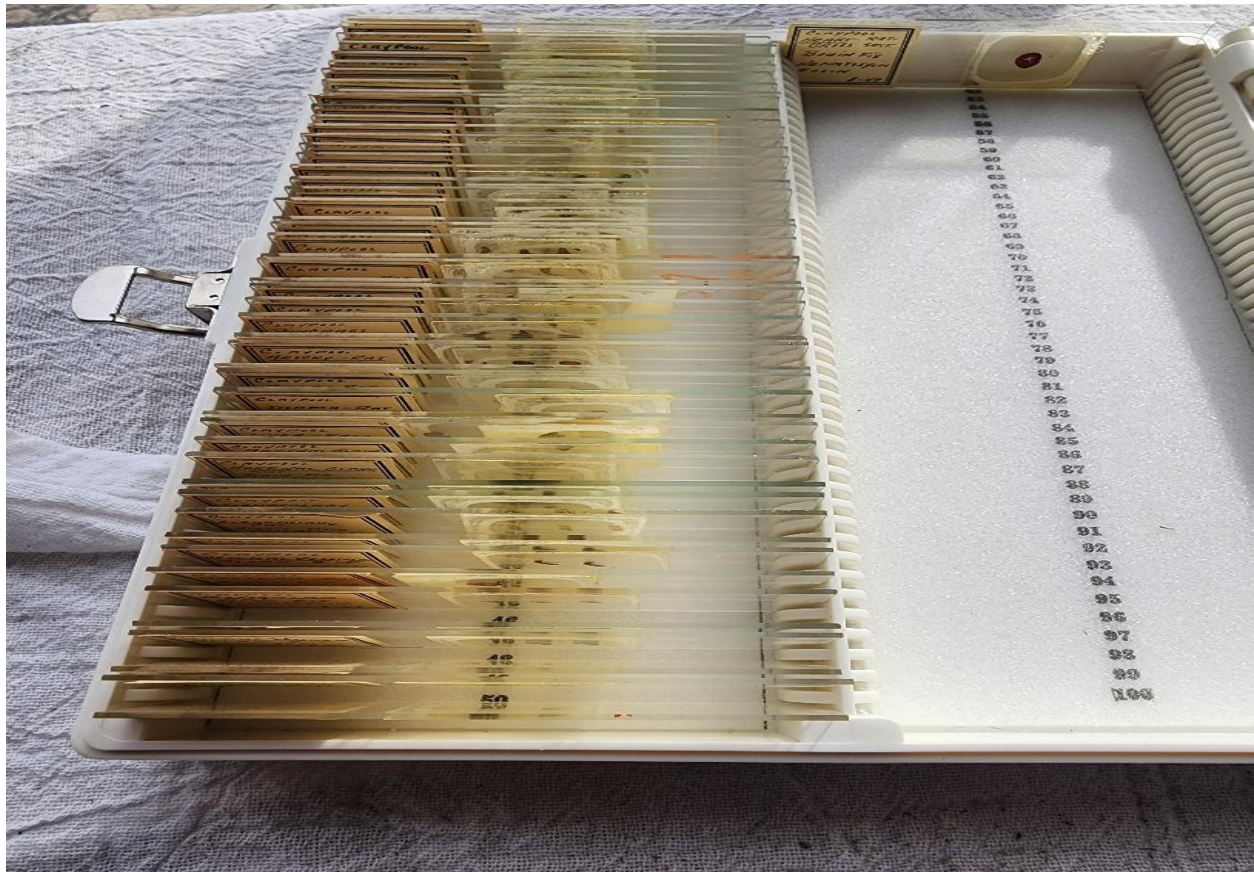


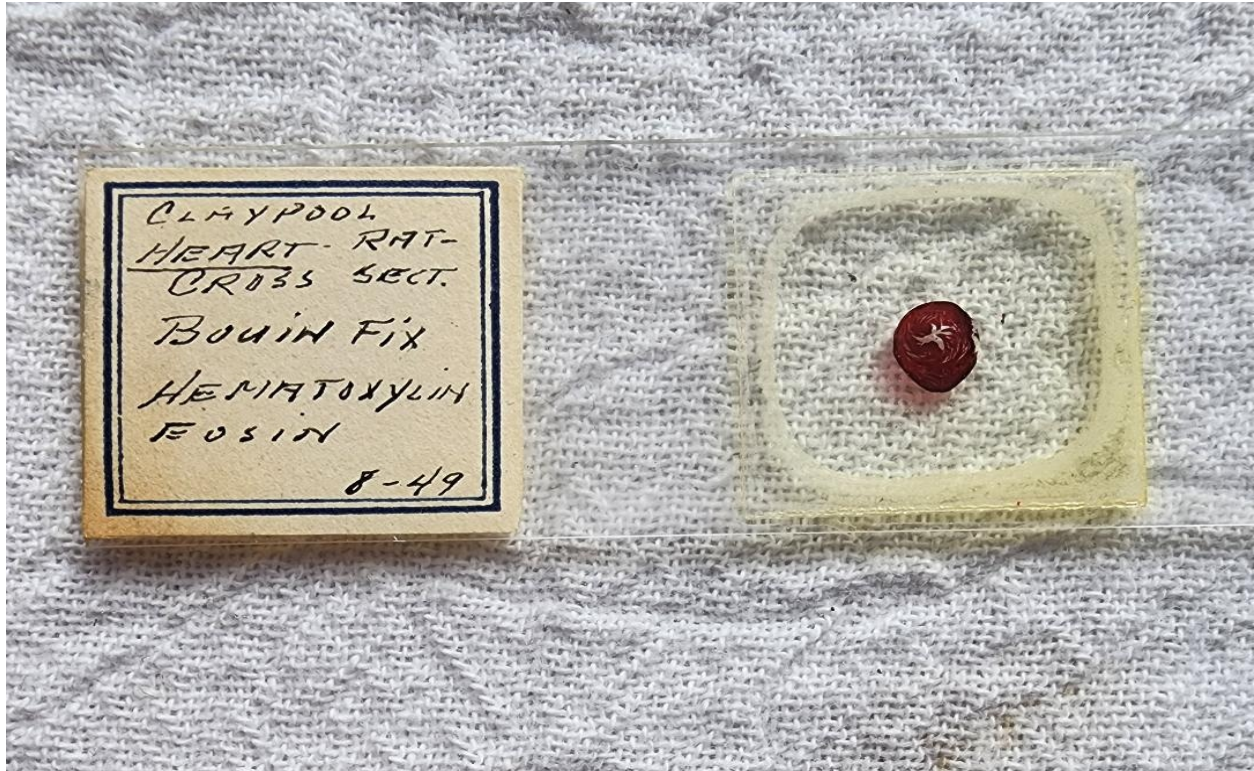
Well, Rats!

I was recently gifted hundreds of prepared microscope slides. So recently in fact, that I have not had time to peek in all the slide boxes to see what I have. Many of the boxes are labeled “Multiple Sections,” while others deal with an individual subject. The one labeled “Rat Sections” caught my attention immediately.

Virtually every part of a rat is represented in this box. I had never thought about it, but apparently, rats, like many mammals have a pancreas. This made me wonder whether they had a gallbladder. Horses, deer, giraffes and other animals do not, and neither do rats. The simple answer is that apparently, it is not necessary for fat digestion. While I hoped there would be sections of a rat brain, there were not. However, at least one male and one female rat gave their lives for these slides.

The slides were made by a person named Claypool. I have no idea who this person is. An internet search for a microbiologist with the surname of Claypool revealed one hit. He is a professor of Physiology at Johns Hopkins University. He looks far too young to have made these slides, but my guess is that a student did make them. As you can see, they appear to be older slides.



