

Clinician-Educator Portfolio: What is it and why do I need one?



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Pathology & Immunology Office of Faculty Development
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CEP Workshop Agenda

- Appointments and promotion
 - Tracks
 - APGAR document
- WUSM CV and CEP
 - What's the difference?
- CEP formatting and content



Appointments and Promotions Guidelines and Requirements (APGAR)

- Investigator Track
- Research Track
- Clinician Track

Appointments and Promotions Guidelines and Requirements (APGAR)

- Investigator Track (Tenure Track)
 - Faculty members on the Investigator Track are involved in basic biological, biomedical, clinical, and/or educational investigation, and accomplishment in this realm is the primary basis for promotion on the Investigator Track
 - Appointment and promotion are based generally upon investigation and scholarly activities, teaching, clinical excellence (where appropriate), and service. Although all of these activities are considered, excellence in scholarly investigation is the cornerstone of a candidate's record

Appointments and Promotions Guidelines and Requirements (APGAR)

- Research Track
 - Faculty on the Research Track are involved in basic biomedical investigation, clinical, and/or educational investigation and must meet a standard of excellence based upon research accomplishments.
 - The primary focus of Research Track faculty is to facilitate and support the overall research mission of Washington University, rather than to develop independent programs.
 - Excellence in research is the major criterion for appointment and promotion for faculty on the Research Track, although other activities may also be considered.

Appointments and Promotions Guidelines and Requirements (APGAR)

- Clinician Track
 - The Clinician Track provides a mechanism for recognizing and rewarding faculty at WUSM who excel in one or more of the areas of patient care, education, administrative and research functions that assure the delivery of excellent patient care through current practice and/or by training future clinicians
 - Essential criteria for promotion for faculty members on the Clinician Track are superior clinical skills and recognition, and involvement in the teaching mission of the Medical School

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[ABOUT](#)

[DIVISIONS](#)

[RESEARCH](#)

[EDUCATION](#)

[CLINICAL SERVICES](#)

[FACULTY DEVELOPMENT](#)

[PEOPLE](#)

[NEWS](#)

[CALENDAR](#)



Appointments and Promotions

Documents

- [APGAR](#)
- [P&I Annual Review Form](#)
- [WUSM Promotion Dossier Requirements](#)

University Offices

- [Faculty Affairs](#)

WUSM CV Tools

- [CV Format](#)
- [WU Profile System](#)
- [CEP Workshop Slides](#)

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[Annual Report](#)

[Appointments and Promotions](#)

[Career Development](#)

[Contact OFD](#)

[Department Awards](#)

Promotion Workflow

- Division Chief presentation of faculty member to internal department review committee (by Division)
 - APGAR document
 - Regional, national, international recognition
- Internal review committee makes recommendation to Department Head (non-binding)
- Department Head submits and presents dossier to **Ad Hoc Committee**

Promotion Process-Ad hoc Committee

- Faculty member in Clinical Department:
 - 3 Clinical Department Heads (excluding the Department Head of proposed candidate)
 - 2 Basic Science Department Heads
 - 2 senior faculty members
- Faculty member in Basic Science Department:
 - 2 Clinical Department Heads
 - 3 Basic Science Department Heads (excluding the Department Head of proposed candidate)
 - 2 senior faculty members

- Recommendation of the Appointments and Promotions Committee presented to Executive Faculty
- Approval of appointment or promotion by the Executive Faculty.
- No further action is required for Clinician Track faculty or for Investigator Track faculty where a tenure decision is not being considered.

Promotion Process

- Division Chief presentation to internal department review committee (by Division)
 - APGAR document
 - Regional, national, international recognition
- Department head submits and presents dossier to **Ad Hoc Committee**
 - 4-6 Department Heads, 2-3 senior faculty representatives
- Executive Faculty Approval
- If tenure decision, review and approval by Board of Trustees
- Promotion dossier: CV/CEP, personal statement, **letters of recommendation**, manuscripts

Promotion Dossier

- All documents need to be in presentation ready form!
- Follow instructions
- Spelling, grammar, formatting

