



Validating Cannabis Product Potency, Dose and Manufacturing
With Human Cell-based Potency Testing

Current Practices that Only Measure the Major Cannabinoids in Products Are not Sufficient to Predict How the Human Body Will Respond



“I’m sorry sir, but our chef assures me this consists of the same major ingredients as the baklava you ordered.”

Full or Broad-Spectrum Products Have Complex Chemical Content But Most Products are Marketed Based Only on the Most Abundant Chemistries



~10-15% of the 80+ cannabinoids are monitored by most analytical testing labs



<https://www.cdxmlife.com/what-can-terpenes-do-for-you/>

~1/3 of the 200+ terpenes are monitored by most analytical testing labs

The Industry Treats the Chemical Composition of Cannabis Products as Being Equal to The Product's Potency

Claims of potency based on the quantities of the most abundant cannabinoids is misleading. Potency is the net of the positive and negative effects of all of chemistries acting simultaneous throughout the human body, known as the **Entourage Effect.**

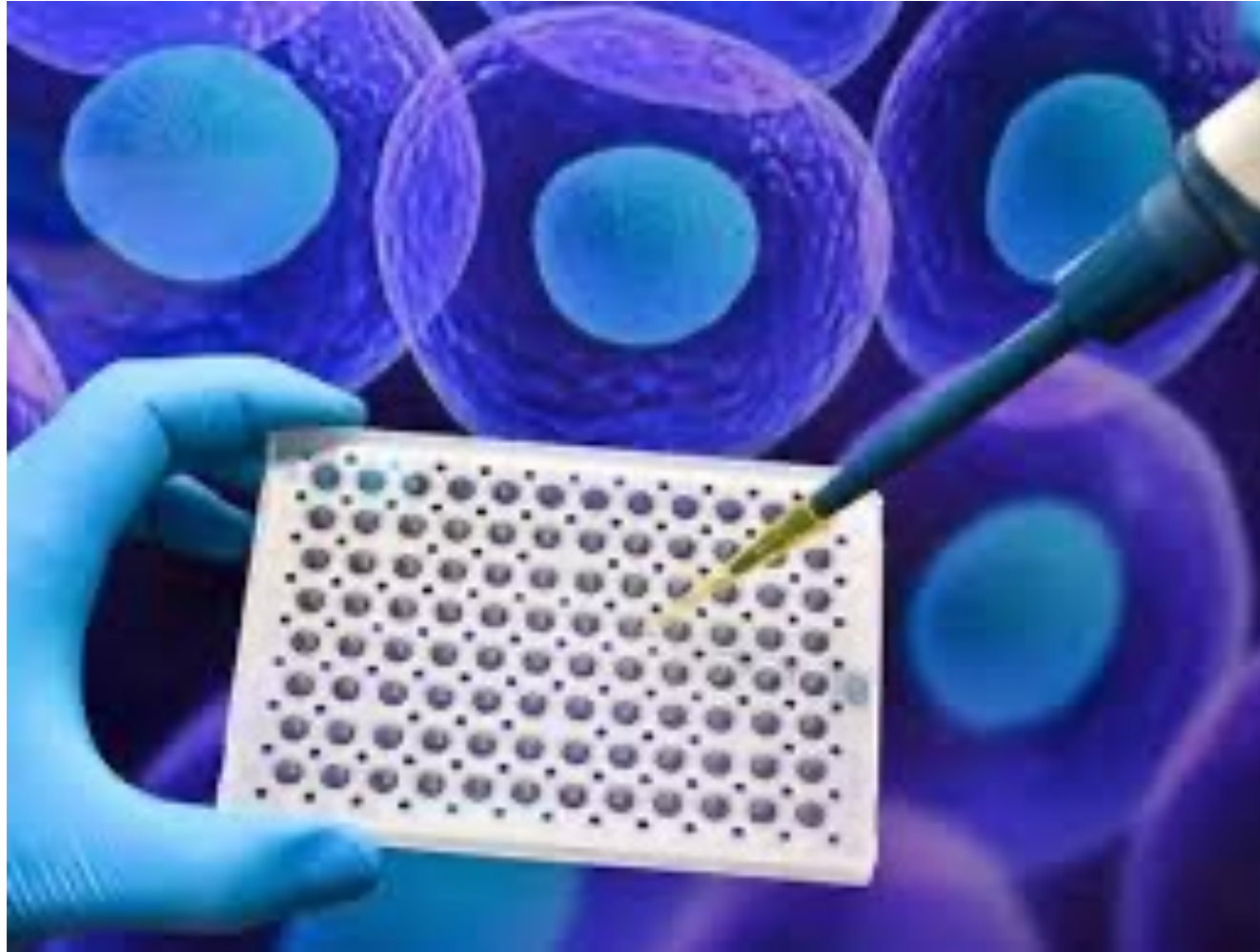
Example: CBD and THC Act Antagonistically in the Body



