2020

Norwich Research Park Biorepository

Accessibility Audit for Biorepository Website

This audit involves testing a selection of seven pages using both the Siteimprove Accessibility Checker and the WAVE Evaluation Tool developed by WebAIM.org. The selected pages cover all the major content layouts.

Summary of Findings

NRP Biorepository website is not currently fully compliant with the Web Content Accessibility Guidelines version 2.1 AA standard.

There are a number of important site wide issues that need addressing before it could be claimed that the site is partially compliant. Accessibility errors detected are mainly to do with the colours being used to display text and links.

There are colour contrast issues affecting the majority of the text content due to the colours used for headers and body text. Almost all colour combinations currently used do not meet the 4.5:1 contrast ratio for normal text and background colours required for WCAG AA accessibility compliant (see WCAG 1.4.3). Modifying the colour combinations to a WCAG AA acceptable combinations will remove the bulk of the reported accessibility errors. Amending these colour combinations should be given a high priority.

In addition to the colour issues, there are two site wide accessibility issues that should be given a high priority. These are:

1. No option to skip repeated content
2. Part of the main navigation is not highlighted on focus (the pulldown menu section accessed via the menu icon, top right of the page)

Both these issues are explained in more detail in the next section.

The majority of accessibility issues encountered cannot be solved by website editors but will need a developer to make alterations to the code that controls the display of the content within the site. Although this sounds like a large and expensive task to rectify, it will be made easier due to the website being constructed using a Content Management System (Wordpress) and the use of a small number of page templates and CSS (stylesheets). This enables a developer to make single changes to templates and CSS which will in turn affect multiple pages across the website.

Audit results

The following sections show detailed results of the accessibility testing across the NRP Biorepository website. The following section contains issues that occur frequently throughout the website. They are listed separately to avoid having to repeat the issues in the results for individual pages.

SItewide issues

NAVIGATION RELATED ISSUES

1. **No option to skip repeated content.** A means of bypassing blocks of content that are repeated on multiple web pages must be provided, e.g. the main navigation. For keyboard and screen reader users it can be frustrating to get to the main content of a page because you have to tab through all the main navigation elements every time you visit a new page. By implementing a skip link (also known as skip to content link), those users can skip all these elements and jump right into the content. See WCAG 2.4.1

   SOLUTION: Discuss with developer means of achieving this. The "skip to content" link should be the first focusable element on the page. The link can, but doesn't have to be visible all the time for all users. If the link is visually hidden at first, it should be visible when keyboard focus moves to the link. If the link is clicked, it should move focus to the main content below the site navigation.
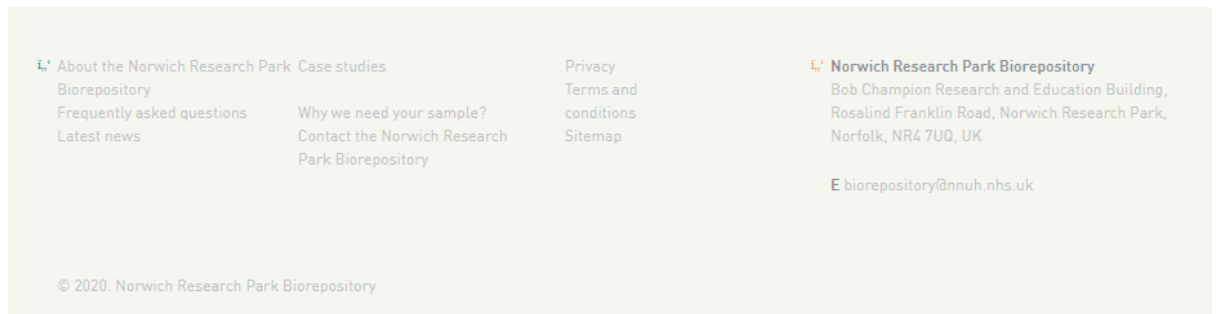
2. **Element not highlighted on focus.** There is a navigation pulldown menu accessed via an icon in the top right corner of every page. The icon doesn't currently show focus when using keyboard navigation. With keyboard navigation it is important that the focused component can be visually identified. If the focused component is not somehow highlighted, the user cannot be sure which component has focus. Make sure that user interface elements, that can receive keyboard focus (hyperlinks and form fields and buttons), are highlighted on focus. See WCAG 2.4.7

