

# High-level accessibility review – LAA (American Society for Microbiology (ASM) Journals Platform)

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# American Society for Microbiology (ASM) Journals Platform

## Summary

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### Top 2 problems for the American Society for Microbiology (ASM) Journals Platform

This high-level assessment covers limited portions and functionality of the American Society for Microbiology (ASM) Journals Platform. The assessment revealed issues with assistive technology compatibility, resulting in some users missing information required to perceive and understand content, and to operate functions. It is important to keep in mind that the findings represent a high-level assessment, and do not reflect the results of a Deque Comprehensive Web Assessment.

1. **Label in Name** – Throughout the site, many controls make use of a programmatic label that is meant to provide a label to Assistive Technology that is more descriptive. However, the programmatic labels often do not include the visible label that is present or they are used to obscure labels that are nested in the control. This results in a potential problem for users of voice activation software who often rely on a visible label to know what voice command will allow them to interact with a given control.
2. **Color Contrast** – Contrast issues are very common in pages for an individual item/search result. Also, some issues were observed with icons and some focus indicators when gathering screenshots but these were not thoroughly tested nor recorded due to time constraints.

### Comparison to 2019 [[link to previous evaluation](#)]

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#### Conformance Section

- no auto-rotating content was observed

#### Document Structure Section

- a sample PDF was found to be tagged, but is not PDF/UA compliant as it still contains untagged content and other structure-related issues
- headings were observed to be correctly organizing content, although some suggestions were found to not be implemented in the individual article page
- lists were found to be correctly implemented
- the homepage 'rotator content' is no longer present
- a sample PDF was found to have a language defined

#### Keyboard Support Section

- many keyboard-specific issues still remain on the site, in particular issues were observed with: sufficient visible focus indicators, invisible content being included in focus order, mouse-specific event handlers not having a keyboard equivalent, etc.

#### Navigation Section

- in Deque's interpretation, the page names are minimally conformant
- a sample PDF was found to have a descriptive title
- in Deque's interpretation, the "-" links are minimally conformant to SC 2.4.2 as they can derive context from the paragraph they are nested in
- figure links no longer open modal dialogs (lightboxes)

#### Forms and Data Submission Section

- on the sample pages provided to Deque, forms were found to be properly labeled and labels were found to be programmatically associated with inputs except for form elements in 'Refine Search' section on Search Results and Advanced Search pages

#### Images Section

- appropriate alt values were observed for images found in sample pages provided to Deque
- no image of text issues were observed on sample pages provided to Deque

#### **Color and Visual Characteristics Section**

- the reported low contrast icons on the site were not observed on sample pages provided to Deque
- the reported low contrast icons and text issues on a sample PDF were not observed

#### **Custom Elements and Dynamic Content Section**

- no auto-rotating content was observed
- disclosure widgets (accordions) are still missing required roles and attributes
- tabs were not observed on an individual Article / search result page
- journal options in the 'Published in' auto-complete combobox can be read by screen readers
- expanding menu items are properly labeled

### **Accessibility findings**

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#### **Project wide issues**

The issues presented in this section were identified in multiple pages and are recorded here to avoid repetition. These are applicable to each screen. Due to particularities, similar issues are still reported on a page per page basis, where applicable.

#### **Automated findings using Axe**

Issues found through automated testing come from the Axe plugin, an open source accessibility testing tool that is available for Chrome, Firefox and Edge. Details here: <https://www.deque.com/products/axe/>.

1. **SC 2.5.3 A** – The 'Shopping Cart' control in the top header has a programmatic name defined through an aria-label that does not include the visible label text (interrupted) in it. The visible label text in this case, is the dynamically changing number of items currently in the cart.

#### **Additional manual findings using NVDA screen reader**

Not completed due to insufficient time.

## 1. Landing Page

**Source:** <https://journals-asm-org.offcampus.lib.washington.edu/>

**Test case:** Test initial interface/landing page to ensure menus, sub-menus, search box, images, icons, etc. are accessible.

AMERICAN SOCIETY FOR MICROBIOLOGY | ASM Journals

HOME FOR SUBSCRIBERS FOR AUTHORS FOR REVIEWERS ABOUT US

ASM Journals Are the Most Prominent Publications in the Field

PUBLISH WITH ASM

98% Research Articles Cited within Two Years of Publication

44% ASM Journal Citations as % of All Microbiology

33 Average Days in Review

80M+ Total Annual HTML + PDF Usage

ASM Author Center

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American Society for Microbiology ("ASM") is committed to maintaining your confidence and trust with respect to the information we collect from you on websites owned and operated by ASM ("ASM Web Sites") and other sources. This Privacy Policy sets forth the information we collect about you, how we use this information and the choices you have about how we use such information.

