

VLS resources description and links

I have created a McMaster MacVideo channel to stream a number of the videos I created. The rest of the videos were uploaded directly into the Articulate storyline modules. [Please click on this link to access the MacVideo folder](#)

I have created a Google Drive folder containing all resources for the VLS modules. Please click on this link to access the folder: [click here](#)

The Google Drive folder (VLS files: MCMA 850) is organized into 3 sub-folders corresponding to the three modules created.

BBS Module 1 (agarose gel electrophoresis)

BBS Module 2 (SDS-PAGE)

BBS module 3 (Western blotting)

All three modules were created using the Articulate storyline software. We created two versions for each module. The instructor version that has additional instructor tips and examples on how to incorporate the lab techniques described in the module into a course. The student version that describes the technique specified for the module. We also created a number of smaller training modules threaded throughout these six main modules.

In the BBS module 1 folder we have the following

BBS module 1 – instructor version	.storyline and LMS (SCORM) zipped folder
BBS module 1 – student version	.storyline and LMS (SCORM) zipped folder
BBS module 1 agarose gel electrophoresis images	PowerPoint file
Short sub-modules: <ul style="list-style-type: none">• Module 1 – solutions and dilutions• Module 1 – data analysis – figures and captions• Module 1 – DNA basics	.storyline files. There are very short sub-modules embedded throughout the main module
Three videos: 1. Heat agarose gel, 2. Agarose cool, 3. Agarose slab	mp4, no audio (this is an animation video) slide 3 (IV*), slide 3 (SV**)
DNA 3D model movie video	mp4, no audio (this is an animation video) slide 5 (IV*), slide 4 (SV**)
adding 6X DNA loading dye	mp4, no audio (this is an animation video) slide 6 (IV*), slide 5 (SV**)
agarose gel electrophoresis video	mp4, srt (this video is embedded in storyline and is streamed on McMaster MacVideo) slide 10 (IV*), slide 9 (SV**) click here
Module 1 course example 1 video	mp4, vtt slide 15 (IV*)
BBS module 1 using NotI to cut gfp gene video	mp4, vtt slide 17 (IV*), slide 14 (SV**)
Plasmid DNA agarose video	mp4, vtt

	slide 18 (IV*), slide 15 (SV**)
Module 1 RE overview video	mp4, vtt slide 20 (IV*), slide 17 (SV**)
module 1 example 2 cloning strategy video	mp4, srt slide 20 (IV*), slide 18 (SV**)
gel doc system overview	mp4, srt (this video is embedded in storyline and is streamed on McMaster MacVideo) slide 22 (IV*), slide 19 (SV**) https://www.macvideo.ca/media/Gel+Doc+System+Overview/1_7bukgq1l
BBS spectrophotometry in the teaching labs video	mp4, srt (this video is embedded in storyline and is streamed on McMaster MacVideo) slide 25 (IV*), slide 22 (SV**) click here

* IV = instructor version

** SV = student version

In the BBS module 2 folder we have the following

BBS module 3 – instructor version	.storyline and LMS (SCORM) zipped folder
BBS module 3 – student version	.storyline and LMS (SCORM) zipped folder
BBS module 3 western blotting images	PowerPoint file
Short sub-module: • Module 2 – amino acids basics	.storyline files. There are very short sub-modules embedded throughout the main module
macromolecule separation using gel electrophoresis video	mp4, no audio (this is an animation video) slide 3 (IV*), slide 2 (SV**)
E. coli DHFR structure video	mp4, no audio (this is an animation video) slide 6 (IV*), slide 4 (SV**)
protein separation on gel video	mp4, no audio (this is an animation video) slide 8 (IV*), slide 6 (SV**)
SDS-PAGE video – glass plates	mp4, no audio (this is an animation video) slide 9 (IV*), slide 7 (SV**)
bp to Dalton conversion OER video	mp4, no audio (this is an animation video) slide 10 (IV*), slide 8 (SV**)
protein sample prep	mp4, no audio (this is an animation video) slide 13 (IV*), slide 11 (SV**)
Module 2 SDS PAGE casting gels video	mp4 (this video is embedded in storyline and is streamed on McMaster MacVideo, no audio (this is an animation video) slide 15 (IV*), slide 14 (SV**) https://www.macvideo.ca/media/Module+2+SDS-PAGE+pouring+gels/1_1phkjs2o
SDS-PAGE video	mp4 (this video is embedded in storyline and is streamed on McMaster MacVideo, no audio (this is an animation video) slide 16 (IV*), slide 15 (SV**) https://www.macvideo.ca/media/Module+2+-+SDS-PAGE+technique/1_ty1s7l8i
Mod2 instructor tips worksheets and ELNs	mp4, srt (this video is embedded in storyline and is streamed on McMaster MacVideo) slide 17 (IV*)

