

The value of a custom lab animal diet as a research tool

Top 4 reasons to consider a custom diet to answer your research question

1. Custom diets differ from standard natural ingredient diets in both purpose and ingredients
2. Custom diets can be fed to any laboratory animal
3. Custom diets can be formulated to limit dietary confounding variables associated with different ingredients and nutrient levels
4. Custom diets have been used as a research tool for a long time but utilizing modern nutritional knowledge can make your study more impactful

Ways custom diets can be used as a research tool:



NUTRIENT CONTROL

Manipulate levels of carbohydrate, fiber, protein, amino acids, fat, minerals or vitamins for specific research purposes



INDUCE DISEASE

Accelerate atherosclerosis, induce obesity, promote demyelination or kidney and liver disease are few examples of how custom diets can be used to create animal models that mimic human diseases



VEHICLE FOR COMPOUND DOSING

Dosing via diet can help overcome animal welfare concerns as well as technical limitations

Collaborating with an Inotiv Nutritionist:

Essential to the formulation of a diet that meets your research goals

Determining the most appropriate diet for your research model can be challenging, but Inotiv nutritionists are here to help. When you contact our nutritionist team you'll be asked to share some information related to major considerations that will dictate your diet formulation and logistical information related to your diet so you can plan accordingly.

Ask a nutritionist

Our nutritionists are available to chat live

Available types of custom diets

STANDARD DIETS WITH ADDITIONS

Diet can be a vehicle for compound dosing. Dosing via diet is a well-established practice that requires no animal handling and can overcome welfare concerns and technical limitations. Common additions to diets include:

- Teklad stocked ingredients such as Tamoxifen, Doxycycline and Cuprizone
- Customer supplied ingredients

NATURAL INGREDIENT DIETS

Custom natural ingredient diets are formulated using the same agricultural commodities as found in our standard laboratory diets. These can include corn, wheat, soybean bean, alfalfa meal, fish meal, and other agricultural by-products. These ingredients have a relatively complex and variable chemical composition, and thus their use in custom diets is limited. NaCL adjusted rodent diets are an example of a popular natural ingredient custom diet.



PURIFIED DIETS

Purified diets are made of refined ingredients allowing easier manipulation of individual nutrients. Common types of purified diets include:

- Diets to induce obesity (DIO), atherosclerosis or NASH/NAFLD
- Mineral or Vitamin adjusted
- Amino Acid Defined diets
- Protein Adjusted
- AIN Series
- Compound additions

CUSTOMER SUPPLIED INGREDIENT DIETS

Researchers can supply compounds for addition to any diet type. Adding your novel compound to a diet is a convenient approach to dosing research animals. Teklad nutritionists will work with you to formulate your diet and ensure safe compound and diet handling. Common types of customer supplied ingredients include:

- Pharmaceuticals
- Botanicals
- Prebiotics, starches and fibers
- Fatty acids

HYBRID DIETS

Hybrid diets are a mixture of natural and refined ingredients. This type of blended formulation is sometimes necessary to limit specific nutrient or non-nutrient substances. The inclusion of some natural ingredients can enhance palatability of a hybrid diet. Traditional rodent atherogenic and lithogenic diets are examples of this diet type. Hybrid diets are a more popular approach utilized for non-rodent laboratory models.