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## Stepwise preformulation to ensure successful product development of oral solid and semisolid dosage forms

Due to the complex nature of pharmaceutical formulations, it is important that the formulation scientist conduct adequate preformulation on the active ingredients and formulation excipients. This includes complete characterization of the active ingredient to understand its physical and chemical attributes. This will ensure that selection of excipients and process will be in line with the active ingredients properties. Additionally, preformulation studies should be conducted with combinations of active ingredient and excipients at various conditions to determine interaction potential and get an early read on stability. Conducting these studies in a stepwise fashion will ultimately save time and money during the formulation development and scale-up phases. It is important that the preformulation package be robust and all inclusive to ensure successful formulation development. This talk will cover the Patheon's approach to preformulation on the active ingredient and mixtures with excipients, which is a stepwise, scientific approach to preformulation. If followed, this approach will provide for the highest likelihood of success during formulation development.

## **Biography**

Jason Vaughn is a Director, Formulation and Product Development at Patheon Pharmaceuticals. He has over 13 years of experience in the pharmaceutical industry. His expertise includes; formulation development of solid oral dosage forms, liquids and semisolids, solubility and bioavailability enhancement, and early and preclinical development.

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