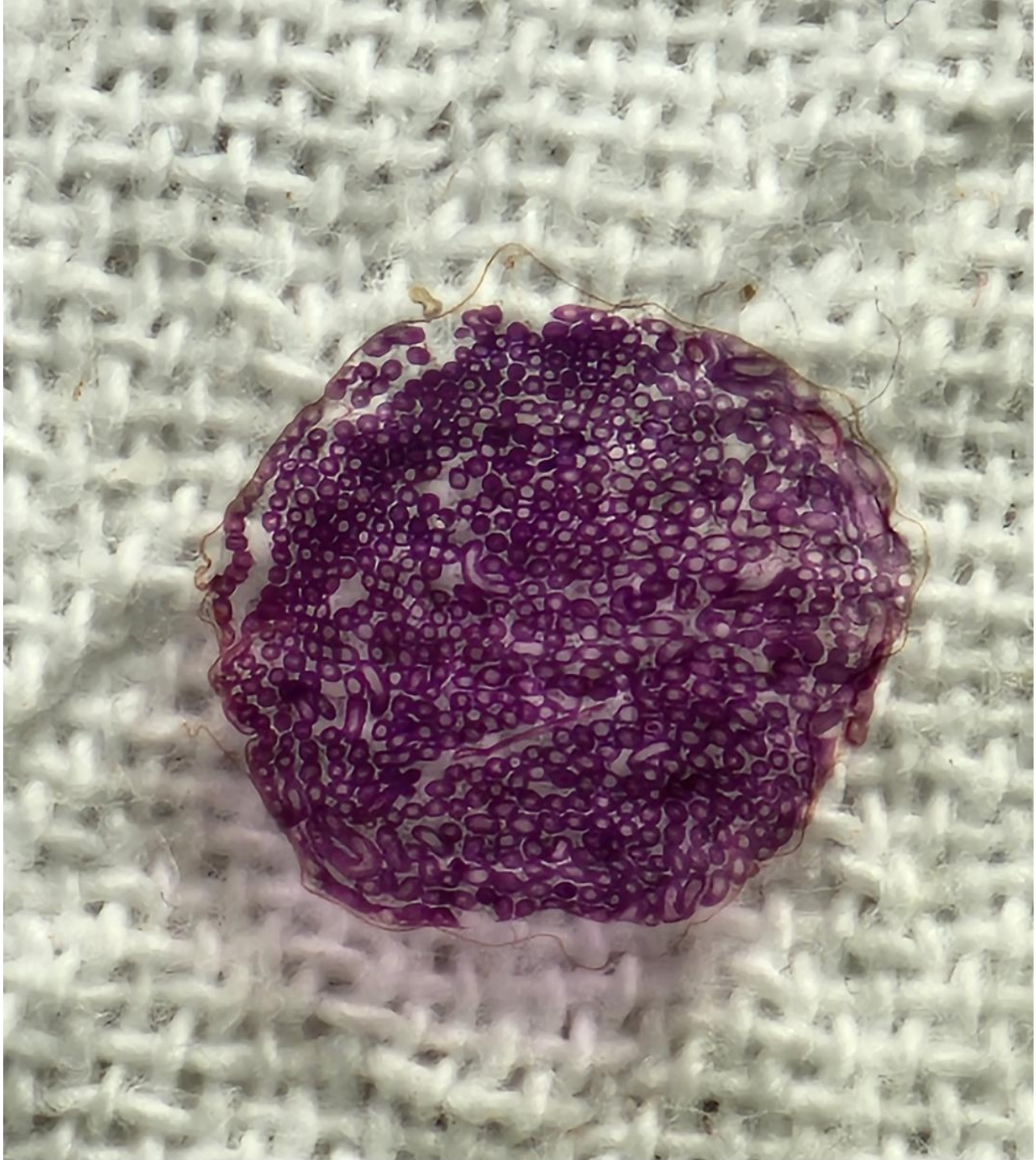


Claypool used a couple of different fixatives on these slides. One was Zenker, a rapid acting fixative for animal tissues. Another one, as pictured above was Bouin Fixative. This is popular for embryonic and skin studies. A “fun” fact, if one can call it that, is this fixative is made with Picric acid. That is what gives it a yellow color. However, if Picric acid is allowed to dry out, it becomes highly explosive. All the warnings said that if one has Picric acid with no liquid in it, to call the proper authorities immediately for proper disposal! Yikes!

The stain, Hematoxylin comes from the heart of the dogwood tree, *Haematoxylum campechianum*. It is used not only as a histologic stain, as it is in the case of these slides, but it has also been used as ink, and as a dye in the textile and leather industry. The history behind it is rather fascinating, but that is a whole ‘nother rabbit hole we can hop down some other time.

A few random photos of rat slide material and their labels are shown below. An explanation of the way the photos were taken is in order. I planned some wonderful views through the microscope for this article. However, when I went to turn on the light source for my trusty Leica microscope, it would not come on. I checked breakers, light strips, etc. to no avail. I guess the next step will be replacing the bulb. I could have dusted off my Zeiss, but I went this direction instead. I laid a tea towel down on a table in a well, naturally lit area, and photographed the slides that way. Hence the fabric surface behind the slide.

So, for your viewing pleasure, here are a few of the awesome slides.



Testicular material – I did some brief research on the label for this one, as shown in the next photo. The information I found about something called Allan B-15 did not seem logical for this slide. Some more research there is in order.

CLAYPOOL

TESTES - RAT

ALLAN B-15

HEMATOXYLIN

ACID FUCHSIN

8-49

CLAYPOOL

LARGE INTESTINE

RAT

ZENKER FIX

HEMATOXYLIN

Eosin 8-49



Intestines – see the label above.

There will be much fun to be had, not only researching the rat slides and finding out more about them, but the hundreds of other slides as well. A cursory glance indicates that there is plant material, snail radula, fusulinids, algae, and much, much more. Even the labels alone are worthy of study, as they are all different.

Tomorrow is Valentine's Day. I will leave you with this Valentine, and wishes for a Happy Valentine's Day!

By Jennie Lawrence



A closer view of the heart cross section.

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All photos by the author. Published in the January 2023 issue of *Micscape* magazine.
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