We claim:

1. A computing device, comprising at least one processor and at least one memory comprising instructions that, when executed by the processor, cause the device to:

receive a physiological input value;

calculate a pacing rate based on the physiological input value;

determine a supra-threshold stimulus protocol to produce cardiac pacing and stimulation of one or both of local sympathetic tissue or parasympathetic tissues to modify the physiological input value, based on the pacing rate; and

determine a sub-threshold stimulus protocol to produce feedback inhibition of a portion of an autonomic nervous system to modify the physiological input value, based on the pacing rate, wherein each of the supra-threshold stimulus protocol and the sub-threshold stimulus protocol comprises a respective composite amplitude of pacing stimulus, frequency of sub-pulses, duration of sub-pulses, and refractory period between a current pacing stimulus and a subsequent pacing stimulus.

2. The computing device of claim 1, wherein the respective composite amplitude of pacing stimulus is reached based on a number of sub-pulses, the number of sub-pulses having amplitudes totaling the composite amplitude of pacing stimulus.

3. The computing device of any of claims 1-2, wherein the instructions further cause the device to cause a pacing device to apply one of the supra-threshold stimulus based on determining that a paced cardiac beat is indicated or the sub-threshold stimulus based on determining that a paced cardiac beat is not indicated.

4. The computing device of any of claims 1-3, wherein the physiological input value is a blood pressure value.

5. The computing device of any of claims 1-4, wherein the instructions cause the device to calculate the pacing rate by:

comparing the physiological input value to a target physiological input value; and

determining the pacing rate based on comparing the physiological input value to the target physiological input value.

6. The computing device of claim 5, wherein the target physiological input value is based on one or more of a patient state, a patent demographic, a patient medication, an ambient condition, or a patient symptom.

7. The computing device of any of claims 1-6, wherein the instructions further cause the device to:

receive a skin sympathetic or parasympathetic activity (SKNA); and

calculate the pacing rate further based on the SKNA.

8. The computing device of claim 7, wherein the SKNA is received from at least one of a high-pass or a band-pass filter.

9. The computing device of any of claims 1-8, wherein the instructions further cause the device to:

receive autonomic nervous system (ANS) activity from one of an direct sensor or an indirect function; and

calculate the pacing rate further based on the ANS activity.

10. The computing device of claim 9, wherein the indirect sensor is a non-invasive sensor.

11. The computing device of any of claims 1-10, wherein one or both of the supra-threshold stimulus protocol or the sub-threshold stimulus protocol are output by an artificial intelligence (AI) model.

12. The computing device of claim 11, wherein the AI model is trained to output a stimulus protocol based on training data comprising the physiological input value and one or more of ANS activity, a patient age, a patient sex, a patient medication, an ambient temperature, or a patient symptom.

13. A system for determining stimulus protocols, the system comprising:

one or more pacing electrodes;

an algorithmic module;

a pacing module;

at least one memory storing instructions; and

at least one processor executing the instructions to perform operations, the operations comprising:

receiving, at the algorithmic module, a physiological input value;

calculating, at the algorithmic module, a pacing rate based on the physiological input value;

determining, at the pacing module, a supra-threshold stimulus protocol to produce cardiac pacing and stimulation of one or both of local sympathetic tissue or parasympathetic tissues to modify the physiological input value, based on the pacing rate; and

determining, at the pacing module, a sub-threshold stimulus protocol to produce feedback inhibition of a portion of an autonomic nervous system to modify the physiological input value, based on the pacing rate, wherein each of the supra-threshold stimulus protocol and the sub-threshold stimulus protocol comprises a respective composite amplitude of pacing stimulus, frequency of sub-pulses, duration of sub-pulses, and refractory period between a current pacing stimulus and a subsequent pacing stimulus.

14. The system of claim 13, wherein the operations further comprise one of causing a pacing device to apply the supra-threshold stimulus based on determining that a paced cardiac beat is indicated or causing a pacing device to apply the sub-threshold stimulus based on determining that a paced cardiac beat is not indicated.

15. The system of any of claims 13-14, wherein the physiological input value is a blood pressure value.

16. The system of any of claim 13-15, wherein the operations further comprise:

receiving, at the algorithmic module, a skin sympathetic or parasympathetic activity (SKNA); and calculating the pacing rate further based on the SKNA.

17. The system of any of claim 13-16, further comprising one of a direct or indirect autonomic nervous system (ANS) activity sensor, wherein the operations further comprise:

receiving ANS activity from the one of the direct or indirect ANS sensor; and

calculating the pacing rate further based on the ANS activity.

18. A computing device, comprising at least one processor and at least one memory comprising instructions that, when executed by the processor, cause the device to:

receive a physiological input value;

calculate a pacing rate based on the physiological input value;

receive one of an indication that a paced cardiac beat is indicated or that a paced cardiac beat is not indicated;

determine, based on receiving the indication that the paced cardiac beat is indicated, a supra-threshold stimulus protocol to produce cardiac pacing and stimulation of one or both of local sympathetic tissue or parasympathetic tissues to modify the physiological input value, based on the pacing rate, wherein the supra-threshold stimulus protocol comprises a first composite amplitude of pacing stimulus, a first frequency of sub-pulses, a first duration of sub-pulses, and a first refractory period between a current pacing stimulus and a subsequent pacing stimulus.; and

determine, based on receiving the indication that the paced cardiac beat is indicated, a sub-threshold stimulus protocol to produce feedback inhibition of a portion of an autonomic nervous system to modify the physiological input value based on the pacing rate, wherein the sub-threshold stimulus protocol comprises a second composite amplitude of pacing stimulus, a second frequency of sub-pulses, a second duration of sub-pulses, and a second refractory period between a current pacing stimulus and a subsequent pacing stimulus.

19. The computing device of claim 18, wherein the one of the indication that a paced cardiac beat is indicated or that the paced cardiac beat is not indicated is based on a pacing device protocol.

20. The computing device of any of claims 18-19, further comprising providing the supra-threshold stimulus protocol if the indication that a paced cardiac beat is indicated.