	https://www.macvideo.ca/media/BBS+Module+3+Western+blotting+-+the+transfer/1_6joozwge
Module 2 SDSPAGE staining	mp4, no audio slide 18 (IV*), slide 17 (SV**)
crossword puzzle video	mp4, no audio slide 19 (IV*)
What is GenBank video	mp4, srt (this video is embedded in storyline and is streamed on McMaster MacVideo) slide 20 (IV*), slide 18 (SV**) https://www.macvideo.ca/media/What+is+GenBank/1_duci7zhr
Module 2 Example 1 - data interpretation	mp4, srt (this video is embedded in storyline and is streamed on McMaster MacVideo) slide 21 (IV*), slide 19 (SV**) https://www.macvideo.ca/media/Module+2+Example+1+-+data+interpretation/1_eyln8mvw
gel doc system overview	mp4, srt (this video is embedded in storyline and is streamed on McMaster MacVideo) slide 23 (IV*), slide 21 (SV**) https://www.macvideo.ca/media/Gel+Doc+System+Overview/1_7bukgq1l
Module 2 Example 2 - experimental setup	mp4, srt (this video is embedded in storyline and is streamed on McMaster MacVideo) slide 24 (IV*), slide 22 (SV**) https://www.macvideo.ca/media/Module+2+Example+2+-+experimental+setup/1_1rmoc6eu

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** SV = student version

In the BBS module 3 folder we have the following

BBS module 3 – instructor version	.storyline and LMS (SCORM) zipped folder
BBS module 3 – student version	.storyline and LMS (SCORM) zipped folder
BBS module 3 western blotting images	PowerPoint file
macromolecule separation using gel electrophoresis video	mp4, no audio (this is an animation video) slide 6 (IV*), slide 5 (SV**)
western blot-transfer video	mp4, no audio (this is an animation video) slides 7 and 8 (IV*), slides 6 and 7 (SV**)
WB transfer video1 video	mp4, vtt slide 9 (IV*), slide 8 (SV**)
WB transfer video2 video	mp4, vtt slide 10 (IV*), slide 9 (SV**)
WB transfer video3 video	mp4, vtt slide 11 (IV*), slide 10 (SV**)
protein sample prep video	mp4, no audio (this is an animation video) slide 14 (IV*), slide 13 (SV**)
protein separation on gel video	mp4, no audio (this is an animation video) slide 16 (IV*), slide 15 (SV**)
SDS PAGE video glass plates	mp4, no audio (this is an animation video) slide 17 (IV*), slide 16 (SV**)
bp to Dalton conversion OER video	mp4, no audio (this is an animation video) slide 18 (IV*), slide 17 (SV**)
SDS-PAGE video	mp4 (this video is embedded in storyline and is streamed on McMaster MacVideo, no audio (this is an animation video) slide 20 (IV*), slide 19 (SV**) https://www.macvideo.ca/media/Module+2+-+SDS-PAGE+technique/1_ty1s7l8i
Western blotting – the transfer video	mp4, srt (this video is embedded in storyline and is streamed on McMaster MacVideo) slide 24 (IV*), slide 23 (SV**) https://www.macvideo.ca/media/BBS+Module+3+Western+blotting+-+the+transfer/1_6joozwge
transfer sandwich using iBlot	mp4, no audio (this is an animation video) slide 24 (IV*), slide 23 (SV**)
reciprocal shaker with blot	mp4, no audio (this is an animation video) slide 26 (IV*), slide 25 (SV**)
BBS module 3 - instructor tips reflect on experimental design	mp4, vtt slide 27 (IV*)
gel doc system overview	mp4, srt (this video is embedded in storyline and is streamed on McMaster MacVideo) slide 28 (IV*), slide 26 (SV**) https://www.macvideo.ca/media/Gel+Doc+System+Overview/1_7bukgq1l
BBS module 3 - instructor tips reflect on techniques	mp4, vtt slide 32 (IV*)

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** SV = student version