Request for a new Pathology Department
at the Michigan State University College of Human Medicine
Submitted September 12, 2022
Updated: October 20, 2022
Updated November 22, 2022

Note: Process for requesting establishment of a new department at MSU:

- Dean first seeks endorsement of the request from the CAC, then Dean takes proposal to the EVP/Provost.
- EVP/Provost will send the request to the Steering Committee to route through academic governance for consideration and a recommendation (e.g., University Committee on Faculty Affairs; University Committee on Graduate Studies).
- EVP/Provost makes decision to support the request or not and confers with President.
- EVP/Provost takes request and recommendation for approval to Board of Trustees.
- Board of Trustees is required to approve the creation of any new department.

Rationale for a new Pathology Department

Pathology is a core disciple of medicine. Most pathologists engage in clinical care through diagnostic techniques utilizing liquid or solid samples. These diagnostic techniques critically impact almost all aspects of patient care. The field is very broad, ranging from traditional clinical/diagnostic work with patients through more active treatment of patients receiving or suffering from complications of transfused blood products. The MSU department will include all these fields.

The vast majority of faculty in the MSU department of pathology will be based out of the Henry Ford Health Department of Pathology and Laboratory Medicine. Pathology and Laboratory Medicine (PALM) at Henry Ford Health is an integrated system-wide clinical department for 6 acute care hospitals and 40 medical centers under the academic leadership of one system chair. The Henry Ford chair is one of 11 academic departmental chairs in the Henry Ford Medical Group (HFMG), reporting to the CEO and CAO (Chief Academic Officer). The MSU department of pathology will be led by a chair who will report to the dean of the College of Human Medicine on all matters that concern MSU faculty, staff, and students.

The current group of faculty in the Henry Ford department of pathology and lab medicine comprise of a diverse and collegial group of 46 senior staff MD/DO pathologists and 10 PhD senior bioscientific staff clinical scientists. All are board-certified and fellowship trained members of the Henry Ford Medical Group, in the disciplines of clinical laboratory medicine and anatomic pathology, as described below. At the present time, there is one research-focused PhD attending staff. In addition to primary clinical duties, staff are engaged in the departmental, medical group and

hospital educational missions for undergraduate, graduate medical education and allied health programs from area state universities.

The MSU department of pathology will include pathologists from across the CHM system (including the Henry Ford department), who provide educational services for the college's curriculum and educational and research opportunities for students and faculty. As examples, faculty in several communities provide educational services to the college under contract but are employed by provider pathology groups or hospitals. Because we lack a department of pathology, these faculty currently have appointments outside of their disciplinary area (such as the Office of Medical Education Research, department of physiology or the dean's office). The creation of the MSU department of pathology will provide an opportunity for all these pathology faculty to be associated in a department of their disciplinary home.

The Henry Ford Medical Group pathology professional staff demonstrate excellence in clinical care in their subspecialty domains of expertise as measured by formal ongoing professional practice evaluations (OPPE), daily professional consultation second opinion reviews, error evaluation schema, and professional feedback from clinicians. Their clinical care contributions and the laboratory operations they oversee contribute a significant revenue to the health system of roughly 12.5% of the $6.8 billion. All clinical faculty are expected to contribute to improvement of their practice, participation in educational activities and requests, and participation in requested collaborative and/or independent research.

Specifics of the contributions and national/international recognitions of the Henry Ford Medical Group faculty are provided in:

Attachment A – Publications
Attachment B – Faculty Awards and Honorifics
Attachment C - Grants

Faculty in the Henry Ford Health Department of Pathology and Laboratory Medicine are highly productive and have consistently contributed to scholarship in pathology. Following is a snapshot of faculty publications in the past few years:

- 2019: 3 books/book chapters and 66 peer-reviewed journal articles
- 2020: 5 books/book chapters and 100 peer-reviewed journal articles
- 2021: 5 books/book chapters and 71 peer-reviewed journal articles
- 2022: as of July: 10 books/book chapters and 25 peer-reviewed journal articles.

These faculty are also involved in 15 grant funded clinical research studies with federal (5) and non-federal (10) funding sources. We expect this academic activity to grow with this new academic alliance and collaboration opportunities with MSU-based faculty. In sum, this new department will strengthen and expand the academic environment of the college and MSU. Some of the key benefits include:

- Curricular expansion for MSU medical students interested in the field of pathology

- Creation of additional academic homes for the expanding CHM paid and no-pay faculty (across Michigan).
- Expansion and enhancement of graduate medical education (i.e., residency training)
- Strengthened research and clinical programs in the area of pathology
- Improved MSU and CHM ranking based on increased research revenue (from NIH)
- Help achieve 2030 university strategic goal for $1 billion in annual research expenditures
- Increase in MSU faculty honorifics

Alignment with MSU Strategic Plan

The Department of Pathology is very well aligned with the MSU strategic plans for enhancing sustainable health, strengthening commitment to DEIJ, and fostering discovery, creativity and innovation for excellence and global impact. The department is highly advanced, comprehensive, and communicative group of academic laboratory professionals, not only to internal clients but to the residents of the State and nation. Their commitment to the community with recognition of the attendant health disparities and challenges, is long term. Notably, the HF department of pathology was the first hospital lab in MI to perform COVID-19 PCR testing in March 2020 (https://vpdcs.com/issue/DMN/1Q22/index.html#p=10). Additional examples of the department's commitment to sustainable health, include the development of new, rapid and consistent PCR testing platforms to comprehensively support the community during the COVID-19 pandemic. This included supporting vulnerable nursing home residents, dialysis patients, first responders in SE Michigan, critical infrastructure workers, and students and coaches for six universities. In addition, they provided regional testing to TCF Arena (the former Cobo Hall) for patient triage after in-patient discharge to Skilled Nursing Facilities. Many of these individuals were not prior patients so it required significant effort to register, test, and report results to Michigan Department of Health and Human Services. The department also contributed to national security, providing testing to the Air Force National Guard at Selfridge Air Base and the Fermi II nuclear power plant.

The department is actively involved in defining the DEIJ initiatives in alignment with the health system through the newly founded professional staff Pathology DEIJ Committee composed of 10 senior staff pathologists and 1 pathology resident, a native of Nigeria. This committee reports directly to the chair. It is charged with developing a plan that will improve diversity, equity, inclusion, and justice in the Department of Pathology. The expressed mission is to support the foundation upon which Henry Ford Health stands and to reaffirm DEIJ as a highlight in our departmental partnership with MSU.

The demographics of the existing HFMG pathology faculty are as follows:
Demographics N=57 (16 women (11 MD/1 DO, 4 PhD) 41 men (all MD))

White/Caucasian=17

AfricanAmerican=3
Asian = 8
South Asian (Indian/Pakistani, Bangladeshi) = 10
Latino/Hispanic = 3
Native Hawaiian / Other Pacific Islander= 0
Middle Eastern/Arabic = 11
Other (Iranian) = 3

Goals of the Pathology Department

(a) Research Mission

The research foci of the proposed department will reflect the active research of current faculty in HFMG pathology and are fairly broad. Given the nature of the discipline and despite its focus as a service department, faculty in the HFMG pathology routinely engage in clinical-based investigations, partnering with each other, the pathology residents, clinical and basic science research collaborators within the HFMG and external academic collaborators, as well as vendor sponsored evaluations and trials of new technologies. Creation of MSU Department of Pathology with HFMG pathology faculty will afford many new and rewarding collaborations, especially with basic researchers at MSU. The new MSU pathology faculty's deep and broad areas of expertise integrate very well with the MSU research foci in cancer biology, neuroscience, GI/GU-Hepatic/Cardiovascular/Pulmonary, immunity and inflammation, environmental toxicology, mass spectrometry, investigative histopathology, diabetes/obesity and drug discovery. These collaborations are already beginning- for example between HFMG gynecologic pathologist, Ghassan Allo, collaborating in an MSU-HFH study on uterine fibroids, led by Jose Teixeira, PhD (MSU) Ganesa Wegienka, PhD (HFH).

(b) Education mission

The goals of the proposed MSU Department of Pathology will focus on post-graduate medical education, undergraduate medical education and allied health program education.

Post-Graduate Medical Education

Post Graduate ACGME Pathology Residency Program, Anatomic and Clinical Pathology

- Fellowship in Pathology Informatics (2 year)
- Fellowship in Laboratory Genetics and Genomics (Cytogenetics) (2 year)
- Pathology rotations, scheduled, for clinical house officers
- Lean Certification Training, Henry Ford Production System, throughout the year

The pathology subspecialty depth and breadth of faculty in concert with the voluminous clinical material from the clinical enterprise provide a rich basis for the educational mission. This includes post-graduate education of pathology resident trainees in a 4-year ACGME anatomic and clinical pathology program (16 residents), other rotating clinical house officers, ACGME fellows in Medical Genetics and Genomics (1) and Pathology Informatics (1), and clinical rotating fellows.

The ACGME Pathology Residency Program is overseen by the professional staff faculty with a Program Director and 2 Associate Program Directors for anatomic and clinical pathology. Additional teaching faculty staff a Residency Program Evaluation Committee and a Residency Clinical Competency Committee.

Undergraduate Medical Education (Medical student clerkships)

A new committee composed of 15 senior staff pathologists, the **MSU Medical Student Pathology Clerkship Committee**, was formed in 2022 to oversee strategic planning, educational design, scheduling, operation and evaluation of an undergraduate medical student clerkship aligned with the MSU educational case-based learning model. This focus will be case-based problem-solving rotations with lab interactions presented to students to solve within each laboratory discipline. Given a clinical history and clinical laboratory test requests/samples, the student will follow the path of the specimen in each laboratory and follow surgical biopsies through tumor board any one of 18 tumor boards held weekly at HFH or other clinical conferences. The key learning objectives are for the student to understand the meaning and application of laboratory testing that guides clinical decision making, to learn how to prevent the most common laboratory errors, to understand how to interpret a surgical pathology report, to discover how the medical laboratory really functions, and to highlight the roles and possible interactions of pathologists in patient care. The curriculum will identify and fill educational gaps through an engaging curriculum that provides the student with practical laboratory knowledge to become a superior clinician who uses and interacts with the medical laboratory appropriately and efficiently. The core educational team is composed of enthusiastic senior staff, excited to teach, with diverse specialty training across the laboratory.

Allied Health Program Education

- Biomedical Laboratory Diagnostic Sciences Program (Medical Technologist)- medical laboratory scientist internship rotations- Wayne State, Michigan State, occasional students from Grand Valley, UM, EMU at Henry Ford Hospital
- Medical Laboratory Scientist (Medical Technologist) Training Program with Oakland University at Henry Ford Health (in development)

(c) Service and outreach mission

The goal of MSU Department of Pathology in service and outreach mission is to respond to requests from the community or whenever the leadership team, proactively see the need. These may be as simple as providing tours to students, family members or youth organizations, who have never seen the inside of a large specialty laboratory. This will also include support for annual testing in the city of Detroit and suburbs for Prostate Awareness Week and colorectal cancer screening. Requests by research investigators and investigators population health will also be supported.

In addition, the department will continue to provide laboratory services through grant funding for the underprivileged school children in the Detroit School Based Health Initiatives (SBHI) and in southwest Detroit with the Community Health and Social Services Center (CHASS Clinic), serving a largely Hispanic patient population.

Examples of service and outreach activity by HFMG pathology and lab medicine in the past: In June 2022 HFMG pathology hosted a visit by US Congresswoman Rashida Tlaib, who represents their district in Washington, DC. She had never been in a laboratory and was on a learning trip, to better understand services to her constituents, and issues that may impact people in her district. She stayed two full hours listening, asking questions, touring, and looking at a tissue pathology case under the microscope. She had a staff person with her and both were amazed to have this experience.

The department's community support during the COVID-19 pandemic was comprehensive in response to huge needs from many constituents. They stepped-up to provide testing to vulnerable nursing home residents, dialysis patients, first responders in SE Michigan, critical infrastructure workers, students and coaches for six universities and four professional sports teams. In addition, they provided regional testing to TCF arena for patient triage after in-patient discharge to Skilled Nursing Facilities. Many of these individuals were not prior patients so it required significant effort to register, test, and report results to Michigan Department of Health and Human Services. They also contributed to national security, providing testing to the Air Force National Guard at Selfridge Air Base and the Fermi II nuclear power plant. In the earliest days of the SARS-CoV-2 Pandemic, the pathology leadership heard a news report that six elderly patients had died at the Riverside Terrace nursing facility. They immediately contacted the post-acute care team and urgently suggested the need to test other residents and staff. They performed two phases of testing and completed over 200 Covid tests which likely protected others from harm. During this pandemic the department has received email messages of thanks stating the work being done is saving lives and helping with how to cohort patients in the emergency department and inpatient units.

(d) Clinical mission

For the present time, the clinical goal of the MSU department of pathology will be accomplished by the Pathology and Laboratory Medicine (PALM) at Henry Ford Health

and will not be part of the MSU Health care Inc. PALM is an integrated System-wide Clinical Department (Product-Line) for 6 acute care hospitals and 40 medical centers under the dyadic leadership of one System Chair and one System Vice President. Administrative Offices and Core Laboratories are based at Henry Ford Hospital. The Chair is one of 11 academic departmental chairs in the Henry Ford Medical Group (HFMG), reporting to the CEO and CAO, Dr. Steven Kalkanis.

The department's primary mission is focused on provision of high quality, rapidly communicated, standardized clinical laboratory and subspecialty pathology services for the health system and external outreach clients. The community hospitals function as rapid response laboratories. Over 71% of system laboratory testing is performed in the Core Laboratories located at Henry Ford Hospital, under the laboratory medical directorship of the System Chair. As a centralized service line, Henry Ford Medical Group pathologists are the professional staff at all hospitals. HFMG pathologists are the sole CLIA laboratory medical directors for the Henry Ford Health System and hold 75 Federal CLIA laboratory license certificates for all hospital-based inpatient, medical center outpatient and outreach medical laboratory testing and pathology services.

The department is recognized both within the health system and throughout the world as the laboratory leader in applying and teaching Lean methods of continuous improvement to achieve consistently high levels of service quality, safety, regulatory compliance, client satisfaction and cost effectiveness. This department is recognized as world-class internationally with centers of excellence by Danaher Business Systems for continuous improvement and applications to automated testing, by the College of American Pathologists for being their center of excellence and learning for ISO 15189 laboratory accreditation, by Sakura USA for excellence and innovation in surgical pathology operations and by Sunquest Information System for excellence in pathology informatics.

Following are the clinical specialties/sub-specialties of the department:

Clinical Laboratory Medicine

1. Hematology
2. Coagulation, Special Coagulation
3. Clinical Chemistry, Immunochemistry
4. Urinalysis
5. Point of Care Testing
6. Transfusion Medicine
7. Microbiology/ Molecular Microbiology
8. Transplant Immunology/Molecular HLA
9. Pathology Informatics

Anatomic Pathology

1. Surgical Pathology, morphologic microscopy, subspecialized disciplines below
2. Surgical Pathology, Pathologists' assistants (13)
3. Hematopathology, morphologic and molecular
4. Precision Medicine, Molecular Oncology, Molecular Pathology, Cytogenomics & Constitutional Molecular Genetics
5. Morbid anatomy, Postmortem Examination
6. *Subspecialties*

(a) Breast
(b) Cardiac
(c) Cytogenetics
(d) Cytopathology
(e) Dermatopathology
(f) Digital Pathology, Informatics
(g) Electron Microscopy
(h) Gastrointestinal
(i) Genitourinary
(j) Gynecologic
(k) Head and Neck
(l) Hematolymphoid
(m) Hepatic/pancreaticobiliary
(n) Immunohistochemistry
(o) Kidney
(p) Molecular Genetics
(q) Musculoskeletal
(r) Neuropathology
(s) Placenta
(t) Pulmonary
(u) Renal
(v) Thyroid/Endocrine
(w) Transplant

Benefits to Michigan State University

Overall, this new Department of Pathology will strengthen and expand the academic environment of the college and MSU. Addition of this department will allow for curricular expansion of the College of Human Medicine and create additional academic homes for the expanding CHM faculty (both paid and no-pay faculty) across the state of Michigan. The growth of the program and the faculty will bring several opportunities for strengthening and enriching educational and research activities for CHM, including: The opportunity to develop new areas of curriculum and offer highly desirable student experiences in disciplines not currently represented in other CHM campuses (eg. MSU medical student pathology clerkships). The ability to establish additional required experiences and competencies that would not be possible without the addition of qualified faculty. The enhancement of graduate medical education (eg. post graduate ACGME pathology residency program, anatomic and clinical pathology; fellowship in pathology informatics etc.) throughout our system by the addition of programs in Henry Ford that we cannot currently offer at MSU (*see goals under education mission*). Strengthened subspecialty research, and clinical programs that will provide the necessary platform for translational and population-based research, as well as support the supply of well-trained physicians and physician scientists to meet future recruitment needs in all our communities across the state of Michigan.

The research focus of the MSU pathology department will be broad in various areas of pathology, and this will provide new and additional research training opportunities for undergraduate, graduate and medical students in different biomedical programs at

MSU. Importantly, faculty who are in the Henry Ford Pathology department are funded by external funding (including NIH) and are involved in 15 grant funded clinical research studies. Addition of the department to MSU will increase NIH funding (to MSU) via multiple ways: (a) Addition to existing NIH funding from these faculty to MSU grant portfolio; (b) Increased collaborative research programs with existing MSU faculty leading to increase NIH and other external funding. Together this will undoubtedly and significantly improve MSU ranking overall. In addition, it will also help in achieving MSU's strategic goal for reaching $1 billion in research expenditures by 2030. Faculty in the Pathology Department have received several honors and awards, and this will also significantly increase MSU faculty honorifics (another strategic goal for MSU). Lastly, CHM has an active and on-going relationship with several community partners and philanthropists. The addition of MSU Pathology Department will provide expanded opportunities for new endowments. Overall, creation of the MSU department of pathology to the college of Human medicine will bring about several important benefits to the university and to the state of Michigan.

Programmatic, operational and financial considerations

Alignment with existing departments/units in CHM and MSU

Addition of this Pathology Department will provide research and educational collaborative opportunities across the College of Human Medicine and multiple colleges of MSU. There are already existing funding opportunities for collaborative research and education, through the Henry Ford-MSU partnership. Faculty from both existing MSU departments and Henry Ford departments will be able to apply for internal and external grant programs collaboratively that will strengthen the grant portfolio of MSU faculty and significantly increase research expenditure.

There are multiple units in the college and the university that have faculty and students who do research in the areas of cancer biology, neuroscience, GI/GU-Hepatic/Cardiovascular/Pulmonary, immunity and inflammation, environmental toxicology, mass spectrometry, investigative histopathology, diabetes/obesity and drug discovery. Such collaborations are already taking place (eg. collaboration between gynecologic pathologist in an MSU-HFH study on uterine fibroids between MSU and HFH faculty). Addition of the Department of Pathology creates new opportunities and potential collaborations for these faculty and students. There is nothing about the department that would limit the ability of other colleges or departments from hiring faculty in their respective departments and/or research programs.

