VPAT Accessibility Conformance Report

(Based on ITI VPAT©)

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| **Name of Product** | **JBS** |
| **Date Last Updated** | **June 26, 2025** |
| Completed by | Jay Nemchik (Digital Accessibility Team)  **Madison Russell (Digital Accessibility Team)** |
| **Applicable Standards/Guidelines** | This document rates JBS according to the W3C WCAG 2.1 A and AA requirements. |
| **Contact for More Information** | Digital Accessibility Team [accessibility@elsevier.com](mailto:accessibility@elsevier.com?subject=Accessibility%20and%20ScienceDirect) |
| **Testing Tools and Methods** | **Hands-on keyboard operation Firebug/Code inspection Firefox Web Developer Toolbar (removing style sheets) JAWS 18 on Mozilla Firefox 63 and MS IE 11 on Windows 10 NVDA screen reader v2019.2.1 Wave Extension**  **Color Contrast Analyzer W3C WAI Pages** Elsevier Accessibility Checklist: <http://romeo.elsevier.com/accessibility_checklist/> |
| **Document Sections** | The review document below includes all WCAG 2.1 A and AA checkpoints and is organized into 6 logical sections:   * Visuals * Keyboard * Headings and Structure * Labeling * Multimedia * Usability |
| **Pages Covered** | Header, Footer, Homepage, Register, Search Results**, Issue ToC,** Article Page, Collection Page, Journal Homepage**, Community Review, Open Access, Sustainability, Cell Advisory Board, Information for Authors, My Account** |
| **Terms** | * **Supports: The functionality of the product has at least one method that meets the criteria without known defects or meets with equivalent facilitation.** * **Partially supports: Some functionality of the product does not meet the criteria.** * **Does not support: Majority of functionality of the product does not meet the criteria.** * **Supports (N/A): According to W3C on conformance, "If there is no content to which a success criterion applies, the success criterion is satisfied."** |
| **Notes/Terminology** | **“AT” stands for Assistive Technology such as screen readers, voice input, etc.** |

| **WCAG 2.1 Success Criterion** | **Level** | **Evaluation** |
| --- | --- | --- |
| 1.1.1 Non-text Content | A | Partially supports |
| 1.2.1 Audio-only and Video-only (Prerecorded) | A | Partially supports |
| 1.2.2 Captions (Prerecorded) | A | Does not support |
| 1.2.3 Audio Description or Full Text Alternative | A | Partially supports |
| 1.2.4 Captions (Live) | AA | Supports (N/A) |
| 1.2.5 Audio Description | AA | Does not support |
| 1.3.1 Info and Relationships | A | Partially supports |
| 1.3.2 Meaningful Sequence | A | Supports |
| 1.3.3 Sensory Characteristics | A | Supports |
| 1.3.4 Orientation (2.1) | AA | Supports |
| 1.3.5 Identify Input Purpose (2.1) | AA | Does not support |
| 1.4.1 Use of Color | A | Partially supports |
| 1.4.2 Audio Control | A | Supports (N/A) |
| 1.4.3 Contrast (Minimum) | AA | Partially supports |
| 1.4.4 Resize text | AA | Supports |
| 1.4.5 Images of Text | AA | Supports |
| 1.4.10 Reflow (2.1) | AA | Partially supports |
| 1.4.11 Non-Text Contrast (2.1) | AA | Supports |
| 1.4.12 Text Spacing (2.1) | AA | Supports |
| 1.4.13 Content on Hover or Focus (2.1) | AA | Partially supports |
| 2.1.1 Keyboard | A | Partially supports |
| 2.1.2 No Keyboard Trap | A | Supports |
| 2.1.4 Character Key Shortcuts (2.1) | A | Supports (N/A) |
| 2.2.1 Timing Adjustable | A | Does not support |
| 2.2.2 Pause, Stop, Hide | A | Supports (N/A) |
| 2.3.1 Three Flashes or Below Threshold | A | Supports (N/A) |
| 2.4.1 Bypass Blocks | A | Partially supports |
| 2.4.2 Page Titled | A | Supports |
| 2.4.3 Focus Order | A | Supports |
| 2.4.4 Link Purpose (In Context) | A | Supports |
| 2.4.5 Multiple Ways | AA | Partially supports |
| 2.4.6 Headings and Labels | AA | Supports |
| 2.4.7 Focus Visible | AA | Supports |
| 2.5.1 Pointer Gestures (2.1) | A | Supports (N/A) |
| 2.5.2 Pointer Cancellation (2.1) | A | Supports |
| 2.5.3 Label in Name (2.1) | A | Partially supports |
| 2.5.4 Motion Actuation (2.1) | A | Supports (N/A) |
| 3.1.1 Language of Page | A | Supports |
| 3.1.2 Language of Parts | AA | Supports (N/A) |
| 3.2.1 On Focus | A | Supports |
| 3.2.2 On Input | A | Supports |
| 3.2.3 Consistent Navigation | AA | Supports |
