We took time last week to celebrate National Forensic Science Week (NFSW). While the event itself is a relatively new holiday, the hard work and dedication of our staff is not. It’s important for us to take the time to acknowledge our achievements as an organization, but to also share these achievements with the community.

With the help of the Montgomery County Communications Department, we were able to showcase several of our employees, processes, and technologies throughout the week. These videos can be viewed at https://www.youtube.com/user/MontgomeryCountyOH/videos. Unfortunately, our mass fatality tent exercise was canceled because of weather. We plan on rescheduling for early spring so we can demonstrate our capabilities and equipment if the need arises.

We were also able to give back to the community during NFSW. Employees volunteered time at With God's Grace food pantry by sorting donations for distribution. Additionally, over $360 was collected through our Penny Wars competition and donated to the Artemis Center for victims of domestic violence. Employees and visitors were encouraged to collect funds for myself, Brooke, and Dr. Juhascik. The highest monetary collector was blasted with water from the staff. Results and photos can be found in the Newsletter.

We finished out the week with a mobile Escape Room. The staff tested their teamwork and problem-solving abilities by deciphering a series of clues to race against the clock and escape the room. I can say that by the rate of escape, your casework is in good hands; we have some clever code-crackers!

So, thank you for acknowledging the work that we do. We strive to contribute to safety and justice in our community by providing excellence in forensic science services.
I found myself receiving inspiration last year from an unusual (and fictional) source. It’s hard for me to admit, but I am suffering from a mild case of burnout. I don’t need to go into the reasons, as we’ve all had our challenges this year; however, I think the key takeaway is that I was able to recognize it. My remedy was to take off several days to spend with my family, read a few books and binge a few guilty-pleasure television shows. Although I have mad love for Schitt’s Creek, I need to give credit to my husband’s friend for pointing us in the direction of a series on Apple TV Plus, *Ted Lasso*.

The series is produced by and stars Jason Sudeikis, whose plot revolves around Ted Lasso, a successful college football coach from Kansas City, who is invited to England to coach a Premier League soccer team. I won’t go into too many of the plot details here, but I was drawn to Ted Lasso not only for the comedic relief, but for his unflappable leadership style. Ted Lasso is my hero.

In an interview, Sudeikis described his character as a cross between Mister Rogers and John Wooden—what a combo! Ted has his own personal challenges, but his constant positivity serves as the show’s reminder that we’re all capable of being better people.

Below are a few of the lessons that I learned from Ted in Season 1:

**BE A GOLDFISH** – Goldfish have the shortest memory of all animals. We all make mistakes; grieve, be angry, pout, learn from it and then move on.

**BE CURIOUS; NOT JUDGEMENTAL** – Don’t be afraid to ask questions about people and their experiences. Inquire with people on why they behave the way they do and where their motivations lie. We have different events that have molded our behavior and conduct. Find out what makes your team tick! What are their passions, fears, loves, life plans…?

**CREATE A TEAM CULTURE** – Create an environment where employees feel like they can speak freely and voice concerns (to you and their coworkers). Different people will have a variety of perspectives to offer, which also leads to buy-in. It’s not conducive to lead in an environment where people always tell you what you want to hear. Your team should add value and be honest with you, just as you should do with them.

**MAKE TOUGH DECISIONS** – Know your limitations and seek the support of those around you but be decisive. Sometimes it’s not the outcome we are intending, but we must put our personal feelings aside and do what is best for the team. It is your role as a leader to know when the course must change.

Ted Lasso has reinvigorated me. This article hasn’t done his character justice, but I hope it’s enough to pique your interest so that you too, can be inspired by the actions and leadership of this fictional coach.

“There’s two buttons I never like to hit:
That’s panic & Snooze”

~ *Ted Lasso*
New Faces at MCCO/MVRCL

Brant Bandow  
DNA

Bruce Daniel  
Night Attendant

Ryan Fritts  
Pathology Technician

Anastasia Nickell  
Front Office

Craig Stivers  
Investigations

Dr. Sean Swiatkowski  
Deputy Coroner

Sammy Voors  
Pathology Technician
This serves as a guide for the analysis of drug cases submitted to the laboratory. Specific items requiring analysis such as an item found in a defendant’s pocket or items specific to one person when more than one person was present must be clearly indicated on the laboratory submission form.

**Drug Cases (No Cannabis)**

1. A minimum of one from each line item on the laboratory report for WEIGHABLE items will be analyzed.
   a. Additional analysis will be done up to bulk and/or weight thresholds for each controlled substance present
2. Residues and paraphernalia will not be analyzed unless “paraphernalia” or a like charge is listed on the submission form
3. Syringes containing residue (with no weighable liquid) will only be analyzed when no other items containing a controlled substance are present in the case.