- Office of Faculty Development can review and provide feedback on content

Requests to provide letters in support of promotion

- Asked to comment on:
 - **Investigation and Other Scholarly Accomplishments:** evaluate the candidate's academic and scholarly activities, and reputation in {her/his} field, including regional, national, and international. Comment on the originality, quality, and impact of the work.
 - **Clinical Excellence:** evaluate unique clinical expertise, referrals of challenging clinical problems, service to clinical laboratory program. Have Dr. XX's clinical accomplishments received recognition beyond the Washington University community?
 - **Teaching and Education:** evaluate teaching and leadership in education, including didactic, clinical, and administrative teaching and education, curriculum development, mentorship activities, invited presentations, regional, national, or international impact
 - **Service to the Medical Center, University and Community:** evaluate contributions to governance, leadership roles and activities, regional, national, and international reputation
 - **Relative ranking** in the field for career stage
 - **Overall assessment**
- Make it as easy as possible for the letter-writer to craft a **detailed, personalized, positive letter** that highlights **your unique contributions**

Examples of Evidence of Local, Regional and National Recognition

- Visiting professorships and invitations to speak
- Leadership roles in professional organizations
- Awards for contributions or innovations in area of expertise
- Publications
- Editorial board member or Editor
- Participation in clinical guideline committees
- Role in planning annual meeting for professional society
- Medical school admissions committee
- Appointment or election to department, school, or hospital leadership committees



Curriculum Vitae

- All faculty members must have a curriculum vitae
 - <https://facultyaffairs.med.wustl.edu/appointments-promotions/wusm-cv-formatting/>

Curriculum Vitae (1)

- Contact Information
- Present Position
- Education (list all degrees in forward chronological order)
- Academic Positions / Employment: (list in forward chronological order)
- Clinical Title and Responsibilities (if distinct from academic title & responsibilities)
- Teaching Title and Responsibilities
- University, School of Medicine and Hospital Appointments and Committees
- Medical Licensure and Certification
- Military Service (as applicable)

Curriculum Vitae (2)

- Honors and Awards
- Editorial Responsibilities
- National Panels, Committees, Boards
- **Community Service Contributions**
 - **Media/Lay literature contributions, radio/TV/newspaper interview, community education**
 - **Participation in departmental or other academic unit, School of Medicine, University, or Hospital system committees and activities**
 - **Professional organizations**
- Major Invited Professorships and Lectureships
- Consulting Relationships and Board Memberships
- Research/Grant Support
- **Trainee/Mentee/Sponsorship Record (may put this in CEP document instead)**
- Patents

Curriculum Vitae (3)

- Bibliography (**number** chronologically from oldest to most recent)
 - List **separately by category**
 - Original, peer reviewed articles in refereed journals
 - Case Reports
 - Reviews, Chapters and Editorials, including invited publications
 - Books (indicate if authors or editor or co-editor, etc)
 - Non-refereed publications
 - E.g. Clinical Laboratory News
 - Abstracts – **selected**, high impact meeting abstracts (at associate professor-level or higher, I would not include Abstracts on the CV)
 - Audiovisual/Media
 - Podcasts
 - **Bold your name for each publication in the author list**

