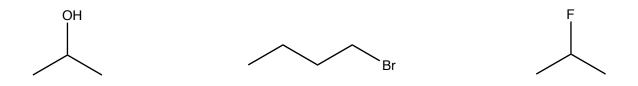
## Alkanes #1: Fun With Functional Groups & A Splash of Common Naming

Yo, yo, yo. You made it through gen-chem: Hell yeah. But the fun is just getting started: Let's dive into some more shenanigans.

**1.)** Below are pictures of aspartame and aldosterone, a sweetener and a hormone, respectively. In the case of each molecule, <u>circle</u> and <u>write</u> the names of <u>every</u> functional group found in each molecule (do not label 'alkane' as a functional group).

i.) 
$$HO \longrightarrow NH_2 O CH_3$$

**2.)** Make sure you nail those down: Functional Groups never go away. But anyways, moving on. Coincidentally, another thing that never goes away is Common Naming. I know you're up to the task—for each structure below, give the correct common name.



- **3.)** Okay, one more thing before we wrap this worksheet up: A little blast from our acid-base past. For the acid-base reactions below, predict which side will be favored at equilibrium.
- a.) In this reaction, also label the weakest conjugate base

$$NH_3 + H_3O^+ + H_2O$$

b.) In addition, label the strongest acid in this reaction

$$AsH_2$$
 +  $PH_3$  +  $AsH_3$ 

c.) Lastly, label the most unstable conjugate base

$$HBr + H_2O \longrightarrow H_3O^+ + Br^-$$

Good job, gang. I know that wasn't terribly riveting, but knowing functional groups and common names is very important. It helps you talk-the-talk to people who do organic chemistry, and it doubles up as a way to sound smart, allowing you to use big science words in front of friends and family. And maybe, just maybe, if you're bold enough, it can also function to impress that special someone in your life—or maybe (and most likely) not. Regardless, I promise things will get much more exciting very soon.