We claim:

1. A method of right atrial pacing of a heart of a patient comprising:

stimulating right atrial tissue of the heart using a right atrial lead of a dual chamber cardiac pacemaker to pace the heart with a stimulus architecture protocol; and

stimulating local sympathetic and/or parasympathetic tissues with the stimulus architecture protocol proximate to the paced right atrial tissue causing nervous system activity that inhibits the autonomous nervous system to reduce blood pressure.

2. The method of claim 1 where stimulating right atrial tissue of the heart using a right atrial lead of a dual chamber cardiac pacemaker to pace the heart with a stimulus architecture protocol comprises stimulating right atrial tissue with a selected composite amplitude of the pacing stimulus, a selected number of sub-pulses within the pacing stimulus totaling the composite delivered amplitude, a selected frequency of the sub-pulses, a selected duration of the sub-pulses, and/or a selected refractory period before another impulse can be generated,

where the selections are determined by an artificial intelligence derived stimulus architecture protocol.

3. The method of claim 1 where stimulating right atrial tissue of the heart and stimulating local sympathetic and/or parasympathetic tissues with the stimulus architecture protocol comprises stimulating the right atrial tissue of the heart and stimulating local sympathetic and/or parasympathetic tissues using an optimized stimulus protocol devised by artificial intelligence for the patient to reduce blood pressure selected from the group selectively varied stimulus amplitude, selectively varied stimulus duration, selectively varied the ascent and descent phase slopes of stimulation, selectively varied number of impulses delivered in a train or a succession of closely spaced stimuli, selectively varied frequencies of the impulses delivered as a train or a succession of closely spaced stimuli, and/or selectively varied amplitudes of the individual impulses delivered as a train or a succession of closely spaced stimuli,

where intensity of delivered right atrial stimuli may be subthreshold or suprathreshold; and where the impulses may be propagated or nonpropagated, depending on the timing of the impulse, as determined by the stimulus architecture protocol.

4. The method of claim 3 where stimulating the right atrial tissue of the heart and stimulating local sympathetic and/or parasympathetic tissues using an optimized stimulus protocol devised by artificial intelligence for the patient to reduce blood pressure comprises:

determining if a cardiac beat is required; and

supra-threshold pacing the heart and causing a neuro-inhibitory feedback to lower blood pressure, if a cardiac beat is required.

5. The method of claim 3 where stimulating the right atrial tissue of the heart and stimulating local sympathetic and/or parasympathetic tissues using an optimized stimulus protocol devised by artificial intelligence for the patient to reduce blood pressure comprises:

determining if a cardiac beat is required; and

sub-threshold pacing the heart to only produce a neuro-inhibitory effect on blood pressure without pacing the heart, if a cardiac beat in not required.

6. The method of claim 1 where stimulating right atrial tissue of the heart and stimulating local sympathetic and/or parasympathetic tissues with the stimulus architecture protocol comprises stimulating the right atrial tissue with a right atrial pacing lead with multiple pacing electrodes such that one pacing electrode comprises a conventional right atrial pacing lead, and one or more other pacing electrodes are arranged and configured to be disposed anatomically proximate to atrial tissue proximate to sympathetic and/or parasympathetic ganglionic tissues for the purpose of stimulating those ganglionic tissues to lower blood pressure.

7. A closed loop system comprising:

a blood pressure measuring device for transmitting a blood pressure reading;

an applications module receiving the blood pressure reading from the applications module, where the applications module operates under an algorithm that uses the measured blood pressure reading to calculate a selected stimulus architecture of which selectively stimulates the

right atrial tissue of the heart and selectively stimulates local sympathetic and/or parasympathetic tissues using an optimized stimulus protocol devised by artificial intelligence for the patient to control blood pressure; and

a cardiac pacemaker communicated with the applications module to regulate right atrial pacing for the purpose of controlling blood pressure.

8. The closed loop system of claim 7 where the pacemaker determines if a cardiac paced beat is required and where the pacemaker applies supra-threshold pacing to the heart and causes a neuro-inhibitory feedback to lower blood pressure according to a stimulus architecture generated by the applications module, if a cardiac beat is required.

9. The closed loop system of claim 7 where the pacemaker determines if a cardiac paced beat is required and where the pacemaker applies sub-threshold pacing to the heart causing a neuro-inhibitory feedback back to lower blood pressure according to a stimulus architecture generated by the applications module, if a cardiac beat is not required.