Department structure

MSU Department of Pathology will be led by a department chair. This may be the same person who is the chair of the Henry Ford Pathology department or may be a different

person depending on the outcome of the chair search. Addition of this Pathology Department will also be an opportunity for the state's Medicaid uplift. We expect significant funding to be available through this program, and we have pledged to use this money to support research, education and scholarship in the MSU-Henry Ford collaborative efforts. At the present time, faculty employed in the Henry Ford Pathology and Laboratory medicine department will become part of the MSU Department of Pathology. Thus, the Henry Ford chair of pathology and lab medicine will be the primary supervisor for these Henry Ford employed faculty for Henry Ford related issues. For MSU related issues, chair of the MSU Department of Pathology will be the administrative leader. We would support these chairs at 5-10% either as a dually employed faculty or leased by CHM from Henry Ford. HFH is using the lease model to support the current position as chair (Dr. Rick Leach) for Ob/Gyn at Henry Ford Health. This chair funding by MSU is essentially facilitating partnership development and we would request access to the "mission-support" funding provided through the partnership Definitive Agreement. Depending on the strategic needs of the department, college and the university, the college may fund a few faculty positions in these departments as MSU employed faculty.

Faculty appointments

Faculty will be appointed in multiple ways. Faculty that are already in the Henry Ford Pathology and Lab medicine department will be appointed as no-pay faculty in one of the following tracks depending on their role and contribution to the education and research missions of the college: Prefix, non-prefix and research tracks. For these various faculty tracks, we will follow the same process we currently follow in the college. When funding is available for new MSU-based faculty positions, these will be done using existing faculty hiring processes. In addition to clinical and non-prefixed faculty from Henry Ford Health, there will be clinical and non-prefixed faculty in the discipline joining from other communities, including Lansing and Grand Rapids. Most of these faculty are engaged in elective clerkships for MS3 and MS4 students in our eight campuses across the state.

(New paragraph added in response to CAC request at their October 17, 2022 meeting). Upon establishment, new departments may initially not have voting-eligible, full-time faculty sufficient to participate as regular representatives to the CHM College Advisory Council (see CHM Bylaws Section 1.1.5.2.4. and 1.1.5.2.5. with referred definitions 1.1.1.). Departments with no eligible faculty with university level voting rights will send a CAC representative who will be granted voice but no vote, until such a time as they have eligible faculty to serve. It is expected that full-time MSU faculty will be added over time through enhanced Medicaid funding returned to MSU as well as new Henry Ford Health – MSU Health Science Center (HSC) funding. The college expects there will be 20-40 hires through these mechanisms. Priority will be given to addition and retention of at least two eligible faculty with university level voting rights (see CHM Bylaws Section 3.1.2.3.) within each department.

Chair selection

With creation of the MSU Department of Pathology, the dean will first appoint an interim chair. After initial establishment of the department with faculty appointments, the dean (or designate) will work with the faculty and the interim chair to develop departmental bylaws that will go through appropriate approvals at the college and university levels. Once the bylaws are in place, the dean will work with the department to formulate a search for a founding chair and subsequent chairs using existing university guidelines. Depending on the strategic needs of the department and the faculty some of these searches will be national and some may be internal.

Department operations, governance, bylaws and RPT criteria

The department will operate in a manner consistent with other departments in the College of Human Medicine and will adopt a shared governance model. Shared governance with the existing faculty, staff, and students will follow the MSU Academic Governance policies. The interim chair will work with the dean to appoint a bylaws committee. The bylaws committee will include five faculty members and one outside faculty member with expertise in reviewing bylaws. Bylaws will be voted on and approved by a majority of department faculty before ratification. A scaffolding of the bylaws and major sections have already been identified and minimally will include sections on organization; governance; committees; RPT; grievances and complaints; and faculty (e.g., composition, meetings, appointment, reappointment, promotion, tenure, responsibilities, etc.). Reappointment, promotion, and tenure criteria will align with the College of Human Medicine criteria which are written, well-specified, and available on the CHM Faculty Affairs website. An RPT committee will be established within the Department of Pathology to work with the chair to manage the RPT processes.

Department Finance

Current Funding Status, Allocation, and Reserve Funds

The college is proposing a series of new departments based on faculty joining MSU and CHM from Henry Ford Health that complement the work of the college and university and highlight unique strengths of the HFH faculty. The health system, college, and partnership will provide support for the faculty and administration of the department. Most support will be in the form of faculty salary, which will come from the medical group within the health system. The Office of Health Sciences has committed financial resources from the overall MSU-HFHS partnership effort to support creation of departments. Discretionary funding will be used to support a small part of the salary and an administrative increment for the chair's MSU employment. As the department integrates into the college, the department will enter the Medicaid uplift program providing additional support for the department and funding additional MSU faculty in the department. The department will accrue reserves and start-up funds as all other

departments in the college do. The college currently supports a Division of Pathology within the Department of Physiology. There was a Department of Pathology at one time, but that unit was diminished to a division to reduce costs and in response to reductions in faculty numbers. For the time being, the college will continue its faculty support of the division and the existence of the division within the Physiology department. The long-term disposition of CHM's portion of that division will depend on conversations with the faculty themselves, the Department of Physiology, and the new pathology department.

Projected financial needs and how financial obligations of the department, including administrative costs will be met

Projected financial needs are centered around ongoing recruitment and retention of high-caliber faculty to support our education, research, and service missions. The college will direct Medicaid uplift derived from HFH to use in the departments based out of HFH to fund new positions and programs in the departments and college.

The current college allocation and reserve funds more than meet the projected financial needs and financial obligations of the proposed department, including administrative costs. The college and the department expect additional philanthropy as well.

Oversight of the curriculum

The department will participate in the college's educational programs as all other departments do. Electives and rotations in the MD curriculum will be approved and supervised by the CHM MD Curriculum committee. All other courses and educational programs will be reviewed by the college's Graduate Studies curriculum committee. The department's residency and fellowship programs operate with oversight from the departmental residency committees consistent with the ACGME accreditation of Henry Ford Health. The department will have a clerkship committee to oversee its medical student and any other educational programs not a part of the residency programs. For additional information on clerkships and residencies, see "Educational mission" under "Goals of the pathology department".

Evaluation of departmental effectiveness

The new MSU department of pathology will enter the standardized process for assessing departmental effectiveness consistent with all departments at CHM. There will be the usual five-year department and chair review as well as annual chair reviews. Note that HF pathology department already has a defined structure for departmental effectiveness as follows:

Systems for Effectiveness of Departmental Operations

As an outcome tight management in Lean culture, the department leadership relies on roughly 240 key performance indicators (KPI) to assess monthly performance and guide actions relative to the laboratory strategic plan for each core laboratory division and acute care hospital. These KPIs are reported to the leadership Office of the Chair monthly by the dyad of medical and administrative leaders. Key areas assessed are 1) Clinical performance metrics, 2) innovations, improvements and major projects, 3) regulatory compliance, 4) human development, education and engagement in improvements, 4) new or spiking deviations. Over the past 18 years, they have created 10 management systems that create stability and consistency of execution. In addition, for select areas they established stretch growth goals that span a multi-year strategic plan that is referred to as policy deployment, enabling them to build new and successful operations.

Systems for Effectiveness of System Laboratory Finances

This assessment is conducted monthly by the System Lab VP partner of the System Chair, reporting to the HFH Hospital president, VP of Finance and COO of Hospital Operations. Since 2015, the department participates in a national financial peer group benchmarking survey and has distinguished itself each year as the benchmark low cost per unit laboratory. Oversight also extends to anticipating both up and down trends in operating budgets, careful oversight of capital budget funds, and review of grant accounts. There is anticipated planning and growth of new sites and reductions and closure, when necessary. Supply chain management involves the review and administration of over one hundred contracts and work with our national group purchasing organization. An important element of laboratory finance relates to onboarding and off boarding people, and attention to ensure they have internal and external equity in base compensation and variable compensation (bonus or incentive) plans.

Systems for Effectiveness within HFMG

The CEO, COO, CFO of HFMG meet with the department leadership of chair and VP quarterly for updates and review of goal achievement and finances. The chair and VP attend bimonthly Chair Council meetings with the CEO, COO, CFO, fellow HFMG chairs and other medical group leaders.

Systems for Effectiveness of Residency Teaching Program

The residency program is supported by a pathologist program director, 2 associate program directors, a GME coordinator and 2 committees: Residency Program Evaluation Committee and Residency Clinical Competency Committee.

AP/CP residents are evaluated after each month-long rotation. Rotation directors meet with residents to discuss the evaluation and define opportunities for improvement and/or define a learning plan. All evaluations are housed in an online database, called 'MedHub,' an institution-wide resource paid for and maintained by the graduate medical education (GME) office. All faculty members and trainees have access to MedHub to file evaluations of team members and review evaluations adjudicating their performance.

Residents are asked to file rotation-specific evaluations that are largely independent of faculty teaching performance. These evaluations are designed to uncover curricular and/or operational gaps. Evaluations are collated to ensure anonymity of the residents and forwarded to rotation directors every six months. If needed, rotation directors adjust their curricula and/or rotation operations after discussing the proposed changes with the program director and presenting them to the program evaluation committee (PEC) for review and approval.

Once every academic year, residents file anonymous teaching evaluations for all faculty. The program director asks that teaching faculty read these evaluations and examine their teaching performance for areas of improvement. Feedback in the following domains is elicited: (1) professionalism, (2) interest in the education of residents, (3) encouragement of inquiry, (4) supervision, (5) participation in organized clinical discussions, rounds, journal clubs, and conferences, (5) commitment to the delivery of safe, quality, cost-effective, and patient-centered care, (6) review of goals and objectives at the beginning of the rotation, (7) adequacy of instruction, (8) opportunities for improvement.

The program director independently reviews all teaching evaluations and approaches faculty members individually with concerns that were brought forth during review of faculty evaluations. Interventions include review of agreed upon teaching standards and priorities of resident service obligations and exceedingly rarely involve including departmental leadership.

The AP/CP program relies heavily on the 'Instructional Design Team,' a group of PhD-level educational professionals hired by the GME office, to support faculty instruction in teaching methods. Pre-COVID, quarterly session on topics of professionalism, cultural sensitivity and high impact education of the adult learner were held and all faculty encouraged to attend. Program leadership is eager to re-implement this initiative as we emerge from pandemic-related restrictions.

Residency Accreditation Description

Pathology Residency Program

The Anatomic and Clinical Pathology (AP/CP) Residency Program at Henry Ford Hospital (HFH) is in the last three years of a ten-year accreditation cycle ending in 2025,

when an ACGME site visit is expected. Since the new leadership team has taken charge of the AP/CP Program in 2019, it has maintained continuous accreditation status without citations, confirmed on an annual basis by the ACGME Accreditation Council.

Our rolling three-year board passing rate is 90% for AP and CP. When surveyed anonymously by ACGME, 94% of our residents have a 'very positive' opinion of the AP/CP Program at HFH and 81% would 'definitely choose' the program again, if given the opportunity.

Laboratory Genetics and Genomics Residency Program

In 2014, Pathology inherited Cytogenetics with the termination of the Medical Genetics department. It is now part of the Division of Molecular Pathology and Genomic Medicine under Anatomic Pathology. Historically, the genetics laboratory at HFH is one of the oldest in the nation. The cytogenetics laboratory was created under the Department of Medical Genetics in 1967 and is recognized for early publication of a groundbreaking research article, “Ring 1 Chromosome and Dwarfism - A Possible Syndrome” in that same year. In 1970 the lab identified a genetic defect that contributes to a type of muscular dystrophy. The cytogenetics training program at HFH has been in existence since 1985.

The Laboratory Genetics and Genomics (LGG) program was previously under the purview of the American Board of Medical Genetics and Genomics (ABMGG). The ACGME accreditation of the Laboratory Genetics and Genomics (LGG) Fellowship Program at Henry Ford Hospital (HFH) is new following our 2019 application to fall under the ACGME. The program is now in year two of the initial accreditation and an ACGME site visit expected in the near future.

The ACGME accredited LGG program is currently approved for two fellows/residents, and recently welcomed their first ACGME fellow from MD Anderson Cancer Center. The program has a track record of successfully training numerous fellows and has a 100% board pass rate. Although the program does not have data from anonymous surveys provided by the ACGME, fellows have a positive view of the program overall. The current Cytogenomics laboratory director and the Molecular laboratory director are graduates of this LGG training program.

Existing system for annual performance reviews of faculty and staff:

Clinical Staff Evaluation Reviews

1. Professional clinical competence (to satisfy the Joint Commission medical staff requirement)

a. This evaluation process is overseen by the System Chair and initial reviews delegated to senior staff leaders (division heads, vice chairs) and service chiefs of hospitals.
b. Focused Professional Performance Evaluation (FPPE), initiated for competence documentation at onboarding and newly requested or re-evaluated privileges
c. Ongoing Focused Professional Performance Evaluation (OPPE), a biannual assessment of professional competence in the 6 domains of clinical skill peer-reviewed challenges, continuous medical education, clinical conference participation, interpersonal and communication skills, professional complaints/disciplinary actions, systems-based practice participation.
d. These documents are retained in each faculty's profile in the ESR OPPE electronic professional repository.
e. A peer review committee, Pathology Professional Practice Evaluation Committee, PPPEC, oversees peer review and resolution of discordant primary diagnoses and professional complaints.

2. Professional Goals and Objectives

a. Biannual performance review of each staff's annual goals and objectives are performed by their professional medical leader (chair, vice chair, division head, hospital service chief)
b. These documents are retained in the ESR Provider HR Evaluations tab retained in each faculty's profile.

Educator Staff Evaluation Reviews

See Systems for Effectiveness of Residency Teaching Program

Overall, the MSU department of pathology effectiveness will include measures of programs, faculty, students, staff, and community partners across all missions. Minimum measures will include:

- Faculty success – time in rank, tenure, promotion, research grants/awards.
- Student success – student evaluations from elective experiences, resident/fellow completion rate, program satisfaction.
- Staff success – retention, performance evaluations, staff feedback.
- Education/Curriculum success – continued growth, expansion, and impact.
- Financial performance based on college funding formulas, and reserve analysis.
- Outreach/engagement/service success – percentage of funds deployed to community, annual feedback from community stakeholders, faculty, and staff engagement in service work.

Assurances

For the university and college, the creation of the Department of Pathology will help solidify and expand the scholarly opportunities for students and faculty across the institution. With the addition of the department to MSU, it is expected that the unit will grow, adding to NIH funding in support of AAU metrics and building on the reputation of the existing faculty and programming. The leadership of the college has discussed the creation of the department with related departments and units including meetings with leadership and faculty. Many people across the university do work related to cancer biology, neuroscience, GI/GU-Hepatic/Cardiovascular/Pulmonary, immunity and inflammation, environmental toxicology, mass spectrometry, investigative histopathology, diabetes/obesity and drug discovery, similar to many people across the university that do work related to other areas of medicine. The addition of department of pathology does not limit the scholarly opportunities of others in the university, and this department will not change or limit the activity of faculty interested in the above-mentioned research areas across the institution. In fact, the success and expansion of this department increases opportunities for all.

Distribution of proposal for endorsement, assurances, or concerns:

Pathology (All communication by email unless otherwise indicated)

Dean Amalfitano (September 9, 2022) See Attachment D

Dean Duxbury (September 9, 2022) – The proposal has been distributed among departments, centers, and units. CNS expects to report back by the week of Sept. 26.

Interim Chair Karl Olsen (Physiology) (September 9, 2022)

- Dr. Olson requested the transfer of CHM lines in the division of pathology into the Department of Physiology, and CHM agrees to this.
- Dr. Olson requests that COM pathology faculty in the division of pathology be considered for joint appointments in the new department if that is their interest. That is fine with CHM. He is concerned about the home of COM pathology teaching with the new department. The division of pathology will continue within PSL to provide academic homes for those interested in being in the division. This is similar to many other departments for which the colleges have no parallel Physical Medicine & Rehabilitation (COM) and Emergency Medicine (CHM) are examples. The new department will welcome secondary appointments from pathology regardless of their home department or college as happens across the university.
- Dr. Olson requests a discussion regarding the Investigatory Histopathology Laboratory (IHL), which is now the financial responsibility of the department. Dr. Olson requests a meeting about the future of the IHL. That meeting is being scheduled.

Director John Gerlach (Biomedical Laboratory Diagnostics Program) (September 13, 2022)
Drs. Gerlach, Zarbo and I have had an email conversation and concluded that there are areas for collaboration. The college and new department will not start its own biomedical laboratory major or undergraduate certificate in competition with BLD. HFH already collaborates with BLD and those opportunities would expand with the creation of the department.

College Advisory Council Summary

- Recommendation/endorsement

The CHM CAC unanimously endorsed the proposal for a new Department of Pathology on November 21, 2022.

Attachment A

Publications 2019- 2022- Senior Staff Faculty Authorship
Henry Ford Pathology and Laboratory Medicine

Text Book Publications (textbook chapters and books)

1. **Chitale D**. Chapter 5: Ancillary Studies: Contribution to Error and Error Prevention. In, Error Reduction and Prevention in Surgical Pathology, Nahkleh RE and Volmer KE (eds.), Second Edition, Springer Nature, Switzerland, 2019.
2. **Otrock ZK**, Eby CS. Zoonotic bacterial infections triggering cytokine storm syndrome. In, Cytokine Storm Syndrome. Cron RQ and Behrens EM (eds). Springer Nature, Switzerland, pp 319-330, 2019. eBook https://doi.org/10.1007/978-3-030-22094-5
3. **Raoufi, M**. Gastrointestinal Pathology in Older Adults. In, Geriatric Gastroenterology. Pitchumoni CS, Dharmarajan T (Eds.). 2nd Edition. Springer Nature, Switzerland. 2019
4. **Menon MP.** Diffuse large B-cell lymphoma of the spleen. In, Diagnostic Pathology of Hematopoietic Disorders of Spleen and Liver, 1st ed. Zhang L, Shao H, Alkan S (eds.). Springer Nature, Switzerland, 2020.
5. **Menon MP.**, T-cell histiocyte rich large B-cell lymphoma of the spleen. In, Diagnostic Pathology of Hematopoietic Disorders of Spleen and Liver, 1st ed. Zhang L, Shao H, Alkan S (eds.). Springer Nature, Switzerland, 2020.
6. Hogan K, Lagoo AS, **Inamdar KV.** Lymphoid pathology on small biopsies (FNA and small core) - advantages and limitations: guidelines for ancillary studies according to clinical scenario and morphology. In, Practical Lymph Node and Bone Marrow Pathology. Wang E., Lagoo AS (eds.). Springer Cham. pp 53-85, 2020. DOI: 10.1007/978-3-030-32189-5_4
7. **Gómez-Gélvez JC, Inamdar KV** (2020) Small B-Cell Lymphomas With and Without Plasmacytic Differentiation. In, Practical Lymph Node and Bone Marrow Pathology. Practical Anatomic Pathology. Wang E., Lagoo AS (eds.). Springer Cham. pp 87-121, 2020. doi.org/10.1007/978-3-030-32189-5_5
8. **Samuel L.** Process Improvement. In, Clinical Microbiology Procedures Handbook, 4th Edition. Leber, AL (ed.) ASM Press, 2020.
9. Ding Y, **Al-Obaidy KI**, Cheng L. Genitourinary Neoplasms. In, Ding Y, Zhang L (eds.). Practical Oncologic Molecular Pathology. Practical Anatomic Pathology. Springer, Cham, Switzerland; 2021. https://doi.org/10.1007/978-3-030-73227-1_11.
10. Damjanov I, Perry AM, **Perry K**. Pathology for the Health Professions. 6th Edition. St Louis:Elsevier, 2022.
11. **Chitale C.** Chapter 1: Hallmarks of Cancer: Molecular Underpinnings. In, Leong, S.P., Nathanson, S.D., Zager, J.S. (eds) Cancer Metastasis Through the Lymphovascular System. Springer, Cham. 2022. https://doi.org/10.1007/978-3-030-93084-4_3
12. **Favazza L.** Chapter 2: Unifying Concepts of Genomic Changes: The Mutational Landscape of Cancers. In, Leong, S.P., Nathanson, S.D., Zager, J.S. (eds) Cancer Metastasis Through the Lymphovascular System. Springer, Cham. 2022. https://doi.org/10.1007/978-3-030-93084-4_3
13. Franco-Palacios DJ, Allenspach L, Stagner L, Pinto J, Olexsey K, Sherbin E, Dillon W, Sternberg D, Bryce K, Simanovski J, Apostolou D, Tanaka D, Nemeh H, **Wang Z** , Alangaden G. A center experience with lung transplantation for COVID-19 ARDS. A center experience with lung transplantation for COVID-19 ARDS. Respir Med Case Rep. 2022; 36:101597. PMID: 35127437

14. **Gomez-Gelvez J, Chitale D.** Chapter 4: Hallmarks of Metastasis: Molecular Underpinnings . In, Leong, S.P., Nathanson, S.D., Zager, J.S. (eds) Cancer Metastasis Through the Lymphovascular System. Springer, Cham. 2022. https://doi.org/10.1007/978-3-030-93084-4_3
15. **Otrock ZK**. Coagulation. Hereditary bleeding disorders. Hereditary bleeding disorders – general. In, Pathology Outlines. May 2022.
URL: https://www.pathologyoutlines.com/topic/coagulationhereditarybleedinggeneral.html
16. **Shaw B, Kis O.** Chapter 5: Hereditary Cancer Syndromes and Cancer Metastasis . In, Leong, S.P., Nathanson, S.D., Zager, J.S. (eds) Cancer Metastasis Through the Lymphovascular System. Springer, Cham. 2022. https://doi.org/10.1007/978-3-030-93084-4_3
17. **Wang Z.** Chapter 3: Tumor Microenvironment: Coconspirator in Tumorigenesis. In, Leong, S.P., Nathanson, S.D., Zager, J.S. (eds) Cancer Metastasis Through the Lymphovascular System. Springer, Cham. 2022. https://doi.org/10.1007/978-3-030-93084-4_3
18. **Zarbo RJ** and Wenig B: The Jaws, Oral Cavity and Oropharynx. Chapter 19, pp.893-1015. In Longacre TA, Greenson JK, Hornick JL, Reuter VE (eds.): Mills and Sternberg's Diagnostic Surgical Pathology. 7th Edition. New York: Wolters Kluwer/Lippincott Williams & Wilkins, 2022.
19. **Al-Obaidy KI, Alruwaii ZI**, Mohanty SK, Cheng L, Williamson SR. Molecular pathology of kidney tumors. In, Eble JN, Netto G, Cheng L (eds.). Molecular Surgical Pathology. 2nd edition. New York, NY: Springer. (In press).