| 3.2.4 Consistent Identification | AA | Supports |
| 3.3.1 Error Identification | A | Supports |
| 3.3.2 Labels or Instructions | A | Supports |
| 3.3.3 Error Suggestion | AA | Supports (N/A) |
| 3.3.4 Error Prevention (Legal, Financial, Data) | AA | Supports (N/A) |
| 4.1.1 Parsing | A | Supports |
| 4.1.2 Name, Role, Value | A | Partially Supports |
| 4.1.3 Status Messages (2.1) | AA | Supports (N/A) |

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| **Visuals** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.1.1: Non-Text Content](http://www.w3.org/TR/WCAG20/#text-equiv-all) (A) Provide text alternatives for non-text content (e.g. images) | Partially supports | Most images, icons, and graphs include text equivalents. Journal article images have full captions that are typically very descriptive.  **Exceptions:**  Article Page: Check for Updates image does not have alt text.  Open Access: The fact images should have alt="". |
| [1.3.3: Sensory Characteristics](http://www.w3.org/TR/WCAG20/#content-structure-separation-understanding) (A) Do not rely on sensory characteristics of components such as shape, size, visual location, orientation, or sound | Supports | Content does not rely on sensory characteristics. |
| [1.4.1: Use of Color](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-without-color) (A) Color is not used as the only visual means of conveying info | Partially supports | Color is not used as the only means of conveying information for most content.  **Exceptions:**  Journal Homepage: There are links within paragraphs of text that do not have link decoration and do not have a 3.0:1 contrast ratio with the surrounding text.  Community Review: There are links within paragraphs of text that do not have link decoration and do not have a 3.0:1 contrast ratio with the surrounding text.  Open Access: There are links within paragraphs of text that do not have link decoration and do not have a 3.0:1 contrast ratio with the surrounding text.  Sustainability: There are links within paragraphs of text that do not have link decoration and do not have a 3.0:1 contrast ratio with the surrounding text.  Information for Authors: There are links within paragraphs of text that do not have link decoration and do not have a 3.0:1 contrast ratio with the surrounding text.  My Account: The change password error text needs to be prefaced with the word "Error:" or use a symbol with alt text to denote that the red text is error text. There are links within paragraphs of text that do not have link decoration and do not have a 3.0:1 contrast ratio with the surrounding text. |
| [1.4.3: Color Contrast (Minimum)](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-contrast) (AA) Text has enough contrast with the background (4.5:1 for small text and 3:1 for large text) | Partially supports | Most text has enough contrast with its corresponding background.  **Exceptions:**  Register: The gray step numbers on gray background do not have enough contrast at 1.38:1. When text input labels reduce in size, their color changes to a gray that does not have enough contrast 2.78:1.  Search Results: The orange "Open Archive" and "Open Access" text does not have enough contrast at 2.56:1.  Issue ToC: Open Access orange text does not have enough contrast. "On the Cover" text does not have enough contrast. "Show More" link does not have enough contrast in the cover issue banner.  Article Page: The orange Open Access text in the Related Articles section do not have enough contrast. The various bright colors used in the PlumX popup do not have enough contrast. The white and light blue text used the Cell blue banner at the top of the screen has instances of text that does not pass on the lighter shades of blue. The orange Open Access in the blue banner does not have enough contrast.  My Account: The red error text on gray background does not have enough contrast at 3.45:1. |
| [1.4.4: Resize Text](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-scale) (AA)  Text can be enlarged up to 200% without loss of functionality. | Supports | Text can be enlarged to 200% without loss of functionality.  Note: The header can clip into the page when changing the text size. Refreshing the page fixes the issue. |
