Effects on In Vivo Imaging

Finally, the presence of chlorophyll in ingredients of chows such as alfalfa can create background noise in studies where imaging technology is used. Therefore, it is essential to use chlorophyll-free diets when such technology is used.

Effects on Gene Expression

In addition, effects of varying levels of phytoestrogens and other compounds in chow (i.e. arsenic), can impact the phenotype at the gene level, (9-11), which can compromise the process of determining the mechanism by which various treatments or genetic mutations influence gene expression. Furthermore, the potential for unknown compounds in grains used in chows may have further impact on phenotype, which may translate to the gene level.
Diet and Cancer

OpenSource purified ingredient diets are a solution to these issues, as they do not contain phytoestrogens or chlorophyll and can be modified with ease. While the lack of these compounds makes purified diets important tools for oncology research, the very nature of OpenSource purified diets argues for their use in all lab animal research.

References