The Opportunity
PL-8905 is the lead preclinical candidate being developed by Palatin Technologies (Palatin) as a treatment for obesity, diabetes and related metabolic syndromes. PL-8905 is a highly selective melanocortin receptor-4 receptor (MC4r) agonist, with preclinical toxicology and CMC activities being conducted to support an IND filing and phase 1 clinical studies.

As a potential partner Palatin brings an in depth understanding of the MC4r as a drug target, preclinical data with a wide variety of MC4r agonists, extensive clinical experience and valuable know-how and intellectual property.

MC4r Program
Mutations in the MC4r are one of the most prevalent forms of monogenetic obesity in humans. The MC4r and associated signaling pathways play a key role in regulating food intake and energy homeostasis. Extensive academic research supports MC4r as one of the best validated drug targets for obesity. As part of Palatin’s MC4r agonist program, compound libraries consisting of highly selective MC4r compounds have been developed and a detailed evaluation process was conducted to select potential lead development candidates. In addition, key structure/function relationships have been defined and incorporated into both peptide and oral small molecule compound development.

Palatin has conducted two clinical trials with an MC4r agonist in obese subjects. These studies provide further validation of MC4r as a target and gave Palatin a better understanding of PK/PD relationships and magnitude of treatment effect. In both studies significant reductions in food intake and corresponding weight loss occurred, with the results highly instructive in guiding further clinical development of an MC4r agonist.

PL-8905
PL-8905 has demonstrated significant efficacy in preclinical obesity models with positive effects on weight loss and glucose regulation. Animal models have shown a synergistic effect with GLP-1 in weight loss and glucose regulation. The drug has demonstrated minimal effect on blood pressure and CNS penetration, with excellent chemical and metabolic stability.

Intellectual Property
Palatin has patents and pending patent applications for MC4r peptides, with issued patents in the U.S., Australia, China, New Zealand, Russia and South Africa.

A U.S. patent on PL-8905 issued on September 30, 2014, which claims priority to PCT application WO 2010/144344. The presumptive terms of the issued patents and pending patent applications expire in 2030.

Palatin has patents and pending patent applications for a second class of MC4r peptides, with issued patients in the U.S., Australia, Canada, China, Japan, New Zealand and Russia. The presumptive terms for this second class of issued patents and pending patent applications expire in 2029.