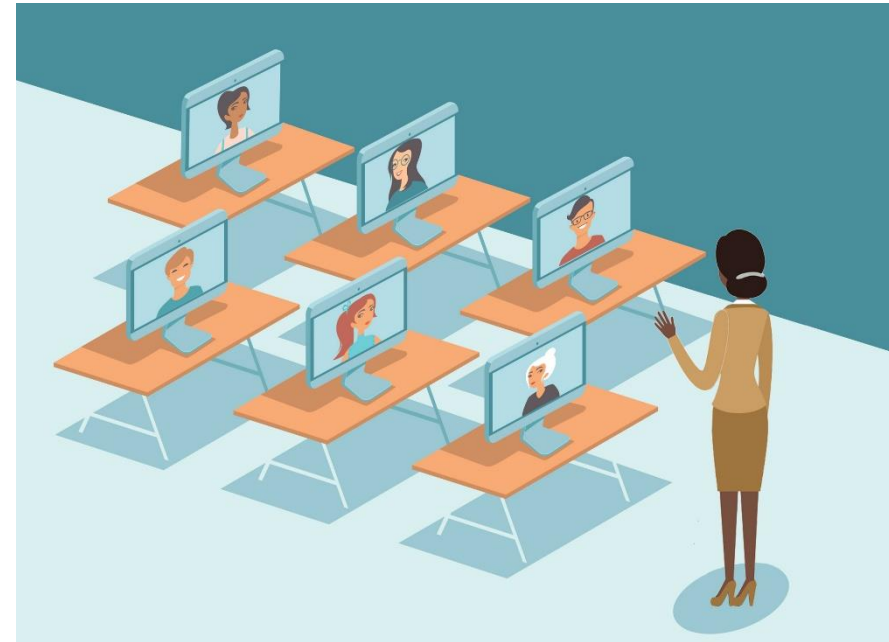
CV and CEP Formatting

- Use Helvetica, Arial, Calibri, Georgia or similar font
 - Easy to read, sans-serif font preferred
 - Use 11- or 12-point font
- Data in each section listed in chronological order, **oldest to newest**
- Provide dates
- If a section does not apply to you, delete the heading
- For multi-author publications, **your name**



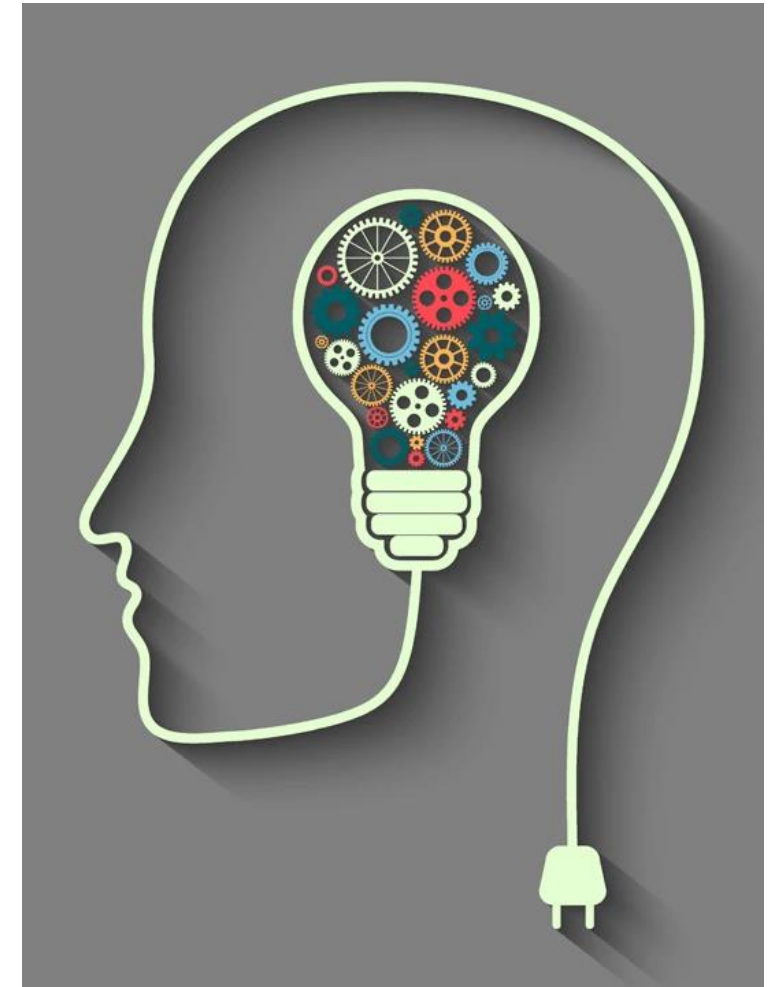
Clinician-Educator Portfolio (CEP)

- Required promotion document for all faculty members on the clinician track, and may be included when appropriate for Investigator or Research Track
- Executive summary of faculty work and contributions that are not generally included in traditional academic resumes
- Supplement to the CV that is a detailed compendium of clinical, educational, and service activities



Clinician-Educator Portfolio (CEP)

- Showcases **what makes you special!**
 - Quality and extent of clinical expertise, educational scholarship, innovation
- **Should not duplicate the CV,** but content should be consistent
- Try to keep as a “real time” document



CEP Formatting

- Don't repeat the demographic information in the CV
- Don't repeat other items in the CV
- Content should be listed in chronological order
- Use bullet format! Be clear, concise, make it easy to read

Clinician-Educator Portfolio—Major Sections

- Clinical Contributions
- Educational Contributions
- Annual Summaries
- Other



Summary

- Optional: Have a two to three sentence “elevator pitch” summarizing you and your career at the top of your CEP





Clinical Contributions

CEP—Clinical Contributions—Sections

- Summaries of ongoing clinical activities
- Development of methods for improved quality and efficiency of clinical care
- Development of clinical guidelines or care paths
- Clinical administrative responsibilities
- Feedback in the form of patient care evaluations