| [1.4.5: Images of Text](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-text-presentation) (AA) Text is used rather than images of text, except where the presentation of text is essential, such as logos | Supports | No images of text are used other than for Logos or essential presentation. |
| [1.4.10 Reflow](https://www.w3.org/TR/WCAG21/#reflow) (AA) (2.1) Content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions for:  Vertical scrolling content at a width equivalent to 320 CSS pixels;  Horizontal scrolling content at a height equivalent to 256 CSS pixels. | Partially supports | All content is displayed in one scrolling direction for most content.  **Exceptions:**  My Account: The page requires scrolling in two directions for small screen sizes. |
| [1.4.11 Non-Text Contrast](https://www.w3.org/TR/WCAG21/#non-text-contrast) (AA)  (2.1) User interact components and graphical objects have a contrast ratio of at least 3:1 against adjacent color(s). | Supports | There are no UI components or graphical objects that do not pass the minimum contrast ratio of 3:1. |
| [1.4.12 Text Spacing](https://www.w3.org/TR/WCAG21/#text-spacing) (AA)  (2.1)  In content implemented using markup languages that support the following text style properties, no loss of content or functionality occurs by setting all 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. | Supports | Content can be adjusted to the minimum text spacing requirements without loss of readability or functionality. |
| [1.4.13 Content on Hover or Focus](https://www.w3.org/TR/WCAG21/#content-on-hover-or-focus) (AA)  (2.1)  Where receiving and then removing pointer hover or keyboard focus triggers additional content to become visible and then hidden, the following are true:   * Dismissable * Hoverable * Persistent | Partially supports | There are some tooltips that appear on hover or focus that are not dismissable.  **Exceptions:**  Article Page: The Previous and Next article buttons have a popup that appears on focus and is not dismissable. |
| [2.3.1: Three Flashes or Below Threshold](http://www.w3.org/TR/WCAG20/#seizure-does-not-violate) (A) No more than three flashes in a 1-second period, or the flashes are below the defined thresholds | Supports (N/A) | No flashing content exists. |
| **Keyboard** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.3.2: Meaningful Sequence](http://www.w3.org/TR/WCAG20/#content-structure-separation-sequence) (A)  The correct reading sequence can be programmatically  determined | Supports | The correct reading sequence is logical with the DOM order matching the visual order. |
| [2.1.1: Keyboard](http://www.w3.org/TR/WCAG20/#keyboard-operation-keyboard-operable) (A)  All functionality is available from a keyboard, except for tasks such as drawing | Partially supports | Most content is keyboard operable.  **Exceptions**:  Article Page: The PlumX popup cannot be activated with keyboard. The Share Video button cannot be reached by keyboard. |
| [2.1.2: No Keyboard Trap](http://www.w3.org/TR/WCAG20/#keyboard-operation-trapping) (A)  The user can use the keyboard to move through page elements and is not trapped on a particular element | Supports | No keyboard traps exist on any page. |
| [2.1.4 Character Key Shortcuts](https://www.w3.org/TR/WCAG21/#character-key-shortcuts) (A)  (2.1)  If a keyboard shortcut is implemented in content using only letter (including upper- and lower-case letters), punctuation, number, or symbol characters, then at least one of the following is true:   * Turn off * Remap * Active only on focus | Supports (N/A) | No keyboard shortcuts are implemented on the site. |
| [2.4.3: Focus Order](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-focus-order) (A)  Users can tab through the elements of a page in a logical order | Supports | Tab order is logical on the site is logical. |
| [2.4.7: Focus Visible](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-focus-visible) (AA)  The page element with the current keyboard focus has a visible focus indicator | Supports | A custom styled focus is used for most of the site. It could use more contrast and fill. |
