organelle

- Ciliary dyskinesia- 1 in 12,000 - 20,000 births
 - Caused by genetic abnormalities of the cilia
 - Symptoms include chronic bronchitis and wheezing
- Retinitis pigmentosa- 1 in 70,000 births
 - Caused by defects in the assembly of flagellum
 - Symptoms include degeneration of the retina and loss of sight



Found In (Kingdoms)

- Cilia- Eukaryotic cells
 - Protists, plants, animals, fungi
- Flagella- Eukaryotic and prokaryotic cells
 - Protists, plants, animals, fungi, bacteria, and archaeobacteria



Sources Cited

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"Ciliary Dyskinesia." *Tardive Dyskinesia & Reglan - Symptoms, Side Effects & Treatments*. Web. 05 Oct. 2011. <<http://www.tardivedyskinesia.com/dyskinesia/types/ciliary.php>>.

"David Howard." *University of Wisconsin La Crosse*. Web. 05 Oct. 2011. <<http://www.uwlax.edu/biology/faculty/Howard/Research.htm>>.