**Nomogram Website Test Report**

10/11/2016

**1. Introduction**

Tao has checked the accuracy of the computation. This document is the smoking test report of the “nomogram” website updated at 10/11/2016. Website address <http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php>

**2. Test summary**

In this the functions of each page was tested. No failure was found.

**3. Test Plan**

1. Home page appearance
2. Home page appearance-window size changed
3. Wang Model page exhibition
4. Wang Model page drop-down list
5. Wang Model page check box
6. Wang Model page input
7. Wang Model page submit
8. Wang Model page re-submit
9. Wang Model page wrong input check
10. Wang Model wrong input page re-submit
11. Hoang Model page exhibition
12. Hoang Model page drop-down list
13. Hoang Model page check box
14. Hoang Model page submit
15. Hoang Model page re-submit
16. Paesmans Model page exhibition
17. Paesmans Model page drop-down list
18. Paesmans Model page input
19. Paesmans Model page submit
20. Paesmans Model page Tree Diagram
21. Paesmans Model page re-submit
22. Paesmans Model page wrong input check
23. Paesmans Model wrong input page re-submit
24. Albain Model page exhibition
25. Albain Model page drop-down list
26. Albain Model page input
27. Albain Model page submit
28. Albain Model page re-submit
29. Albain Model page wrong input check
30. Albain Model wrong input page re-submit
31. Finkelstain Model page exhibition
32. Finkelstain Model page drop-down list
33. Finkelstain Model page check box
34. Finkelstain Model page input
35. Finkelstain Model page submit
36. Finkelstain Model page re-submit
37. Finkelstain Model page wrong input check
38. Finkelstain Model wrong input page re-submit
39. Disclaimer page exhibition
40. For Researchers page exhibition
41. R.Data download

**4. Test Results**

Test case 1:

Name: Home page appearance

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Close the browser.

Expected result: The title “Prognostic Model for Predicting Survival in Non Small Cell Lung Cancer Patients”, the tab “Prognostic Models and About”, the panel “Input parameters” and the notice “Please input parameters and press ‘Submit’ button” show up in the page.

Real result: The title “Prognostic Model for Predicting Survival in Non Small Cell Lung Cancer Patients”, the tab “Prognostic Models and About”, the panel “Input parameters” and the notice “Please input parameters and press ‘Submit’ button” show up in the page.

Status: Pass.

Test case 2:

Name: Home page appearance- window size changed

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Click the “Restore down” on the upper right corner.

Step 3: Move the mouse on the right frame of the window.

Step 4: Keep pressing the left button of the mouse.

Step 5: Move the mouse from the very right to the very left.

Step 6: Release the left button of the mouse.

Step 7: Close the browser.

Expected result: The page layout changes from horizontal displaying to vertical displaying.

Real result: The page layout changes from horizontal displaying to vertical displaying.

Status: Pass.

Test case 3:

Name: Wang Model page exhibition

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Click on the “Wang Model” tab.

Step 3: Close the browser.

Expected result: The page stays at “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php”. “Wang Model” in the tab is highlighted. “Input parameters” includes parameters “Gender”, “Histology”, “ECOG score”, “Skin metastasis”, “Liver metastasis”, “Peritoneum metastasis”, “Hemoglobin test (g/dL)”, “White blood cell (million/mL)” and “Lymphocyte percentage (%)”.

Real result: The page stays at “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php”. “Wang Model” in the tab is highlighted. “Input parameters” includes parameters “Gender”, “Histology”, “ECOG score”, “Skin metastasis”, “Liver metastasis”, “Peritoneum metastasis”, “Hemoglobin test (g/dL)”, “White blood cell (million/mL)” and “Lymphocyte percentage (%)”.

Status: Pass.

Test case 4:

Name: Wang Model page drop-down list

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Click on the field of the “Gender”

Step 3: Choose “Female”

Step 4: Close the browser.

Expected result: The field of the “Gender” shows “Female”.

Real result: The field of the “Gender” shows “Female”.

Status: Pass.

Test case 5:

Name: Wang Model page check box

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Click on the square on the left of “Skin metastasis”.

Step 3: Close the browser.