| [3.2.1: On Focus](http://www.w3.org/TR/WCAG20/#consistent-behavior-receive-focus) (A)  When a UI component receives focus, this does not trigger unexpected actions. | Supports | Focusable elements do not cause unexpected actions when receiving focus. |
| **Headers and Structure** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.3.1: Information and Relationships](http://www.w3.org/TR/WCAG20/#content-structure-separation-programmatic) (A)  Info, structure, and relationships can be programmatically determined | Partially supports | Good use of headings to appropriately structure content. HTML5 tags and roles are used in several areas to create landmarks.  **Exceptions:**  Footer: Each list heading should be an h2.  Homepage: There are several instances of skipping from h2 to h4. Embedded YouTube videos have iframes without titles.  Register: The step numbers should be in an ordered list.  Search Results: "Filter" should be an h2. Subsequent filter headings should be h3s. # of Results should be the h1, and the article titles should be h2s.  Article Page: The table of contents links should be in an ordered list. Complex tables can exist that are missing table headers in places. Videos are imbedded with an iframe that are missing title attributes.  Journal Homepage: There are several instances of skipping from h2 to h4. All Article titles should be h3s.  Community Review: Subsequent Benefits headings (e.g., Save Time, Consultation, Thoughtful Decision, etc.) should be h4s.  Open Access: The Pricing table has several extra table headers that are not marked as headers which will then need scope="colgroup".  Information for Authors: The table of contents should be in an ordered list. |
| [2.4.1: Bypass Blocks](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-skip) (A)  Users can bypass repeated blocks of content. | Partially supports | Headings exist which allow users using Assistive Technology to jump to the different areas of content quickly.  **Exceptions:** The skip to main content link works inconsistently across pages on the site. |
| [2.4.6: Headings and Labels](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-descriptive) (AA)  Headings and labels are clear and consistent. | Supports | Headings and labels used are clear and descriptive. |
| [3.1.1: Language of Page](http://www.w3.org/TR/WCAG20/#meaning-doc-lang-id) (A)  The language of the page is specified | Supports | The language is defined as lang="en". |
| [3.1.2: Language of Parts](http://www.w3.org/TR/WCAG20/#meaning-other-lang-id) (AA)  Specify the language of text passages that are in a different language than the default language of the page. | Supports (N/A) | There are no instances of languages that are different than the default. |
| [4.1.1: Parsing](http://www.w3.org/TR/WCAG20/#ensure-compat-parses) (A)  Use valid, error-free HTML | Supports | HTML and CSS passes concerning these 4 specific criteria:  (i) elements have complete start and end tags,  (ii) elements are nested according to their specifications  (iii) elements do not contain duplicate attributes  (iv) any IDs are unique, except where the specifications allow these features. |
| **Labeling** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| 1.3.5 Identify Input Purpose (AA)  (2.1)  The purpose of each input field collecting information about the user can be programmatically determined when:  The input field serves a purpose identified in the Input Purposes for User Interface Components section; and the content is implemented using technologies with support for identifying the expected meaning for form input data. | Does not support | There are personal input fields on the site, and they do not have autocomplete attributes.  My account has numerous personal information fields, but do not have proper autocomplete values. |
| [2.4.2: Page Titled](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-title) (A)  The page has a title describing its topic or purpose | Supports | Titles change dynamically based on the current page and are descriptive. |
| [2.4.4: Link Purpose (In Context)](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-refs) (A)  The purpose of each link can be determined from the link text or surrounding context. | Supports | Links have an identifiable purpose from the link text or surrounding context. |