Publications in Peer Journals (manuscripts)

2019

1. Abdel-Rahman Z, **Inamdar K**, Ali H. A Lesion on the Scalp. JAMA Oncol. 2019 Jan 1;5(1):104. PMID: 30242314
2. Abdulfatah E, Wakeling E, Sakr S, **Al-Obaidy K**, Bandyopadhyay S, Morris R, Feldman G, Ali-Fehmi R. Molecular classification of endometrial carcinoma applied to endometrial biopsy specimens: Towards early personalized patient management. Gynecol Oncol. 2019 Sep;154(3):467-474. PMID: 31248668.
3. **Ahsan BU**, Alhamar M, Pompa R, **Schultz D, Zhang Z.** Metastatic malignant melanoma to the esophagus, first case diagnosed by endoscopic ultrasound (EUS) guided fine needle aspiration (FNA). Cytopathology 30(5):538- 540, 2019. PM30980784
4. Al Feghali KA, Ghanem AI, Burmeister C, Chang SS, Ghanem T, **Keller C,** Siddiqui F. Impact of smoking on pathological features in oral cavity squamous cell carcinoma. J Cancer Res Ther. 2019;15(3):582-588. doi:10.4103/jcrt.JCRT_641_16. PMID: 31169224.
5. Alanee S, **Williamson SR, Gupta NS**. A Rare Case of Non-Functioning Bladder Paraganglioma Treated with Robotic Assisted Partial Cystectomy. Urol Case Rep. 2019;26:100950. doi:10.1016/j.eucr.2019.100950. PMID:31312604.
6. **Allo G**, Yap ML, Cuartero J, Milosevic M, Ferguson S, Mackay H, Kamel-Reid S, Weinreb I, Ghazarian D, Pintilie M, Clarke BA. HPV-independent Vulvar Squamous Cell Carcinoma is Associated with Significantly Worse Prognosis Compared With HPV-associated Tumors. Int J Gynecol Pathol. 2019 Jul 3. doi: 10.1097/PGP.0000000000000620. [Epub ahead of print] PubMed PMID: 31274700.
7. **Al-Obaidy KI**, Eble JN, Cheng L, **Williamson SR**, Sakr WA, **Gupta N**, Idrees MT, Grignon DJ. Papillary Renal Neoplasm with Reverse Polarity: A Morphologic, Immunohistochemical, and Molecular Study. Am J Surg Pathol.2019; Epub ahead of print. doi:10.1097/pas.0000000000001288. PMID: 31135486.

8. **Al-Obaidy KI**, Eble JN, Nassiri M, Cheng L, Eldomery MK, **Williamson SR**, Sakr WA, **Gupta N, Hassan O**, Idrees MT, Grignon DJ. Recurrent KRAS mutations in papillary renal neoplasm with reverse polarity. Mod Pathol. 2019 Sep 18. doi: 10.1038/s41379-019-0362-1.
9. **Al-Obaidy KI**, Idrees MT, Grignon DJ, Ulbright TM. Adenocarcinoma of the Rete Testis: Clinicopathologic and Immunohistochemical Characterization of 6 Cases and Review of the Literature. Am J Surg Pathol. 2019 May;43(5):670-681. PMID: 30676333.
10. **Al-Obaidy KI**, Idrees MT. Endometriosis with Cystic Degeneration: A Rare Disease of Males. Int J Surg Pathol. 2019 May;27(3):311-314. PMID: 30178697.
11. **Al-Obaidy KI**, Trevino KE, Idrees MT. Clinicopathologic Characterization of Bilateral Testicular Germ Cell Tumors With Immunohistochemical Evaluation of Mismatch Repair and BRAF (V600E) Genes Mutations. Int J Surg Pathol. 2019 Sep;27(6):619-623. PMID: 30983459.
12. Amro A, Chen Y, Barry R, Susick L, Bensenhaver J, Proctor E, Petersen L, Nathanson SD, Ali H, Loutfi R, **Chitale D**, Simonds A, Kuklinski M, Park KU, Davis M, Newman LA. Distribution and Short-term Prognostic Value of the 21- gene recurrence score in African American compared to White American breast cancer patients. Breast J. 2019; Epub ahead of print. doi:10.1111/tbj.13256. PMID: 31025467.
13. Andrade D, Mehta M, Griffith J, Oh S, Corbin J, Anish Babu A, De S, Chen A, Zhao YD, **Husain S**, Roy S, Xu L, Aube J, Janknecht R, Gorospe M, Herman T, Ramesh R,Munshi A. HuR Reduces Radiation-Induced DNA Damage by Enhancing Expression of ARID1A, Cancers (Basel), 2019 Dec 13; 11 (12)
14. Asmaro, K.,Abouelleil, M.,Haider, S.,Zakaria, H. M.,Gradinaru, C., **Mukherjee, A**.,Lee, I., 2019. Malignant
15. Transformation of a Filum Terminale Dermoid Tumor into Adenocarcinoma World Neurosurg, Epub ahead of print. Pub Med ID: 30872204
16. Bianchini ML, Mercuro NJ, Kenney RM, Peters MA, **Samuel LP**, Swiderek J, Davis SL. Improving care for critically ill patients with community-acquired pneumonia Am J Health Syst Pharm. 2019 Jun 3;76(12):861-868.
17. Chakravarthi BV, Dedigama-Arachchige P, Carskadon S, Sundaram SK, Li J, Wu KH, Chandrashekar DS, Peabody JO, Stricker H, Hwang C, **Chitale DA, Williamson SR, Gupta NS**, Navone NM, Rogers C, Menon M, Varambally S, Palanisamy N. Pseudogene Associated Recurrent Gene Fusion in Prostate Cancer. Neoplasia. 2019 Oct;21(10):989-1002. doi: 10.1016/j.neo.2019.07.010. Epub 2019 Aug 22. PubMed PMID: 31446281; PubMed Central PMCID: PMC6713813.
18. **Chitale, DA**. Value of the 21-gene recurrence score in African American compared to White American breast cancer patients. Breast J. 2019 Jul;25(4):667-671. doi: 10.1111/tbj.13256. Epub 2019 Apr 25. PubMed PMID: 31025467.
19. Deebajah M, Keeley J, Park H, Pantelic M, **Gupta N, Williamson SR**, Peabody J, Menon M, Dabaja A, Alanee S. A propensity score matched analysis of the effects of African American race on the characteristics of regions of interests detected by magnetic resonance imaging of the prostate. Urol Oncol. 2019; Epub ahead of print. doi:10.1016/j.urolonc.2019.03.017. PMID: 31005421.
20. Farmer C, Patel D, **Pimentel JD**, Shwayder T. Large hemorrhagic plaque with central crusting. Cutis. 2019;103:68;79;80. PubMed PMID: 30893389.
21. Frank MO, Koyama T, Rhrissorrakrai K, Robine N, Utro F, Emde A-K, Chen B-J, Arora K, Shah M, Geiger H, VFelice V, Dikoglu E, Rahman S, **Fang X**, Vacic V, Bergmann EA, Vogel JLM, Reeves C, Khaira D, Calabro A, Kim D, Lamendola-Essel MF, Esteves C, Agius P, Stolte C, Boockvar J, Demopoulos A, Placantonakis DG, Golfinos JG, Brennan C, Bruce J, Lassman AB, Canoll P, Grommes C, Daras M, Diamond E, Omuro A, Pentsova E, Orange DE, Harvey SJ, Posner JB, Michelini VV, Jobanputra V, Zody MC, Kelly J, Parida L, Wrzeszczynski KO, Royyuru AK and

Darnell RB. Sequencing and curation strategies for identifying candidate glioblastoma treatments. BMC Med Genomics. 2019;12(1):56.
22. Friedman BJ, Hernandez S, Fidai C, Jiang A, Shwayder TA, Carskadon S, Andea AA, Harms PW, **Chitale D**, Palanisamy N. A Pediatric Case of Pigmented Epithelioid Melanocytoma with Chromosomal Copy Number Alterations in 15q and 17q and a Novel ntrk3-Scaper Gene Fusion. J Cutan Pathol. 2019; Epub ahead of print. doi:10.1111/cup.13566. PMID: 31437301.
23. Gandhi JS, Smith SC, Paner GP, McKenney JK, Sekhri R, Osunkoya AO, Baras AS, DeMarzo AM, Cheville JC, Rafael JE, Trpkov K, Colecchia M, Ro JY, Montironi R, Menon S, Hes O, **Williamson SR**, Hirsch MS, Netto GJ, Fine SW, Sirohi D, Kaushal S, Sangoi A, Robinson BD, Kweldam CF, Humphrey PA, Hansel DE, Schultz L, Magi-Galluzzi C, Przybycin CG, Shah RB, Mehra R, Kunju LP, Aron M, Kryvenko ON, Kench JG, Kuroda N, Tavora F, van der Kwast T, Grignon DJ, Epstein JI, Reuter VE, Amin MB. Reporting Practices and Resource Utilization in the Era of Intraductal Carcinoma of the Prostate: A Survey of Genitourinary Subspecialists. Am J Surg Pathol. 2019; Epub ahead of print. doi:10.1097/pas.0000000000001417. PMID: 31876580.
24. Gill CM, Kenney RM, Hencken L, Mlynarek ME, Alangaden GJ, **Samuel LP**, Davis SL. T2 Candida versus beta-D-glucan to facilitate antifungal discontinuation in the intensive care unit. Diagn Microbiol Infect Dis. 2019 Oct;95(2):162-165.
25. Gupta S, Argani P, Jungbluth AA, Chen YB, Tickoo SK, Fine SW, Gopalan A, Al-Ahmadie HA, Sirintrapun SJ, Sanchez A, Hakimi AA, McFarlane T, Salazar PA, **Williamson SR**, Skala SL, Mehra R, Hes O, Antonescu CR, Ladanyi M, Arcila ME, Reuter VE. TFEB Expression Profiling in Renal Cell Carcinomas: Clinicopathologic Correlations. Am J Surg Pathol. 2019;43(11):1445-1461. doi:10.1097/pas.0000000000001307. PMID: 31600176.
26. **Hassan O**, Murati Amador B, Lombardo KA, Salles D, Cuello F, Marwaha AS, Daniels MJ, Kates M, Bivalacqua TJ, Matoso A. Clinical significance of urothelial carcinoma ambiguous for muscularis propria invasion on initial transurethral resection of bladder tumor. World J Urol. 2019 Apr 27. doi: 10.1007/s00345-019-02782-y.
27. Houghton K, **Umar B**, Schairer J. Successful treatment of hereditary hemorrhagic telangiectasia with octreotide. ACG Case Reports Journal 6(6), 2019. PM31616764
28. Jebastin JAS, **Perry KD**, **Chitale DA**, Mott MP, Sanchez J, Fritchie KJ, Palanisamy N, **Williamson SR**. Atypical Lipomatous Tumor/Well-Differentiated Liposarcoma With Features Mimicking Spindle Cell Lipoma. Int J Surg Pathol. 2019. Oct 31:1066896919884648. doi: 10.1177/1066896919884648. [Epub ahead of print] PubMed PMID: 31672072.
29. Jebastin TJ, **Williamson SR, Pimentel J, Perry K**. Autoamputation of Dermatofibrosarcoma Protuberans: A Novel and Rare Presentation of a Familiar Entity. Int J Surg Pathol. 2019 Aug;27(5):531-534. doi:10.1177/1066896919832658. Epub 2019 Feb 27. PubMed PMID: 30813811.
30. Jenkins BD, Martini RN, Hire R, Brown A, Bennett B, Brown I, Howerth EW, Egan M, Hodgson J, Yates C, Kittles R, **Chitale D**, Ali H, Nathanson D, Nikolinakos P, Newman L, Monteil M, Davis MB. Atypical Chemokine Receptor 1 (DARC/ACKR1) in Breast Tumors Is Associated with Survival, Circulating Chemokines, Tumor-Infiltrating Immune Cells, and African Ancestry. Cancer Epidemiol Biomarkers Prev. 2019 Apr;28(4):690-700. doi: 10.1158/1055-9965.EPI-18-0955. PubMed PMID: 30944146; PubMed Central PMCID: PMC6450416.
31. Krishnamoorthy G, Kotecha A, Pimentel J. Complete resolution of erythrodermic psoriasis with first-line apremilast monotherapy. BMJ Case Rep. 2019 Jan 31;12(1). pii: e226959. doi: 10.1136/bcr-2018-226959. PubMed PMID: 30709830.
32. Kryvenko ON, Wang Y, Sadasivan S, **Gupta NS**, Rogers C, Bobbitt K, **Chitale DA**, Rundle A, Tang D, Rybicki BA. Potential effect of anti-inflammatory drug use on PSA kinetics and subsequent

prostate cancer diagnosis: Risk stratification in black and white men with benign prostate biopsy. Prostate. 2019; Epub ahead of print. doi:10.1002/pros.23820. PMID: 31045267.
33. Lau HD, Chan E, Fan AC, Kunder CA, **Williamson SR**, Zhou M, Idrees MT, Maclean FM, Gill AJ, Kao CS. A Clinicopathologic and Molecular Analysis of Fumarate Hydratase-Deficient Renal Cell Carcinoma in 32 Patients. Am J Surg Pathol. 2019; Epub ahead of print. doi:10.1097/pas.0000000000001372. PMID: 31524643.
34. Lu Z, **Williamson SR**, Carskadon S, Arachchige PD, Dhamdhere G, **Schultz DS**, Stricker H, Peabody JO, Jeong W, **Chitale DA**, Bismar TA, Rogers CG, Menon M, **Gupta NS**, Palanisamy N. Clonal evaluation of early onset prostate cancer by expression profiling of ERG, SPINK1, ETV1, and ETV4 on whole-mount radical prostatectomy tissue. Prostate. 2020 Jan;80(1):38-50. doi: 10.1002/pros.23914. Epub 2019 Oct 4. PubMed PMID: 31584209.
35. Maahs L, Sanchez BE, **Gupta N**, Van Harn M, Barrack ER, Reddy PV, Hwang C. Class III beta-tubulin expression as a predictor of docetaxel-resistance in metastatic castration-resistant prostate cancer. PLoS One. 2019;14(10):e0222510. doi:10.1371/journal.pone.0222510. PMID: 31658275
36. **McPherson GN**, Long T, Salipante SJ, Rongitsch JA, Hoffman NG, Stephens K, Penewit K, Greene DN. The Vaginal Microbiome of Transgender Men. Clinical Chemistry. 2019 Jan 1;65(1):199-207.
37. Metz CM, Babu SC, **Keller CE**, Standring RT. Inverted Papilloma of the Middle Ear and Mastoid Cavity: A Case Report, Literature Review, and Surveillance Proposal. Spartan Research Medical Journal. 2019;3(3).
38. Murga-Zamalloa C, **Inamdar KV**, Wilcox RA. The role of aurora A and polo-like kinases in high-risk lymphomas. Blood Adv. 2019 Jun 11;3(11):1778-1787. PMID:31186254
39. Murga-Zamalloa C, Rolland DCM, Polk A, Wolfe A, Dewar H, Chowdhury P, Onder O, Dewar R, Brown NA, Bailey NG, **Inamdar K**, Lim MS, Elenitoba-Johnson KSJ, Wilcox RA. Colony-Stimulating Factor 1 Receptor (CSF1R) Activates AKT/mTOR Signaling and Promotes T-Cell Lymphoma Viability. Clin Cancer Res. 2019 Oct 21. PMID:31636099
40. Neelakantan D, Dogra S, Devapatla B, Jaiprasart P, Mukashyaka MC, Janknecht R, Kumar S, Dwivedi D, Bhattacharya R, **Husain S**, Ding K, Woo S. Multifunctional APJ Pathway Promotes Ovarian Cancer Progression and Metastasis. Mol Cancer Res, 2019 Jun;17(6):1378-1390.
41. Newman LA, Jenkins B, Chen Y, Oppong JK, Adjei E, Jibril AS, Hoda S, Cheng E, **Chitale D**, Bensenhaver JM, Awuah B, Bekele M, Abebe E, Kyei I, Aitpillah F, Adinku M, Nathanson SD, Jackson L, Jiagge E, Merajver S, Petersen LF, Proctor E, Gyan KK, Martini R, Kittles R, Davis MB. Hereditary Susceptibility for Triple Negative Breast Cancer Associated With Western Sub-Saharan African Ancestry: Results From an International Surgical Breast Cancer Collaborative. Ann Surg. 2019 Sep;270(3):484-492. doi: 10.1097/SLA.0000000000003459. PubMed PMID: 31356281.
42. **Otrock ZK**, Eby CS, Burnham CD. Human ehrlichiosis at a tertiary-care academic medical center: Clinical associations and outcomes of transplant patients and patients with hemophagocytic lymphohistiocytosis. Blood Cells Mol Dis. 2019 Mar 19; 77: 17-22. doi: 10.1016/j.bcmd.2019.03.002
43. Peregrine J, Gurung S, Lindgren MC**, Husain S**, Zavy MT, Myers DA, Papin JF. Zika Virus Infection, Reproductive Organ Targeting, and Semen Transmission in the Male Olive Baboon, J Virol, 2019 Dec 12;94(1)
44. Qu D, Weygant N, Yao J, Chandrakesan P, Berry WL, May R, Pitts K, **Husain S**, Lightfoot S, Li M, Wang TC, An G, Clendenin C, Stanger BZ, Houchen CW. Overexpression of DCLK1-AL Increases Tumor Cell Invasion, Drug Resistance, and KRAS Activation and Can Be Targeted to Inhibit Tumorigenesis in Pancreatic, Cancer.Oncol, 2019 Aug 5;2019:6402925

