SimBiotic Software Accessibility Conformance Report (VPAT®)

At SimBio, we are committed to helping all students learn biology. To this end, we have made tremendous gains toward WCAG 2.1 AA compliance, and we now support or partially support all applicable accessibility guidelines. For more details, review the attached VPAT® form.We continue to research and implement new tools, features, and approaches to increase the accessibility of our digital content.

The interactivity and open-endedness of many of our discovery-driven simulation activities confer important learning benefits to students and also present significant challenges toward the goal of full accessibility. Our software uses sophisticated simulations that students experimentally manipulate to explore and learn biological processes, which are inherently random and dynamic. We are committed to researching ways of making the dynamic aspects of our vast inventory of biology teaching tools more accessible. We consult students with disabilities to advise us, and we've conducted grant-funded research. While we continue our efforts, we believe that providing accessibility support for educators is appropriate and effective for making our content more universally accessible.

If a student with a disability is challenged by the complexity of our simulations and assessments, we can work with the instructor to help them train a collaborator in assisting the student. For example, a sighted student could describe to a blind student how a dynamic simulation unfolds, and the two can jointly decide how to adjust inputs or otherwise respond. **If needed, SimBio will help pay for the collaborator's time.** We have helped students set up such arrangements, and, in our experience, this approach works well. As a bonus, there is a body of research showing that student collaboration on active-learning tasks, such as those that form the foundation of our interactive teaching tools, leads to greater learning gains than students working individually. Thus, both the student who requires accessibility affordances and their collaborator are likely to learn more by working together than either would by working independently. If collaboration between students is not a feasible solution, **we will work on a case-by-case basis with institutions and instructors to provide the necessary accommodations**.

SimBio Accessibility Conformance Report

WCAG Edition

(Based on VPAT® Version 2.5Rev)

Name of Product/Version: SimBio Active Learning System Content Application

Report Date: March 2026

Product Description: SimBio's tutorial labs and chapters provide opportunities for undergraduate students to actively learn biology through meaningful text, interactive diagrams and simulated experiments.

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Notes: This VPAT covers all the content modules available in our new, fully web-based SimBio Active Learning System.

Evaluation Methods Used: Testing was completed by someone familiar with our materials as well as the WCAG standards. Both manual and automated testing were completed using the WCAG color contrast checker, axe-dev, Siteimprove, and other tools. Testing was primarily done on Chrome using Voiceover.

Applicable Standards/Guidelines

This report covers the degree of conformance for the following accessibility standard/guidelines:

Standard/Guideline	Included In Report
Web Content Accessibility Guidelines 2.0	Level A (Yes)
	Level AA (Yes)
	Level AAA (No)
Web Content Accessibility Guidelines 2.1	Level A (Yes)
	Level AA (Yes)
	Level AAA (No)
Web Content Accessibility Guidelines 2.2	Level A (Yes)
	Level AA (Yes)
	Level AAA (No)

Terms

The terms used in the Conformance Level information are defined as follows:

- **Supports**: The functionality of the product has at least one method that meets the criterion without known defects or meets with equivalent facilitation.

- **Partially Supports**: Some functionality of the product does not meet the criterion.

- **Does Not Support**: The majority of product functionality does not meet the criterion.

- **Not Applicable**: The criterion is not relevant to the product.

- **Not Evaluated**: The product has not been evaluated against the criterion. This can only be used in WCAG Level AAA criteria.

WCAG 2.x Report

Note: When reporting on conformance with the WCAG 2.x Success Criteria, they are scoped for full pages, complete processes, and accessibility-supported ways of using technology as documented in the WCAG 2.0 Conformance Requirements.

Table 1: Success Criteria, Level A

Notes:

Criteria	Conformance Level	Remarks and Explanations
1.1.1 Non-text Content (Level A)	Partially Supports	All static images in our content inventory have appropriate alt text. Purely decorative icons or images are presented such that assistive technologies can ignore them. Many of our dynamic interactive simulations have alt text, and we are actively working to complete alt text for all such items in our inventory.
1.2.1 Audio-only and Video-only (Prerecorded) (Level A)	Supports	Our content modules have no audio-only media and have either alternative text for video-only media or the video's contents are explained in detail in the accompanying text.
1.2.2 Captions (Prerecorded) (Level A)	Supports	All narrated videos have captions.
1.2.3 Audio Description or Media Alternative (Prerecorded) (Level A)	Supports	Audio descriptions are present for some videos in our content inventory. All videos will have audio descriptions in our June 2026 release. The description can be accessed using a button under the media.
1.3.1 Info and Relationships (Level A)	Partially Supports	Most information, structure, and relationships conveyed through presentation can either be programmatically determined or are available in text. However, we are still actively working to fully meet this requirement for some of the older modules.
1.3.2 Meaningful Sequence (Level A)	Supports	Correct reading sequences can be programmatically determined.
1.3.3 Sensory Characteristics (Level A)	Supports	Instructions provided for understanding and operating content do not rely solely on sensory characteristics of the component.