Expected result: A tick appears in the square on the left of “Skin metastasis”.

Real result: A tick appears in the square on the left of “Skin metastasis”.

Status: Pass.

Test case 6:

Name: Wang Model page input

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Input “5” in the field of “White blood cell (million/mL)”.

Step 3: Close the browser.

Expected result: “5” appears in the field of “White blood cell (million/mL)”.

Real result: “5” appears in the field of “White blood cell (million/mL)”.

Status: Pass.

Test case 7:

Name: Wang Model page submit

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Click “Submit” button

Step 3: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php?jobid=57f679e3332b51.10391931&gender=Male&histology=Large%20cell%20carcinoma&ecog=0&skinMetastasis=0&liverMetastasis=0&peritoneumMetastasis=0&hemoglobin=0&whiteBloodCell=1&lymphocyte=0”. Kaplan Meier survival plot, survival probability table and one paragraph of explanation appear.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php?jobid=57f679e3332b51.10391931&gender=Male&histology=Large%20cell%20carcinoma&ecog=0&skinMetastasis=0&liverMetastasis=0&peritoneumMetastasis=0&hemoglobin=0&whiteBloodCell=1&lymphocyte=0”. Kaplan Meier survival plot, survival probability table and one paragraph of explanation appear.

Status: Pass.

Test case 8:

Name: Wang Model page re-submit

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php?jobid=57f679e3332b51.10391931&gender=Male&histology=Large%20cell%20carcinoma&ecog=0&skinMetastasis=0&liverMetastasis=0&peritoneumMetastasis=0&hemoglobin=0&whiteBloodCell=1&lymphocyte=0” in browser.

Step 2: Input “5” in the field of “White blood cell (million/mL)”.

Step 3: Click “Submit” button

Step 4: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php?jobid=57fbe4747998e3.08624045&gender=Male&histology=Large%20cell%20carcinoma&ecog=0&skinMetastasis=0&liverMetastasis=0&peritoneumMetastasis=0&hemoglobin=0&whiteBloodCell=5&lymphocyte=0”. Kaplan Meier survival plot and survival probability table are updated.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php?jobid=57fbe4747998e3.08624045&gender=Male&histology=Large%20cell%20carcinoma&ecog=0&skinMetastasis=0&liverMetastasis=0&peritoneumMetastasis=0&hemoglobin=0&whiteBloodCell=5&lymphocyte=0”. Kaplan Meier survival plot and survival probability table are updated.

Status: Pass.

Test case 9:

Name: Wang Model page wrong input check

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Input “k” in the field of “White blood cell (million/mL)”.

Step 3: Click “Submit” button.

Step 4: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php?incorrectHemoglobin=0&incorrectWhiteBloodCell=1&incorrectLymphocyte=0”. “1 <= value <= 100” appears in the field of “White blood cell (million/mL)”.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php?incorrectHemoglobin=0&incorrectWhiteBloodCell=1&incorrectLymphocyte=0”. “1 <= value <= 100” appears in the field of “White blood cell (million/mL)”.

Status: Pass.

Test case 10:

Name: Wang Model wrong input page re-submit

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php?incorrectHemoglobin=0&incorrectWhiteBloodCell=1&incorrectLymphocyte=0” in browser.

Step 2: Input “5” in the field of “White blood cell (million/mL)”.

Step 3: Click “Submit” button.

Step 4: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php?jobid=57fbe4747998e3.08624045&gender=Male&histology=Large%20cell%20carcinoma&ecog=0&skinMetastasis=0&liverMetastasis=0&peritoneumMetastasis=0&hemoglobin=0&whiteBloodCell=5&lymphocyte=0”. Kaplan Meier survival plot, survival probability table and one paragraph of explanation appear.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php?jobid=57fbe4747998e3.08624045&gender=Male&histology=Large%20cell%20carcinoma&ecog=0&skinMetastasis=0&liverMetastasis=0&peritoneumMetastasis=0&hemoglobin=0&whiteBloodCell=5&lymphocyte=0”. Kaplan Meier survival plot, survival probability table and one paragraph of explanation appear.

Status: Pass.

