Web alert

Wastewater treatment microbiology

An annotated selection of World Wide Web sites relevant to the topics in Microbial biotechnology

Fundamental microbiology of sewage

<http://www.cefns.nau.edu/Projects/WDP/resources/Microbiology/index.html>

This website provides a general primer on wastewater microbiology.

Microbiology of wastewater treatment

http://ic.ucsc.edu/~saltikov/bio119/lecture/25_lecture_wastewater_part.pdf

This set of Powerpoint slides provides an excellent overview of wastewater treatment.

Intro to microbiology in water: wastewater

<http://water.me.vccs.edu/courses/env108/lesson1.htm>

This site goes through the processes and microbes involved in wastewater treatment.

Microbiology of sewage sludge: *Salmonella*

http://www.environment-agency.gov.uk/static/documents/Research/mss2004__part_4_811642.pdf

Methods for the detection, isolation and enumeration of *Salmonella* from sludge are provided in this environmental agency report.

Wastewater microbiology

http://uctm-biotechnology.org/Wastewater_Microbiology.pdf

This site provides a link to a comprehensive book on wastewater microbiology with chapters on public health, general microbiology and fate of chemicals in wastewater.

Wastewater microbiology: YouTube

<http://www.youtube.com/watch?v=epAh6hHOq3c>

This YouTube video is well-made and informational. It is very useful to see the treatment plant, sludge mixtures and micrographs of the microorganisms participating in the treatment process.

Microbiology of wastewater

http://water.me.vccs.edu/courses/ENV108/lesson11_2.htm

The site offers a description of wastewater treatment that is elementary but useful.

Metagenome research for wastewater treatment

http://www.cebitec.uni-bielefeld.de/grim/index.php?option=com_content&task=view&id=5&Itemid=5

This personal website provides a research description and publications dealing with the metagenomics of wastewater treatment.

Better sludge through metagenomics

http://www.jgi.doe.gov/News/news_9_25_06.html

This article points out that wastewater treatment is the largest microbially mediated biotechnology process on earth. Metagenomics can offer insights into the process that will potentially lead to improvements.

Metagenomics of sludge microbes

<http://www.sciencedaily.com/releases/2006/09/060925143146.htm>

This popular science article also refers to wastewater metagenomics.

Community proteogenomics of activated sludge

<http://www.nature.com/ismej/journal/v2/n8/full/ismej200838a.html>

A major value of sludge microorganisms is for the removal of phosphate from wastewater. This study looked at some of the key proteins produced by the major phosphate-removing microbes.

Molecular techniques in wastewater

<http://maciej.bioinfo.pl/pmid:16635533>

This page provides a reference list for papers on microbial communities in wastewater and the methods for studying those communities.

Candidatus Accumulibacter phosphatis

http://microbewiki.kenyon.edu/index.php/Candidatus_Accumulibacter_Phosphatis

Candidatus Accumulibacter phosphatis is a key microbe that is involved in enhanced phosphate removal and it is thus a highly desirable microbe in wastewater treatment.

Candidatus Accumulibacter phosphatis genome project

<http://www.ncbi.nlm.nih.gov/genomeprj/29435>

The genome sequence data for the major phosphate-removing microbe are available from this site. The organism makes extensive polyphosphate inclusions.

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