   SOLUTION: Discuss with the developer how to highlight the submenu icon on focus. Check with the developer that the submenu items are accessible via keyboard navigation. If not, it is important to devise an accessible method to reach the items contained within this submenu.
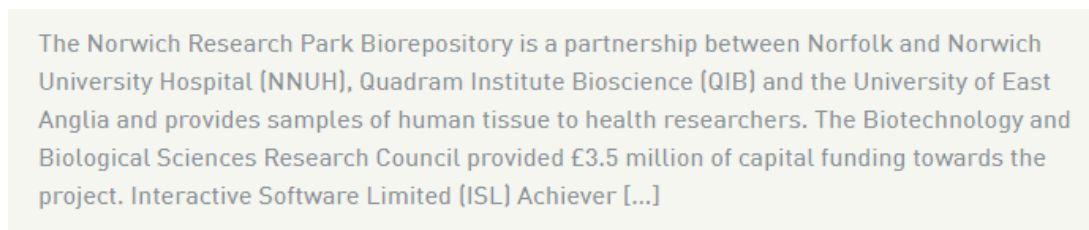
COLOUR CONTRAST RELATED ISSUES

3. **Colour contrast is insufficient**. Very low contrast between text ad links and the background colour in the footer. The light grey menu at the bottom left of the page, results in a very low 1.55:1 contrast ratio, well below the required 4.5:1 ratio for smaller text. See WCAG 1.4.3

SOLUTION: Use tools like https://contrastchecker.online/ to choose a colour combination for this menu that meets AA minimum requirement of 4.5:1 contrast ratio. Ask the developer to change the CSS to use this colour combination.

4. **Colour contrast is insufficient**. Low contrast between text and background colour used in the default paragraph text within sections of the pages across the website. The contrast of default text and background colours is 2.98, well below the required 4.5:1 ratio for smaller text. See WCAG 1.4.3

> The Norwich Research Park Biorepository is a partnership between Norfolk and Norwich University Hospital (NNUH), Quadram Institute Bioscience (QIB) and the University of East Anglia and provides samples of human tissue to health researchers. The Biotechnology and Biological Sciences Research Council provided £3.5 million of capital funding towards the project. Interactive Software Limited (ISL) Achiever [...]

SOLUTION: Use tools like https://contrastchecker.online/ to choose a colour combination for the default text that meets AA minimum requirement of 4.5:1 contrast ratio. Ask the developer to change the CSS to use this colour combination.
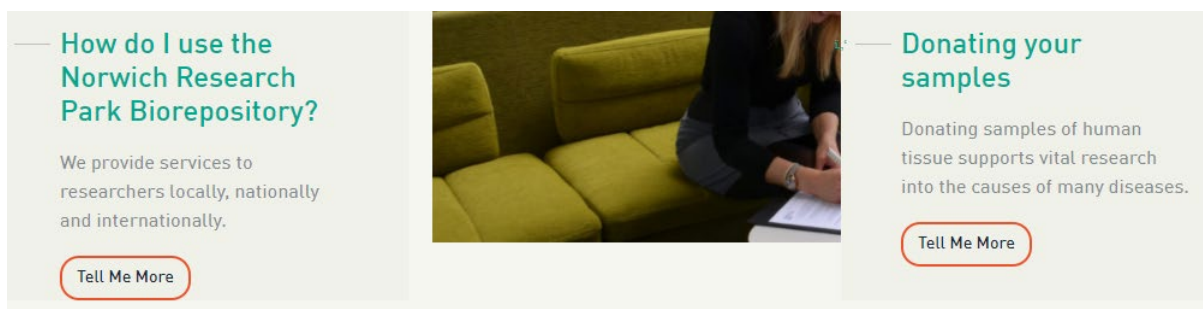
Individual page audits

Pages selected for testing:

1. Home page – http://biorepository.affinityagency.co.uk/
2. About – http://biorepository.affinityagency.co.uk/about-biorepository/
3. Case study – h ttp://biorepository.affinityagency.co.uk/case-studies/case-study-2/
4. FAQs – http://biorepository.affinityagency.co.uk/faqs/
5. News index – http://biorepository.affinityagency.co.uk/news/
6. News item – http://biorepository.affinityagency.co.uk/norwich-scientists-join-uk-launch-of-whole-genome-sequence-to-map-spread-of-coronavirus/
7. Contact form – http://biorepository.affinityagency.co.uk/about-biorepository/contact/

1: Page tested: http://biorepository.affinityagency.co.uk/

This page encountered all the issues covered by the site-wide issues.