Test case 11:

Name: Hoang Model page exhibition

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Click on the “Hoang Model” tab.

Step 3: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/hoang.php”. “Hoang Model” in the tab is highlighted. “Input parameters” includes parameters “Number of metastatic sites”, “Subcutaneous metastasis”, “Liver metastasis” , “ECOG score”, “Loss of appetite” and “No previous lung surgery”.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/hoang.php”. “Hoang Model” in the tab is highlighted. “Input parameters” includes parameters “Number of metastatic sites”, “Subcutaneous metastasis”, “Liver metastasis”, “ECOG score”, “Loss of appetite” and “No previous lung surgery”.

Status: Pass.

Test case 12:

Name: Hoang Model page drop-down list

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/hoang.php” in browser.

Step 2: Click on the field of the “Number of metastatic sites”

Step 3: Choose “1”.

Step 4: Close the browser.

Expected result: The field of the “Number of metastatic sites” shows “1”.

Real result: The field of the “Number of metastatic sites” shows “1”.

Status: Pass.

Test case 13:

Name: Hoang Model page check box

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/hoang.php” in browser.

Step 2: Click on the square on the left of “Loss of appetite”.

Step 3: Close the browser.

Expected result: A tick appears in the square on the left of “Loss of appetite”.

Real result: A tick appears in the square on the left of “Loss of appetite”.

Status: Pass.

Test case 14:

Name: Hoang Model page submit

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/hoang.php” in browser.

Step 2: Click “Submit” button

Step 3: Close the browser.

Expected result: The page jumps to “<http://lce.biohpc.swmed.edu/lungcancer/nomogram/hoang.php?jobid=57f679f5297731.25078486&numberOfMetastaticSites=0&subcutaneousMetastasis=0&liverMetastasis=0&ecog=0&lossOfAppetite=0&noPreviousLungSurgery=0>”. Nomograph regression model plot, survival rate table and two paragraphs of explanation appear.

Real result: The page jumps to “<http://lce.biohpc.swmed.edu/lungcancer/nomogram/hoang.php?jobid=57f679f5297731.25078486&numberOfMetastaticSites=0&subcutaneousMetastasis=0&liverMetastasis=0&ecog=0&lossOfAppetite=0&noPreviousLungSurgery=0>”. Nomograph regression model plot, survival rate table and two paragraphs of explanation appear.

Status: Pass.

Test case 15:

Name: Hoang Model page re-submit

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/hoang.php?jobid=57f679f5297731.25078486&numberOfMetastaticSites=0&subcutaneousMetastasis=0&liverMetastasis=0&ecog=0&lossOfAppetite=0&noPreviousLungSurgery=0” in browser.

Step 2: Click on the field of the “ECOG score”

Step 3: Choose “>=2”.

Step 4: Click “Submit” button

Step 5: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/hoang.php?jobid=57fbf73cad9b51.65226717&numberOfMetastaticSites=0&subcutaneousMetastasis=0&liverMetastasis=0&ecog=%3E=2&lossOfAppetite=0&noPreviousLungSurgery=0”. Nomograph regression model plot and rate table are updated.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/hoang.php?jobid=57fbf73cad9b51.65226717&numberOfMetastaticSites=0&subcutaneousMetastasis=0&liverMetastasis=0&ecog=%3E=2&lossOfAppetite=0&noPreviousLungSurgery=0”. Nomograph regression model plot and rate table are updated.

Status: Pass.

Test case 16:

Name: Paesmans Model page exhibition

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Click on the “Paesmans Model” tab.

Step 3: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php”. “Paesmans Model” in the tab is highlighted. “Input parameters” includes parameters “Gender”, “Disease extent”, “Karnofsky performance status”, “White blood cell count”, “Neutrophil count” and “Weight loss (%)”.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php”. “Paesmans Model” in the tab is highlighted. “Input parameters” includes parameters “Gender”, “Disease extent”, “Karnofsky performance status”, “White blood cell count”, “Neutrophil count” and “Weight loss (%)”.

Status: Pass.

Test case 17:

Name: Paesmans Model page drop-down list

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php” in browser.