Summaries of ongoing clinical activities

- Describe clinical activities including
 - Type of service
 - Molecular diagnostics, gastrointestinal pathology, consult service
 - Time on service
 - Weeks or months per year, quarter, etc.
 - Responsibilities
 - Describe what you do in a way a non-clinical person would understand

Clinical Educator Portfolio
Washington University School of Medicine
Department of Medicine
Division of Infectious Diseases

May 30, 2014

CLINICAL CONTRIBUTIONS

General Infectious Diseases Inpatient Consultation Service Attending (2010 – Present)

- 2 – 12 weeks per year; 6 hours per day
- Daily supervision of ID fellows, IM residents, and medical students in management of general infectious disease patients admitted to BJH
- Daily documentation of all findings, review of records and trainee notes, meeting with ancillary staff
- Led daily educational sessions for medical students, residents and ID fellows
- Average 450 new consults seen per year

Bone and Joint Infectious Diseases Inpatient Consultation Service Attending (2010 – Present)

- 7 – 10 weeks per year; 6 hours per day
- Daily supervision of nurse practitioner in management of patients with orthopedic infections admitted to BJH
- Personal evaluation of all new consultations for patients with orthopedic infections
- Daily documentation of all findings, review of records and NP notes, meeting with ancillary staff
- Daily discharge plan coordination with case managers and social workers
- Average 285 new consultations seen per year

CLINICAL CONTRIBUTIONS

Summaries of ongoing clinical activities

Pulmonary and Critical Care Inpatient Attending: 32 weeks per academic year. This consists of direct clinical care of patients admitted to pulmonary specialty services (e.g., lung transplant, CF, PH, PPCU) and consultative care for patients on other inpatient services in Barnes-Jewish Hospital. This includes daily supervision and teaching of Pulmonary and Critical Care fellows and Internal Medicine residents, documentation of clinical findings, and review of trainees' notes. This also includes supervision and training residents and fellows in the performance of medical procedures (e.g., central venous line placement, bronchoscopy, etc.).

Lung Transplant Outpatient Attending: 2-3 half-day clinics per week; 10-12 patients per clinic. This consists of direct clinical care of patients referred for lung transplant evaluation, those awaiting transplantation, and lung transplant recipients in the Center for Advanced Medicine. In addition to clinic, this includes a twice-weekly formal chart review with transplant nurse coordinators regarding patient-specific medical management, follow-up, and evaluation of new referrals (2 hours per session), outpatient bronchoscopy (1-2 days per week), and chairing our program's weekly Lung Transplant Multi-Disciplinary Candidate Assessment Meeting (2-3 hours per week).

CLINICAL CONTRIBUTIONS

Summary of ongoing clinical activities

Assistant Medical Director of Clinical Microbiology, Barnes Jewish Hospital (2017-Present)

- On service 15-20 weeks per year
 - Service responsibilities include daily supervision of microbiology fellow and laboratory medicine residents on microbiology rotation
 - Leading daily plate rounds in the clinical microbiology laboratory
- Oversee operations of the microbiology laboratory
 - Provide consultations to clinical staff regarding interpretation and clinical significance of laboratory tests
 - Liaison to BJC client hospitals, including Christian Hospital, Parkland Hospital, and Alton Memorial Hospital

2014 - Pres Transfusion medicine attending physician, Department of Pathology and Immunology, Barnes-Jewish Hospital (4 weeks/year)

Responsibilities:

- Lead clinical rounds
- Provide inpatient therapeutic apheresis consult
- Educate pathology residents and transfusion medicine fellows
- Oversee the operations at the Blood Bank and outpatient Apheresis Center of Barnes-Jewish Hospital

Development of methods for improved quality and efficiency of clinical care

- Describe the area of need and what was developed (**internal**)
 - New method evaluation/validation and implementation
 - Rapid improvement events
 - Involvement in initiatives such as EPIC
 - Policy and procedure development
 - Involvement in QI initiatives with high impact
- Describe who was involved in the development (solo, panel, team), your role, **outcomes**, and target audience

Improved quality and efficiency

- Laboratory standardization (2017-present)

Recognizing the risks of non-standardized test naming and performance across BJC (e.g. inappropriate test ordering, confusing test reports that lead to inappropriate patient care), I helped develop the BJC Clinical Laboratory Steering Committee. Through my contributions to this committee, we have standardized several critical tests across BJC, including BMP/CMP, CBC, and urinalysis. See the description of the committee below under Community Service for more details.