10. The closed loop system of claim 7 where the applications module includes a PressurePace module for first determining an optimal right atrial pacing rate and includes a Stimulus Architecture Algorithm module (SSA) to calculate the selected stimulus architecture based on the optimal right atrial pacing rate from the PressurePace module.

11. The closed loop system of claim 7 where the applications module constructs an algorithm that uses the measured blood pressure reading to calculate a selected stimulus architecture algorithm for regulating right atrial pacing using artificial intelligence using the measured blood pressure reading.

12. The closed loop system of claim 11 where the applications module constructs an algorithm that uses the measured blood pressure reading to calculate a selected stimulus architecture algorithm for regulating right atrial pacing using artificial intelligence using the measured blood pressure reading and at least input selected from the group of patient age, sex,

medications, ambient temperature, altitude, patient's instantaneous reports of symptoms, or other parameters deemed relevant by the attending cardiologist.

13. The closed loop system of claim 7 where right atrial pacing for the purpose of lowering blood pressure is carried out via the multi-electrode pacing electrode, having at least one conventional right atrial pacing electrode and one or more other pacing electrodes arranged and configured to be disposed anatomically proximate to atrial tissue proximate to sympathetic and/or parasympathetic ganglionic tissues for the purpose of stimulating those ganglionic tissues to lower blood pressure.

14. A cardiac pacing lead for stimulating right atrial tissue of the heart and stimulating local sympathetic and/or parasympathetic tissues with the stimulus architecture protocol comprising:

a conventional right atrial pacing lead; and

one or more other electrodes arranged and configured to be disposed anatomically proximate to atrial tissue or proximate to sympathetic and/or parasympathetic ganglionic tissues for the purpose of stimulating those ganglionic tissues to lower blood pressure.

15. The cardiac pacing lead of claim 14 where the conventional right atrial pacing lead and one or more other electrodes deliver a plurality of selected stimulus architectures to the right atrium of a heart which selectively stimulates the right atrial tissue of the heart and selectively stimulates local sympathetic and/or parasympathetic tissues respectively, using an optimized stimulus protocol devised by artificial intelligence for the patient to control blood pressure.

16. The cardiac pacing lead of claim 14 where conventional right atrial electrode delivers a supra-threshold pacing to the heart and at least one of the other electrodes causes a neuro-inhibitory feedback to lower blood pressure according to a stimulus architecture generated by the applications module, if a cardiac beat is required.

17. The cardiac pacing lead of claim 14 where conventional right atrial electrode delivers a sub-threshold pacing to the heart and at least one of the other electrodes causes a neuro-inhibitory feedback to lower blood pressure according to a stimulus architecture generated by the applications module, if a cardiac beat is not required.

18. The cardiac pacing lead of claim 14 where a pacing stimulus can be delivered on one electrode without delivery of a pacing stimulus being delivered on other electrodes.

19. The cardiac pacing lead of claim 14 where the one or more other electrodes can deliver energy with a specific protocol to the right atrial tissue affecting blood pressure without inducing cardiac pacing.

20. An apparatus comprising:

a wrist attachment;

a skin contact sensor disposed in the wrist attachment for real-time measurement of an ANS function to measure skin sympathetic or parasympathetic activity of a patient; and

a blood pressure sensor disposed in the wrist attachment for real-time measurement of blood pressure of the patient;

whereby measurement of the ANS function is available for use in reduction of blood pressure of the patient.

21. The apparatus of claim 20 further comprising:

an applications module receiving the real-time measurement of the ANS function, where the applications module operates under an algorithm that uses the real-time measurement of an ANS function to calculate a selected stimulus architecture of which selectively stimulates the right atrial tissue of the heart and selectively stimulates local sympathetic and/or parasympathetic tissues using an optimized stimulus protocol to control blood pressure; and

a cardiac pacemaker communicated with the applications module to regulate right atrial pacing for the purpose of controlling blood pressure.

22. The apparatus of claim 21 where the applications module operates under an algorithm by using artificial intelligence to stimulate the right atrial tissue of the heart with the optimal stimulus protocol to control blood pressure.

23. The apparatus of claim 20 in combination with a smartphone, where the skin sensor is communicated with the applications module through the smartphone.