Step 2: Click on the field of the “Disease extent”

Step 3: Choose “Disseminated”.

Step 4: Close the browser.

Expected result: The field of the “Disease extent” shows “Disseminated”.

Real result: The field of the “Disease extent” shows “Disseminated”.

Status: Pass.

Test case 18:

Name: Paesmans Model page input

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php” in browser.

Step 2: Input “100” in the field of “Karnofsky performance status”.

Step 3: Close the browser.

Expected result: “100” appears in the field of “Karnofsky performance status”.

Real result: “100” appears in the field of “Karnofsky performance status”.

Status: Pass.

Test case 19:

Name: Paesmans Model page submit

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php” in browser.

Step 2: Click “Submit” button

Step 3: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php?jobid=57f67d67959088.93923547&gender=Male&diseaseExtent=Limited&karnofskyPerformanceStatus=80&whitBloodCellCount=Normal&neutrophilCount=Normal&weightLoss=0”.Paesmans survival curve, survival probability table and one paragraph of explanation appear.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php?jobid=57f67d67959088.93923547&gender=Male&diseaseExtent=Limited&karnofskyPerformanceStatus=80&whitBloodCellCount=Normal&neutrophilCount=Normal&weightLoss=0”. Paesmans survival curve, survival probability table and one paragraph of explanation appear.

Status: Pass.

Test case 20:

Name: Paesmans Model page Tree Diagram

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php?jobid=57f67d67959088.93923547&gender=Male&diseaseExtent=Limited&karnofskyPerformanceStatus=80&whitBloodCellCount=Normal&neutrophilCount=Normal&weightLoss=0” in browser.

Step 2: Click “Tree Diagram” button

Step 3: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php?jobid=57f67d67959088.93923547&gender=Male&diseaseExtent=Limited&karnofskyPerformanceStatus=80&whitBloodCellCount=Normal&neutrophilCount=Normal&weightLoss=0”. Tree diagram, survival table and one paragraph of explanation appear.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php?jobid=57f67d67959088.93923547&gender=Male&diseaseExtent=Limited&karnofskyPerformanceStatus=80&whitBloodCellCount=Normal&neutrophilCount=Normal&weightLoss=0”. Tree diagram, survival table and one paragraph of explanation appear.

Status: Pass.

Test case 21:

Name: Paesmans Model page re-submit

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php?jobid=57f67d67959088.93923547&gender=Male&diseaseExtent=Limited&karnofskyPerformanceStatus=80&whitBloodCellCount=Normal&neutrophilCount=Normal&weightLoss=0” in browser.

Step 2: Click the field of “Disease extent”

Step 3: Choose “Disseminated”.

Step 4: Input “10” in the field of “Weight loss (%)”.

Step 5: Click “Submit” button.

Step 6: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php?jobid=57fd017e889785.82553597&gender=Male&diseaseExtent=Disseminated&karnofskyPerformanceStatus=80&whitBloodCellCount=Normal&neutrophilCount=Normal&weightLoss=10”. Paesmans survival curve and survival probability table are updated.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php?jobid=57fd017e889785.82553597&gender=Male&diseaseExtent=Disseminated&karnofskyPerformanceStatus=80&whitBloodCellCount=Normal&neutrophilCount=Normal&weightLoss=10”. Paesmans survival curve and survival probability table are updated.

Status: Pass.

Test case 22:

Name: Paesmans Model page wrong input check

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php” in browser.

Step 2: Input “1=1” in the field of “Weight loss (%)”.

Step 3: Click “Submit” button.

Step 4: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php?incorrectKarnofskyPerformanceStatus=0&incorrectWeightLoss=1”. “0 <= value <= 100” appears in the field of “Weight loss (%)”.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php?incorrectKarnofskyPerformanceStatus=0&incorrectWeightLoss=1”. “0 <= value <= 100” appears in the field of “Weight loss (%)”.

Status: Pass.

Test case 23:

Name: Paesmans Model page wrong input page re-submit

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php?incorrectKarnofskyPerformanceStatus=0&incorrectWeightLoss=1” in browser.

Step 2: Input “50” in the field of “Weight loss (%)”.