45. Salama R, **Al-Obaidy KI**, Perrino CM, Grignon DJ, Ulbright TM, Idrees MT. DOG1 immunohistochemical staining of testicular biopsies is a reliable tool for objective assessment of infertility. Ann Diagn Pathol. 2019 Jun;40:18-22. PMID: 30849695.
46. Saleh J, Ozog DM, **Chitale DA**, Friedman BJ. Ecchymotic Nodule on the Scalp: Challenge. Am J Dermatopathol. 2019 Aug;41(8):e78-e79. doi: 10.1097/DAD.0000000000001140. PubMed PMID: 31335426.
47. **Samuel, L**. Direct Detection of Pathogens in Bloodstream During Sepsis: Are We There Yet? J Appl Lab Med. 2019 Jan;3(4):631-642
48. Sood A, Arora S, Kanika TK, **Gupta N**, Menon M. The precision prostatectomy: an idea, development, exploration, assessment and long-term monitoring (ideal) stage 0 and 1/2a study. BMI surgery, interventions, & health technologies. BMJ Surg Interv Health technol 2019;1(1):e000002. doi: 10.1136/bmjsit-2019-000002. eCollection 2019.
49. Snyder, J, Poisson LM, Noushmehr H, Castro AV, de Carvalho AC, Robin A , **Mukherjee A,** Lee I,Walbert T. 2019. Clinical and research applications of a brain tumor tissue bank in the age of precision medicine 2019 Mar;16(2):145-156. doi: 10.2217/pme-2018-0102. Epub 2019 Feb 28. PMID: 30816054
50. Trpkov K, Bonert M, Gao Y, Kapoor A, He H, Yilmaz A, Gill AJ, **Williamson SR,** Comperat E, Tretiakova M, Magi-Galluzzi C, Brimo F, Hes O. High-grade Oncocytic Tumor (HOT) of Kidney in a Patient with Tuberous Sclerosis Complex. Histopathology. 2019; Epub ahead of print. doi:10.1111/his.13876. PMID: 31002177.
51. Trpkov K, **Williamson SR**, Gao Y, Martinek P, Cheng L, Sangoi AR, Yilmaz A, Wang C, San Miguel Fraile P, Perez Montiel DM, Bulimbasic S, Rogala J, Hes O. Low-grade Oncocytic Tumor of Kidney (CD117 Negative, Cytokeratin 7 Positive): A Distinct Entity? Histopathology. 2019; Epub ahead of print. doi:10.1111/his.13865. PMID: 30895640.
52. Tudor J, **Williams SR**, Myers DT, **Umar B**. Appendiceal endosalpingiosis: clinical presentation and imaging appearance of a rare condition of the appendix. Abdominal Radiology 44(10):3246-3251, 2019. PM30367212
53. **Tuthill JM**. Decision Support to Enhance Automated Laboratory Testing by Leveraging Analytical Capabilities. Clin Lab Med. 2019; Epub ahead of print. doi:10.1016/j.cll.2019.01.005.
54. Vaddepally RK, Hejab A, Dabak V, **Menon M**. A rare case of follicular lymphoma transformed to a high-grade B cell lymphoma in orbit. Clin Case Rep. 2019;7(5):1053-1056. doi:10.1002/ccr3.2153. PMID: 31110744.
55. Van Slambrouck C, Huh J, Suh C, Song JY, **Menon MP**, Sohani AR, Duffield AS, Goldberg RC, Dama P, Kiyotani K, Godfrey J, Fitzpatrick C, Kline J, Smith SM, Jaffe ES, Hartmann S, Venkataraman G. Diagnostic utility of STAT6(YE361) expression in classical Hodgkin lymphoma and related entities. Mod Pathol. 2019; Epub ahead of print. doi:10.1038/s41379-019-0428-0. PMID: 31822802.
56. Vizcaino MA, **Tabbarah AZ**, Asnaghi L, Maktabi A, Eghrari AO, Srikumaran D, Eberhart CG, Rodriguez FJ. ADAM3A copy number gains occur in a subset of conjunctival squamous cell carcinoma and its high grade precursors. Hum Pathol. 2019 Dec;94:92-97. doi: 10.1016/j.humpath.2019.08.020. Epub 2019 Sep 5. PMID: 31493427; PMCID: PMC6917831.
57. Wang X, **Chitale D**. HER2 Expression in NF1 Breast Cancer-Response. Cancer Prev Res 2019;12:197-198. doi: 10.1158/1940-6207.CAPR-18-0492. Epub 2019 Feb 21. PubMed PMID: 30792347.
58. **Williamson SR**, Cheng L, Gadde R, Giannico GA, Wasco MJ, Taylor Smith PJ, Gupta NS, Grignon DJ, Jorda M, Kryvenko ON. Renal Cell Tumors with an Entrapped Papillary Component: A Collision with Predilection for Oncocytic Tumors. Virchows Arch. 2019; Epub ahead of print. doi:10.1007/s00428-019-02648-z. PMID: 31444626.

59. **Williamson SR**, Taneja K, Cheng L. Renal cell carcinoma staging: pitfalls, challenges, and updates. Histopathology. 2019;74(1):18-30. doi:10.1111/his.13743. PMID: 30565307.
60. **Winston-McPherson GN**, Schmeling M, Hoofnagle AN. Quantification of Methotrexate in Human Serum and Plasma by Liquid Chromatography Tandem Mass Spectrometry. Methods Mol Biol. 2019;1872:101-110. doi:10.1007/978-1-4939-8823-5_10. PMID: 30350283.
61. **Winston-McPherson GN**, Xie H, Yang K, Li X, Shu D, Tang W. Discovery of 2, 3'-Diindolylmethanes as a Novel Class of PCSK9 Modulators. Bioorganic & medicinal chemistry letters. 2019 Jun 12; 29(16):2345-2348 https://doi.org/10.1016/j.bmcl.2019.06.014
62. **Winston-McPherson GN**, Greene, D.N., McPherson, G.W., Rongitsch, J., Imborek, K.L., Schmidt, R.L., Humble, R.M., Nisly, N., Dole, N.J., Dane, S.K., Frerichs, J. and Krasowski, M.D., 2019. Hematology reference intervals for transgender adults on stable hormone therapy. Clinica Chimica Acta 2019 May;492:84-90. PMID: 30771301
63. Yagi Y, Aly RG, Tabata K, Barlas A, Rekhtman N, Eguchi T, **Montecalvo J,** Hameed M, Manova-Todorova K, Adusumilli PS, Travis WD. Three-Dimensional Histologic, Immunohistochemical and Multiplex Immunofluorescence Analysis Of Dynamic Vessel Co-Option Of Spread Through Air Spaces (Stas) In Lung Adenocarcinoma. J Thorac Oncol. 2019; Epub ahead of print. doi:10.1016/j.jtho.2019.12.112. PMID: 31887430.
64. Yang Y, Kaimakliotis HZ, **Williamson SR**, Koch MO, Huang K, Barboza MP, Zhang S, Wang M, Idrees MT, Grignon DJ, Eble JN, Baldridge LA, Cheng L. Micropapillary urothelial carcinoma of urinary bladder displays immunophenotypic features of luminal and p53-like subtypes and is not a variant of adenocarcinoma. Urol Oncol. 2019; Epub ahead of print. doi:10.1016/j.urolonc.2019.10.013. PMID: 31740332.
65. Zarbo A, **Inamdar K**, Friedman BJ. Tender Nodules on the Extremities: Challenge. Am J Dermatopathol. 2019 Jul 5. PMID: 31295159
66. Zervos TM, Macki M, **Cook B**, Schultz LR, Rock JP, and Craig JR. Beta-2 transferrin is detectable for 14 days whether refrigerated or stored at room temperature Int Forum Allergy Rhinol 8:1052–1055, 2018; Epub ahead of print PMID: 29722921

2020

1. Abou Shaar R, Zia S, Alhamar M, Romano T, **Shaw B**, **Keller C**, and Friedman BJ. Salivary gland hyalinizing clear cell carcinoma with cutaneous metastasis: a rare and deceptive tumor. J Cutan Pathol 2020; 48(1):86-89. PMID: 32640078.
2. Abou Shaar R. Zia S, Alhamar M, **Ormsby A**. Pretibial Myxedema, Nodular Variant: Unique Presentation and Clinical Course. JOJ Dermatol & Cosmet 2020;2: 555591.
3. Agaimy A, Bonert M, Naqvi A, Wang C, Trpkov K, Dettmar P, Wintzer HO, Stoehr R, Hes O, **Williamson SR**, Gibson IW, and Hartmann A. Langerhans Cell Histiocytosis Associated With Renal Cell Carcinoma Is a Neoplastic Process: Clinicopathologic and Molecular Study of 7 Cases. Am J Surg Pathol 2020; 44(12):1658-1665. PMID: 32910018
4. **Ahsan BU**, Alhamar M, Hogan KM, **Schultz D**, Zuchelli T, and **Zhang Z**. Endometrial clear cell carcinoma with metastasis to the common hepatic duct: A rare etiology of obstructive jaundice, diagnosed by biliary cytology brushing specimen. Cytopathology 2020; 31(3):240-242. PMID: 32049406.
5. Alhamar M, Abou Shaar R, Zia S, **Ormsby, A**. Trichostasis Spinulosa of the Heel: Unique Presentation with Characteristic Morphology. JOJ Dermatol & Cosmet. 2020; 2(5): 555600.

6. Al Haj Ali EM, Ibrahim AM, Ghanem TA, **Keller CE**. Recurrent clear cell carcinoma of the tongue base with high grade transformation in a pregnant patient. J Oral Maxillofac Surg Med, and Pathol, 2020 Mar;32 (2):104-108. doi.org/10.1016/j.ajoms.2019.05.005.
7. Alanee S, Deebajah M, Taneja K, Cole D, Pantelic M, Peabody J, **Williamson SR, Gupta N**, Dabaja A, and Menon M. Post prostatectomy Pathologic Findings of Patients with Clinically Significant Prostate Cancer and no Significant PI-RADS Lesions on Preoperative Magnetic Resonance Imaging. Urology 2020;146:183-188. PMID:32946907
8. **Allo G**, Yap M L, Cuartero J, Milosevic M, Ferguson S, Mackay H, Kamel-Reid S, Weinreb I, Ghazarian D, Pintilie M, Clarke B. HPV-independent Vulvar Squamous Cell Carcinoma is Associated With Significantly Worse Prognosis Compared With HPV-associated Tumors. Int J Gynecol Pathol. 2020 Jul;39:391-399. doi:10.1097/PGP.0000000000000620. PubMed PMID: 31274700.
9. Alhamar M, **Ahsan B**, Hogan K, and **Raoufi M**. Appendiceal intussusception presenting as a caecal mass. Malays J Pathol 2020; 42(3):483-486. PMID: 33361733
10. Alhamar M, Vladislav T, Smith SC, Gao Y, Cheng L, **Favazza LA**, Alani AM, Ittmann MM, Riddle ND, Whiteley LJ, **Gupta NS**, Carskadon S, **Gomez-Gelvez JC, Chitale DA**, Palanisamy N, Hes O, Trpkov K, and **Williamson SR**. Gene Fusion Characterization of Rare Aggressive Prostate Cancer Variants -Adenosquamous Carcinoma, Pleomorphic Giant Cell Carcinoma, and Sarcomatoid Carcinoma: An Analysis of 19 Cases. Histopathology 2020;77. PMID:32639612.
11. Alhamar M, Bassam A, Mehrotra H, Sanchez J, **Schultz D, Chitale D**. Prognosis and Categorization of HER2 Fluorescent In-situ Hybridization (FISH) Results in Patients with Invasive Breast Cancer Who Received HER2 Targeted Agents: Analysis of 226 Patients. Laboratory Investigation 2020;100:Suppl 1: 100-101.
12. **Al-Obaidy KI**, Chovanec M, Cheng L. Molecular characteristics of testicular germ cell tumors: pathogenesis and mechanisms of therapy resistance. Expert Rev Anticancer Ther. 2020 Feb;20(2):75-79. PMID: 31951790.
13. **Al-Obaidy KI**, Chovanec M, Cheng L. Molecular characteristics of testicular germ cell tumors: pathogenesis and mechanisms of therapy resistance. Expert Rev Anticancer Ther. 2020 Feb;20(2):75-79. PMID: 31951790.
14. **Al-Obaidy K**, Eble JN, Nassiri M, Cheng L, Eldomery MK, **Williamson SR**, Sakr WA, **Gupta N, Hassan OM**, Idrees MT, Grignon DJ 2020. Recurrent KRAS mutations in papillary renal neoplasm with reverse polarity. Mod Pathol 2020 Jun;33(6):1157-1164. doi: 10.1038/s41379-019-0362-1. Epub 2019 Sep 18.
15. Antar AI, **Otrock ZK**, Abou Dalle I, El-Cheikh J, and Bazarbachi A. Pharmacologic Therapies to Prevent Relapse of Acute Myeloid Leukemia After Allogeneic Hematopoietic Stem Cell Transplantation. Front Oncol 2020; 10:596134. PMID: 33224890
16. Antar AI, **Otrock ZK**, Jabbour E, Mohty M, and Bazarbachi A. FLT3 inhibitors in acute myeloid leukemia: Ten frequently asked questions. Leukemia 2020; 34(3). PMID: 31919472
17. Arora K, Gadde R, **Felicella M**, Arora S, Liang C, Hakmin P, **Gupta N**, Salamat SM, **Williamson S**.
18. Cystic trophoblastic tumor in a primary central nervous system post-chemotherapy germ cell tumor. The first case report. Int J Surg Pathol 2020 Dec;28(8):925-928. doi: 10.1177/1066896920929751. Epub 2020 Jun 4.
19. Assi HI, Hilal L, Abu-Gheida I, Berro J, Sukhon F, Skaf G, Geara F, Boulos F, Charafeddine M, **Tabbarah A**, Khoury J, Najjar M. Demographics and outcomes of meningioma patients treated at a tertiary care center in the Middle East. Clin Neurol Neurosurg. 2020 Aug;195:105846. doi: 10.1016/j.clineuro.2020.105846. Epub 2020 Apr 20. Erratum in: Clin Neurol Neurosurg. 2020 Jun 1;:105926. PMID: 32334046.

20. Aurora L, Peterson E, Gui H, Zeld N, McCord J, Pinto Y, **Cook B**, Sabbah HN, Keoki Williams L, Snider J, and Lanfear DE. Suppression Tumorigenicity 2 (ST2) Turbidimetric Immunoassay Compared to Enzyme-Linked Immunosorbent Assay in Predicting Survival in Heart Failure Patients with Reduced Ejection Fraction. Clin Chim Acta 2020; 510:767-771. PMID: 32926842
21. Baine MK, Hsieh MS, Lai WV, Egger JV, Jungbluth A, Daneshbod Y, Beras A, Spencer R, Lopardo J Bodd F, **Montecalvo J**, Sauter JL, Chang JC, Buonocore DJ, Travis WD, Sen T, Poirier JT, Rudin C and Rekhtman N. Small Cell Lung Carcinoma Subtypes Defined by ASCL1, NEUROD1, POU2F3 an YAP1: Comprehensive Immunohistochemical and Histopathologic Characterization. J Thorac Oncol 2020; 15(12):1823-1835. PMID:33011388.
22. Caines A, **Allo G**, and Siddiqui Y. Gastric varices from metastatic ovarian cancer with splenic involvement. Practical Gastroenterology 2020; 44(2):40-44.
23. Carroll KC, Reid JL, Thornberg A, Whitfield NN, Trainor D, Lewis S, Wakefield T, Davis TE, Church KG, **Samuel L**, Mills R, Jim P, Young S, and Nolte FS. Clinical Performance of the Novel GenMark Dx ePlex(R) Blood Culture ID Gram-Positive Panel. J Clin Microbiol 2020; 58(4). PMID: 31996444
24. Chen Y, Sadasivan SM, She R, Datta I, Taneja K, **Chitale D, Gupta N**, Davis MB, Newman LA, Rogers CG, Paris PL, Li J, Rybicki BA, and Levin AM. Breast and prostate cancers harbor common somaticcopy number alterations that consistently differ by race and are associated with survival. BMC MedGenomics 2020; 13(1):116. PMID: 32819446
25. **Chitale D**. Cranial Fasciitis. Int J Surg Pathol 2020. Epub ahead of print. PMID: 32192385.
26. Columbus-Morales I, Maahs L, **Husain S**, Gordon SC**, Inamdar KV**, Gonzalez HC. A Case of Hemophagocytic Lymphohistiocytosis Secondary to Disseminated Histoplasmosis. Case Reports Hepatol 2020;Aug 20;2020:6901514**.** https://doi.org/10.1155/2020/6901514. PMID: 32884850
27. **Cook B**, McCord J, Hudson M, Al-Darzi W, Moyer M, Jacobsen G, and Nowak R. Baseline high sensitivity cardiac troponin I level below limit of quantitation rules out acute myocardial infarction in the emergency department. Crit Path Cardiol. 2020 Epub ahead of print. PMID: 32639243
28. Das R, McGrath K, Seiser N, Smith K, Uttam S, Brand RE, Fasanella KE, Khalid A, Chennat JS, Sarkaria S, Singh H, Slivka A, Zeh HJ, Zureikat AH, Hogg ME, Lee K, Paniccia A, Ongchin MC, Pingpank JF, Boone BA, Dasyam AK, Bahary N, Gorantla VC, Rhee JC, Thomas R, Ellsworth S, Landau MS, Ohori NP, Henn P, Shyu S, **Theisen BK**, and Singhi AD. Tumor Size Differences Between Preoperative Endoscopic Ultrasound and Postoperative Pathology for Neoadjuvant-Treated Pancreatic Ductal Adenocarcinoma Predict Patient Outcome. Clin Gastroenterol Hepatol 2020; Epub ahead of print. PMID:33278573.
29. Dedigama-Arachchige P, Carskadon S, Li J, Loveless I, Alhamar M, Peabody JO, Stricker H, Chitale DA, Rogers CG, Menon M, **Gupta NS**, Bismar TA, **Williamson SR**, and Palanisamy N. Clonal evaluation of prostate cancer molecular heterogeneity in biopsy samples by dual immunohistochemistry and dual RNA in situ hybridization. Mod Pathol 2020; 33(9):1791-1801. PMID: 32238875
30. Dupuis M, **Shen Y**, Curcio C, Meis JM, Wang WL, Amini B, Rhines L, Reuther J, Roy A, Fisher KE, Conley AP, Livingston AJ. Successful treatment of lipofibromatosis-like neural tumor of the lumbar spine with an NTRK fusion inhibitor. Clin Sarcoma Res. 2020 Aug 6;10:14.
31. Fatima S, D'sa H, Chaffins ML, **Menon M**, and Friedman BJ. An Elderly Male with a Chronic Rash on the Right Foot. Indian J Dermatol 2020; 65(3):222-224. PMID: 32565566
32. Fang H, Yabe M, Zhang X, Kim YS, **Shen Y**, Shao L, Ji Y, Wu X, Zheng G, Shen Q, Yuan Y, He R, Chen D, Medeiros LJ, Hu S. Myelodysplastic syndrome with t (6; 9) (p22; q34.1) categorized as acute myeloid leukemia: A large multicenter study of 100 cases (platform). Modern Pathology 2020; 33(3):1281.

