

What is claimed is:

1. A computer-implemented method for analyzing an image of a slide corresponding to a specimen, the method comprising:
 - receiving at least one digitized image of a pathology specimen;
 - determining, using the digitized image at an artificial intelligence (AI) system, at least one salient feature, the at least one salient feature comprising a biomarker, cancer, cancer grade, parasite, toxicity, inflammation, and/or cancer sub-type;
 - determining, at the AI system, a salient region overlay for the digitized image, wherein the AI system indicates a value for each pixel; and
 - suppressing, based on the value for each pixel, one or more non-salient regions of the digitized image.
2. The computer-implemented method of claim 1, further comprising converting the salient region overlay into a tissue map.
3. The computer-implemented method of claim 1, further comprising normalizing the salient region overlay to obtain a variable.
4. The computer-implemented method of claim 3, wherein the salient region overlay is represented by one or more of the following:
 - a heatmap indicating a score or a probability for each pixel of a salient feature being present or absent;

a set of super-pixels associated with a score or a probability for the salient feature being present or absent;

a binary segmentation of the digitized image indicating if each pixel has or does not have the salient feature present; and

a semantic segmentation of the digitized image indicating a score or probability for each pixel.

5. The computer-implemented method of claim 1, wherein detecting a salient feature uses image processing techniques, AI, and/or machine learning on the digitized image to produce a tissue visualization.

6. The computer-implemented method of claim 1, wherein the digitized image comprises related case information, patient information and information from a clinical system.

7. The computer-implemented method of claim 1, further comprising alerting a user when the salient region overlay is available.

8. The computer-implemented method of claim 1, wherein the salient region overlay is resized to a same size as the digitized image.

9. The computer-implemented method of claim 1, further comprising developing a pipeline to archive a plurality of processed images and/or prospective patient data.

10. A system for analyzing an image of a slide corresponding to a specimen, the system comprising:
- at least one memory storing instructions; and
 - at least one processor configured to execute the instructions to perform operations comprising:
 - receiving at least one digitized image of a pathology specimen;
 - determining, using the digitized image at an artificial intelligence (AI) system, at least one salient feature, the at least one salient feature comprising a biomarker, cancer, cancer grade, parasite, toxicity, inflammation, and/or cancer sub-type;
 - determining, at the AI system, a salient region overlay for the digitized image, wherein the AI system indicates a value for each pixel; and
 - suppressing, based on the value for each pixel, one or more non-salient regions of the digitized image.
11. The system of claim 10, further comprising converting the salient region overlay into a tissue map.
12. The system of claim 10, further comprising normalizing the salient region overlay to obtain a variable.

13. The system of claim 12, wherein the salient region overlay is represented by one or more of the following:

a heatmap indicating a score or a probability for each pixel of a salient feature being present or absent;

a set of super-pixels associated with a score or a probability for the salient feature being present or absent;

a binary segmentation of the digitized image indicating if each pixel has or does not have the salient feature present; and

a semantic segmentation of the digitized image indicating a score or probability for each pixel.

14. The system of claim 10, wherein detecting a salient feature uses image processing techniques, AI, and/or machine learning on the digitized image to produce a tissue visualization.

15. The system of claim 10, wherein the digitized image comprises related case information, patient information, and information from a clinical system

16. The system of claim 10, further comprising alerting a user when the salient region overlay is available.

17. The system of claim 10, wherein the salient region overlay is resized to a same size as the digitized image.

18. The system of claim 10, further comprising developing a pipeline to archive a plurality of processed images and/or prospective patient data.

19. A non-transitory computer-readable medium storing instructions that, when executed by a processor, cause the processor to perform a method for analyzing an image of a slide corresponding to a specimen, the method comprising:

receiving at least one digitized image of a pathology specimen;

determining, using the digitized image at an artificial intelligence (AI) system, at least one salient feature, the at least one salient feature comprising a biomarker, cancer, cancer grade, parasite, toxicity, inflammation, and/or cancer sub-type;

determining, at the AI system, a salient region overlay for the digitized image, wherein the AI system indicates a value for each pixel; and

suppressing, based on the value for each pixel, one or more non-salient regions of the digitized image.

20. The non-transitory computer readable medium of claim 19, further comprising converting the salient region overlay into a tissue map.