**Drug Cases (Cannabis AND Other Drugs)**

*Please be advised that the turn-around times for cases that include Cannabis analysis are different from all other drug cases due to the additional percent THC determination requirement.*

1. If other weighable controlled substances are present (such as meth or fentanyl), plant material less than 200g will not be analyzed
   a. Exceptions will include fresh plants IF a cultivation or illegal grow charge is included on the submission form
   b. Plant material that exceeds 200g will always be analyzed up to the maximum weight threshold in the case; additional plant material will not be analyzed once the maximum weight threshold is met
      i. If a specific submission needs tested to meet certain charges such as manufacturing, it should be clearly indicated on the submission form. Requests to test every single item is not sufficient.
2. If other weighable controlled substances are present (such as meth or fentanyl), hashish solid (less than 10g) and hashish liquid (less than 2g) will not be analyzed
   a. Hashish solid and liquid that exceed these weights will always be analyzed up to the maximum weight threshold; additional items will not be analyzed once the threshold has been met
   b. E-cigarettes: One e-cig from each exhibit will be analyzed; gross weights will be reported
3. Edibles cannot be quantitated. One item from each type (gummy, baked good, etc.) will be analyzed to verify no other controlled substances are present; no other items will be analyzed as the results are unable to distinguish between hemp or marijuana
4. For all other non-Cannabis submissions (such as powders or tablets), please refer to the first section regarding drug cases with no Cannabis present

**Drug Cases (Cannabis Only)**

*Please be advised that the turn-around times for cases that include Cannabis analysis are different from all other drug cases due to the additional percent THC determination requirement.*

1. Plant material cases less than 200g will be analyzed when it is in the only item in a case
   a. The exception will be for fresh plants IF a cultivation or like charge is listed on the submission form
   b. If the net weight of the plant material is less than 300mg, the item will not be analyzed. This amount is insufficient for THC quantitation
   c. Example: 10 plastic bags with a total weight of 58g; only one bag will be analyzed as additional analysis does not change the charge
2. Hashish preparations (less than 10g solid and 2g liquid) will be analyzed when it is the only item in the case
   a. Cases consisting of both misdemeanor amounts of hashish and plant material will only have one of either item analyzed
3. Felony amounts of plant material and hashish will be analyzed up to the maximum weight thresholds; no further analysis will be done once that threshold has been met
   a. Example: The total weight of 25 bags of plant material is 15,000g. The total weight is between 5,000 and 20,000g. If 10 of those bags weigh 5,000g, then those 10 bags will be analyzed and the other 15 bags will not be analyzed since they do not move the weight into the next weight threshold; no further analysis would be done
4. Edibles cannot be quantitated. One item from each type (gummy, baked good, etc.) will be analyzed to verify no other controlled substances are present; no other items will be analyzed as the results are unable to distinguish between hemp or marijuana

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For questions or concerns regarding analysis, please contact the Chemistry Technical Leader Jen Watson at watsonj@mcohio.org.

Please send all requests for copies of drug laboratory reports or rush requests for drug cases to drugrushes@mcohio.org.
The Firearms section recently received three new Leica S9 stereoscopes. These stereoscopes have the capability of being used like a standard stereoscope by visualizing evidence through the eye pieces. However, items can also be viewed on a computer screen using the built-in camera. Samples can be quickly scanned using a large screen view and the details verified through the eyepieces of the microscope.

These stereoscopes have already saved time during examinations due to items being quickly screened and visualized. Each examiner now has a stereoscope (previously had one for the entire section), which saves time in waiting for the stereoscope when it is needed. We anticipate these stereoscopes making screening evidence faster and more precise.
Trace evidence can be small, and at times hard to visualize and collect. It is always best practice to submit the entire object to the Laboratory, if possible. If not possible, here are a few methods for collection of trace evidence.

The first is using either a gloved finger or clean tweezers. You can first photograph the evidence if possible for future reference. Use side-lighting to help visualize if need be. The debris can then be placed into a paper packet, and then into an envelope.

The second method is using a tape lift. This is useful in picking up a lot of the smaller debris that is not readily visible. Clear packing tape is the best, but make sure it is a new roll and is free from extraneous debris sticking to the sides. When finished, the tape lift can be placed on a clear acetate sheet, making sure to mark the acetate with any pertinent information, and then into an envelope. DO NOT write over the tape lift! It is hard for me to visualize hairs that have been written over. Never put tape lifts from two different locations (i.e. victims’ and suspects’ car) on the same acetate, and never package acetates from two different locations in the same envelope.

The last method is vacuuming using a special vacuum and trace filter. I don’t recommend this method unless you are looking to pick up a lot of the debris that is older and deeply embedded. However, if this is the method you choose, be sure to use the vacuum with the specialized trace filter (see picture).

