The Department of Forensic Sciences (DFS) Science Advisory Board (SAB) WebEx meeting was called to order by Board Chairman Peter Marone at 9:05 a.m. Roll call of Board members present, in addition to the Board Chairman, included: Mr. John P. Jones II, Dr. Jeanne Jordan, Dr. LaKeisha McClary, Ms. Danielle O’Neill, Dr. Michael Pentella and Mr. Robert Thompson. A quorum was established to conduct board business. Minutes from the April 16, 2020, meeting were presented and read.

Motion to Approve Minutes: Board Member O’Neill
Seconded: Board Member Jones
Motion to Approve Minutes Passed

A brief review of the District’s overall response to COVID-19 was conducted by DFS Director, Dr. Jenifer Smith. She reminded the Board that DFS did not shut down operations during the pandemic, as other local service lines, and that an overwhelming number of DFS employees have report for work every day good maintaining sound productivity levels. Noted among the city’s safety measures were contract tracing training for all District employees, fulltime deployment of select agency staff to fulfill the critical function, enactment of travel restriction and PPE guidance.

For the past several months the department has integrated into its training framework a diversity and inclusion program to foster positive attitudes and behaviors and encourage increased collaboration of a diverse workforce. Identified among the department’s training agenda is the continuing assistance provided to the Metropolitan Police Department with academy training and auditor training and root cause analysis training for DFS employees. As a precautionary public health measure, some of the internship programs have shut down and others have been modified allowing fewer participants on-site. A virtual experience has been designed for participants outside the laboratory.

Key performance indicator highlights included the Digital Evidence Unit (DEU), which has been busy with critical analyses of the iPhone related to serious crimes and the Latent Fingerprint Unit (LFU) which is on track to go “paperless” by the end of FY20. The Forensic Biology Unit (FBU) has continued to maintain its productivity requirement in working sexual assault kits within 90 days in the absence of a backlog. Despite its backlog, the Firearms Examination Unit (FEU) has been able to turn around cases within approximately 25 days. In a recent report to the Mayor’s cabinet, Deputy Kevin Donahue stated that while the District has witnessed a decrease in the number of violent crimes in the city, recent crime trends reveal that homicides are up, with the number of fatal gunshot victims up by 36% and non-fatal gunshot victims up by 42%. According to Dr. Smith, the Firearms Examination Unit has seen an increase in the number of ‘ghost guns’ recovered in the District as well.

In response to Board member Jones’ inquiry whether DFS has suffered budget cuts or a reduction in spending, Dr. Smith acknowledged that the department’s budget had been trimmed by $50,000 and that any impact to the FY21 budget has yet to be determined.
Abdel Maliky, Senior Deputy Director, reported that the DFS Quality team, comprised of the Quality Manager and four Quality Specialists, reports to the Senior Deputy Director. Mr. Maliky conducted an overview of the regulations and standards for which the team is charged with assuring compliance of general requirements for competence of testing and calibration laboratories as it applies to ISO 17025: 2017 in: DEU, FEU, FBU and LFU; FBI Quality Assurance Standards for Forensic DNA Testing Laboratories (QAS) in FBU; Clinical Laboratory Improvement Amendments (CLIA) in Accessioning Section Unit (ASU), Clinical Toxicology Unit (CTU), Immunology Unit (IVU), Microbiology Unit (MBU and Molecular Diagnostics Unit (MDU); and Division of Select Agents and Toxins (DSAT) in the Bioterrorism Unit (BTU). Mr. Maliky also identified the practices for Quality Corrective Actions (QCARS) and Quality Preventive Actions (QPARS), distinguishing the difference and achieving resolution, Internal and External Audits, Annual Management Reviews and the Inquiry/Complaint process.

Dr. Anthony Tran, Director of the Public Health Laboratory (PHL), introduced CDC first-year Laboratory Leadership Service (LLS) Fellow, Mr. David Payne, who joined PHL as a contractor for COVID-19 response efforts. In a Zika update Dr. Tran reported that Zika IgM serology has been taken offline as no test requests had been received for over a year. The laboratory is moving the molecular test from the CDC Trioplex to the Hologic Panther Zika amplification platform. However, the Trioplex for chikungunya and dengue diagnosis will continue. Currently, there are 69½ fulltime employees in the PHL division. The staffing increase is mainly attributed to contractors hired to assist with the public health response.

Dr. Tran reviewed the COVID-19 infection rates both locally and nationally, the number of tests the PHL conducted, the increase in testing, the number of test positives and the rate of recovery. In delivering a historical time line of the PHL and the pandemic, Dr. Tran revealed that the PHL was the only public health laboratory in 2020 that did not have the full capabilities of electronic ordering and reporting of tests. Until the pandemic, the PHL was primarily paper-based for outside providers (hospitals, clinics) but working toward more technological sound methods now available. With the acquisition of the Panther Fusion and Cepheid systems the PHL was equipped to meet testing demands and able to deploy 11 Abbott ID NOW systems to neighborhood sites throughout the District.

The District was fortunate to have been a recipient of federal assistance provided to states and some local jurisdictions. An additional $50 million has been requested over the next 2 ½ years for reagents, supplies and staff.

During a SARS-COV-2 sequencing overview, Dr. Colleen Courtney reviewed the workflow of virus sample testing utilizing three different methods implemented by the laboratory: 1) the Illumina (the most popular instrument/17 hours sequencing run at a cost of $175 per test); 2), the MinIon (8 hour sequencing run at a cost of $250 per test); and 3) Ion S5/Chef, (run time varies w/chip type & read length selected at $275 per specimen). The PHL’s future sequencing goals include: 1) providing real-time data to DC Health to identify transmission and source of infections; 2) monitoring of circulating
virus in the District for mutations and changes in the genome during progression of pandemic and in host disease; 3) contributing District information to national and international information that guides vaccine development; and, 4) increasing wet-laboratory and bioinformatics capabilities at the PHL. A bioinformatician was recently hired to enter and analyze all incoming data.

Dr. Luke Short, Chemistry Section Chief, provided an update on the work of the Clinical Toxicology Unit (CTU) currently working with the Department of Behavioral Health (DBH) providing drug toxicology of individuals enrolled in Opioid Treatment Program to ensure individuals in the program are taking Methadone and not taking other substances they should not be taking and also to determine whether Fentanyl is being taken to avoid detection. CTU is scheduled to provide both qualitative and quantitative reports to DBH with the unit’s findings following the analysis of approximately 150 specimens.

Having completed the Forensic Biology Unit’s Next Generation Sequencing (NGS) project validations in May 2020, Ms. Kristy Hopkinson, Forensic Biology Unit manager, conducted an overview of the project status, accomplishments, implementation timeline, SOPs, work flow, training program, supplemental studies and collaboration with SWGDAM.

Mr. Jonathan Pope, Firearms Examination Unit (FEU) manager, presented a chronological review of the timeline and actions occurring from March 2020 to July 2020 associated with an FEU 2017 NIBIN verification error and FEU findings. Mr. Pope further provided an extensive briefing identifying the procedures, impacted by the error, and the procedural changes or adjustments slated for standard operating procedures. Mr. Wayne Arendse, Forensic Science Laboratory Director, reviewed the 8 QCARS generated by the DFS Quality Assurance Unit and identified preventive measures to be implemented to avoid recurrence of the verification error. The Board will be provided with FEU’s SOP revisions, Quality documents and ANAB updates. Mr. Pope confirmed that FEU continues to conduct firearms analysis for the U.S. Attorney’s Office for D.C.

The meeting adjourned at 1:28 p.m.

An audio recording of the meeting is available upon request.