ACCEPT & CONTINUE

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### Automated findings using Axe

No unique issues were found using automated methods.

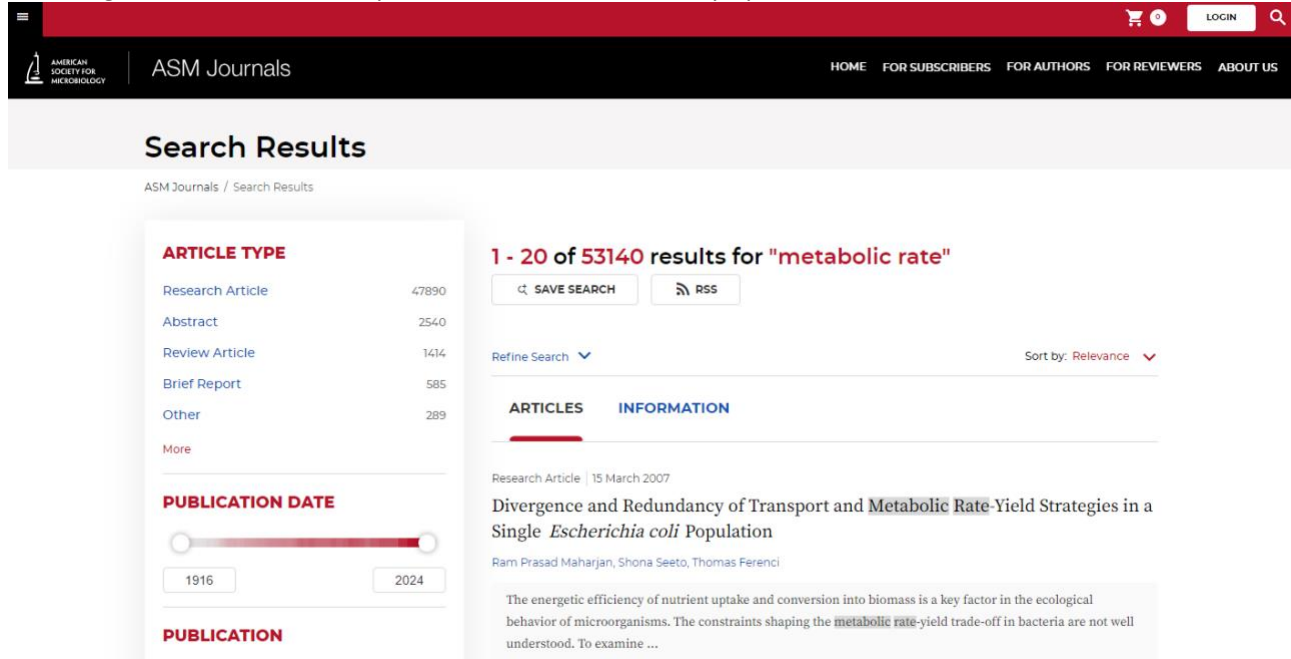
### Additional manual findings using NVDA screen reader

Not completed due to insufficient time.

## 2. Search Results

**Source:** <https://journals-asm-org.offcampus.lib.washington.edu/action/doSearch?AllField=metabolic+rate>

**Test case:** From the initial landing page, conduct a search for: metabolic rate. Test search results page, including filters/refine search “publication date” and sort by options.



The screenshot shows the ASM Journals search results page. The header includes the ASM logo and navigation links. The main content area displays the search results for "metabolic rate", showing 1-20 of 53140 results. On the left, there are filters for Article Type (Research Article: 47890, Abstract: 2540, Review Article: 1414, Brief Report: 585, Other: 289) and Publication Date (a range slider from 1916 to 2024). The main results area shows a list of articles, with the first article titled "Divergence and Redundancy of Transport and Metabolic Rate-Yield Strategies in a Single *Escherichia coli* Population" by Ram Prasad Maharjan, Shona Seeto, and Thomas Ferenci. The article is dated 15 March 2007. The abstract text is partially visible: "The energetic efficiency of nutrient uptake and conversion into biomass is a key factor in the ecological behavior of microorganisms. The constraints shaping the metabolic rate-yield trade-off in bacteria are not well understood. To examine ...".

### Automated findings using Axe

1. **SC 2.5.3 A** – The ‘Save Search’ control has a programmatic name defined using aria-label that does not include the visible text label (uninterrupted) in it.

### Additional manual findings using NVDA screen reader

Not completed due to insufficient time.

### 3. Individual Search Result

**Source:** <https://journals-asm-org.offcampus.lib.washington.edu/doi/10.1128/aac.01690-23>

**Test case:** Test individual search result landing page “Real-time measurements of ATP Dynamics via ATeams in *Plasmodium falciparum* reveal drug-class specific response patterns” & test actual document (PDF, video, etc.).