| [2.5.3 Label in Name](https://www.w3.org/TR/WCAG21/#label-in-name) (A)  (2.1)  For user interface components with labels that include text or images of text, the name contains the text that is presented visually. | Partially supports | Most user interface components have the visible label as the first part of the programmatic label.  **Exceptions:**  Register: When the "Hide" button is shown for showing a password, the visible text no longer matches the accessible name.  Footer: The Cookies button's visible text is not entirely in the accessible name for the button. |
| [3.2.4: Consistent Identification](http://www.w3.org/TR/WCAG20/#consistent-behavior-consistent-functionality) (AA)  UI components used across the web site are identified consistently on every page. | Supports | UI components are consistent across the site in terms of HTML implementation and labelling. |
| [3.3.1: Error Identification](http://www.w3.org/TR/WCAG20/#minimize-error-identified) (A)  Input errors are clearly marked and described to the user. | Supports | Input errors are properly associated with their respective input fields. |
| [3.3.2: Labels and Instructions](http://www.w3.org/TR/WCAG20/#minimize-error-cues) (A)  Items requiring user input are clearly labeled or have clear instructions. | Supports | Input areas have clear labels which are programmatically assigned. |
| [3.3.3: Error Suggestion](http://www.w3.org/TR/WCAG20/#minimize-error-suggestions) (AA)  When the user makes an input error, give suggestions for valid input. | Supports (N/A) | There are no forms on the site that would give error suggestions. |
| [4.1.2: Name, Role, Value](http://www.w3.org/TR/WCAG20/#ensure-compat-rsv) (A)  For all UI components, the name, value, and role can be programmatically determined. | Partially supports | Most UI components communicate their state programmatically.  **Exceptions:**  Header: The user profile element should be a button.  Register: The "Show/Hide" element should be a button.  Issue ToC: The "Show More" link in the cover banner should be a button. The close button for the show more popup should be a button.  Search Results: The filter category hide/show elements should be buttons.  Article Page: In the Cell Banner, the PDF, Figures, Save, and Share elements should be buttons. The Author names, Show All Authors, Show Footnotes, Check for Updates elements should be buttons. Elements in the article that expand/collapse content should be buttons.  Open Access: The accordions on the page should be buttons. The accordions aria-expanded attributes do not change value. |
| [4.1.3 Status Messages](https://www.w3.org/TR/WCAG21/#status-messages) (AA)  (2.1)  In content implemented using markup languages, status messages can be programmatically determined through role or properties such that they can be presented to the user by assistive technologies without receiving focus. | Supports (N/A) | There are currently no status messages used on the site. |
| **Multimedia** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.2.1: Audio-only or Video-only (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-av-only-alt) (A)  Provide alternatives for pre-recorded audio-only or video-only content. | Partially supports | There are instances of articles with audio-only content and they without alternatives.  Some audio content is supplementary, and alternatives can be found in the article or PDF text. |
| [1.2.2: Captions (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-captions) (A)  Provide captions for pre-recorded audio | Does not support | There are videos and audio-only content that do not have any captioning. Embedded YouTube videos do not have the option to show captions.  Some audio content is supplementary, and alternatives can be found in the article or PDF text. |
| [1.2.3: Audio Description or Media Alternative (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-audio-desc) (A)  Provide alternatives for pre-recorded synchronized audio/video | Partially supports | Some synchronized video content is supplementary, and alternatives can be found in the article or PDF text.  Some videos do not have alternatives at all. |