Step 3: Click “Submit” button.

Step 4: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php?jobid=57fd0c40d203f3.39701771&gender=Male&diseaseExtent=Limited&karnofskyPerformanceStatus=80&whitBloodCellCount=Normal&neutrophilCount=Normal&weightLoss=50”.Paesmans survival curve, survival probability table and one paragraph of explanation appear.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/paesmans.php?jobid=57fd0c40d203f3.39701771&gender=Male&diseaseExtent=Limited&karnofskyPerformanceStatus=80&whitBloodCellCount=Normal&neutrophilCount=Normal&weightLoss=50”.Paesmans survival curve, survival probability table and one paragraph of explanation appear.

Status: Pass.

Test case 24:

Name: Albain Model page exhibition

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Click on the “Albain Model” tab.

Step 3: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php”. “Albain Model” in the tab is highlighted. “Input parameters” includes parameters “ECOG performance score”, “LDH level”, “Hemoglobin value (g/dL)” and “Age”.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php”. “Albain Model” in the tab is highlighted. “Input parameters” includes parameters “ECOG performance score”, “LDH level”, “Hemoglobin value (g/dL)” and “Age”.

Status: Pass.

Test case 25:

Name: Albain Model page drop-down list

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php” in browser.

Step 2: Click on the field of the “LDH level”

Step 3: Choose “Abnormal”.

Step 4: Close the browser.

Expected result: The field of the “Abnormal” shows “LDH level”.

Real result: The field of the “Abnormal” shows “LDH level”.

Status: Pass.

Test case 26:

Name: Albain Model page input

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php” in browser.

Step 2: Input “100” in the field of “Hemoglobin value (g/dL)”.

Step 3: Close the browser.

Expected result: “100” appears in the field of “Hemoglobin value (g/dL)”.

Real result: “100” appears in the field of “Hemoglobin value (g/dL)”.

Status: Pass.

Test case 27:

Name: Albain Model page submit

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php” in browser.

Step 2: Click “Submit” button

Step 3: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php?jobid=57f6855364f530.70159297&ecogPerformanceScore=0&ldhLevel=Normal&hemoglobinValue=0&age=50”. Tree diagram, survival probability table and one paragraph of explanation appear.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php?jobid=57f6855364f530.70159297&ecogPerformanceScore=0&ldhLevel=Normal&hemoglobinValue=0&age=50”. Tree diagram, survival probability table and one paragraph of explanation appear.

Status: Pass.

Typos in the Tree Diagram:

1: Good PS (ECOG>=2); it should be Good PS (ECOG<2).

2: LDH normal?

Test case 28:

Name: Albain Model page re-submit

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php?jobid=57f6855364f530.70159297&ecogPerformanceScore=0&ldhLevel=Normal&hemoglobinValue=0&age=50” in browser.

Step 2: Input “13” the field of “Hemoglobin value (g/dL)”.

Step 3: Input “40” the field of “Age”.

Step 4: Click “Submit” button

Step 5: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php?jobid=57fcff49917c49.96122212&ecogPerformanceScore=0&ldhLevel=Normal&hemoglobinValue=13&age=40”. Tree diagram and survival probability table are updated.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php?jobid=57fcff49917c49.96122212&ecogPerformanceScore=0&ldhLevel=Normal&hemoglobinValue=13&age=40”. Tree diagram and survival probability table are updated.

Status: Pass.

Test case 29:

Name: Albain Model page wrong input check

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php” in browser.

Step 2: Input “150” in the field of “Age”

Step 3: Click “Submit” button.

Step 4: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php?incorrectHemoglobinValue=0&incorrectAge=1”. “0 <= value <= 100” appears in the field of “Age”.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php?incorrectHemoglobinValue=0&incorrectAge=1”. “0 <= value <= 100” appears in the field of “Age”.

Status: Pass.

Test case 30:

Name: Albain Model page wrong input page re-submit

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php?incorrectHemoglobinValue=0&incorrectAge=1” in browser.

Step 2: Input “7” in the field of “Age”.

Step 3: Click “Submit” button.