Facts

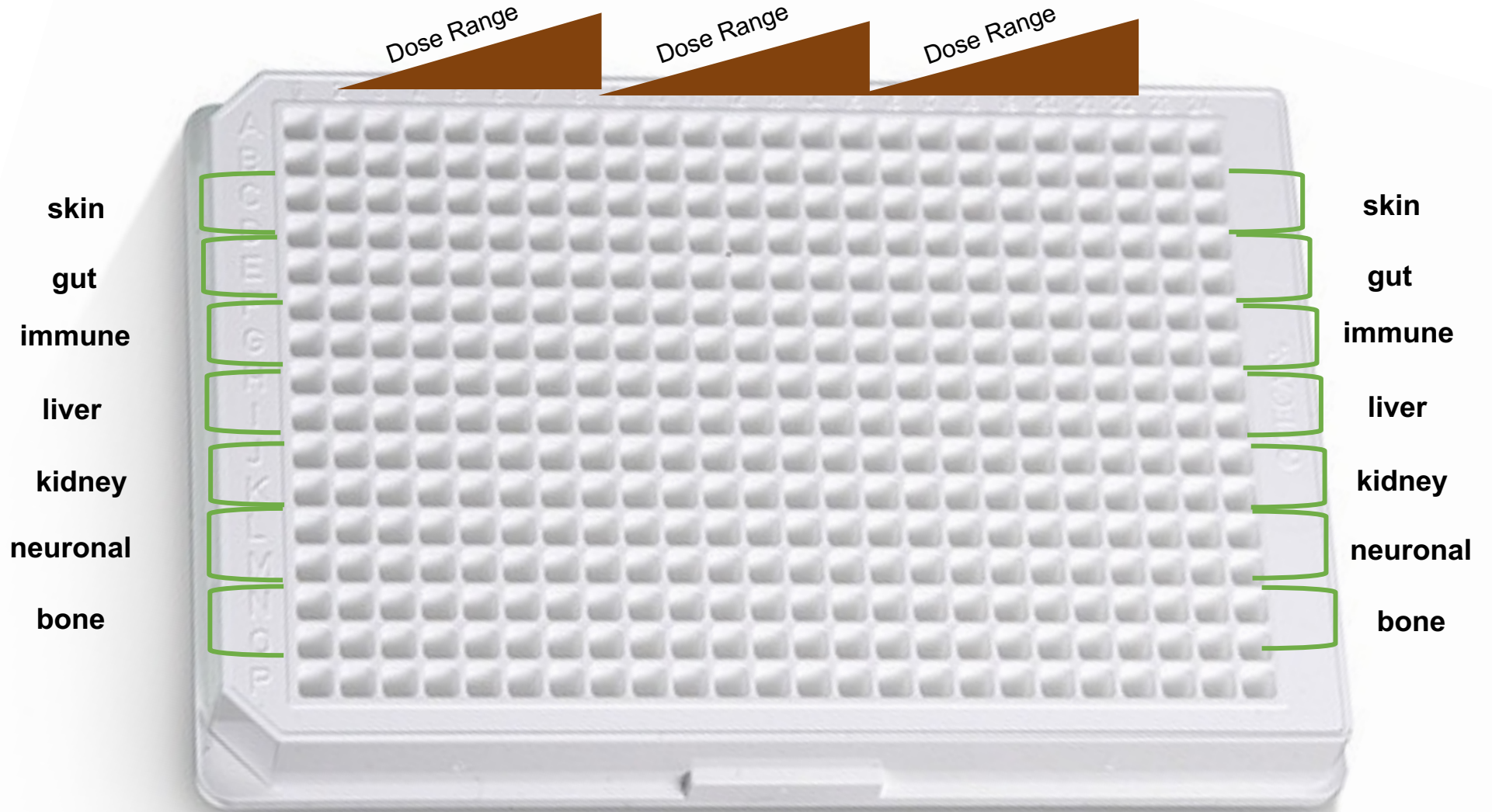
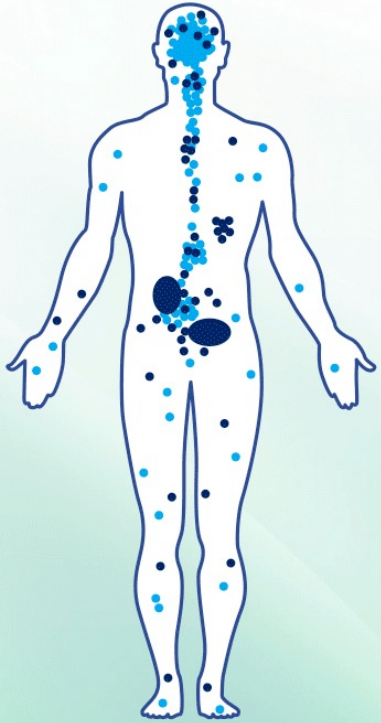
- **There are large number of cannabinoids and terpenes in full spectrum products**
- **The body has a large diversity of cell systems that can respond to plant chemistries**
- **The body's responses and therefore the potency of cannabis products are due to multiple additive, synergistic or inhibitory interactions collectively known as the Entourage Effect**