33. **Fang X**, Zhang K, Zhu J, Yang R, Wang Y, Zhao W, Mo X, Fu Q. Effective Reconstruction of Functional Urethra Promoted With ICG-001 Delivery Using Core-Shell Collagen/Poly(Llactide-co-caprolactone) [P(LLA-CL)] Nanoyarn-Based Scaffold: A Study in Dog Model. Front Bioeng Biotechnol. 2020;10:774. PMID: 32754582
34. **Favazza LA**, Parseghian CM, Kaya C, Nikiforova MN, Roy S, Wald AI, Landau MS, Proksell SS, Dueker JM, Johnston ER, Brand RE, Bahary N, Gorantla VC, Rhee JC, Pingpank JF, Choudry HA, Lee K, Paniccia A, Ongchin MC, Zureikat AH, Bartlett DL, and Singhi AD. KRAS amplification in metastatic colon cancer is associated with a history of inflammatory bowel disease and may confer resistance to anti- EGFR therapy. Mod Pathol 2020; 33(9):1832-1843. PMID: 32376853.
35. Filkins L, Hauser JR, Robinson-Dunn B, **Tibbetts R**, Boyanton BL, Jr., and Revell P. American Society for Microbiology provides 2020 Guidelines for Detection and Identification of Group B Streptococcus. J Clin Microbiol 2020; 59(1). PMID: 33115849.
36. Gadde R, Arora K, **Felicella MM**, Arora S, Cheng L, Park H, Gupta NS, Salamat MS, **Williamson SR**. Cystic Trophoblastic Tumor in a Primary Central Nervous System Post-Chemotherapy Germ Cell Tumor: The First Case Report. Int J Surg Pathol 2020; 28(8):925-928. PMID: 32498578.
37. Gadde R, and **Samuel L**. Answer to March 2020 Photo Quiz. J Clin Microbiol 2020; 58(3).PMID:32094123.
38. Gadde R, and **Samuel L**. Photo Quiz: Subcutaneous Infection in an Immunocompetent Patient Handling a Wooden Wheelbarrow. J Clin Microbiol 2020; 58(3). PMID: 32094122.
39. Garland V, Kumar A, **Theisen B**, Borum M. Apetamin Hepatotoxicity: Potential Consequences of Purchasing a Body Enhancement Drug Off the Internet. ACG Case Rep 2020, 7: 1-3.
40. Gestrich C, **Cowden D**, and Harbhajanka A. Cytomorphology of glioblastoma metastatic to a cervical lymph node diagnosed by fine needle aspiration (FNA): A case report and review of literature. Diagn Cytopathol 2020; 48(6):567-560. PMID: 32160396.
41. Hammid MS. Steem DW. **Ormsby AH**, Lin X, and Le KH. Inflamed nonlimbal scleral dermoid masquerading as nodular scleritis. J aapos 2020; 24(5):319-321. PMID: 32931936.
42. Hanna R, Feldman AM, **Keller CE**, Siddiqui MS. A Grade I Intracranial Meningioma with Metastasis to Multiple Vertebral Bodies: A Case Report and Literature Review. Cureus. 2020 Nov 13;12(11):e11477. doi: 10.7759/cureus.11477.
43. Hatfield BS, King CR, Udager AM, **Williamson SR**, Gandhi JS, Amin MB, Spruill L, Lindsey KG, Pillappa R, Roseman JT, 2nd, Mochel MC, and Smith SC. Peyronie Disease: Clinicopathologic Study of 71 Cases with Emphasis on Histopathologic Patterns and Prevalent Metaplastic Ossification. Hum Pathol 2020;104:9-17. PMID: 32681945.
44. Jebastin JAS, **Perry KD, Chitale DA**, Mott MP, Sanchez J, Fritchie KJ, Palanisamy N, and Williamson SR. Atypical Lipomatous Tumor/Well-Differentiated Liposarcoma With Features Mimicking Spindle Cell Lipoma. Int J Surg Pathol 2020; 28(3):336-340. PMID: 31672072.
45. Jebastin JAS, Vickery J, Selwanes W, Al-Haddad E, **Perry KD**, Palanisamy N, Poulik JM, **Williamson SR, Chitale DA**, and Shehata BM. A Novel COL1A1-CAMTA1 Rearrangement in Cranial Fasciitis. Int J Surg Pathol 2020; 28(6):678-682. PMID: 32192385.
46. Kelley, BP, Klochko C. L., Atkinson, Hillman D, Craig, BM, Sandberg, SA, **Gaba AR**, Halabi SS; Sonographic Diagnosis of Velamentous and Marginal Placental Cord Insertion. Ultrasound Quarterly, 2020;36:247-25. PMID: 30870317
47. Kryvenko ON, Williamson SR, Schwartz LE, and Epstein JI. Gleason score 5+3=8 (grade group 4) prostate cancer -a rare occurrence with contemporary grading. Hum Pathol 2020; 97:40-51. PMID:31923450.
48. Li P, Zhang D, Zhou J, Li P, **Shen Y**, Pan Z, Evans AG, and Liao X. Hepatic involvement by T-cell neoplasms: a clinicopathologic study of 40 cases. Hum Pathol 2020; 106:1-12. PMID: 33010300.

49. **Liu W**, Thakral B, Tang G, Wang W, Medeiros LJ, Konoplev S. From the archives of MD Anderson Cancer Center: BCR-ABL1-like B acute lymphoblastic leukemia with IGH/EPOR fusion. Ann Diagn Pathol. 2020 Jun;46:151514. doi: 10.1016/j.anndiagpath.2020.151514. Epub 2020 Apr 15. PMID: 32330662.
50. **Liu W**, Burger JA, Xu J, Tang Z, Toruner G, Khanlari M, Medeiros LJ, Tang G. LPL deletion is associated with poorer response to ibrutinib-based treatments and overall survival in TP53-deleted chronic lymphocytic leukemia. Ann Hematol. 2020 Oct;99(10):2343-2349. doi: 10.1007/s00277-020-04223-y. Epub 2020 Aug 24. PMID: 32833105.
51. **Liu W**, Xu J. Microgranular acute promyelocytic leukemia with expression of T-cell markers mimicking mixedphenotype acute leukemia. Blood. 2020 Mar 12;135(11):880. doi: 10.1182/blood.2019004434. PMID: 32163562.
52. McCord J, Hana A, **Cook B**, Hudson MP, Miller J, Akoegbe G, Mueller C, Moyer M, Jacobsen G, and Nowak R. The Role of Cardiac Testing with the 0/1-Hour High-Sensitivity Cardiac Troponin Algorithm Evaluating for Acute Myocardial Infarction. Am Heart J 2020; Epub ahead of print. PMID: 33373603
53. McHugh CI, Rice-Narusch WK, **Keller C**, Craig JR (2020) Diagnosis and Management of an Ethmoid Sinus Arteriovenous Malformation. J Otol Rhinol 9:6. doi: 10.37532/jor.2020.9(6).397
54. Mehrotra H, **Favazza L**, Kezlarian B, Fowler R, Hanson N, **Tibbetts R**, 2020. Resolution of a modified CDC definition for carbapenem resistant enterobacteriaceae (CRE) using a rapid multiplex, cartridge-based molecular assay for the confirmation of carbapenemase gene. United States and Canadian Academy of Pathology, Los Angeles, CA, March 2, 2020. Mod Pathol. 2020 Mar;33(Suppl 2):2025-2096. doi: 10.1038/s41379-020-0484-5. PMID: 32139821.
55. Nasr SH, Kudose SS, Said SM, Santoriello D, Fidler ME, **Williamson SR**, Damgard SE, Sethi S, Leung N, D'Agati VD, Markowitz GS. Immunotactoid glomerulopathy is a rare entity with monoclonal and polyclonal variants. Kidney Int 2020; Epub ahead of print. PMID: 32818517.
56. Omark J, Masunaga Y, Hannibal M, **Shaw B**, Fukami M, Kato F, Saitsu H, Kagami M, and Ogata T. Kagami-Ogata syndrome in a patient with 46,XX,t(2;14)(q11.2;q32.2)mat disrupting MEG3. J Hum Gene 2020; Epub ahead of print. PMID: 33067531.
57. Onwubiko I, Kasperek G, Laforest RA, Philip SG, Kuriakose P, and **Otrock ZK**. Predictors of response and outcome of patients with acquired haemophilia A. Haemophilia 2020; 26(5):e244-e246. PMID: 32469118.
58. **Hassan O**, Amador BM, Lombardo KA, Salles D, Cuello F, Marwaha AS, Daniels MJ, Kates M, Bivalacqua TJ, Matoso A 2020. Clinical significance of urothelial carcinoma ambiguous for muscularis propria invasion on initial transurethral resection of bladder tumor. World J Urol 2020 Feb;38(2):389-395. doi: 10.1007/s00345-019-02782-y. Epub 2019 Apr 27. PMID: 31030230
59. Oyedeji O, **Alkhoory WL, Stone CH, Wang Z**. Characterization of immune cells and PD-L1 expression in a case of lymphohistiocytoid mesothelioma. Arch Pathol Lab Med. 2020;144(9S1):e107-8.
60. Ozog DM, Sexton JZ, Narla S, Pretto-Kernahan CD, Mirabelli C, Lim HW, Hamzavi IH, **Tibbetts RJ**, and Mi QS. The Effect of Ultraviolet C Radiation Against Different N95 Respirators Inoculated with SARS- CoV-2. Int J Infect Dis 2020; 100:224-229. PMID: 32891736.
61. Pagano M, Tremi A, Stephens L, Joshi S, Li Y, **Lopez -Plaza I**, Vyapakkham S, Schwartz J, Tanhehco I, Zantec NC. Entrustable professional activities for apheresis medicine education. Transfusion 2020; 60 (10):1-9
62. Raad M, Dabbagh M, Gorgis S, Yan J, Chehab O, Dagher C, Jamoor K, Hussein IH, **Cook B**, Van Harn M, Singh G, McCord J, and Parikh S. Cardiac Injury Patterns and Inpatient Outcomes Among Patients Admitted With COVID- 19. Am J Cardiol 2020; 133:154-161. PMID: 32829913.

63. Rekhtman N, **Montecalvo J**, Chang J, D Alex D, Li B, Rudin C, Travis W 2020. SMARCA4-Deficient Thoracic Sarcomatoid Tumors Represent Primarily Smoking-Related Undifferentiated Carcinomas Rather Than PrimaryThoracic Sarcomas JTO, 15,231-247. PMID: 32709715.
64. Rodgers SA, Suneja A, Yoshida A, Abouljoud MS, **Otrock ZK**. Paradoxical embolic strokes in a liver transplant recipient with atrial septal defect undergoing therapeutic plasma exchange. J Clin Apher 2020; Epub ahead of print. PMID: 33058311.
65. Rodgers SA, **Williamson SR**. Xanthogranulomatous Ureteritis Mimicking Ureteral Involvement by Cancer in a Radical Cystectomy Specimen. Int J Surg Pathol 2020; Epub ahead of print. PMID: 32493143.
66. Sadasivan SM, Chen Y, **Gupta NS**, Han X, Bobbitt KR, **Chitale DA, Williamson SR**, Rundle AG, Tang D, and Rybicki BA. The interplay of GDF15 (growth differentiation factor 15) expression and M2 macrophages during prostate carcinogenesis. Carcinogenesis 2020; 41(8):1074-1082. PMID: 32614434.
67. **Samuel L**. Point-of-Care Testing in Microbiology. Clin Lab Med 2020; 40(4):483-494. PMID: 33121617.
68. Sakeena F, Helen D, Chaffins ML, **Madhu M**, Friedman BJ 2020. An elderly male with a chronic rash of the right foot. Indian J Dermatol. 2020 May-Jun; 65(3): 222–224. PMID: 32565566
69. Sanford B, Hoeppner C, Ju T, **Theisen BK,** BuAbbud A, Estroff JM 2020. Multidisciplinary management of the pregnant patient in haemorrhagic shock secondary to an undiagnosed ruptured liver adenoma BMJ Case Rep, 13, 1-4.
70. Sardana R, Mishra SK, **Williamson SR**, Mohanty A, and Mohanty SK. Immune checkpoints and their inhibitors: Reappraisal of a novel diagnostic and therapeutic dimension in the urologic malignancies. Semin Oncol 2020; 47(6):367-379. PMID: 33160642.
71. Schoenfeld AJ, Bandlamudi C, Lavery JA, **Montecalvo J**, Namakydoust A, Rizvi H, Egger JV, Concepcion CP, Paul S, Arcila ME, Daneshbod Y, Chang JC, Sauter JL, Beras A, Ladanyi M, Jacks T, Rudin CM, Taylor BS, Donoghue MTA, Heller G, Hellmann MD, Rekhtman N, and Riely GJ. The Genomic Landscape of SMARCA4 Alterations and Associations with Outcomes in Patients with Lung Cancer. Clin Cancer Res 2020; 26(21):5701-5708. PMID: 32709715.
72. Sein Myint NN, Kunaviktikul W, **Stark A**. A contemporary understanding of organizational climate in healthcare setting: A concept analysis. Nurs Forum 2020; Epub ahead of print. PMID: 33020958.
73. Shallal A, Markowitz N, **Tibbetts R**. The Brief Case: Cough in an Immunocompromised Patient. J Clin Microbiol 2020; 58(11). PMID: 33087542.
74. **Sharma G**, Critical Values, Newsletter of American Society of Clinical Pathology, September 2020
75. **Sharma G**, Stoicism in the Times of SARS-CoV-2: Laboratory Leadership Lessons Newsletter of American Society of Clinical Pathology, December 2020
76. **Sharma Y**, Nasr SH, Larsen CP, Kemper A, **Ormsby AH, Williamson SR**. COVID-19-Associated Collapsing Focal Segmental Glomerulosclerosis: A Report of 2 Cases. Kidney Med 2020; 2(4):493-497. PMID: 32775990.
77. Taraboanta C, Britton H, Plotkin A, **Azordegan N**, Clement PB, Gilks CB. Performance Characteristics of Endometrial Sampling in Diagnosis of Endometrial Carcinoma. Int J Gynecol Pathol. 2020;39:19-25.
78. Thanikachalam K, Damarla V, Seixas T, Dobrosotskaya I, Wollner I, Kwon D, Winters K, **Raoufi M**, Li J, Siddiqui F, Khan G. Neoadjuvant Phase II Trial of Chemoradiotherapy in Patients With Resectable and Borderline Resectable Pancreatic Cancer. Am J Clin Oncol 2020; 43(6):435-441. PMID:32251119.
79. van Leenders G, van der Kwast TH, Grignon DJ, Evans AJ, Kristiansen G, Kweldam CF, Litjens G, McKenney JK, Melamed J, Mottet N, Paner GP, Samaratunga H, Schoots IG, Simko JP, Tsuzuki T,

Varma M, Warren AY, Wheeler TM, **Williamson SR**, Iczkowski KA. The 2019 International Society of Urological Pathology (ISUP) Consensus Conference on Grading of Prostatic Carcinoma. Am J Surg Pathol 2020; 44(8):e87-e99. PMID: 32459716.

80. Vijayanarayanan A, Laforest R , Philip S, Hayward J, **Lopez-Plaza I**. Clinical Utilization of Lupus Anticoagulant Testing in a Large Hospital System [abstract]. Res Pract Thromb Haemos. 2020;4 (Suppl 1).
81. Warrington JS, Swanson K, Dodd M, Lo SY, Haghamad A, Duque TB, **Cook B**. Measuring What Matters: How the Laboratory Contributes Value in the Opioid Crisis. J Appl Lab Med 2020; 5(6):1378- 1390. PMID: 33147341.
82. Wheeler SE, Peck Palmer OM, Greene DN, Park JY, **Winston-McPherson G**, Amukele TK, and Prez-Stable EJ. Examining Laboratory Medicine's Role in Eliminating Health Disparities. Clin Chem 2020; 66(10):1266-1271. PMID: 32888006.
83. **Williamson SR**, Cardili L, Whiteley LJ, Sanchez J, and Kis O. Sclerosing TSC1 Mutated Renal Cell Carcinoma: An Unusual Pattern Mimicking MITF Family Translocation Renal Cell Carcinoma. Genes Chromosomes Cancer 2020; 59(10):591-594. PMID: 32418252.
84. **Williamson SR**, Gill AJ, Argani P, Chen YB, Egevad L, Kristiansen G, Grignon DJ, and Hes O. Report From the International Society of Urological Pathology (ISUP) Consultation Conference on Molecular Pathology of Urogenital Cancers: III: Molecular Pathology of Kidney Cancer. Am J Surg Pathol 2020;44(7):e47-e65. PMID: 32251007.
85. Yadav DK, Thushara P, Alhamar M, **Inamdar K**, Guo Y. Pure Erythroid Leukemia in a Sickle Cell Patient Treated with Hydroxyurea. Case Rep Oncol, 2020; 13(2), , 857-862.
86. Yagi Y, Aly, R, Tabata K, Barlas A, Rekhtman N, Eguchi T, **Montecalvo J**, Hameed M, Manova-Todorova K, Adusumilli P, Travis W. 2020. Three-Dimensional Histologic, Immunohistochemical, and Multiplex Immunofluorescence Analyses of Dynamic Vessel Co-Option of Spread Through Air Spaces in Lung Adenocarcinoma. J Thorac Oncol 2020 04 27;15(4):589-600.PMID: 33011388
87. Yaguchi G, Tang HJ, Deebajah M, Keeley J, Pantelic M, **Williamson S, Gupta N**, Peabody JO, Menon M, Dabaja A, Alanee S. The effect of multiplicity of PI-RADS 3 lesions on cancer detection rate of confirmatory targeted biopsy in patients diagnosed with prostate cancer and managed with active surveillance. Urol Oncol 2020; 38(6):599. PMID: 32265090.
88. Yassin-Kassab A, Bhargava P, **Tibbetts RJ**, Griggs ZH, Peterson EI, Craig JR. Comparison of bacterial maxillary sinus cultures between odontogenic sinusitis and chronic rhinosinusitis. Int Forum Allergy Rhinol. 2021;11:40– 47. (PMID: 32656998)
89. Yin W, **Liu W**, Guo M, Tang Z, Toruner G, Robinson M, Cheng J, Hu S, Medeiros LJ, Tang G. Acquired MET amplification in non-small cell lung cancer is highly associated with the exposure of EGFR inhibitors and may not affect patients' outcome. Exp Mol Pathol. 2020 Nov 12;118:104572. doi: 10.1016/j.yexmp.2020.104572. Epub ahead of print. PMID: 33189723.
90. **Yuan L**, Biscotti CV, Zhu H, Booth CN, Abdul-Karim FW, Zhang Y. Significance of atypical endometrial cells in women younger than 40 years of age. J Am Soc Cytopathol. 2020 Jan-Feb;9(1):33-37. doi:10.1016/j.jasc.2019.07.001. Epub 2019 Jul 4. PMID: 31353256
91. **Yuan L**, Cook JR, Elsheikh TM. Primary effusion lymphoma in human immune deficiency (HIV)-negative nonorgan transplant immunocompetent patients. Diagn Cytopathol. 2020 Apr;48(4):380-385. doi:10.1002/dc.24371. Epub 2019 Dec 17. PMID: 31846233
92. **Yuan L**, Jebastin Thangaiah J, Chute DJ The Role of Ultrasound-Guided Fine-Needle Aspiration of Thyroid Bed Lesions and Clinical Predictors of Recurrent Papillary Thyroid Carcinoma. Am J Clin Pathol. 2020 Oct 3:aqaa127. doi: 10.1093/ajcp/aqaa127. Online ahead of print.
93. **Yuan L**, Katabi N, Antonescu CR, Golden A, Travis WD, Rekhtman N. Pulmonary Myoepithelial Tumors With Exuberant Reactive Pneumocytes: Proposed Reclassification of So-called

Pneumocytic Adenomyoepithelioma. Am J Surg Pathol. 2020 Jan;44(1):140-147. doi: 10.1097/PAS.0000000000001376. PMID: 31567188 Review.

