We are happy to announce that the PennGen Laboratories, at the University of Pennsylvania School of Veterinary Medicine, are now offering genetic testing for Microphthalmia and Degenerative Myelopathy in Soft Coated Wheaten Terriers (and we can use your DNA samples already in our lab!)

PRICING: (new submission refers to newly submitted blood or check brush sample)

**Individual tests**
- PLN – PLN Associated Variant Genes (we test for the variants in both the NPHS1 and KIRREL2 genes)
  - $100 for new submissions
- Microphthalmia RBP4 variant
  - $65 for new submissions
  - $55 if DNA already available at PennGen
- Degenerative Myelopathy SOD1 variant - only available in conjunction with another test (see below)
  - $50 if DNA already available at PennGen

**Combinations**
- $140 for ALL three together on new submission - $75 savings
- $120 for PLN and Microphthalmia submitted together on new submissions - $45 savings
- $105 for PLN and Degenerative Myelopathy submitted together on new submissions - $45 savings
- $90 for Microphthalmia and Degenerative Myelopathy on DNA already available at PennGen - $15 savings

**Litter Rate**
- PLN test only – $60 per littermate puppy under four months of age when three or more are submitted together
- All three tests - $120 per littermate puppy under four months of age when three or more are submitted together

Submission Instructions: (please read through to the end before you begin the process)

1) Before ordering tests:
   a) Please go to [https://www.vet.upenn.edu/penngen](https://www.vet.upenn.edu/penngen) for instructions on sample collection, where to order your DNA swabs, and how to ship to us. Briefly, you can purchase swabs online from DNAkit.eu or ezswabs.com. Please order brushes, not swabs, and buy enough for two brushes/dog.
   
   b) If there is already DNA at PennGen for your dog because the dog was previous tested for PLN at Penn, we can use that DNA to perform additional tests, and you will not need to send in blood or cheek brushes. The first step is to go back to your records and find the PLN test number. This will be either the 5-digit PennGen submission number, or a submission ID that has the letter W followed by four digits (Wxxxx) that was initially used when results were reported by email (before Sept. of 2015). If you cannot find the old email or that number, we need enough information to correctly identify the dog you want tested. This may be more difficult if the dog was tested as part of a litter. Useful information includes: Dog’s names (litter name, call name, registered name – whatever you were likely to have put on the submission form), date of birth, sex, registration number if you have it, parents names if the dog was tested as part of a litter, your name or name of co-owner who may have submitted the test. You will need this identification information as you create the submission on the PennGen website.

2) Create a submission on the PennGen website. Your starting point in this process may vary for your situation, so that you may need to begin at a different point (a, b or c below):
   
   a) If you have never used the PennGen online submission system, you will need to create an account. Go to the University of Pennsylvania testing site at: [https://www.vet.upenn.edu/research/academic-departments/clinical-sciences-advanced-medicine/research-labs-centers/penngen/penngen-tests](https://www.vet.upenn.edu/research/academic-departments/clinical-sciences-advanced-medicine/research-labs-centers/penngen/penngen-tests). Find and
click the “Log In” button to get into the “Sample Submission Application”. This will take you to a page that lets you either log in, create an account, or reset a forgotten password (hint: retrieving your password requires that you remember what email address you used when creating the account). Click “Create an Account” and follow the directions to do so. Then go to step 2 to enter information about the dog you want to test (aka Create Animal Record).

b) If you already have a PennGen account but want to test a dog that was first tested under the old system (Wxxx number, paper submission, email results), you will need to “Create Animal Record” for that dog. Provide the information requested, some of which is required. Note that identification information that you provide will appear on the test results report (although the parents information does not). Once you have successfully created an animal record, you can go to the next step.

c) If you want to order a test (or tests) for a dog that is already in the PennGen Submission Application, create a submission (for a dog that was previously tested for PLN, or for a dog that you have just entered into the system) by going to your home page and click on the name of the dog you wish to test. Once the dog’s information comes up, make note of his/her PLN test submission number (if has already been performed). You will need this information as part of the submission.

Click on the words at the bottom “Create A Submission”.

This brings up a drop-down menu between the bottom two dark bars named “Test Type”. Click on the arrow to see the possible tests for Wheatens. There are three possible DNA tests: Microphthalmia (MOSWT), PLN-Associated Variant Genes, and Degenerative Myelopathy. Only the prices for the tests ordered individually are shown here. The discounted prices do not appear within the PennGen Sample Submission application. We will apply discounts for multiple test combinations and for testing DNA already available at PennGen (shown above) before you are billed. If you think we made a mistake, please let us know BEFORE you pay the bill online.

Click on the test you want (you can only click on one at a time, as you will see below). For each test, you must select a reason for testing. If you think you may have an affected, select affected. If it’s for breeding, select breeding, etc.

You must also enter the type of sample that was collected (blood or cheek brush).

Where it asks for date of collection and submission, just use the current date, or a guess at the date you will collect and submit.

**IMPORTANT:** If this is a submission for tests that will use DNA from a previously submitted sample, put the PennGen or Wxxx test ID# number from the previous PLN test in the “Comment/Clinical Signs” box.

This will help us to find the DNA from the previous test and recognize that we need to apply the discount for already available DNA to the charges.

Click the Create Test Request button. At this point:

i) if you want to order an additional DNA test for this dog, click the button for “Add another test request to this submission”. It will take you back to Request a New Test page where you can add another test and repeat again if you have a third test.

Click the button for “Mark the submission as Complete” which will take you to the final page. Print the submission form, sign it, and send it in by mail (with blood or cheek brush sample as appropriate). Please be sure to read the information about shipping to PennGen on the website, and use the address indicated on the form you just printed.

**IMPORTANT:** If this is a submission for tests that will use DNA from a previously submitted sample, we won’t start the testing process until we receive the paper copy of the submission form.