DO NOT use the vacuum from the scene!
A large shift in the interpretation of toxicology results has changed how toxicologists form opinions on impairment in the last several years. Many years ago, the concentrations, or amount of drug, often stood alone based on reference material and case studies. Amounts were characterized as therapeutic, toxic, or lethal. Generally, these ranges were used to form an opinion about impairment or cause of death.

Perhaps the best example to demonstrate the downfall of forming opinions simply based on a number is fentanyl. Ten years ago, fentanyl was a drug that the Miami Valley Regional Crime Lab and Montgomery County Coroner’s Office did not see that often. Most cases were associated with pain management for cancer patients and surgeries. Amounts of the drug were encountered at anywhere from 1 to 10 ng/mL. Based on medical records and/or findings during autopsy, that range was associated with a lethal amount of fentanyl. Now, with the insurgence of fentanyl as a common drug of abuse, we see concentrations in blood over 50 ng/mL in OVI drivers. The concentrations seen in coroner cases now also commonly exceed 50 ng/mL. We no longer know, based on a number alone, if someone is impaired. In addition, we are continuing to learn what role an individual’s genetics impact how they may process a given drug or how that drug affects them. Some individuals may be fast or slow metabolizers of a drug, they may have difficulty removing a drug from their body, and they can have a different response to the same amount of drug as another person (i.e., tolerance).

Most recently, a nationally published document setting minimum standards (ANSI/ASB Best Practice Recommendation 037 - 2019, Guidelines for Opinions and Testimony in Forensic Toxicology) states “A toxicologist should not opine as to a specific individual’s degree of impairment based solely on a quantitative result”. Further, “A toxicologist should not opine as to the effects of a drug or combination of drugs on a specific individual without context of a given case”. Often, we are asked while testifying if an individual is impaired. A toxicologist can speak only in generalities about the population due to the absence of information regarding tolerance. This is where the law enforcement officer’s notes and field sobriety tests can help corroborate an individual’s impairment with the results of the toxicology testing.
The Combined DNA Index System (CODIS) is a database that searches for matching DNA profiles obtained from evidence samples, profiles from convicted offenders and felony arrestees, and profiles from missing persons/unidentified human remains. Operated and controlled by the Federal Bureau of Investigation, the database was created with the intention to aid investigations when a perpetrator is unknown. As a result, DNA profiles must meet the following criteria for entry:

- Profile is from an item left behind by a possible perpetrator at a crime scene
- Profile obtained is not from a victim or consensual sex partner

Thus the requirement for elimination standards

DNA profiles that are obtained from items taken directly from a person, their residence, or their vehicle are considered deduced suspect samples, not forensic unknown profiles, and therefore are not admissible to CODIS. This is the reason why DNA profiles from firearms and drugs/drug paraphernalia removed from a person are not searchable in CODIS.

The database only contains DNA profiles and does not contain any identifying information associated with an individual, such as names, date of birth, social security number, etc. An association between a DNA profile with another DNA profile is called a “match”. If the lab determines that these two profiles share a common source, the association is called a “hit”. The laboratories involved in providing the matching DNA profiles share information regarding the samples entered. When a hit involves a convicted offender or an arrestee, the State lab with ownership of that profile confirms information stored in another database and then provides the identifying information for that individual.

The laboratory with the evidence profile will issue a report providing the information between the matching samples. The law enforcement agency is then required to submit a DNA standard from their newly developed suspect for DNA testing and comparison. In other words, think of the function of CODIS as a really informed informant!

**This article is reprinted from 1/2020 due to its relevance**
On Thursday, September 16th, the Latent Print section embarked on a new teaching adventure with nine eager participants from various agencies. After receiving requests for this type of training, Jen Yoak, Tracy Zehringer, and Aaron Davies worked together to create a new learning opportunity for those that have previously attended the two-week long intensive MVRCL/MCCO course to hone their skills with a one-day latent print workshop.

During this class, we discussed advanced photography techniques, lifting prints from tricky surfaces, and new avenues for possible suspect identification through photographs present on confiscated cell phones. The students worked diligently, literally contorting themselves at times, to get the best angles and results while attempting to photograph visible prints on glass, in blood, and prints processed with black powder on a dark surface. They tested their patience dealing with textured, curved, and blind processing (including the underside of car door handles) with casting materials.

At the end of the day, the students were able to take a new kit with them that included some of the tools they learned to utilize during their class and, hopefully, some new tricks for dealing with more advanced situations at crime scenes as well.

As instructors, we gained valuable insight into some of the trials crime scene technicians face in the field and will continue to tweak the content of the class as we move forward. We expect to continue this class on an annual basis, so look for the call for enrollment around spring/summer of 2022!
Several members of our staff recently expressed an interest in getting their CCW license. After putting two dates together, to include all that staff on different shifts, several employees and members of their family successfully completed their training during the summer.