94. **Yuan L**, Oshilaja O, Sierk A, Zhang G, Booth CN, Brainard J, and Dyhdalo KS. Metastatic breast cancer diagnosed on cervical cytology. Cytopathology 2020; 32(1):127-131. PMID: 32789952.
95. Zarbo AJ, **Inamdar K**, Friedman BJ 2020. Tender Nodules on the Extremities: Challenge Am J Dermatopathol, 42(11),149-e150.
96. **Zarbo R**, Schmidt M, Althaver N, Whitely L, **Gupta N, Chitale D**, Goerke D: Histomorphologic, Immunohistochemical and Molecular Validation of 2.5-Hour Processed Large Specimens/Tumor Resections with Tissue-Tek Xpress x120. Modern Pathology 2020; 33(3):1685.
97. Zhang K, Yang R, Chen J, Qi E, Zhou S, Wang Y, Fu Q, Chen R, **Fang X**. Let-7i-5p Regulation of Cell Morphology and Migration Through Distinct Signaling Pathways in Normal and Pathogenic Urethral Fibroblasts. Front Bioeng Biotechnol. 2020;8:428.
98. Zhang SX, Carroll KC, Lewis S, Totten M, Mead P, **Samuel L**, Steed LL, Nolte FS, Thornberg A, Reid JL,Whitfield NN, and Babady NE. Multi-center Evaluation of a PCR-based Digital Microfluidics and Electrochemical Detection System for the Rapid Identification of 15 Fungal Pathogens Directly from Positive Blood Cultures. J Clin Microbiol 2020; 58(5). PMID: 32075904.
99. Zia S, Samaniego-Picota M, **Lopez-Plaza I**. Significant Effect of Photopheresis in Renal Transplant Rejection: A Case Study. Journal of Clinical Apheresis, 2020. 35,6: (November 23). https://doi.org/10.1002/jca.21852
100. Zia S, Alhamar M, **Ormsby A**. Acantholytic Dermatosis of the Vulva: Case Series and Review of Literature. JOJ Dermatol & Cosmet. 2020; 3(2): 555608. DOI: 10.19080/JOJDC.2020.03.555608

2021

1. Abou Shaar R, Eby CS, van Dorp S, de Witte T, and **Otrock ZK**. Increasing ferritin predicts early death in adult hemophagocytic lymphohistiocytosis. Int J Lab Hematol 2021; 43(5):1024-1031. PMID:33595184.
2. Abdelwahab A, Abdullah N, Zhang J, **Raoufi M**, Mohamed A, Salgia R, Mullins K. Mantle Cell Lymphoma Presenting as Diarrhea in a Liver Transplant Recipient. ACG Case Reports Journal 2021;8:p e00635
3. Ahmed A, Naji A, Zhang J, **Raoufi M**, Alhamar M, Salgia R, and Mullins K. Mantle Cell Lymphoma Presenting as Diarrhea in a Liver Transplant Recipient. ACG Case Rep J 2021; 8(7):e00635. PMID: 34307713.
4. **Al-Obaidy KI, Williamson SR**, Shelman N, Idrees MT, and Ulbright TM. Hepatoid Teratoma, Hepatoid Yolk Sac Tumor, and Hepatocellular Carcinoma: A Morphologic and Immunohistochemical Study of 30 Cases. Am J Surg Pathol 2021; 45(1):127-136. PMID: 32991342.
5. **Al-Obaidy KI**, Idrees MT. Testicular Tumors: A Contemporary Update on Morphologic, Immunohistochemical and Molecular Features. Adv Anat Pathol. 2021 Jul 1;28(4):258-275. PMID: 33871428.
6. **Al-Obaidy KI**, Grignon DJ. Primary Amyloidosis of the Genitourinary Tract. Arch Pathol Lab Med. 2021 Jun 1;145(6):699-703. doi: 10.5858/arpa.2020-0102-RA. PMID: 32383975.
7. **Al-Obaidy KI**, Cheng L. Fibroblast growth factor receptor (FGFR) gene: pathogenesis and treatment implications in urothelial carcinoma of the bladder. J Clin Pathol. 2021 Aug;74(8):491-495. PMID: 33731335.

8. **Al-Obaidy KI**, Collins K, Idrees MT, Ulbright TM. Adenocarcinoma of the Rete Testis: Seven Additional Cases, Including Exclusively and Predominantly Intrarete Tumors. Am J Surg Pathol. 2021 Dec 1;45(12):1720-1724. PMID: 34224412.
9. **Al-Obaidy KI**, Cheng L. Renal oncocytoma with adverse pathologic features: a clinical and pathologic study of 50 cases. Mod Pathol. 2021 Oct;34(10):1947-1954. doi: 10.1038/s41379-021-00849-z. Epub 2021 Jun 8. PMID: 34103666.
10. **Al-Obaidy KI**, Bridge JA, Cheng L, Sumegi J, Reuter VE, Benayed R, Hameed M, **Williamson SR**, Hes O, **Alruwaii FI**, Segal JP, Wanjari P, Idrees MT, Nassiri M, Eble JN, Grignon DJ. EWSR1-PATZ1 fusion renal cell carcinoma: a recurrent gene fusion characterizing thyroid-like follicular renal cell carcinoma. Mod Pathol. 2021 Oct;34(10):1921-1934. PMID: 34099871.
11. Alhamar M, Alkamachi B, Mehrotra H, Sanchez J, Ali H, **Schultz D, and Chitale DA**. Clinical significance of quantitative categorization of HER2 fluorescent in situ hybridization results in invasive breast cancer patients treated with HER2-targeted agents. Mod Pathol 2021; 34(4):720-734. PMID:33479447.
12. Alhamar M, Jabbar A, Deebajah M, Diaz M, Alanee S, **Hassan O, Williamson SR, Schultz D**, and **Gupta N**. Prognostic significance of histomorphologic features of lymph node metastases in prostate cancer patients treated with radical prostatectomy: A single center study. Urol Oncol 2021; 39(12):829. PMID:33985876.
13. Akgul M, **Al-Obaidy KI**, Cheng L, Idrees MT. Low-grade oncocytic tumour expands the spectrum of renal oncocytic tumours and deserves separate classification: a review of 23 cases from a single tertiary institute. J Clin Pathol. 2021 Jun 24:jclinpath-2021-207478. PMID: 34168073.
14. Anderson J, Putnam E, Liu W, and **Menon MP**. Discovery of G6PD deficiency in a patient with DUSP22-rearranged ALK-negative anaplastic large cell lymphoma in leukemic phase. Int J Lab Hematol 2021; Epub ahead of print. PMID: 34019742.
15. Arora K, Rodgers S, Alkhatib Y, Onwubiko IN, Padmanabhan A, and **Otrock ZK**. P-selectin expression assay in a repeatedly serotonin-release assay-negative patient with heparin-induced thrombocytopenia. Blood Coagul Fibrinolysis 2021; 32(7):522-525. PMID: 34261860
16. Aryal SC, Zia S, Rodgers S, **Shen Y, Perry K**, and **Yuan L**. BRD3-NUTM1-expressing NUT carcinoma of lung on endobronchial ultrasound-guided transbronchial needle aspiration cytology, a diagnostic pitfall. Diagn Cytopathol 2021; Epub ahead of print. PMID: 34672128.
17. Axfors C, Janiaud P, Schmitt AM, Van't Hooft J, Smith ER, Haber NA, Abayomi A, Abduljalil M, Abdulrahman A, Acosta-Ampudia Y, Aguilar-Guisado M, Al-Beidh F, Alejandria MM, Alfonso RN, Ali M, AlQahtani M, AlZamrooni A, Anaya JM, Ang MAC, Aomar IF, Argumanis LE, Averyanov A, Baklaushev VP, Balionis O, Benfield T, Berry S, Birocco N, Bonifacio LB, Bowen AC, Bown A, Cabello-Gutierrez C, Camacho B, Camacho-Ortiz A, Campbell-Lee S, Cao DH, Cardesa A, Carnate JM, Castillo GJJ, Cavallo R, Chowdhury FR, Chowdhury FUH, Ciccone G, Cingolani A, Climacosa FMM, Compernolle V, Cortez CFN, Costa Neto A, D'Antico S, Daly J, Danielle F, Davis JS, De Rosa FG, Denholm JT, Denkinger CM, Desmecht D, Díaz-Coronado JC, Díaz Ponce-Medrano JA, Donneau AF, Dumagay TE, Dunachie S, Dungog CC, Erinoso O, Escasa IMS, Estcourt LJ, Evans A, Evasan ALM, Fareli CJ, Fernandez-Sanchez V, Galassi C, Gallo JE, Garcia PJ, Garcia PL, Garcia JA, Garigliany M, Garza-Gonzalez E, Gauiran DTV, Gaviria García PA, Giron-Gonzalez JA, Gómez-Almaguer D, Gordon AC, Gothot A, Grass Guaqueta JS, Green C, Grimaldi D, Hammond NE, Harvala H, Heralde FM, Herrick J, Higgins AM, Hills TE, Hines J, Holm K, Hoque A, Hoste E, Ignacio JM, Ivanov AV, Janssen M, Jennings JH, Jha V, King RAN, Kjeldsen-Kragh J, Klenerman P, Kotecha A, Krapp F, Labanca L, Laing E, Landin-Olsson M, Laterre PF, Lim LL, Lim J, Ljungquist O, Llaca-Díaz JM, López-Robles C, López-Cárdenas S, Lopez-Plaza I, Lucero JAC, Lundgren M, Macías J, Maganito SC, Malundo AFG, Manrique RD, Manzini PM, Marcos M, Marquez I, Martínez-Marcos FJ, Mata AM, McArthur CJ, McQuilten ZK, McVerry BJ, Menon DK, Meyfroidt G, Mirasol MAL,

Misset B, Molton JS, Mondragon AV, Monsalve DM, Moradi Choghakabodi P, Morpeth SC, Mouncey PR, Moutschen M, Müller-Tidow C, Murphy E, Najdovski T, Nichol AD, Nielsen H, Novak RM, O'Sullivan MVN, Olalla J, Osibogun A, Osikomaiya B, Oyonarte S, Pardo-Oviedo JM, Patel MC, Paterson DL, Peña-Perez CA, Perez-Calatayud AA, Pérez-Alba E, Perkina A, Perry N, Pouladzadeh M, Poyato I, Price DJ, Quero AKH, Rahman MM, Rahman MS, Ramesh M, Ramírez-Santana C, Rasmussen M, Rees MA, Rego E, Roberts JA, Roberts DJ, Rodríguez Y, Rodríguez-Baño J, Rogers BA, Rojas M, Romero A, Rowan KM, Saccona F, Safdarian M, Santos MCM, Sasadeusz J, Scozzari G, Shankar-Hari M, **Sharma G**, Snelling T, Soto A, Tagayuna PY, Tang A, Tatem G, Teofili L, Tong SYC, Turgeon AF, Veloso JD, Venkatesh B, Ventura-Enriquez Y, Webb SA, Wiese L, Wikén C, Wood EM, Yusubalieva GM, Zacharowski K, Zarychanski R, Khanna N, Moher D, Goodman SN, Ioannidis JPA, and Hemkens LG. Association between convalescent plasma treatment and mortality in COVID-19: a collaborative systematic review and meta-analysis of randomized clinical trials. BMC Infect Dis 2021;21(1):1170. PMID: 34800996.

18. Assi HI, Kakati RT, Berro J, Saikali I, Youssef B, Hourany R, Alameh I, **Tabbarah A**, Khoury J, Darwish H, Alame S. PTEN R130Q Papillary Tumor of the Pineal Region (PTPR) with Chromosome 10 Loss Successfully Treated with Everolimus: A Case Report. Curr Oncol. 2021 Mar 20;28(2):1274-1279. doi: 10.3390/curroncol28020121. PMID: 33804593; PMCID: PMC8025816.
19. Caceres P, Savickas G, Murray S, Umanath K, Uduman J, Yee J, Liao TD, Bolin S, Levin A, Khan M, Sarkar S, Fitzgerald J, Maskey D, **Ormsby A**, Sharma Y, and Ortiz P. High SARS-CoV-2 Viral Load in Urine Sediment Correlates with Acute Kidney Injury and Poor COVID-19 Outcome. J Am Soc Nephrol 2021; 32(10):2517-2528. PMID: 34088853.
20. Castellano T, Hassell L, Conrad R, Davey CS, **Husain S**, Dvorak JD, Ding K, and Gunderson Jackson C. Recurrence risk of occult micrometastases and isolated tumor cells in early stage endometrial cancer: A case control study. Gynecol Oncol Rep 2021; 37:100846. PMID: 34466648.
21. Chang JC, Offin M, Falcon C, Brown D, Houck-Loomis BR, Meng F, Rudneva VA, Won HH, Amir S, **Montecalvo J**, Desmeules P, Kadota K, Adusumilli PS, Rusch VW, Teed S, Sabari JK, Benayed R, Nafa K, Borsu L, Li BT, Schram AM, Arcila ME, Travis WD, Ladanyi M, Drilon A, and Rekhtman N. Comprehensive Molecular and Clinicopathologic Analysis of 200 Pulmonary Invasive Mucinous Adenocarcinomas Identifies Distinct Characteristics of Molecular Subtypes. Clin Cancer Res 2021;27(14):4066-4076. PMID: 33947695.
22. Clarke LM, Chawla K, Tabbara N, Szvarca D, Stachura A, **Theisen B**, Chandler M, Borum ML. Cyclosporine induced Kaposi sarcoma in a patient with ulcerative colitis. ACG Case Rep J 2021; 8(5):e00600. PMID: 34079842.
23. Cloutier JM, Charville GW, Mertens F, Sukov W, Fritchie K, **Perry KD**, Edgar M, Rowsey RA, and Folpe AL. "Inflammatory Leiomyosarcoma" and "Histiocyte-rich Rhabdomyoblastic Tumor": a clinicopathological, immunohistochemical and genetic study of 13 cases, with a proposal for reclassification as "Inflammatory Rhabdomyoblastic Tumor". Mod Pathol 2021; 34(4):758-769. PMID:33318583
24. **Cook B**, McCord J, Hudson M, Al-Darzi W, Moyer M, Jacobsen G, and Nowak R. Baseline high sensitivity cardiac troponin I level below limit of quantitation rules out acute myocardial infarction in the emergency department. Crit Path Cardiol. 2021 Mar; 20(1): 4–9. 2020; Epub ahead of print. PMID: 32639243
25. Corey L, Fucinari J, Elshaikh M, **Schultz D**, Mussallam R, Zaiem F, Daaboul F, Fehmi O, Dyson G, Ruterbusch J, Morris R, Cote ML, Ali-Fehmi R, and Bandyopadhyay S. Impact of positive cytology in uterine serous carcinoma: A reassessment. Gynecol Oncol Rep 2021; 37:100830. PMID: 34345643
26. Fang H, Yabe M, Zhang X, Kim Y, Wu X, Wei P, Chi S, Zheng L, Garcia-Manero G, Shao L, Yuan J, **Shen Y**, Zheng G, Tang G, Wang W, Loghavi S, Shen Q, Yuan Y, He R, Chen D, Medeiros LJ, Hu S.

Myelodysplastic syndrome with t(6;9)(p22;q34.1)/DEK-NUP214 better classified as acute myeloid leukemia? A multicenter study of 107 cases. Mod Pathol. 2021;6:1143-1152 PMID: 33558656

27. Fucinari J, Elshaikh MA, Ruterbusch JJ, Khalil R, Dyson G, **Shultz D**, Ali-Fehmi R, and Cote ML. The impact of race, comorbid conditions and obesity on survival endpoints in women with high grade endometrial carcinoma. Gynecol Oncol 2021; 162(1):134-141. PMID: 33985795.
28. Goel S, Bhatia V, Kundu S, Biswas T, Carskadon S, **Gupta N**, Asim M, Morrissey C, Palanisamy N, and Ateeq B. Transcriptional network involving ERG and AR orchestrates Distal-less homeobox-1 mediated prostate cancer progression. Nat Commun 2021; 12(1):5325. PMID: 34493733.
29. Greene DN, Marzinke MA, **Winston-McPherson GN**, and Goldstein Z. The Journal of Applied Laboratory Medicine Special Issue on Health Disparities. J Appl Lab Med 2021; 6(1):1-2. PMID: 33438737.
30. Halpenny D, Das K, Ziv E, Plodkowski A, Zheng J, Capanu M, Rekhtman N, **Montecalvo J**, Solomon SB, Ginsberg MS. 2021. Percutaneous computed tomography guided biopsy of sub-solid pulmonary nodules: differentiating solid from ground glass components at the time of biopsy. Clin Imaging 2021;69:332-338. PMID: 33059184
31. Holmes B, **Chitale D**, Loving J, Tran M, Subramanian V, Berry A, Rioth M, Warrier R, and Brown T. Customizable Natural Language Processing Biomarker Extraction Tool. JCO Clin Cancer Inform 2021;5:833-841. PMID: 34406803.
32. Hommerding O, Allory Y, Argani P, Bismar TA, Bubendorf L, Canete-Portillo S, Chaux A, Chen YB, Cheng L, Cubilla AL, Egevad L, Gill AJ, Grignon DJ, Hartmann A, Hes O, Idrees MT, Kao CS, Knowles MA, Looijenga LHJ, Lotan TL, Pritchard CC, Rubin MA, Tomlins SA, Van der Kwast TH, Velazquez EF, Warrick JI, **Williamson SR**, and Kristiansen G. [Molecular pathology of urogenital tumors: Recommendations from the 2019 International Society of Urological Pathology (ISUP) Consensus Conference]. Pathologe 2021; 42(3):310-318. PMID: 33398501.
33. Hsiao CJ, Patel AGM, Fasanya HO, Stoffel MR, Beal SG, **Winston-McPherson GN**, Campbell ST, Cotten SW, Crews BO, Kuan K, Lapedis CJ, Mathias PC, Peck Palmer OM, and Greene DN. The Lines That Held Us: Assessing Racial and Socioeconomic Disparities in SARS-CoV-2 Testing. J Appl Lab Med 2021; 6(5):1143-1154. PMID: 34240171.
34. Jiagge EM, Ulintz PJ, Wong S, McDermott SP, Fossi SI, Suhan TK, Hoenerhoff MJ, Bensenhaver JM, Salem B, Dziubinski M, Oppong JK, Aitpillah F, Ishmael K, Osei-Bonsu E, Adjei E, Baffour A, Aldrich J, Kurdoglu A, Fernando K, Craig DW, Trent JM, Li J, **Chitale D**, Newman LA, Carpten JD, Wicha MS, and Merajver SD. Multiethnic PDX models predict a possible immune signature associated with TNBC of African ancestry. Breast Cancer Res Treat 2021; 186(2):391-401. PMID: 33576900.
35. Johnson CC, Coleman CM, Sitarik AR, Leon JE, **Tibbetts RJ, Cook BC**, Muma BK, Weinmann AJ, and Samuel LP. SARS-CoV-2 RT-PCR positivity and antibody prevalence among asymptomatic hospital based health care workers. J Clin Virol 2021; 140:104794. PMID: 34023573.
36. Khan J, **Al-Obaidy KI**, Fan R. Williams Syndrome with Rare Ureteric Abnormality. Cureus. 2021 Aug 16;13(8):e17210. PMID: 34540437; PMCID: PMC8443071
37. Labban M, Najdi J, Mukherji D, Abou-Kheir W, **Tabbarah A**, El-Hajj A. Triple-marker immunohistochemical assessment of muscle-invasive bladder cancer: Is there prognostic significance? Cancer Rep (Hoboken). 2021 Apr;4(2):e1313. doi: 10.1002/cnr2.1313. Epub 2021 Feb 4. PMID: 33538412; PMCID: PMC8451379.
38. Marzinke MA, Greene DN, Bossuyt PM, Chambliss AB, Cirrincione LR, McCudden CR, Melanson SEF, Noguez JH, Patel K, Radix AE, Takwoingi Y, **Winston-McPherson G**, Young BA, and Hoenig MP. Limited Evidence for Use of a Black Race Modifier in eGFR Calculations: A Systematic Review. Clin Chem 2021; Epub ahead of print. PMID: 34927677.