CannaMetrix, LLC Introduces the EC₅₀ Reporter Assay Human Cell-Based Potency Testing for Validating Products



Human in a Dish: EC50Array™ In Development for Tissue-Specific Potency Testing Enables Product Development Targeting Health and Disease

Modeling Cells in Tissues Throughout the Body that Respond to Cannabis



Patent Pending

Human Cell-based Testing Anticipates the Minimal Effect Dose Range For Cannabinoid Products in People



Different individuals may respond differently to the same cannabis product

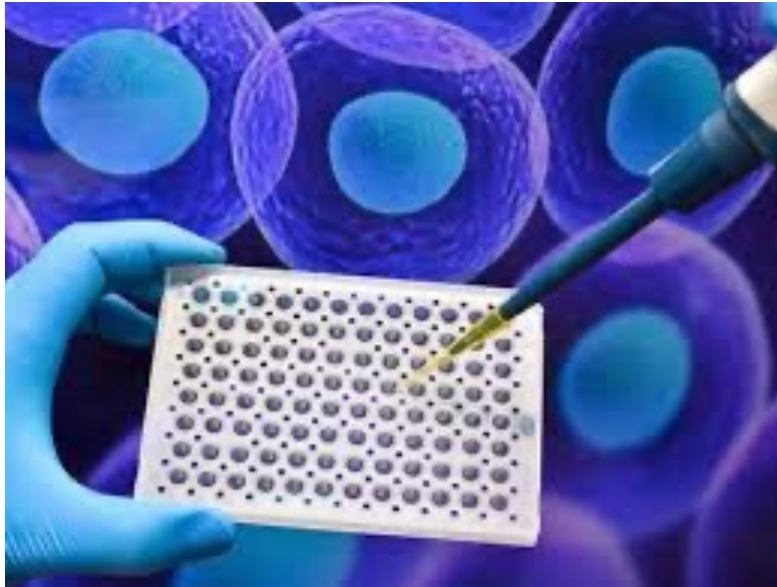
This is because of naturally occurring genetic variation in the genes coding for the endocannabinoid system