Step 4: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php?jobid=57fd0d30a00e01.79334325&ecogPerformanceScore=0&ldhLevel=Normal&hemoglobinValue=0&age=7”. Tree diagram, survival probability table and one paragraph of explanation appear.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php?jobid=57fd0d30a00e01.79334325&ecogPerformanceScore=0&ldhLevel=Normal&hemoglobinValue=0&age=7”. Tree diagram, survival probability table and one paragraph of explanation appear.

Status: Pass.

Test case 31:

Name: Finkelstain Model page exhibition

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Click on the “Finkelstain Model” tab.

Step 3: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php”. “Finkelstain Model” in the tab is highlighted. “Input parameters” includes parameters “Gender”, “Histology”, “Inital ECOG score”, “Subcutaneous metastasis”, “Bone metastasis”, “Liver metastasis”, “Shoulder/Arm pain” and “Prior weight loss (%)”.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php”. “Finkelstain Model” in the tab is highlighted. “Input parameters” includes parameters “Gender”, “Histology”, “Inital ECOG score”, “Subcutaneous metastasis”, “Bone metastasis”, “Liver metastasis”, “Shoulder/Arm pain” and “Prior weight loss (%)”.

Status: Pass.

Typo: “Inital ECOG score”, should be Initial ECOG score.

Test case 32:

Name: Finkelstain Model page drop-down list

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php” in browser.

Step 2: Click on the field of the “Histology”

Step 3: Choose “Adenocarcinoma or Squamous cell carcinoma”.

Step 4: Close the browser.

Expected result: The field of the “Histology” shows “Adenocarcinoma or Squamous cell carcinoma”.

Real result: The field of the “Histology” shows “Adenocarcinoma or Squamous cell carcinoma”.

Status: Pass.

Test case 33:

Name: Finkelstain Model page check box

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php” in browser.

Step 2: Click on the square on the left of “Subcutaneous metastasis”.

Step 3: Close the browser.

Expected result: A tick appears in the square on the left of “Subcutaneous metastasis”.

Real result: A tick appears in the square on the left of “Subcutaneous metastasis”.

Status: Pass.

Test case 34:

Name: Finkelstain Model page input

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php” in browser.

Step 2: Input “5” in the field of “Prior weight loss (%)”.

Step 3: Close the browser.

Expected result: “5” appears in the field of “Prior weight loss (%)”.

Real result: “5” appears in the field of “Prior weight loss (%)”.

Status: Pass.

Test case 35:

Name: Finkelstain Model page submit

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php php” in browser.

Step 2: Click “Submit” button

Step 3: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php?jobid=57f67d8814ab05.02893390&gender=Male&histology=Large%20cell%20carcinoma&ecog=0&subcutaneous=0&bone=0&liver=0&shoulder=0&weightLoss=0”. Finkelstein model plot and the explanation appear.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php?jobid=57f67d8814ab05.02893390&gender=Male&histology=Large%20cell%20carcinoma&ecog=0&subcutaneous=0&bone=0&liver=0&shoulder=0&weightLoss=0”. Finkelstein model plot and the explanation appear.

Status: Pass.

Test case 36:

Name: Finkelstein Model page re-submit

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php?jobid=57f67d8814ab05.02893390&gender=Male&histology=Large%20cell%20carcinoma&ecog=0&subcutaneous=0&bone=0&liver=0&shoulder=0&weightLoss=0” in browser.

Step 2: Input “5” in the field of “Prior weight loss (%)”.

Step 3: Click “Submit” button

Step 4: Close the browser.

Expected result: The page jumps to http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php?jobid=57fc4a13c4cc28.34977712&gender=Male&histology=Large%20cell%20carcinoma&ecog=%3E=1&subcutaneous=0&bone=0&liver=0&shoulder=0&weightLoss=5”. Finkelstein model plot is updated.

Real result: The page jumps to http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php?jobid=57fc4a13c4cc28.34977712&gender=Male&histology=Large%20cell%20carcinoma&ecog=%3E=1&subcutaneous=0&bone=0&liver=0&shoulder=0&weightLoss=5”. Finkelstein model plot is updated.

Status: Pass.