39. Mercier N, Roberts L, **Azordegan, N**, Altman A. Extra-uterine Endometrial Stromal Sarcoma of the Left Adnexa and Distal Ureter: A Case Report. Gynecologic Oncology Reports. 2021;36:100702. PMID: 33553557
40. Miller J, **Cook B**, Singh-Kucukarslan G, Tang A, Danagoulian S, Heath G, Khalifa Z, Levy P, Mahler SA, Mills N, and McCord J. RACE-IT - Rapid Acute Coronary Syndrome Exclusion using the Beckman Coulter Access high-sensitivity cardiac troponin I: A stepped-wedge cluster randomized trial. Contemp Clin Trials Commun 2021; 22:100773. PMID: 34013092.
41. Monga J, Adrianto I, Rogers C, Gadgeel S, **Chitale D**, Alumkal JJ, Beltran H, Zoubeidi A, and Ghosh J. Tribbles 2 pseudokinase confers enzalutamide resistance in prostate cancer by promoting lineage plasticity. J Biol Chem 2021; 101556. Epub ahead of print. PMID: 34973338.
42. Mosella MS, Sabedot TS, Silva TC, Malta TM, Segato FD, Asmaro KP, Wells M, **Mukherjee A**, Poisson LM, Snyder J, deCarvalho AC, Walbert T, Aho T, Kalkanis S, Elias PC, Antonini SR, Rock J, Noushmehr H, Castro M, and Castro AV. DNA Methylation-based Signatures Classify Sporadic Pituitary Tumors According to Clinicopathological Features. Neuro Oncol 2021; 23(8):1292-1303. PMID:33631002.
43. Nagaraja TN, Elmghirbi R, Brown SL, Rey JA, Schultz L, **Mukherjee A**, Cabral G, Panda S, Lee IY, Sarntinoranont M, Keenan KA, Knight RA, and Ewing JR. Imaging acute effects of bevacizumab on tumor vascular kinetics in a preclinical orthotopic model of U251 glioma. NMR Biomed 2021; 34(7):e4516. PMID: 33817893.
44. Onwubiko IN, Taneja K, **Gupta N**, and **Mukherjee A**. Unusual Case of Progressive Multifocal Leukoencephalopathy in a Patient With Sjögren Syndrome. Am J Forensic Med Pathol 2021; 42(2):186-190. PMID: 33464755.
45. Oyedeji O, Sheqwara J, Onwubiko I, **Lopez-Plaza I**, Nagai S, and **Otrock ZK**. Thrombocytapheresis for acquired von Willebrand syndrome in a patient with essential thrombocythemia and recent multivisceral transplantation. Transfusion 2021; 61(11):3277-3280. PMID: 34569071.
46. Plawecki AM, **Keller CE**, and Mayerhoff RM. Glycogenic Acanthosis: An Unusual Cause of Vocal Fold Leukoplakia. Laryngoscope 2021; Epub ahead of print. PMID: 34913490.
47. Rodgers S, Datta L, **Perry KD**, and **Stone CH**. Rhabdomyosarcoma with epithelioid morphology: A challenging cytologic diagnosis in a pleural effusion. Diagn Cytopathol 2021; 49(9):E356-E359. PMID:34004052.
48. Rodgers SA, Suneja A, Yoshida A, Abouljoud MS, **Otrock ZK**. Paradoxical embolic strokes in a liver transplant recipient with atrial septal defect undergoing therapeutic plasma exchange. J Clin Apher 2021;36: 206-210. PMID: 33058311
49. Rodgers S, **Pimentel J**. Rare lymphatic malformation of external ear canal with history of sclerotherapy. Am J Dermatopathol 2021; 43(SUPPL 8):S12.
50. Rohan TE, Ginsberg M, Wang Y, Couch FJ, Feigelson HS, Greenlee RT, Honda S, **Stark A, Chitale D**, Wang T, Xue X, Oktay MH, Sparano JA, and Loudig O. Molecular markers of risk of subsequent invasive breast cancer in women with ductal carcinoma in situ: protocol for a population-based cohort study. BMJ Open 2021; 11(10). PMID: 34702732.
51. Rundle AG, Sadasivan SM, **Chitale DA, Gupta NS, Williamson SR**, Kryvenko ON, Chen Y, Bobbitt K, Tang D, and Rybicki BA. Racial differences in the systemic inflammatory response to prostate cancer. PLoS One 2021; 16(7):e0252951. PMID: 34242232.
52. Rybicki BA, Sadasivan SM, Chen Y, Kravtsov O, Palangmonthip W, Arora K, **Gupta NS, Williamson S**, Bobbitt K, **Chitale DA**, Tang D, Rundle AG, and Iczkowski KA. Growth and differentiation factor 15 and NF-κB expression in benign prostatic biopsies and risk of subsequent prostate cancer detection. Cancer Med 2021; 10(9):3013-3025. PMID: 33784024.
53. Sabedot T, Malta T, Snyder J, Nelson K, Wells M, deCarvalho A, **Mukherjee A, Chitale D**, Mosella M, Sokolov A, Asmaro K, Robin A, Rosenblum M, Mikkelsen T, Rock J, Poisson L, Lee I, Walbert T,

Kalkanis S, Iavarone A, Castro AV, and Noushmehr H. A serum-based DNA methylation assay provides accurate detection of glioma. Neuro Oncol 2021; 23(9):1494-1508. PMID: 33560371.
54. **Samuel LP**, Hansen GT, Kraft CS, and Pritt BS. The Need for Dedicated Microbiology Leadership in the Clinical Microbiology Laboratory. J Clin Microbiol 2021; 59(8). PMID: 33597258.
55. Shaar RA, Zia S, Alhamar M, Romano T, **Shaw B, Keller C**, Friedman BJ. Salivary gland hyalinizing clear-cell carcinoma with cutaneous metastasis: A rare and deceptive tumor J Cutan Pathol, 2021;48:86-89. PMID: 32640078
56. Shallal A, **Tibbetts R**, Alangaden G, and Williams J. Pulmonary nodules in a lung transplant recipient. Am J Transplant 2021; 21(5):1975-1977. PMID: 33939276.
57. Sharma A, Greene DN, Chambliss AB, Farnsworth CW, French D, Herman DS, Kavsak PA, Merrill AE, Margaret Lo SY, Lyon ME, **Winston-McPherson G**, Pearson LN, SoRelle JA, Waring AC, and Schmidt RL. The effect of the Covid-19 shutdown on glycemic testing and control. Clin Chim Acta 2021; 519:148-152. PMID: 33932408.
58. Sood A, Jeong W, Palma-Zamora I, Abdollah F, Butaney M, Corsi N, Wurst H, Arora S, Kachroo N, **Hassan O, Gupta N,** Gorin MA, and **Menon M**. Description of Surgical Technique and Oncologic and Functional Outcomes of the Precision Prostatectomy Procedure (IDEAL Stage 1-2b Study). Eur Urol 2021; Epub ahead of print. PMID: 34872786.
59. Straughen JK, Sitarik AR, Johnson CC, Wegienka G, Ownby DR, Johnson-Hooper TM, **Allo G**, Levin AM, and Cassidy-Bushrow AE. Prenatal IgE as a Risk Factor for the Development of Childhood Neurodevelopmental Disorders. Front Pediatr 2021; 9:601092. PMID: 34055677.
60. To L, Attar D, Lines B, McCarty M, Nemeh H, **Lopez-Plaza I**, Smith Z, Cob V, Lekura J. Incidence of Heparin-Induced Thrombocytopenia in Patients with Newly Implanted Mechanical Circulatory Support Devices Ann Pharmacother 2022 May;56(5);565571. Epub 2021 Aug 12
Circulatory Support Devices. Ann Pharmacother 2021; Epub ahead of print. PMID: 34382428.
61. Tsogbadrakh B, Kunaviktikul W, Akkadechanunt T, Wichaikhum OA, Gaalan K, Badamdorj O, and **Stark A.** Development and psychometric testing of quality nursing care scale in Mongolia. BMC Nurs 2021;20(1):68. PMID: 33910559.
62. Uzuni A, El-Bashir J, Galusca D, Yeddula S, Nagai S, Yoshida A, Abouljoud MS, and **Otrock ZK**. Transfusion requirements and alloimmunization to red blood cell antigens in orthotopic liver transplantation. Vox Sang 2021; Epub ahead of print. PMID: 34387366.
63. Uzuni A, Wlosinski L, and **Lopez-Plaza I**. Updated Evaluation of RhD Status Among Women of Child-Bearing Age in Detroit, Michigan. Am J Clin Pathol 2021; 156(6):1000-1006. PMID: 34050357.
64. **Williamson SR, Al-Obaidy KI**, Cheng L, Smith SC, Cox RM, McKenney JK, Gokden N, Phillips CL, Giannico GA, Gallan AJ, Przybycin CG, Grignon DJ. Distal Tubular Hyperplasia: A Proposal for a Unique Form of Renal Tubular Proliferation Distinct from Papillary Adenoma. Am J Surg Pathol. 2021 Apr 1;45(4):516-522. PMID: 33560656.
65. Xu J, and **Stark AT**. A conceptual model of nurses' workplace social capital: a theory synthesis. BMC Nurs 2021; 20(1):148. PMID: 34404398.
66. **Yuan L**, Chen L, Yan X, Gao K, Wang X. Palladium catalyzed reductive Heck coupling and its application in total synthesis of (-)-17-nor-excelsinidine. RSC Adv. 2021;11(13):7570-7574. doi: 10.1039/d1ra00015b. eCollection 2021 Feb 10. PMID: 3542327
67. **Yuan L**, Jebastin Thangaiah J, Chute DJ. 2021. The Role of Ultrasound-Guided Fine-Needle Aspiration of Thyroid Bed Lesions and Clinical Predictors of Recurrent Papillary Thyroid Carcinoma Am J Clin Pathol 2021;155:389-396. PMID: 33009567
68. **Yuan L**, Oshilaja O, Sierk A, Zhang G, Booth CN, Brainard J, Dyhdalo KS. 2021. Metastatic breast cancer diagnosed on cervical cytology. Cytopathol 2021;32:127-131. PMID: 32789952

69. Yuan S, and **Otrock ZK**. Platelet Transfusion: An Update on Indications and Guidelines. Clin Lab Med 2021; 41(4):621-634. PMID: 34689969.
70. **Zarbo RJ**. Management Systems to Structure Continuous Quality Improvement. Am J Clin Pathol 2021; Epub ahead of print. PMID: 34273147.
71. Zia S, **Shaw B**, Chapman S, and Friedman BJ. An atypical chondroid syringoma with malignant degeneration: utility of comparative genomic hybridization in confirming the diagnosis. J Cutan Pathol 2021; 48(6):775-780. PMID: 33470448.

2022

1. Abou Shaar R, **Perry KD**, and **Otrock ZK**. Hemophagocytosis on ascitic fluid cytology: Diagnosis of HLH. *Diagn Cytopathol* 2022; 50(8):414-416. PMID: 35674130
2. **Al-Obaidy KI**, Alruwaii ZI, Williamson SR, Cheng L. The pathological and molecular genetic landscape of the hereditary renal cancer predisposition syndromes. Histopathology. 2022 Jul;81(1):15-31. doi: 10.1111/his.14641. PMID: 35315118.
3. **Al-Obaidy KI**, Idrees MT, Abdulfatah E, Kunju LP, Wu A, Ulbright TM. Large Cell Calcifying Sertoli Cell Tumor: A Clinicopathologic Study of 18 Cases With Comprehensive Review of the Literature and Reappraisal of Prognostic Features. Am J Surg Pathol. 2022 May 1;46(5):688-700. PMID: 34913878.
4. Acosta AM, **Al-Obaidy KI**, Sholl LM, Dickson BC, Lindeman NI, Hirsch MS, Collins K, Fletcher CD, Idrees MT. Sarcomatoid Yolk Sac Tumor Harbors Somatic Mutations That Are Otherwise Rare in Testicular Germ Cell Tumors. Am J Surg Pathol. 2022 May 1;46(5):701-712. PMID: 35034041.
5. **Al-Obaidy KI**, Saleeb RM, Trpkov K, Williamson SR, Sangoi AR, Nassiri M, Hes O, Montironi R, Cimadamore A, Acosta AM, Alruwaii ZI, Alkashash A, **Hassan O, Gupta N**, Osunkoya AO, Sen JD, Baldrige LA, Sakr WA, Idrees MT, Eble JN, Grignon DJ, Cheng L. Recurrent KRAS mutations are early events in the development of papillary renal neoplasm with reverse polarity. Mod Pathol. 2022 Feb 12. PMID: 35152262.
6. Acosta AM, **Al-Obaidy KI**, Sholl LM, Ulbright TM, Idrees MT. Molecular analysis of adenocarcinomas of the rete testis demonstrates frequent alterations in genes involved in cell cycle regulation. Histopathology. 2022 Jul;81(1):77-83. PMID: 35395117.
7. Anderson WJ, Gordetsky JB, Idrees MT, **Al-Obaidy KI**, Kao CS, Cornejo KM, Wobker SE, Cheville JC, Vargas SO, Fletcher CDM, Hirsch MS, Acosta AM. Large cell calcifying Sertoli cell tumour: a contemporary multi-institutional case series highlighting the diagnostic utility of PRKAR1A immunohistochemistry. Histopathology. 2022 Mar;80(4):677-685. PMID: 34780072.
8. Aryal SC, Zia S, Rodgers S, **Shen Y, Perry K, Yuan L**. BRD3-NUTM1-expressing NUT carcinoma of lung on endobronchial ultrasound-guided transbronchial needle aspiration cytology, a diagnostic pitfall. Diagn Cytopathol. 2022;50(2):E47-E53. doi: 10.1002/dc.24885. Epub 2021 Oct 21. PMID: 34672128
9. Kaur S, Hutton M, Kenney RM, Weinmann, **Samuel L, Tibbetts R**, Davis SL PharmD and Medler C. The long-term sustainability of a respiratory culture nudge. Antimicrobial Stewardship & Healthcare Epidemiology (2022), 1–3 doi:10.1017/ash.2022.5
10. **Fang X**, Butler KM, Abidi F, Gass J, Beisang A, Feyma T, Ryther R, Standridge S, Heydemann P, Jones M, Haas R, Lieberman D, Marsh ED, Benke TA, Skinner S, Neul JL, Percy AK, Friez MJ, and Caylor RC. Analysis of X-Inactivation Status in a Rett Syndrome Natural History Study Cohort. Mol Genet Genomic Med. 2022;10(5):e1917.
11. Manteuffel JJ, MD, Lee MS, Bussa RM, Sabagha NL, Chaudhry K, Ross JE, Cook MR, MD, Rammal JK, Bridasyam K, Klausner HA, **Samuel LP**, Joseph B. Miller JB. Hepatitis C Virus Reflex Testing Protocol in an Emergency Department. Western Journal of Emergency Medicine. Western

Journal of Emergency Medicine, Electronically published February 28, 2022, 10.5811/westjem.2021.10.52468

12. Massaad E, **Tabbarah A**, Barmada M, Rbeiz J, Nasser S, Farra C. FISH analyses for 1p and 19q status on gliomas: Reporting an 8 years' experience from a tertiary care center in the Middle East. Ann Diagn Pathol. 2022 Apr;57:151899. doi: 10.1016/j.anndiagpath.2022.151899. Epub 2022 Jan 14. PMID: 35063798.
13. Morrison AR, Jones MC, Makowski CT, **Samuel LP**, Ramadan AR, Alangaden GJ, Davis SL, Kenney RM. Evaluation of the selection of cerebrospinal fluid testing in suspected meningitis and encephalitis. Diagn Microbiol Infect Dis. 2022 Jan;102(1):115571. doi: 10.1016/j.diagmicrobio.2021.115571. Epub 2021 Oct 11. PMID: 34768207.
14. Packer M, Ravinsky E, **Azordegan N**. Patterns of Error in Interpretive Pathology: A Review of 23 PowerPoint Presentations of Discordances, Am J Clin Pathol. 2022;157:767–773
15. **Tibbetts R**, George S, Burwell R, Rajeev L, Rhodes PA, Singh P, **Samuel L**. Performance of the Reveal Rapid Antibiotic Susceptibility Testing System on Gram-Negative Blood Cultures at a Large Urban Hospital.. J Clin Microbiol. 2022 Jun 15;60(6):e0009822. doi: 10.1128/jcm.00098-22. Epub 2022 May 24.
16. Suleyman G, MD, Fadel R, Brar I, Kassab R, Khansa R, Sturla N, Alsaadi A, Latack K, Miller J, **Tibbetts R, Samuel L**, Alangaden G, Ramesh M, MD. Risk factors associated with hospitalization and death in COVID-19 breakthrough infections. Open Forum Infectious Diseases, 2022; ofac116, https://doi.org/10.1093/ofid/ofac116
17. Siegmund SE, Sholl L, Tsai HK, Yang Y, Vasudevaraja V, Tran I, Snuderl M, Fletcher CD, Cornejo KM, T Idrees MT, **Al-Obaidy KI**, Collins K, Gordetsky J, Wobker SE, Hirsch MS, Trpkov K, Yilmaz A, Anderson W, Quiroga-Garza G, Magi-Galluzzi C, Canete-Portillo S, Acosta MA. Clinicopathologic and Molecular Spectrum of Testicular Sex Cord-Stromal Tumors Not Amenable to Specific Histopathologic Subclassification. Mod Pathol. 2022. (In press).
18. Wyvekens N, Sholl L, Yang Y, Tran I, Vasudevaraja V, Dickson BC, **Al-Obaidy KI**, Baniak N, Collins K, Gordetsky J, Idrees MT, Kao CS, Maclean F, Matoso A, Ulbright TM, Wobker SE, Fletcher CD, Hirsch MS, Hornick J, Snuderl M, Acosta AM. Molecular Correlates of Male Germ Cell Tumors with Overgrowth of Components Resembling Somatic Malignancies. Mod Pathol. 2022. (In press).
19. Udumula MP, Poisson LM, Dutta I, Tiwari N, Kim S, Chinna-Shankar J, **Allo G**, Sakr S, Hijaz M, Munkarah AR, Giri S, Rattan R. Divergent Metabolic Effects of Metformin Merge to Enhance Eicosapentaenoic Acid Metabolism and Inhibit Ovarian Cancer In Vivo. Cancers (Basel). 2022;14(6):1504.
20. Vijayanarayanan A, Wlosinski L, El-Bashir J, Galusca D, Nagai S, Yoshida A, Abouljoud MS, and **Otrock ZK**. Lack of alloimmunization to the D antigen in D-negative orthotopic liver transplant recipients receiving D-positive red blood cells perioperatively. *Vox Sanguinis*. 2022 Apr 8. doi: 10.1111/vox.13282. PMID: 35393659
21. Xu JM, **Stark AT**, Ying BH, Lian ZM, Huang YS, and Chen RM. Nurses' Workplace Social Capital and the Influence of Transformational Leadership: A Theoretical Perspective. *Front Public Health* 2022; 10:855278. PMID: 35769783.
22. **Yuan L**, Gero M**, Zia S**, Aryal SC, Shetty S, and Reynolds JP. Cyto-histo correlation and false-negative urine: Before and after the Paris system for reporting urinary cytology. *Diagn Cytopathol* 2022; 50(8):404-410. PMID: 35652594.
23. **Yuan L**, Nasr C, Bena JF, and Elsheikh TM. Hürthle cell-predominant thyroid fine needle aspiration cytology: A four risk-factor model highly accurate in excluding malignancy and predicting neoplasm. *Diagn Cytopathol* 2022; Epub ahead of print. PMID: 35674254
24. **Zarbo RJ**. Management systems to structure continuous quality improvement. Am J Clin Pathol 2022;157-170. Advance pub 2021 DOI: 10.1093/AJCP/AQAB109

25. **Zarbo RJ**. The Unsafe Archaic Practices of Tissue Pathology: Manifesto forChange (editorial). Am J Clin Pathol 2022;158:4-7 https://doi.org/10.1093/AJCP/AQAC018. Advance pub March 1, 2022. https://doi.org/10.1093/ajcp/aqac018.