Improved quality and efficiency

- Laboratory standardization (2017-present)

Problem: Non-standardized test naming and performance across BJC creates risk (e.g. inappropriate test ordering, confusing test reports that lead to inappropriate patient care).

Solution: I helped develop the BJC Clinical Laboratory Steering Committee.

Outcomes: Through my contributions to this committee, we have standardized several critical tests across BJC, including BMP/CMP, CBC, and urinalysis. See the description of the committee below under Community Service for more details.

Improved quality and efficiency

Participant in expert committee for system-wide standardization of test and reporting parameters for urinalysis.

This initiative standardized orderable urine tests available in Epic while improving the quality of result reporting to reduce confusion surrounding urinalysis and urine culture ordering in Epic. Served as a subject matter expert for the BJC system-wide standardization of criteria for reflex urine culture from positive urinalysis.

- 2016 - 2016 EDTA-pretreatment of serum samples for the single-antigen bead assay
Statement of Problem:
HLA antibody screen by the single-antigen bead assay can produce false-negative results due to complement interference, which may lead to incompatible transplantation or delayed diagnosis of antibody-mediated rejection.
- Solution Development:
I oversaw the validation of preemptive EDTA treatment of serum samples before the SAB assay (modification of an FDA-approved IVD test).
Contributions: Study design, data collection, data analysis, validation summary, manuscript preparation.
- Outcomes:
The method effectively removed complement interference of the assay and prevented false-negative or falsely low results. The method was implemented as the standard practice in the HLA Laboratory at BJH.
- 2018 - 2018 Validation of Halifaster flow crossmatch method
Statement of Problem:
The existing flow crossmatch method in the BJH HLA Laboratory could not be used for prospective crossmatch before final organ acceptance due to a high false-positive rate.
- Solution Development:
We validated and implemented the Halifaster flow crossmatch method as the default crossmatch method in our center. *Contributions:* Selecting the Halifaster method for validation, study design and planning, data management and analysis, writing the validation summary and user communication, educational outreach to transplant providers.
- Outcomes:

1.a.ii Implementation of diagnostic tests impacting patient care: *Molecular meningitis test*

Meningitis is a **potentially life-threatening** infection that can be caused by an array of bacterial, viral, and fungal pathogens. Appropriate management of these patients ranges from **supportive care** for enteroviral infection to specific and **aggressive antibiotic therapy** for *Neisseria meningitidis* or other bacterial infection. Therefore, rapid and sensitive identification of microorganism in CSF specimens obtained from patients with symptoms of meningitis is central to appropriate management.

Current diagnostic methods rely on bacterial culture, which requires **24-48h for result** and is **only 60-80% sensitive**, and select viral PCR tests which require the clinician to develop a specific differential and order the correct test. In 2017 I co-directed the validation, and implementation of a molecular test that simultaneously detects 14 bacterial, viral, and fungal pathogens associated with community onset meningitis. In addition to **increased sensitivity over bacterial culture**, the inclusion of an array of common pathogens allows for the **identification of organisms not initially suspected**. Further, the test results are available in as little as **90 min**.

In conjunction with infectious disease pharmacy, implementation and rapid reporting of molecular meningitis test results has demonstrated a **positive impact on antimicrobial stewardship and appropriate patient management**.

- *N. meningitidis* was detected in a CSF specimen that was **culture negative**. This enabled **specific therapy within 3h of specimen collection** that would not have been possible based on a negative culture result. Approximately 72 h later, a blood culture from the same patient was positive, **confirming the rapid diagnosis provided by the molecular test**.
- *S. pneumoniae* was detected in a CSF specimen that **did not have an associated bacterial culture**. This enabled **specific therapy within 3h of specimen collection** that would not have been possible given the lack of bacterial culture.