Individualizing Cannabis Choice

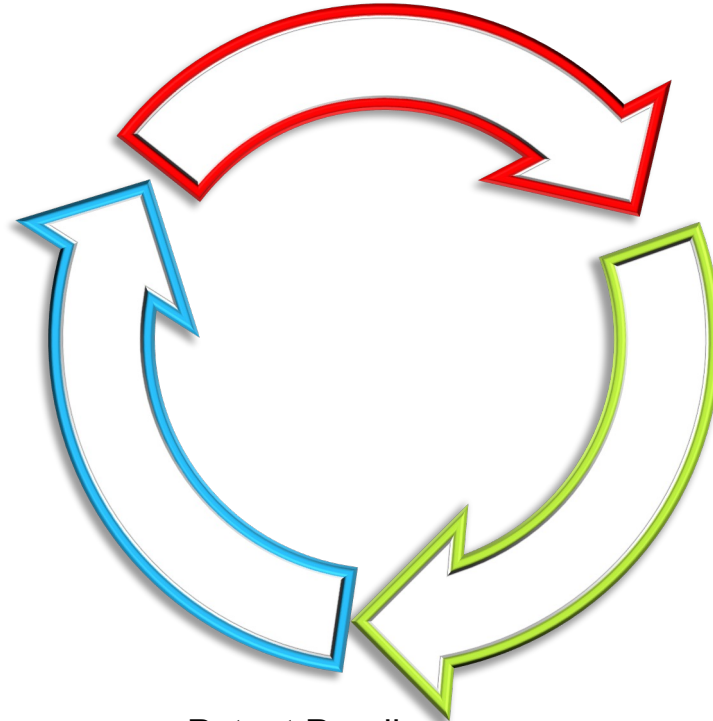


Blood Collection

Select Most Potent Cannabis Product
Based on the Patient's Response

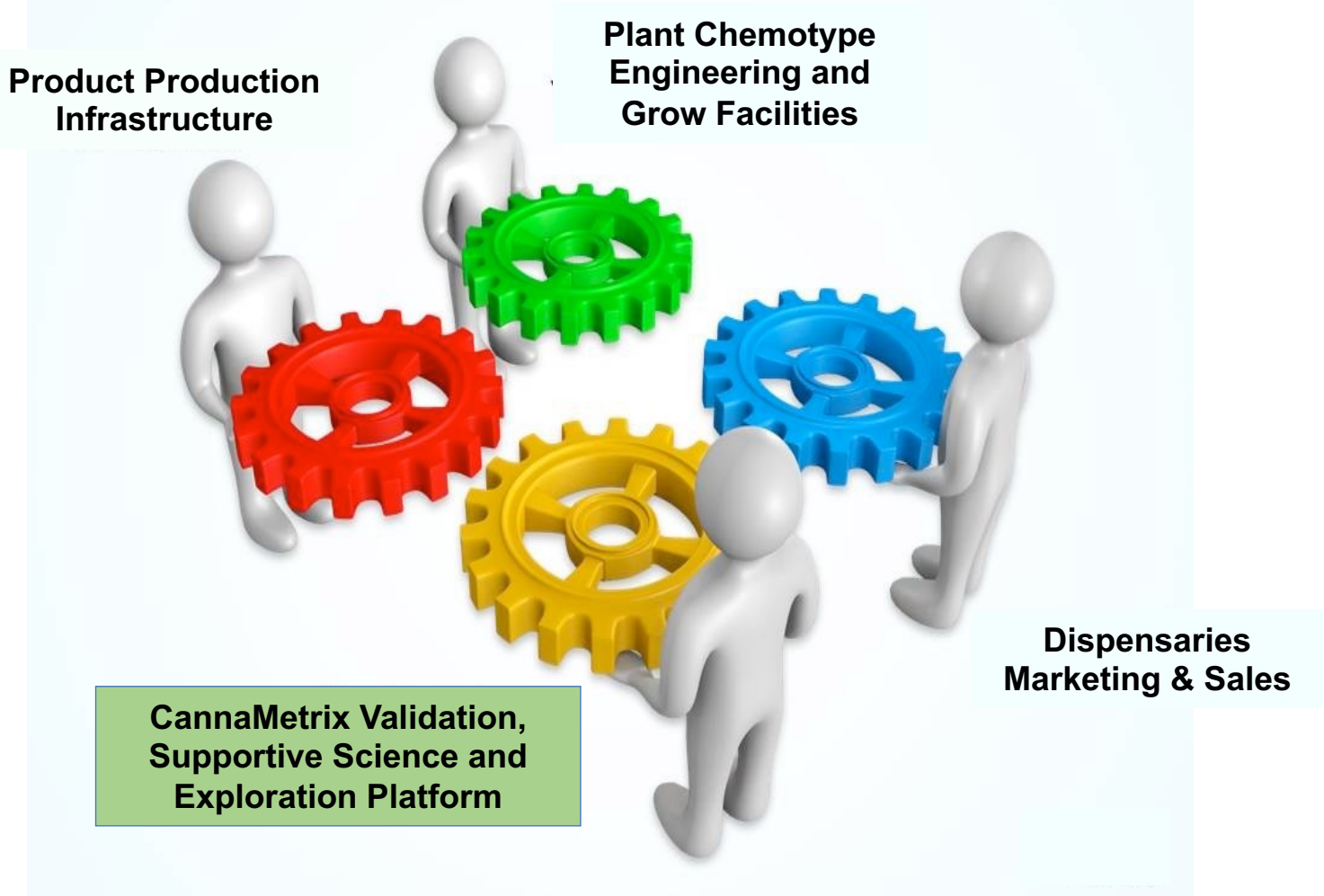


Source Diverse Cannabis
Products



Patent Pending

Cell-based Testing is Critical Across XXII Century's Portfolio





Ensuring Quality Control Through Cell-Based Testing

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