Attachment B

Faculty Awards

Hour Detroit Magazine Top Docs 2022

Ghassan Allo, MD
Dhananjay Chitale, MD
Kedar Inamdar, MD
Christian Keller, MD
Richard Zarbo, MD

Hour Detroit Magazine Top Docs 2021

Ghassan Allo, MD
Dhananjay Chitale, MD
Kedar Inamdar, MD
Christian Keller, MD
Richard Zarbo, MD

The Best Doctors in America 2021

Dhananjay Chitale, MD
Kedar Inamdar, MD
Richard Zarbo, MD

Other Recognitions 2021

Gaurav Sharma, MD
2021 Choosing Wisely Champion, American Society for Clinical Pathology
2021 Joseph J. Weiss Memorial Essay Contest, Wayne County Medical Society of South East Michigan

Christian Keller, MD
2020 Outstanding Teaching Award in Anatomic Pathology, Henry Ford Hospital Pathology Residency

Major Offices and Roles in National Organizations 2021

Allo, Ghassan
Board of Trustees, Michigan Society of Pathologists.
Delegate, House of Delegates, College of American Pathologists (CAP)
Delegate, Michigan State Medical Society
Delegate, Wayne County Medical Society of Southeast Michigan (WCMSSM)
Assistant Editor, Gynecologic Pathology, American Journal of Clinical Pathology

Member, Project ECHO (Extension for Community Healthcare Outcomes), Kenyan and Pan-Arab Associations for Gynecologic Oncologists

Chitale, Dhananjay
Panelist, CAP/IASLC/AMP Lung Biomarker Guideline Advisory
Member, HFHS-MSU Cancer Genetics Task Force

Lopez-Plaza, Ileana
Member, American Society for Apheresis Research Committee
Member, American Society for Apheresis TTP/TMA subcommittee
Member, American Society for Apheresis Choosing Wisely subcommittee
Assessor, Foundation for the Accreditation of Cellular Therapy

Otrock, Zaher
Board Member, Michigan Association of Blood Banks (MABB)
Chairman, Publication Committee, MABB
Chief Editor, MABB Newsletter, "In A Different Vein"
Member, Editorial Board, Journal of Hematology & Thromboembolic Diseases
Member, Editorial Board, International Journal of Chronic Diseases Sciences
Member, Editorial Board, Journal of Hematology

Pimentel, Jason
Member Virtual Slide Library Committee, American Society for Dermatopathology
Member, College of American Pathologists, Michigan House of Delegates

Saleh, Husain
Member, Editorial Review Board, CytoJournal
Member, Editorial Review Board, Journal of Gastrointestinal Cancer.
Member, Editorial Review Board, Journal of Gastrointestinal and Liver Diseases

Samuel, Linoj
Chair, American Society of Microbiology (ASM) Committee on Postgraduate Educational Programs (CPEP)
Vice Chair, Clinical Microbiology and Public Health Committee (CPHM), American Society for Clinical Microbiology (ASM)
Co-Chair, Education Committee, Pan American Society for Clinical Virology (PASCV)
Ex-Officio member, Public and Scientific Affair Committee, American Society for Microbiology
Ex-Officio member, Microbiology Resource Committee, College of American Pathology (CAP)
Member, ASM Clinical and Public Health Microbiology Committee (CPHMC)
Member, South Central Association for Clinical Microbiology (SCACM), Board of Directors
Council Member, Pan American Society for Clinical Virology (PASCV) Education Committee
Member, ASM Program Evaluation Committee (APEC)
Section Editor, Quality Control and Assurance, Clinical Microbiology Procedures Handbook, 4th edition
ASM representative, Program Planning Committee, International Conference on Emerging Infectious Diseases
Invited Participant, ASM Clinical Microbiology and Public Health (CPHM) Retreat
Invited Participant, ASM CPHM Congressional Hill Day

Sharma, Gaurav
Chairman, CAP 15189 Committee, College of American Pathologists
Member, Council on Accreditation, College of American Pathologists

Shaw, Brandon
Member, Advocacy and Government Affairs Committee, American College Medical Genetics and Genomics (ACMG)
Member, Privacy in Genetics Working Group. American College Medical Genetics and Genomics (ACMG)

Theisen, Brian
Member, CAP 15189 Committee, College of American Pathologists

Tibbetts, Robert
Member, ASM Clinical Research Awards Selection Committee, American Society for Microbiology
Member, Board Exam Development Committee, American Board of Medical Microbiology

Tuthill, Mark
Member, CDC, Clinical Laboratory Improvement Committee (CLIAC)
Member, ACGME, Clinical Informatics Milestone Committee
Delegate, ASCP, Resident in Service Exam Committee
Delegate, CAP House of Delegates
Conference Director, Pathology Informatics Summit, Association for Pathology Informatics
Chair, Program Committee, Association for Pathology Informatics
Telepathology Workgroup, American Telepathology Association
Member, Editorial Board, Journal of Pathology Informatics

Waugh, John
Board Director, The Compass Group
Member Administrative Committee, Michigan Co-Tenancy Laboratories
Board Member, Oakland University School of Health Sciences

Winston-McPherson, Gabrielle
Membership Chair, Michigan local section of The American Association of Clinical Chemistry
Associate Guest Editor, Journal of Applied Laboratory Medicine (JALM) Health Disparities Special Issue

Zarbo, Richard
Board Director, Project Santa Fe Foundation, Clinical Lab 2.0
Member, Executive Advisory Board, Archives of Pathology and Laboratory Medicine
Member, Editorial Review Board, American Journal of Clinical Pathology
Member, Editorial Review Board, Applied Immunohistochemistry
Member, Editorial Review Board, International Journal of Surgical Pathology
Member, Editorial Review Board, Modern Pathology
Member, Editorial Review Board, Head and Neck Pathology
Member, Editorial Review Board, Advances in Anatomic Pathology
Member, Editorial Review Board, The American Journal of Surgical Pathology
Member, Editorial Review Board, Otolaryngology – Head and Neck Surgery

Attachment D

CHM Assurances in Response to Dean Amalfitano's Concerns
Submitted to CAC October 17, 2022

On Friday, October 14, Dean Amalfitano sent the email copied below in response to the CHM submissions for Departments of Neurosurgery and Urology. To help clarify our response to the questions, we have inserted bold numbers before the questions. Our responses follow the email.

> "Afternoon Aron, Nara, Carol, and members of the CHM CAC. I have also cc'ed Dr. David Kaufman, Asst.VP of Clinical Affairs in the Office of Health Sciences, as there are clinical implications related to the new department request(s) , as noted below.
>
> We again appreciate the opportunity to participate in the "assurances" portion of your processes. We have had several questions and suggestions generally arise in regard to the proposed departments, which I've again pasted below for your team's consideration.
>
> **[1]**Questions as to adding these departments (some of which are clearly duplicative of existing depts/divisions-with vague plans as to how to reconcile these duplications in the future) will create confusion as to which departments are East Lansing based, vs Providence based, vs HF based, and where faculty will be residing primarily, in particular when initially responding to job postings etc. **[2]** This also touches on referral pattern confusion, for example if we have Neurosurgeons/Spine Surgeons in the COM Osteopathic Surgical and Orthopedic Specialties depts at MSU-HCI in East Lansing, yet there is another "Neurosurg" dept, practicing in South East Michigan, and another at Providence Hospital as well.
>
> [Variation for the urology proposal also emailed on October 14, "This also touches on referral pattern confusion, for example if we have Urologists in the COM Osteopathic Surgical Specialties dept at MSU-HCI in East Lansing, yet there is another Urology dept, practicing in South East Michigan."]
>
> [Variation for the Dermatology proposal emailed by Dean Amalfitano on September 19, 2022, "Morning Aron, and members of the CHM CAC.
> We appreciate the opportunity to participate in the "assurances" portion of your processes. We have had several questions and suggestions generally arise in regard to the proposed 4 new departments, which I've basically pasted below for your team's consideration. Thank you. AA
>
> This also touches on referral pattern confusion, for example if we have ENT's at MSU-HCI in East Lansing, yet there is another ENT dept, practicing in South East Michigan."]
>
> **[3]** Will any research done by the no-cost faculty becoming part of these depts., be attributed to MSU generally, MSU CHM or strictly to the jointly funded Health Sciences Center at Henry Ford?. **[4]** Will future investments in research faculty be shared across colleges, should they reside in a HF located dept?
>
> **[5]** In line with the above, a general theme is questioning why these departments, and the faculty assigned to them, could not be shared between the medical schools, just as several other departments already are. We note that in the creation of the most recent dept on the MSU East Lansing campus., the Dept. of Orthopedics, this premise was highly desired by both colleges, and indeed the current Dept of Orthopedics is shared between COM and CHM.

[6] Is there a mechanism or plan for clinically active HF faculty to also be appointed through the MSU HCI?

[7] We are concerned with the lack of acknowledgement of COM education or role in some of these proposed new departments. For example, it is critical that the new Urology dept. chair recognize two completely different educational approaches in CHM and COM and joint appointments might be considered to recognize these dichotomies, especially as both COM and CHM students are being trained currently at Henry Ford System hospitals.

Thank you for your thoughtful consideration of these comments and questions.
AA"

The College of Human Medicine responds:

As to [1]

It is true that we have some existing divisions (e.g., Neurosurgery *division which is* not a *department*). Divisions are constructs of the dean's office and are not recognized by the university. Our proposal here is to create statewide departments, as all CHM departments are. In general, if there are existing divisions, structurally these will be incorporated into the appropriate departments either as a sub-entity or as a merger (depending on faculty needs and wishes). It is true that some departments have more faculty based in East Lansing (e.g., Medicine) or Grand Rapids (e.g., Pediatrics and Emergency Medicine), but that does not define the department, and faculty from all over the state can be in the department. It is also true that the collaborations in each department can be complex, but all departments in the university that engage with the community deal with complexity at some level. The college does not specify where faculty have to live as long as they can fulfill their role. Also note, we are purposely not creating duplicative departments.

As to [2]

Inclusion in MSU HealthCare, Inc. practices (and referrals to MSU physicians) is a separate issue than membership in a department. In this sense, these new departments will be the same as existing departments that include non-HCI faculty, including non-prefix faculty, from Flint, Grand Rapids, Detroit, the Upper Peninsula, or other communities across Michigan. Clinical integration partnerships between MSU and hospital systems, including joint ventures in radiology, or non-clinical relationships, including a statewide residency consortium, create more areas for confusion than these departments will. As a particular example, the neurosurgeons based at Ascension Providence are faculty for both CHM and COM, yet both colleges have decided that any confusion clinically is tolerable given the benefits to students.

As to [3]

The creation of this department will not change the eventual attribution of research funding. As a matter separate from the creation of these departments, we believe MSU, the Health Science Center, applicable college and department will all have attribution, but that system has not been implemented.

As to [4]
Investments from the college to departments will continue as they have for all departments, whether they are joint or in a single college. The attribution and indirect costs follow the appointments and investments as they do now, regardless of the geographical location of the department. For example, for departments located in Grand Rapids and Flint and invested in by CHM- research attribution and indirect costs will flow through CHM. Similarly, for departments located in East Lansing and jointly invested by COM- research attribution and indirect costs flow through the respective college in which the faculty is appointed. CHM has no interest in overturning the current system.

As to [5]
Neither the College of Human Medicine nor the collaborating physicians at Henry Ford Health envision these as joint departments. Some joint departments have been successful, but they are more difficult to administer. The orthopedics department is an interesting example, because administration of that unit has been a challenge and not an experience to be replicated. As in all of our departments, we will welcome faculty from other departments and colleges who are interested in secondary appointments in the new departments.

As to [6]
As of October 16, 2022, there is no pathway for Henry Ford Medical Group faculty to be appointed in MSU HeathCare, Inc., and any decisions to create such a pathway are separate from the department decisions. This is analogous to the CHM Emergency Medicine department created a decade ago; faculty employed by ECS are not “appointed” or credentialed in MSU HCI.

As to [7]
We expect the new department will only increase options available to COM students. The college and the new department are open to cross-listing classes as happens now across the university, and we will ensure the courses of the new department will be available to medical students regardless of college. Finally, there is nothing in the creation of the department that disturbs the existing curricular courses used by COM students. In fact, these additional departments enhance research, educational and clinical opportunities for COM students.

Attachment C

Grants 2022- Henry Ford Pathology and Laboratory Medicine

Federal NIH/NCI Grant Awards

Allo, Ghassan, Co-Investigator (5%). Principle Investigator: Jennifer Straughen, PhD (PI). The Prenatal Origins of Autism Spectrum Disorder. Source: Department of Defense (AR180175). Grant Award Amount: $735,607.Internal grant number: B70112. 8/1/2019-7/31/2022.

Allo, Ghassan, Co-Investigator (5%). Epidemiological study of volatile organic compounds and preterm birth in Detroit, Center for Leadership in Environmental Awareness and Research (CLEAR). Source: NIH (P42 Runge-Morris and Miller); Straughen and Cassidy-Bushrow (PI). Grant Award: $1,843,625. 04/2022-6/2027.

Chitale Dhananjay, Co-investigator, (3%). Principle Investigator: Thomas Rohan, Albert Einstein College of Medicine, Inc, Bronx, NY, Title: Molecular Markers of Risk of Subsequent Breast Cancer in Women with Ductal Carcinoma in Situ, Supporting agency: National Cancer Institute, Project No.: 1R01CA218429, Grant Award: $1,513,571, Internal Grant Number (B40736), 9/15/2017-7/31/2022.

Mukherjee, Abir, Co-investigator, (10%). Principle Investigator: Laila Poisson, HFHS Title: Molecular and clinical evaluation of the glioma experience to anticipate modern outcomes and guide patient care. NIH/NCI . Grant No: RO1CA222146. Grant award: $1,168,903, 08/08/2018- 7/31/2023.

Stark Azadeh, PI-Subcontract (25%). Overall PI Thomas Rohan, MD, PhD. RNA and miRNA Markers of Progression of Ductal Carcinoma in Situ to Invasive Cancer. NIH/NCI R01. Grant Award $656,000, 9/1/2017-8/31/2022.

Non-Federal Grant Awards

Cook, Bernard, Co-PI (11%), RACE-IT – Rapid Acute Coronary Syndrome Exclusion using the Beckman Coulter Access high-sensitivity Troponin I. Beckman Coulter. 7/8/20-3/15/21. $233,330. Internal Grant Number (E13592).

Cook, Bernard, Co-PI, Role and Prognostic Utility of Biomarkers in the Clinical Assessment of Patients Before and After Transcatheter Valvular Interventions. Roche. 2/28/2020-7/31/2023. $62,720. Internal Grant Number (E13624).

Cook, Bernard, Principal investigator, Laboratory Validation of SARS-CoV-2 IgG and IgM Serologic Assays on an Automated Immunoassay System. Beckman Coulter. $88,754. Internal Grant Number (E13839).

Cook, Bernard, Principal investigator, Initial and Sustained Immunity to SARS-CoV-2 Measured by Serologic Assays on an automated Immunoassay System (natural and post-vaccination arms). Beckman Coulter. $109,937. Internal Grant Number (E13978).

Cook, Bernard. Co-PI, Evaluation of Alere NT-proBNP for Alinity i System in an Emergency Department Setting for Heart Failure (LANER-HF). Abbott. 10/4/21-10/3/22. $100,500. Internal Grant Number (E14959).

Lopez-Plaza, Ileana HFH site Principal investigator, Cerus Corporation multicenter clinical trial: Randomized, Double Blinded, Controlled, Parallel Group, Non-Inferiority, Phase III Study to Evaluate the Efficacy and Safety of the INTERCEPT Blood System for Red Blood Cells in Patients undergoing Complex Cardiac Surgery Procedures. Sponsor grant $262,494.93 (2020-2023), IRB #130845.

Samuel, Linoj. Primary Investigator. Evaluation of the Clinical Performance of the Reveal System for Antimicrobial Susceptibility Testing of Positive Blood cultures from Gram Negative Organisms. Specific Diagnostics. $65,243

Samuel, Linoj. Co-Primary Investigator. Multi-Center Clinical Performance Evaluation of the NeuMoDx™ FluA/FluB/RSV/SARS-CoV-2 Assay on the NeuMoDx™ Molecular Systems. Qiagen Inc 2022. Grant award: $135,062

Tibbetts, Robert, Principal investigator, (100%). Clinical validation of the molecular-based Revogene® Enteric Panel assay for the detection and identification of Salmonella enterica and bongori, Shigella/Enteroinvasive Escherichia coli (EIEC), Campylobacter jejuni, coli and upsaliensis, Vibrio cholerae, parahaemolyticus and vulnificus from Cary-Blair preserved stool specimens from individuals with signs and symptoms of gastrointestinal infection. Supporting agency: Meridian Biosciences, Inc. Project No.; GPC07-002 5/07/2021 – 5/06/2022, Grant award: $75,737.50, Internal Grant Number (E20168).

Tibbetts, Robert, Principal investigator (100%). Clinical validation of the molecular-based Revogene SMART RP assay for the detection and differentiation of influenza virus (A and B) respiratory syncytial virus (A and B), human metapneumovirus, parainfluenza virus (1 to 4) and adenovirus. Supporting agency: Meridian Biosciences, Inc. Project No.; GPC06-002 06/18/2021 – 06/17/2022, Grant award: $66,343.75, Internal Grant Number (E20137).

Zarbo Richard. Principal investigator (100%). Sakura Finetek USA Research and Development Collaboration Agreement with Henry Ford Health System Laboratories. 10/18/2018-10/18/2023. Grant Award: $750,000. Internal Grant Number (E18180). Renewed 2022-2023 - $500,000