Additional issues encountered:

1. **Duplicate/non-descriptive link text.** There are multiple occurrences of "Tell me more", "View Case Study" and "All" link text. Link text should be unique within a page, should be meaningful when read out of context, and should help users to know something about their destination. Link text such as "Click here", "View" and "More" fail to meet these criteria. See WCAG 2.4.4

   SOLUTION: Ask a developer to add the descriptive text/title to a WAI-ARIA label for each link containing duplicate or non-descriptive link text. This will make it clear that they lead to different destinations. Assistive technology, such as screen readers, use aria labels to catalogue the links in a document so that users can easily navigate between them. This option would result in no noticeable difference to the look of the website while solving the accessibility issue. See https://www.w3.org/WAI/GL/wiki/Using_aria-label_for_link_purpose for an explanation of the use of aria-label.

   Example of aria coding:

   Tell me more

   If the ARIA option isn't feasible, use alternative method to ensure the link text is meaningful when read out of context, and should help users to know something about their destination.

2. **Colour contrast is insufficient**. Very low contrast between text and background colour in multiple sections of this page. All the colour combinations highlighted in the following graphic fail to meet the required 4.5:1 ratio for smaller text. See WCAG 1.4.3

to drive research into normal human health and a wide range of diseases

The Norwich Research Park Biorepository offers state-of-the-art freezer and retrieval systems to provide material for researchers locally, nationally and internationally

Tell Me More

Share
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How do I use the Norwich Research Park Biorepository

We provide samples for researchers locally, nationally and internationally.

Tell Me More

Donating your samples

Donating samples of human tissue supports vital research into the causes of many diseases.

Tell Me More

How the Norwich Research Park Biorepository works

How the Biorepository works

Donating samples of human tissue supports vital research into the causes of diseases and the development of effective new treatments. Your samples let researchers understand exactly what's happening in various healthy cells or tissues. To do this we need volunteers to donate tissue.

View all Videos

01 Why donate to a biorepository?
/ 02:15

01 Why your consent is im...
/ 01:26

Link to video

...t is a Biorepository?
...Louise Jones / 03:58

The NRP Biorepository supports vital clinical research thanks to the donation of samples

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About the Norwich Research Park Biorepository

The Norwich Research Park Biorepository is located in the Bob Champion Research and Education building next door to the Norfolk and Norwich University Hospital and the Quadram Institute.

The Norwich Research Park Biorepository is an invaluable resource for clinical research. The banking of human tissue, blood, solid tissue, and other samples, in a biorepository (tissue bank) provides a rich source of material to drive research into normal human health and a wide range of diseases.

More About Us

A partnership between the Norfolk and Norwich University Hospital, Quadram Institute Bioscience and the University of East Anglia

NHS
Norfolk and Norwich University Hospitals
NHS Foundation Trust

UEA
University of East Anglia

Quadram Institute
Science of Health and Food Innovation

New urine test for prostate cancer

The Biorepository has supported UEA and NNUH in the development of a new urine test for prostate cancer.

View Case Study

The infant microbiome and health

How the Biorepository is supporting research helping vulnerable premature babies get the best start in life.

View Case Study All

Frequently Asked Questions

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All

I can't find the answer to my question? ›

Can I withdraw my consent to a donation? ›

How is the Norwich Research Park Biorepository funded? ›

Who is in charge of Norwich Research Park Biorepository? ›

Latest News

Keep updated with latest news...

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna.

