OBERON SCIENCES
Next Generation Personalized Medicine

Patents

1. WO 2017/002104: Directed to a device for neuro stimulating the gastrointestinal tract walls.

2. US 62/455,666: A closed loop organ stimulation. The stimulation is based on stimulation parameters configured to affect a physiological change in a target region, for example, to facilitate reduction of weight, maintaining a weight loss or treating obesity, or other metabolic disorder.

3. WO 2019/008571: A machine learning based algorithm for prevention of adaptation to medical treatment. The medical treatment can involve any drug therapy or medical device therapy. The method disclosed includes applying a machine learning algorithm on a variety of physiological or pathological parameters and determining a subject-specific drug or medical device regimen either for facilitating improvement of the treatment or for prevention of adaptation.

4. US 62/581722: Improving organ function by improved challenge-based training. It describes provides systems regimens, devices and methods for improving organ function by challenged-exercise, training, and/or education and/or nutritional regimens, or devices intended for improving organ performance, and for prevention and treatment of loss of an effect to exercise regimens in healthy and chronic subjects, or lack of full responsiveness to exercise, training, nutritional or education regimens in subjects who wish to improve the function of their organs, or with chronic diseases.

5. WO. 2017/085715: Non-invasive methods and systems, and provides methods and systems for the treatment and diagnosis of pathologic disorders by modulating physiological states of a target biological entity via exposure of the target entity to a single or a plurality of triggered entities.

6. US 2020/0251201: The use of inherent variability and other inherent individualized-patterns for improving the efficacy of systems.

Publications

Ilan Y. Overcoming randomness does not rule out the importance of inherent randomness for functionality. J Biosci 2019;44.

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5. Shabat Y, Lichtenstein Y, Ilan Y. Short-Term Cohousing of Sick with Healthy or Treated Mice Alleviates the Inflammatory Response and Liver Damage. Inflammation 2021;44:518-525.
6. El-Haj M, Kanovitch D, Ilan Y. Personalized inherent randomness of the immune system is manifested by an individualized response to immune triggers and immunomodulatory therapies: a novel platform for designing personalized immunotherapies. Immunol Res 2019;67:337-347.
7. Ilan Y. Randomness in microtubule dynamics: an error that requires correction or an inherent plasticity required for normal cellular function? Cell Biol Int 2019;43:739-748.
8. Ilan Y. Microtubules: From understanding their dynamics to using them as potential therapeutic targets. J Cell Physiol 2019;234:7923-7937.
9. Ilan-Ber T, Ilan Y. The role of microtubules in the immune system and as potential targets for gut-based immunotherapy. Mol Immunol 2019;111:73-82.
10. Forkosh E, Kenig A, Ilan Y. Introducing variability in targeting the microtubules: Review of current mechanisms and future directions in colchicine therapy. Pharmacol Res Perspect 2020;8:e00616.
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12. Ilan Y. beta-Glycosphingolipids as Mediators of Both Inflammation and Immune Tolerance: A Manifestation of Randomness in Biological Systems. Front Immunol 2019;10:1143.
13. Ilan Y. Overcoming Compensatory Mechanisms toward Chronic Drug Administration to Ensure Long-Term, Sustainable Beneficial Effects. Mol Ther Methods Clin Dev 2020;18:335-344.
14. Ilan Y. Second-Generation Digital Health Platforms: Placing the Patient at the Center and Focusing on Clinical Outcomes. Front Digit Health 2020;2:569178.
15. Ilan Y. Improving Global Healthcare and Reducing Costs Using Second-Generation Artificial Intelligence-Based Digital Pills: A Market Disruptor. Int J Environ Res Public Health 2021;18.
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20. Azmanov H, Ross EL, Ilan Y. Establishment of an Individualized Chronotherapy, Autonomic Nervous System, and Variability-Based Dynamic Platform for Overcoming the Loss of Response to Analgesics. Pain Physician 2021;24:243-252.
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