Following the training there was refreshment and food to relax. The following pictures show the training and target practice of those who attended.
Remaining 2021 Course Dates (Accepting Applications)
August 2-13 (FULL CLASS)
September 20 - October 1 (FULL CLASS)
November 29 - December 10 (FULL CLASS)

Please submit applications for standby, as it is not unusual to have cancellations. Due to high demand, we fill every class with the 8 person maximum.

We have revised our Application to include additional items available to purchase with your kits. The additions are based on student feedback. If you have submitted an application for 2021, and wish to revise your evidence kit selections, please send the updated application back to Robert Hunkele so we can have the items available by the class date.

New Items:

Alternate Light Source: Forensic Light Kit with Deluxe Orange Goggles and 455nm Blue Light ($175)

52mm Orange Camera Filter for Alternate Light Source Photography ($50)


The new application form link is below:
https://www.mcohio.org/document_center/Coroner/EV_Course_Application.pdf

2022 Course Dates

January 3 - 14
March 14 - 25
May 16 - 27
August 1 - 12
August 22 - September 2
September 19 - 30
Nov 28 - Dec 9

Please submit applications for standby, as it is not unusual to have cancellations.

The Evidence Technician Training Course application is located at:
https://www.mcohio.org/document_center/Coroner/EV_Course_Application.pdf

For additional information, contact Robert Hunkele at:
937-496-7266 or hunkelerr@mcohio.org
Dr. Sean Swiatkowski joins us after spending 22-1/2 years in the United States Navy as a Medical Officer. He graduated from medical school from Chicago College of Osteopathic Medicine in 1999 and entered the United States Navy as a General Surgery Intern. After completing his internship at Portsmouth Naval Medical Center he ran the Recruit Medical Clinic at Great Lakes Training Center in Chicago for four years. In 2004 he began his Pathology residency at Bethesda Naval Medical Center and upon completion was accepted into the Armed Forces Institute of Pathology Forensic Pathology Fellowship. Once he completed his fellowship in 2009 he became staff for the Office of the Armed Forces Medical Examiner. While there he became the Forensic Pathology Fellowship Director, Medical Liaison for the Joint Trauma Analysis and Prevention of Injury in Combat Program, Assistant Director of Operations, and Regional Medical Examiner.

Dr. Swiatkowski is blessed with a wonderful wife Jodi and four children. Jodi coach’s softball at Carmel Catholic High School as well as a local travel softball program in the Chicago area. His oldest daughter Jordan is a Junior at Wartburg College in Iowa where she is majoring in Neuroscience and Psychology. Hailie Rae is a Freshman at Austin College in Texas where she is majoring in Math and Secondary Education. Leon is a Junior in high school where he enjoys hockey and baseball. Isa is a high school sophomore and plays volleyball.

Dr. Swiatkowski is extremely excited to join the Montgomery County Coroner’s Office family and make a huge impact to the community at large.
Meet Our Staff

Name: **Meagan Fredette**

Hometown: Dayton, OH

Section: Team Morgue

Years with MCCO/MVRCL: 2

Hobbies: Art, writing, exercise, learning, hanging with the coolest pup in town (Bella)

Favorite Food: Bacon Cheeseburgers

Mentors: Bob Hunkeler

Favorite Part of Working at MCCO/MVRCL: Truly the kindest, most incredible, hardworking group of people I’ve ever worked with.

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Name: **Todd Yoak**

Hometown: Vienna, WV

Section: Drug Chemistry

Years with MCCO/MVRCL: almost 9

Hobbies: Running, radio control model airplanes

Favorite Food: Pizza, most anything with potatoes, dessert (this list could go on a long time...)

Mentors: Toni Bartollota Coe, Dave O'Neil, John Pryzbylski, Linda Jackson, my dad

Favorite Part of Working at MCCO/MVRCL: The camaraderie
We celebrated the 2021 National Forensic Science Week with fun, food, and volunteering! Employees were treated to daily snacks and a special lunch from the Hunger Payne's food truck (a team favorite and tradition). Toxicology employee, Elizabeth Walker-Valle designed our themed t-shirts this year for our group photo. The rainy weather canceled our mass fatality tent exercise, but still allowed for volunteering at With God’s Grace food pantry. Kiale Bowles organized and moderated a College Panel for interested forensic science students. The Front Office won our on-site mobile Escape Room and Director Ehlers was doused with water balloons after raising the most money in the Penny Wars Challenge for the Artemis Center. Another year of excellent work and dedicated service to our customers!
Happy National Forensic Science Week from MCCO/MVRCL