View all News

16th June 2020
SARS-CoV-2 Prevalence and Persistence in Stool – The CoPS Study
The Norfolk and Norwich University Hospital and Quadram Institute are recruiting participants who have tested positive to COVID-19

28th April 2020
Norwich Research Park Biorepository goes live with new laboratory management system
A biobank for health research based on the Norwich Research Park has successfully gone live with a new laboratory management syste
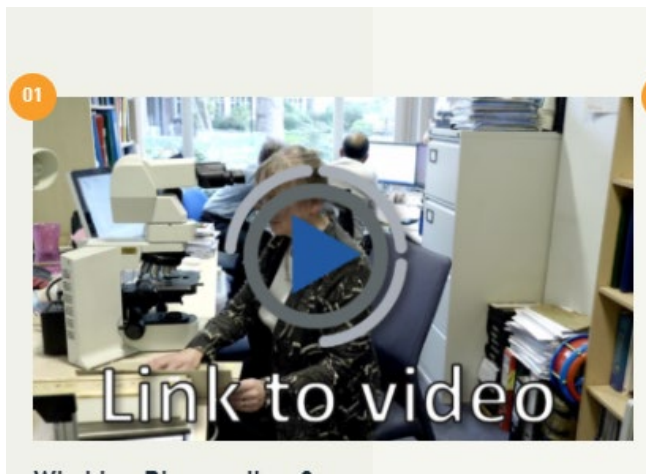
23rd March 2020
Norwich scientists join UK launch of whole genome sequence to map spread of Coronavirus
Quadram Institute and NRP Biorepository joins UK launch of whole genome sequence to map spread of Coronavirus
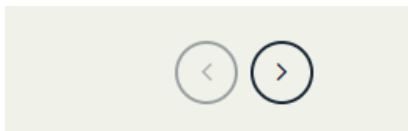
SOLUTION: Use tools like https://contrastchecker.online/ to choose a colour combinations for all the sections that meets AA minimum requirement of 4.5:1 contrast ratio. Some of the issues with the heading colour could be resolved by making the headings a larger font size which results in the contrast ratio requirement reducing to 3:1. Once colours are agreed, ask the developer to change the CSS to use an appropriate colour and size for each section.

3. **Linked image missing alternative text.** The image linking to a video does not contain alt text. Images that are the only thing within a link must have descriptive alternative text. If an image is within a link that contains no text and that image does not provide alternative text, a screen reader has no content to present to the user regarding the function of the link.

SOLUTION: An editor can add alt text for this image. Note, this is part of draft text and will be replaced before the site goes live.

4. **Empty button.** Both forward and back buttons on the carousel have no descriptive value. A button is empty or has no value text. When navigating to a button, descriptive text must be presented to screen reader users to indicate the function of the button.

SOLUTION: Ask the developer to give these buttons an accessible description by putting text in the <button> element that concisely describes the button's functionality.

2: Page tested: http://biorepository.affinityagency.co.uk/about-biorepository/

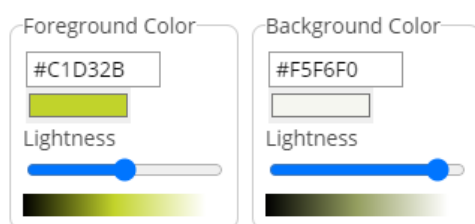This page encountered all the issues covered by the site-wide issues section.

In addition the following issue was encountered:

1. **Colour contrast is insufficient**. Very low contrast between text and background colour in the subtitle section. The green <h2> text combined with the white background results in a contrast ratio of 1.53:1, well below the required 4.5:1 ratio for smaller text and the 3:1 ratio for larger text. See WCAG 1.4.3

    > The Norwich Research Park Biorepository is an invaluable resource for clinical research. It is a source of human tissue samples, provided by consenting patients, for studies into the causes and treatments of diseases.

    SOLUTION: Use tools like https://contrastchecker.online/ to choose a colour combination for this section that meets AA minimum requirement of 4.5:1 contrast ratio. Once colours are agreed, ask the developer to change the CSS to use the desired colour combination.

2. **Colour contrast is insufficient**. Very low contrast between the text link colour and background colour for the main text area. The contrast ratio of 1.53:1, is well below the required 4.5:1 ratio for smaller text. See WCAG 1.4.3

    Foreground Color: #C1D32B

    Background Color: #F5F6F0

    Lightness

    Contrast Ratio: **1.53:1**

    Text Size: Normal

    Normal Text: Sample
    AA: **Fail**
    AAA: **Fail**

    Large Text: Sample
    AA: **Fail**
    AAA: **Fail**

    SOLUTION: Use tools like https://contrastchecker.online/ to choose a colour combination for this instance that meets AA minimum requirement of 4.5:1 contrast ratio. Once colours are agreed, ask the developer to change the CSS to use the desired colour combination. Adding an additional non-colour indicator such as underlining to links within text would aid accessibility and reduce the need for contrast between links, surrounding text and the background colour.