Criteria	Conformance Level	Remarks and Explanations
1.4.1 Use of Color (Level A)	Partially Supports	Most of our content does not use color as the only differentiating feature; however, some graphs and images may rely solely on color.
1.4.2 Audio Control (Level A)	Supports	All media with audio have controls for pausing and adjusting volume.
2.1.1 Keyboard (Level A)	Partially Supports	The vast majority of our content inventory is fully keyboard accessible; however, a small number of assessments require drag and drop without a keyboard alternative. In addition, some of our older simulations have components that are not yet fully keyboard accessible.
2.1.2 No Keyboard Trap (Level A)	Supports	No keyboard traps are present.
2.1.4 Character Key Shortcuts (Level A 2.1 and 2.2)	Supports	No keyboard shortcuts are implemented in our content.
2.2.1 Timing Adjustable (Level A)	Supports	Our content does not require a timed response.
2.2.2 Pause, Stop, Hide (Level A)	Supports	For all moving, blinking, or scrolling content, the user can pause, stop or hide the action. In addition, our content does not have any auto update features.
2.3.1 Three Flashes or Below Threshold (Level A)	Supports	No elements in our content flash more than three times per second.
2.4.1 Bypass Blocks (Level A)	Supports	Each page in our content inventory has a bypass block that allows the user to skip to the main content on the page and bypass the sidebar navigation menu.
2.4.2 Page Titled (Level A)	Supports	All pages in our content inventory have a title.
2.4.3 Focus Order (Level A)	Supports	Focus order follows the reading order.
2.4.4 Link Purpose (In Context) (Level A)	Supports	Most links currently have appropriate context, and the remainder (citation links) will have by our June 2026 release.
2.5.1 Pointer Gestures (Level A 2.1 and 2.2)	Not Applicable	We do not currently support touchscreens.
2.5.2 Pointer Cancellation (Level A 2.1 and 2.2)	Supports	Pointer events are triggered by up-events, are cancelable, or results can be easily undone.

Criteria	Conformance Level	Remarks and Explanations
2.5.3 Label in Name (Level A 2.1 and 2.2)	Partially Supports	User interface components with labels that include text or images of text have an accessible name that contains the text that is presented visually. (Some of our older inventory is still being updated and this work will be complete for the June 2026 release.
2.5.4 Motion Actuation (Level A 2.1 and 2.2)	Supports	Our content is not activated by device or user motion.
3.1.1 Language of Page (Level A)	Supports	The language of each page can be programmatically determined.
3.2.1 On Focus (Level A)	Supports	Focus alone does not initiate a change of context.
3.2.2 On Input (Level A)	Supports	Inputting information does not cause a change of context.
3.2.6 Consistent Help (Level A 2.2 only)	Supports	The help menu, which includes a link to our support site, is located in the same place throughout our content inventory.
3.3.1 Error Identification (Level A)	Supports	Input errors that are automatically detected are conveyed to the user in text.
3.3.2 Labels or Instructions (Level A)	Supports	Labels and instructions are provided when content requires user input.
3.3.7 Redundant Entry (Level A 2.2 only)	Supports	Our content does not require any repeated entry of information.

4.1.1 Parsing (Level A)
    WCAG 2.0 and 2.1 – Always answer 'Supports'
    WCAG 2.2 (obsolete and removed) - Does not apply
	Supports	For WCAG 2.0 and 2.1, the September 2023 errata update indicates this criterion is always supported. See the WCAG 2.0 Editorial Errata and the WCAG 2.1 Editorial Errata.

4.1.2 Name, Role, Value (Level A)	Partially Supports	The name and role of all user interface components can be programmatically determined. States, properties and values that can be set by the user can be programmatically set. Notifications of changes to these components is available to user agents, including assistive technologies. (This statement applies to the majority of our content; we are still in the process of reviewing and updating older content to ensure compliance).

