



THE UNIVERSITY OF ARIZONA  
COLLEGE OF MEDICINE TUCSON

Pharmacology

## DEPARTMENT OF PHARMACOLOGY

### Seminar Series

*Presents*

### “The Evolution of Cannabis”

*By*

**Steven P. Bennett, Ph.D.**

Scientific Director Evolab



Clinical cannabis research in the US is very limited under federal law. Since the government has designated cannabis to Schedule I, denoting lack of therapeutic benefit, conducting classical clinical trials is virtually prohibited. In some cases, observational studies can be conducted using patient feedback if the proper medical oversight is applied (Internal Review Boards, Investigational New Drug applications) and the funds are provided by the state or a private source. These studies, however, are generally limited in that the feedback is rather subjective and not the result of statistically derived, publishable data from randomized, placebo-controlled studies. Moreover, cannabis is unlike any drug that has been approved by the FDA, since it is not a single molecule with a single mechanism of action, but rather an entourage of numerous cannabinoids and terpenes on 2 types of receptors (CB1 and CB2) which vary in location, receptor density, and elicit a variety of physiological responses. This information, when combined with our knowledge of variability in each individual's endocannabinoid system, makes cannabis-based research particularly challenging. Notwithstanding, numerous benefits have been reported and it has become a medical imperative to thoroughly investigate cannabis-derived therapies.

In this talk, I wish to outline the current medical applications of cannabis, drug mechanism(s), delivery mechanisms, observational studies, clinical trials, and also discuss product development at Evolab. My hope is to engage both the bench scientists and the entrepreneurs in the group, alike. Ultimately, this is a topic that means something different to everyone and I want to deliver a presentation that accounts for this diversity.

**Wednesday, March 2, 2016**

**11:00 am – 12:00 pm**

**AHSC, Room 8403**