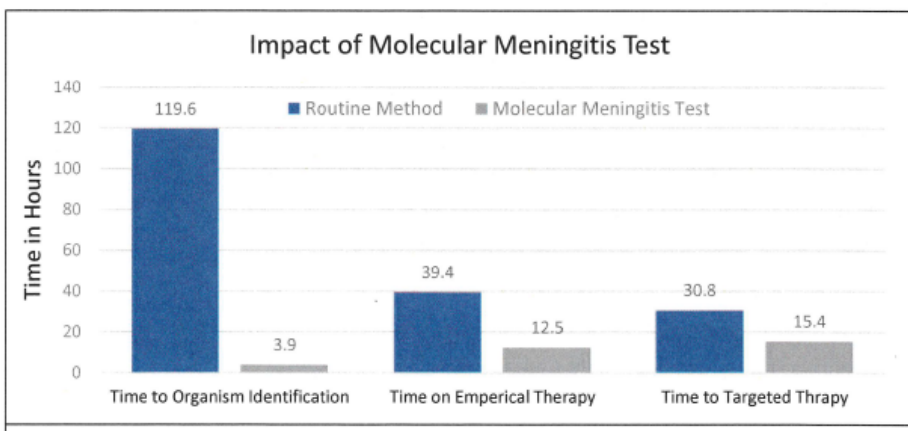


Fig 1. Time to identification of organism in CSF **decreased from 119.6h to 3.9h (p<0.50)**. Time on **unnecessary empirical antimicrobial therapy reduced from 39.4h to 12.5h (p<0.05)** for patients with a negative result. Time to effective targeted therapy **decreased from 30.8h to 15.4h (p=0.06)** for patients with a **pathogen detected by the molecular meningitis test**.

1.b. Monitoring and feedback of laboratory data and education to increase best practice

The volume of blood collected for culture is the single most important factor impacting recovery of an organism (i.e. culture test sensitivity). The optimal volume of blood to be collected is **8-10 mL per culture bottle**, with a **3-4% decrease** in sensitivity/mL underfill. To assess compliance, I instituted a semiannual audit of blood culture fill volumes received from Froedtert Hospital patients. Each audit comprised **600-800 blood culture bottles** and data was stratified by hospital unit/floor and nurse/phlebotomist collection. I **presented these data** at hospital nursing meetings and **developed "Best Practice Advisories" (BPAs)** highlighting the importance of blood culture volume and supporting literature. These efforts aided in increasing several important quality metrics.

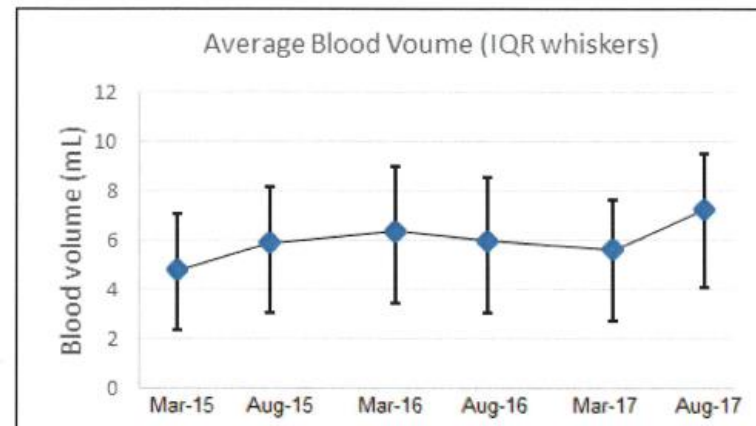


Fig 1. The initial audit in March 2015 revealed an average fill volume of **just 4.80 mL per bottle**. Following BPAs and presentation of these data to nursing and phlebotomy on a regular basis the average fill volume has **increased to 7.25 mL/ bottle, an increase of 51%**.

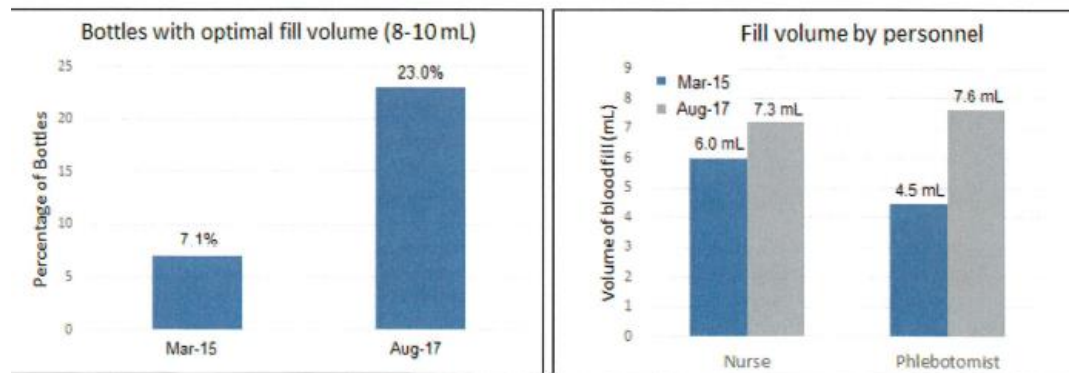


Fig 2. The percentage of bottles in the **optimal fill range of 8-10 mL also increased from 7.1% to 23.0%** between March 2015 and August 2017