Table 2: Success Criteria, Level AA

Notes:

Criteria	Conformance Level	Remarks and Explanations
1.2.4 Captions (Live) (Level AA)	Supports	Our content does not have any live audio components.
1.2.5 Audio Description (Prerecorded) (Level AA)	Supports	Audio descriptions are currently present for some videos in our content inventory. All videos will have audio descriptions as of our June 2026 release. The description can be accessed using a button under the media.
1.3.4 Orientation (Level AA 2.1 and 2.2)	Supports	Orientation is not restricted.
1.3.5 Identify Input Purpose (Level AA 2.1 and 2.2)	Supports	User information is not collected from within the content inventory.
1.4.3 Contrast (Minimum) (Level AA)	Supports	The visual presentation of text and/or images of text has a contrast ratio of at least 4.5:1 except for large text (at least 3:1), incidental text or logotypes.
1.4.4 Resize text (Level AA)	Supports	Except for captions and images of text, text can be resized without assistive technology up to 200 percent without loss of content or functionality.
1.4.5 Images of Text (Level AA)	Partially Supports	Some of our static images still have images of text. We are actively working on updating our content inventory to support this standard.
1.4.10 Reflow (Level AA 2.1 and 2.2)	Supports	Text, questions, static images, and some interactive elements are capable of reflow without loss of function. Some of our simulations have fixed sizes that cannot be adjusted.
1.4.11 Non-text Contrast (Level AA 2.1 and 2.2)	Partially Supports	Visual information required to identify user interface components and states has a contrast ratio of at least 3:1 against adjacent colors. Some graphics in our older modules are still being modified to meet this standard.

Criteria	Conformance Level	Remarks and Explanations
1.4.12 Text Spacing (Level AA 2.1 and 2.2)	Supports	No loss of content or functionality occurs by setting all of the following and by changing no other style property: - Line height (line spacing) to at least 1.5 times the font size; - Spacing following paragraphs to at least 2 times the font size; - Letter spacing (tracking) to at least 0.12 times the font size; - Word spacing to at least 0.16 times the font size.
1.4.13 Content on Hover or Focus (Level AA 2.1 and 2.2)	Partially Supports	The use of a hover state is minimized in our content inventory, but when it is used to provide details for dynamic graphs in simulations, the user cannot move the pointer over the additional content that pops up.
2.4.5 Multiple Ways (Level AA)	Supports	There are multiple ways to navigate through the content.
2.4.6 Headings and Labels (Level AA)	Supports	Headings and labels are designed to be informative of the content or purpose.
2.4.7 Focus Visible (Level AA)	Supports	Keyboard focus is visible for all keyboard operable user interfaces.
2.4.11 Focus Not Obscured (Minimum) (Level AA 2.2 only)	Supports	Keyboard focus is not obscured by other content elements.
2.5.7 Dragging Movements (Level AA 2.2 only)	Partially Supports	Dragging movements are still required for an extremely small subset of our assessments (matching). In a few of our older content modules, dragging is utilized in some simulations and interactive elements.
2.5.8 Target Size (Minimum) (Level AA 2.2 only)	Supports	The size of the target for pointer inputs is at least 24by 24 CSS pixels except in a few cases where the undersized target is positioned so that a 24 CSS pixel diameter circle centered on the bounding box does not

Criteria	Conformance Level	Remarks and Explanations
		intersect with another target or circle around a target or in which the target is inline.
3.1.2 Language of Parts (Level AA)	Supports	The human language of any phrase or passage can be programmatically determined except for proper names, technical terms, words of indeterminate language, and words or phrases that have become part of the vernacular of the immediately surrounding text.
3.2.3 Consistent Navigation (Level AA)	Supports	Consistent navigation is used throughout the application.
3.2.4 Consistent Identification (Level AA)	Supports	User components with similar functionality appear consistently throughout the content.
3.3.3 Error Suggestion (Level AA)	Supports	Suggestions for corrections of automatically determined errors are provided.
3.3.4 Error Prevention (Legal, Financial, Data) (Level AA)	Supports	Answers to graded questions can be reviewed before submitting, and the answer can be changed and resubmitted up until the due date of the assignment.
3.3.8 Accessible Authentication (Minimum) (Level AA 2.2 only)	Supports	Authentication is not required inside the content inventory.
4.1.3 Status Messages (Level AA 2.1 and 2.2)	Supports	Status messages are relayed to the user through assistive technologies without receiving focus.