3: Page tested: http://biorepository.affinityagency.co.uk/case-studies/case-study-2/
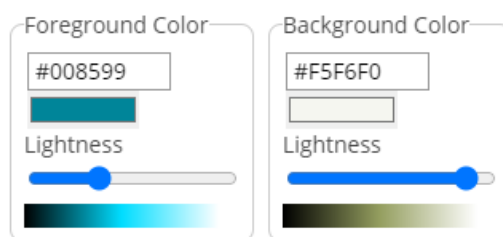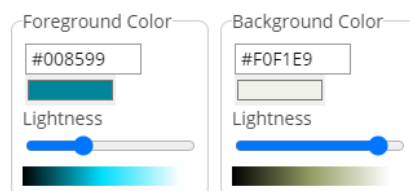
This page encountered all the issues covered by the site-wide issues section.

In addition the following issues were encountered:

1. **Colour contrast is insufficient**. Very low contrast between the text link colour and background colour for the main text area. The contrast ratio of 4.01:1, is just below the required 4.5:1 ratio for smaller text. See WCAG 1.4.3

1.

SOLUTION: Use tools like https://contrastchecker.online/ to choose a colour combination for this instance that meets AA minimum requirement of 4.5:1 contrast ratio. Once colours are agreed, ask the developer to change the CSS to use the desired colour combination. Adding an additional non-colour indicator such as underlining to links within text would aid accessibility and reduce the need for contrast between links, surrounding text and the background.

4: Page tested: http://biorepository.affinityagency.co.uk/faqs/

This page encountered all the issues covered by the site-wide issues section..

In addition the following issues were encountered:

1. **Colour contrast is insufficient**. Very low contrast between the FAQ text link colour and background colour for the main text area. The contrast ratio of 3.83:1, is just below the required 4.5:1 ratio for smaller text. See WCAG 1.4.3

SOLUTION: Use tools like https://contrastchecker.online/ to choose a colour combination for this instance that meets AA minimum requirement of 4.5:1 contrast ratio. Once colours are agreed, ask the developer to change the CSS to use the desired colour combination.
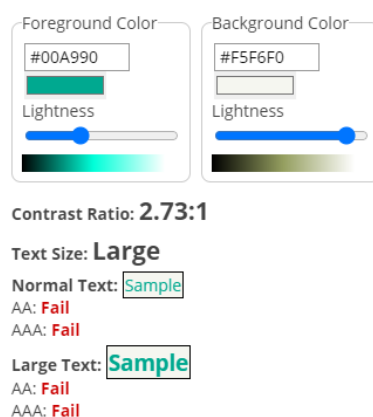
5: Page tested: http://biorepository.affinityagency.co.uk/news/

This page encountered all the issues covered by the site-wide issues section.

In addition the following issues were encountered:

1. **Colour contrast is insufficient**. Very low contrast between the header text colour and background colour for the main text area. The contrast ratio of 2.73:1, is well below the required 4.5:1 ratio for smaller text. See WCAG 1.4.3

SOLUTION: Use tools like https://contrastchecker.online/ to choose a colour combination for this instance that meets AA minimum requirement of 4.5:1 contrast ratio. Once colours are agreed, ask the developer to change the CSS to use the desired colour combination.

2. **Duplicate/non-descriptive link text.** There are multiple occurrences of "Read more" and "View more" link text. Link text should be unique within a page, should be meaningful when read out of context, and should help users to know something about their destination. Link text such as "View more" and "Read more" fail to meet these criteria. See WCAG 2.4.4

SOLUTION: Ask a developer to add the news title to a WAI-ARIA label for each link containing duplicate or non-descriptive link text. This will make it clear that they lead to different destinations. Assistive technology, such as screen readers, use aria labels to catalogue the links in a document so that users can easily navigate between them. This option would result in no noticeable difference to the look of the website while solving the accessibility issue. See https://www.w3.org/WAI/GL/wiki/Using_aria-label_for_link_purpose for an explanation of the use of aria-label.