Test case 37:

Name: Finkelstein Model page wrong input check

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php” in browser.

Step 2: Input “-5” in the field of “Prior weight loss (%)”.

Step 3: Click “Submit” button.

Step 4: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php?incorrectWeightLoss=1”. “0 <= value <= 100” appears in the field of “Prior weight loss (%)”.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php?incorrectWeightLoss=1”. “0 <= value <= 100” appears in the field of “Prior weight loss (%)”.

Status: Pass.

Test case 38:

Name: Finkelstein Model page wrong input page re-submit

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/albain.php?incorrectHemoglobinValue=0&incorrectAge=1” in browser.

Step 2: Input “2” in the field of “Prior weight loss (%)”.

Step 3: Click “Submit” button.

Step 4: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php?jobid=57fd0e0ff002b0.59930026&gender=Male&histology=Large%20cell%20carcinoma&ecog=0&subcutaneous=0&bone=0&liver=0&shoulder=0&weightLoss=2”. Finkelstein model plot and the explanation appear.

Real result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/finkelstein.php?jobid=57fd0e0ff002b0.59930026&gender=Male&histology=Large%20cell%20carcinoma&ecog=0&subcutaneous=0&bone=0&liver=0&shoulder=0&weightLoss=2”. Finkelstein model plot and the explanation appear.

Status: Pass.

Test case 39:

Name: Disclaimer page exhibition

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Click on the “Disclaimer” tab.

Step 3: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/disclaimer.php”. “Disclaimer” in the tab is highlighted. Paragraph

“The Wang nomogram for NSCLC patients in advanced stage on the UT Southwestern QBRC website is a resource mainly for biomedical research. It should not be used directly in any medical diagnosis or treatment decisions but is only to be used as an tool in understanding progression and prognosis of NSCLC disease in research context. A doctor should always be consulted for professional medical opinion. In using this web server, you agree that neither UT Southwestern nor any other party is or will be liable or otherwise responsible for any action taken or not taken due to your use of this nomogram.

For more information, please contact: Tao Wang ([tao.wang@utsouthwestern.edu](mailto:tao.wang@utsouthwestern.edu))”

shows up.

Real result: The page jumps “http://lce.biohpc.swmed.edu/lungcancer/nomogram/disclaimer.php”. “Disclaimer” in the tab is highlighted. Paragraph

“The Wang nomogram for NSCLC patients in advanced stage on the UT Southwestern QBRC website is a resource mainly for biomedical research. It should not be used directly in any medical diagnosis or treatment decisions but is only to be used as an tool in understanding progression and prognosis of NSCLC disease in research context. A doctor should always be consulted for professional medical opinion. In using this web server, you agree that neither UT Southwestern nor any other party is or will be liable or otherwise responsible for any action taken or not taken due to your use of this nomogram.

For more information, please contact: Tao Wang ([tao.wang@utsouthwestern.edu](mailto:tao.wang@utsouthwestern.edu))”

shows up.

Status: Pass.

One typo: as an tool; should be as a tool.

Test case 40:

Name: For Researchers page exhibition

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Click on the “For Researchers” tab.

Step 3: Close the browser.

Expected result: The page jumps to “http://lce.biohpc.swmed.edu/lungcancer/nomogram/info.php”. “For Researchers” in the tab is highlighted. R model download link and the corresponding explanation, QBRC symbol and citations appear.

Real result: The page jumps “http://lce.biohpc.swmed.edu/lungcancer/nomogram/info.php”. “For Researchers” in the tab is highlighted. R package download link and corresponding explanation, QBRC symbol and citations appear.

Status: Pass.

Is the “Citation” above the download redundancy? There is one just above the references.

Test case 41:

Name: R.Data download

Scenario:

Step 1: Open “http://lce.biohpc.swmed.edu/lungcancer/nomogram/index.php” in browser.

Step 2: Click on the link “Download the fitted Coxph model (Wang et al nomogram) in R”.

Step 3: Click “Save”.

Step 4: Close the browser.

Expected result: The window for downloading appear. namogram.RData size is 36 kb.

Real result: The window for downloading appear. namogram.RData size is 36 kb.

Status: Pass.