The screenshot shows the top navigation bar of the ASM Journals website. The main header includes the journal title 'Antimicrobial Agents and Chemotherapy' and a navigation menu with links for 'JOURNAL HOME', 'FOR AUTHORS', 'ARTICLES', 'ABOUT THE JOURNAL', and 'FOR SUBSCRIBERS'. Below the header, there is a breadcrumb trail: 'ASM Journals / Antimicrobial Agents and Chemotherapy / Ahead of Print / Real-time measurements of ATP dynamics via ATeams in Plasmodium falciparum reveal drug-class-specific response patterns'. An advertisement banner for 'mSphere' is visible, with the text 'Submit Your Research on One Health, Microbes and Climate Change'. The article title is 'Real-time measurements of ATP dynamics via ATeams in *Plasmodium falciparum* reveal drug-class-specific response patterns', dated 19 March 2024. The authors listed are Eric Springer, Kim C. Heimsch, Stefan Rahifs, Katja Becker, and Jude M. Przyborski. A DOI link is provided: <https://doi.org/offcampus.lib.washington.edu/10.1128/aac.01690-23>. At the bottom of the article header, there are buttons for 'CITE' and 'PDF/EPUB'.

#### ABSTRACT

*Malaria tropica*, caused by the parasite *Plasmodium falciparum* (*P. falciparum*), remains one of the

#### Automated findings using Axe

1. **SC 4.1.2 A** – Both ‘Advertisement’ IFRAME elements do not have a unique title value, as they both share the same title value.
2. **SC 2.1.1 A** – The ‘Article Navigation’ widget contains a ‘group’ role that is scrollable but does not have a focusable element nested within it or it itself is not focusable.
3. **SC 1.3.1 A** – The ‘socials’ list widget is marked up as a <ul> element and it contains a child element that is not allowed to be nested within it: <div>
4. **SC 2.5.3 A** – The ‘Authors’ section contains two controls that have a programmatic name defined (ORCID identifier) using aria-label that does not include the text label (uninterrupted) in it.
5. **SC 2.5.3 A** – The ‘Authors’ section contains a control that has a programmatic name defined (Email address) using aria-label that does not include the text label (uninterrupted) in it.
6. **SC 2.5.3 A** – The ‘Cite’ and ‘PDF/EPUB’ controls have a programmatic name defined using aria-label that does not include the visible text label (uninterrupted) in it.
7. **SC 1.4.3 AA** – Throughout the page, many text elements use a light grey (#a2b1b6) against a white background (#ffffff) which results in a 2.21:1 contrast ratio where a minimum 4.5:1 is expected.
8. **SC 1.4.3 AA** – The “Powered by” text is low in contrast with a 1.49:1 contrast ratio where a minimum 4.5:1 is expected.

#### Additional manual findings using NVDA screen reader

Not completed due to insufficient time.

#### 4. Advanced Search

**Source:** <https://journals-asm-org.offcampus.lib.washington.edu/action/doSearch?field1=Title&text1=metabolic+rate&field2=AllField&text2=&publication=&Ppub=>

**Test case:** Test advanced search page

The screenshot shows the ASM Journals search results page. The header includes the ASM logo and navigation links: HOME, FOR SUBSCRIBERS, FOR AUTHORS, FOR REVIEWERS, ABOUT US. The main heading is "Search Results" with a breadcrumb "ASM Journals / Search Results". On the left, there are filters for "ARTICLE TYPE" (Research Article: 34, Abstract: 2), "PUBLICATION DATE" (range 1965-2023), and "PUBLICATION" (Applied and Environmental Microbiology: 21, Journal of Bacteriology: 7, Microbiology Spectrum: 3). The main content area shows "1 - 20 of 36 results for 'metabolic rate'" with "SAVE SEARCH" and "RSS" buttons. A "Refine Search" dropdown is set to "Sort by: Relevance". The first article is "Environmental Temperature Controls *Cryptosporidium* Oocyst Metabolic Rate and Associated Retention of Infectivity" by Brendon J. King, Alexandra R. Keegan, Paul T. Monis, Christopher P. Saint, dated 01 July 2005. A snippet of the abstract is visible: "*Cryptosporidium* is a significant cause of water-borne enteric disease throughout the world and represents a challenge to the water industry and a threat to public health. In this study we report the use of a cell culture-TaqMan PCR assay to ...".

#### Automated findings using Axe

1. **SC 2.5.3 A** – The 'Save Search' control has a programmatic name defined using aria-label that does not include the visible text label (uninterrupted) in it.

#### Additional manual findings using NVDA screen reader

Not completed due to insufficient time.