Example of aria coding:

Read more

If the ARIA option isn't feasible, use alternative method to ensure the link text is meaningful when read out of context, and should help users to know something about their destination.

2. **Linked image missing alternative text.** Some featured images linked to news stories are without alternative text. Images that are linked must have descriptive alternative text. If an image is within a link that contains no text and that image does not provide alternative text, a screen reader has no content to present to the user regarding the function of the link. See WCAG 1.1.1

28th April 2020

Norwich Research Park Biorepository goes live with new laboratory management system

The Norwich Research Park Biorepository is a partnership between Norfolk and Norwich University Hospital (NNUH), Quadram Institute Bioscience (QIB) and the University of East Anglia and provides samples of human tissue to health researchers. The Biotechnology and Biological Sciences Research Council provided £3.5 million of capital funding towards the project. Interactive Software Limited (ISL) Achiever […]
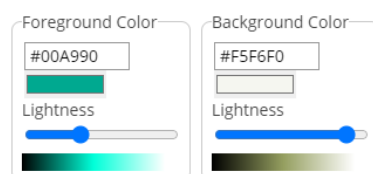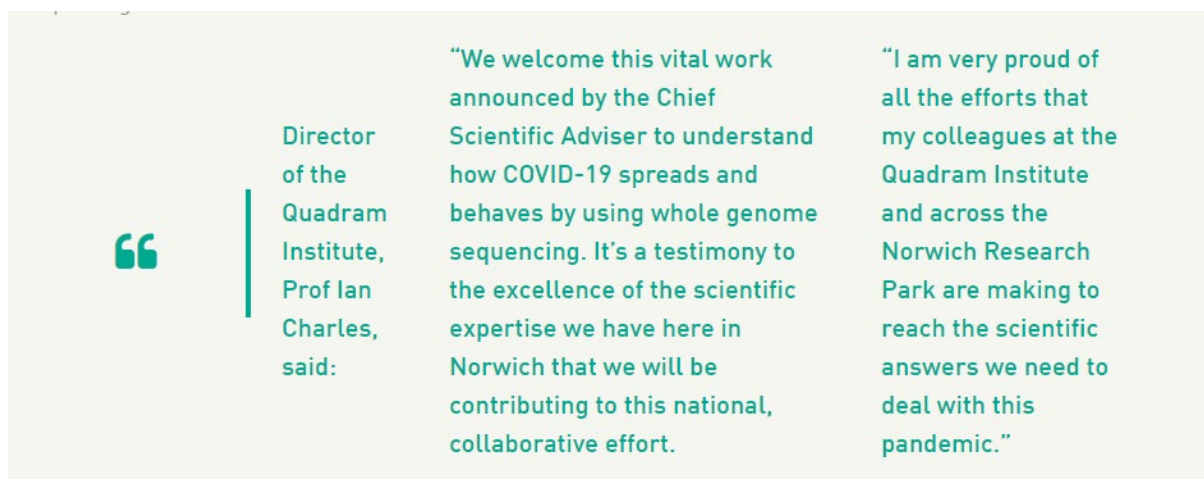
Read More

SOLUTION: Ask a site editor to enter alt text for the image in the media library.

6: Page tested: http://biorepository.affinityagency.co.uk/norwich-scientists-join-uk-launch-of-whole-genome-sequence-to-map-spread-of-coronavirus/

This page encountered all the issues covered by the site-wide issues section.

In addition the following issues were encountered:

1. **Colour contrast is insufficient**. Very low contrast between the sub title and quote text colour and background colour for the main text area. The contrast ratio of 2.73:1, is well below the required 4.5:1 ratio for smaller text. See WCAG 1.4.3

SOLUTION: Use tools like https://contrastchecker.online/ to choose a colour combination for this instance that meets AA minimum requirement of 4.5:1 contrast ratio. Once colours are agreed, ask the developer to change the CSS to use the desired colour combination.

7: Page tested: http://biorepository.affinityagency.co.uk/about-biorepository/contact/

This page encountered all the issues covered by the site-wide issues section.

No addition issues were encountered.