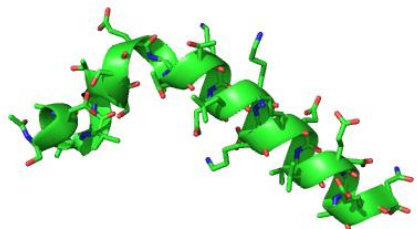


You donated to the *Retro Inverso* project! Our thanks!!



Back in the 70's a natural immunoregulatory hormone was identified by Dr. Gideon Goldstein. He identified some of the many physiological effects of thymopoietin molecule on the immune system while looking for treatments for the autoimmune disease, multiple sclerosis. We noticed that some effects he described were on neurologic inflammation (ALS patients have neurologic inflammation). The molecule was commercialized (Thymalfasin) and developed into therapies for chronic hepatitis B and C, an adjuvant in chemotherapy induced immune depression, immune insufficiency, patients with cancers...the list goes on and on. We use a chemical mimic of thymopoietin for neurologic disease in horses and that is how we know about thymopoietin.

Thymopoietin is a peptide, and unfortunately it has an extremely short half-life in the body, lasting about forty seconds. It is best given slowly, in the vein, over 10 minutes, three times a week. Thymalfasin is a similar molecule and is given under the skin (sub-cutaneously, sub-Q) several times a week. Thymalfasin is metabolized to the active pentapeptide, thymosin. We gave thymalfasin by sub-Q injection to ALS-mice in an experiment and we saw some positive benefits. Benefits included longer life and delayed disease. Maybe increasing the duration in the body would increase the benefit to the mouse.

When reviewing the mouse experiment, it occurred to us it would be beneficial to ALS patients to have an extended release thymosan product that didn't require daily injections. To get there, we're going to trick the body into *not* breaking down the drug, it's called our *retro inverso project*.

Here's how it works. Amino acids are the building blocks of peptides. They come in d- and l- forms. The d- and -l indicate the spin on the molecule. The same components of a peptide can be arranged in two different orders based on the spin. That means they are mirror images of one another! The body's enzymes are unable to breakdown and eliminate the d-peptide because d-peptides aren't used in natural protein synthesis. Chemical synthesis allows us to prepare the amino acids as a d- configuration.

There are commercial companies that quickly synthesize peptides, just a few hundred dollars for each molecule. We are making both L- and D- forms that will hopefully show the expected increased metabolic stability in the lab, in mice, and then people. There will be 10 peptides, and one is sure to be successful! Your donation is exclusively applied to the successful molecule. Thank you for helping us with this project.

Pursuant to the requirements of Florida Statute 496.411, the following information is provided:

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