| [1.2.4: Captions (Live)](http://www.w3.org/TR/WCAG20/#media-equiv-real-time-captions) (AA)  Provide captions for live audio in synchronized audio/video. | Supports (N/A) | There is no live audio in synchronized audio/video. |
| [1.2.5: Audio Description (Prerecorded)](http://www.w3.org/TR/WCAG20/#media-equiv-audio-desc-only) (AA)  Provide an audio description of pre-recorded video. | Does not support | Most videos on the site do not have audio descriptions.  Some videos used for various articles are only presenting audio-based information and the audio already serves as the audio description. |
| [1.4.2: Audio Control](http://www.w3.org/TR/WCAG20/#visual-audio-contrast-dis-audio) (A)  Audio can be paused and stopped, or the audio volume can be changed. | Support | Audio content does not start automatically. |
| [2.2.2: Pause, Stop, Hide](http://www.w3.org/TR/WCAG20/#time-limits-pause) (A)  Users can stop, pause, or hide moving, blinking, scrolling, or auto-updating information. | Supports (N/A) | There is no moving, blinking, or scrolling content. |
| **Usability** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [2.2.1: Timing Adjustable](http://www.w3.org/TR/WCAG20/#time-limits-required-behaviors) (A)  Users are warned of time limits shorter than 20 hours and time limits can be turned off or extended | Does not support | There is a session timeout, and no warning or option to extend is given. |
| [2.4.5: Multiple Ways](http://www.w3.org/TR/WCAG20/#navigation-mechanisms-mult-loc) (AA)  More than one way is available to navigate to other web pages. | Partially supports | Users can reach most pages in the system using the global navigation or footer links.  **Exceptions:**  The personal pages (e.g. My Reading List, My Account Info, etc.) can only be reached through the profile menu in the header. |
| [3.2.2: On Input](http://www.w3.org/TR/WCAG20/#consistent-behavior-unpredictable-change) (A)  Changing the setting of a checkbox, radio button, or other UI component does not trigger unexpected changes in context. | Supports | User inputs do not cause unexpected actions. |
| [3.2.3: Consistent Navigation](http://www.w3.org/TR/WCAG20/#consistent-behavior-consistent-locations) (AA)  Navigation menus are in the same location and order on every web page. | Supports | Navigation menus are consistently in the same place and in same order for all pages. |
| [3.3.4: Error Prevention (Legal, Financial, Data)](http://www.w3.org/TR/WCAG20/#minimize-error-reversible) (AA)  For web pages with legal or financial commitments, input can be reviewed and corrected before final submission, and submissions can be reverted. | Supports (N/A) | No data submissions on the site require legal or financial commitments. No data submissions allow for a users’ profile to be deleted. |
| **Mobile User Experience** | | |
| **WCAG 2.1**  **Checkpoint** | **Supporting Features** | **Remarks** |
| [1.3.4 Orientation](https://www.w3.org/TR/WCAG21/#orientation)  (AA)  (2.1)  Content does not restrict its view and operation to a single display orientation, such as portrait or landscape, unless a specific display orientation is essential. | Supports | Content is not restricted to a single display orientation. |
| [2.5.1 Pointer Gestures](https://www.w3.org/TR/WCAG21/#pointer-gestures) (A)  (2.1)  All functionality that uses multipoint or path-based gestures for operation can be operated with a single pointer without a path-based gesture, unless a multipoint or path-based gesture is essential. | Supports (N/A) | There is no content on the site that requires multipoint or path-based gestures. |
| 2.5.2 Pointer Cancellation (A)  (2.1)  For functionality that can be operated using a single pointer, at least one of the following is true:   * No Down-Event * Abort or Undo * Up Reversal * Essential | Supports | All content that can be operated with a single pointer can be undone or is performed on the up-event. |
| [2.5.4 Motion Actuation](https://www.w3.org/TR/WCAG21/#motion-actuation)  (A)  (2.1)  Functionality that can be operated by device motion or user motion can also be operated by user interface components and responding to the motion can be disabled to prevent accidental actuation, except when:   * Supported Interface * Essential | Supports (N/A) | There is no content on the site that is activated by motion or actuation. |