Fig 3. The largest increase in compliance was observed among hospital phlebotomists, who's average fill volume **increased from 4.51 mL/bottle to 7.62 mL/bottle**.

Member of Antimicrobial Stewardship Program Committee, NYPH. An interdisciplinary committee responsible for antimicrobial utilization at NYPH. Specifically, I had a significant role in improving the generation of our antibiogram and development of recommendations for antimicrobial therapy based upon the results of “direct-from-specimen” assays implemented by the Clinical Microbiology Service. As a result, the antimicrobial stewardship program has rapid “real-time” access to antibiogram and diagnostic data. This has improved antimicrobial usage at NYPH. Furthermore, I am continually involved in recommending and implementing microbiologic practices that assist stewardship.

Member of Subcommittee for Antimicrobial Usage, NYPH. An interdisciplinary committee responsible for antimicrobial guidelines and the antimicrobial formulary. I am responsible for continuous review and comment on therapeutic strategies (agents and dosing) and formulary inventory, especially as it pertains to the microbiology of infectious diseases.

Development of clinical guidelines or care paths

- Describe the area of need and what was developed **(external)**
 - Professional society guidelines
 - CLSI
 - CAP
 - Expert panels

Development of clinical guidelines or care paths

- 2012 - 2020 Voting Member, Pathology Committee, Gynecologic Oncology Group (2012-2017); Core Member, Pathology Committee, NRG Oncology (2019-pres)
This group is composed of gynecologic pathologists who review cases enrolled in collaborative group trials. The group also provides support for the design of NRG Oncology clinical trials, which in turn lead to evidence-based changes in patient management.
- 2013 - 2014 Core Cancer Panel Working Group, College of American Pathologists
This working group surveyed nationwide offerings for tumor profiling in order to provide guidance and standardization for clinical testing. Work products included a summary paper and a CAP-sponsored webinar which I gave jointly with the committee chair.
- 2014 - 2018 Gynecologic Expert Panel, AJCC Cancer Staging System, 8th ed.
The AJCC Cancer Staging Manual is the world's consensus guideline for tumor staging. I contributed to six chapters as part of this expert panel.

Development of clinical guidelines or care paths

- 2018-2019: Donor-specific antibody (DSA) reporting guideline at BJH HLA Laboratory
 - A new DSA report was implemented in the HLA Laboratory information system (HistoTrac) in June 2018, replacing the previous report in Cerner. The new report was completely restructured to highlight information of clinical significance. DSA reporting was standardized to allow consistent trending of DSA over time and to classify DSA based on the donor HLA typing resolution and interpretation strategy.
 - **Contributions:** Designing the report, developing reporting algorithm and guidelines, developing reportable comments in the laboratory information system, laboratory staff education via consensus meetings, educational outreach to transplant providers.

Development of clinical guidelines or care paths

- 2020-2021: Development of CAP checklist items for NGS-based HLA typing
 - Develop checklist items for NGS-based HLA typing to be used for CAP laboratory inspection.
 - **Contributions:** Review and comment on existing NGS related checklist items, participate in conference calls, suggesting customized checklist items for HLA-specific applications.

Clinical administrative responsibilities

- Director of a clinical area
- Clinical fellowship or residency training program
- PA or NP oversight
- Brief description of your role, responsibilities, activities, time commitment, etc.
 - Once per year, once per month, ever day?
 - Are you supervising people, how many?

Physician supervisor of pathologists' assistants

As PAs have become a more important part of our workflow, I took over as supervisor with a mission to professionalize the corps, improve the level of training, and increase PA autonomy. I recruited a lead PA to fill a vital but unrecognized need, and worked effectively with her to expand the PA corps from four on-the-job trained PAs to six predominantly program-trained PAs plus a PA student.

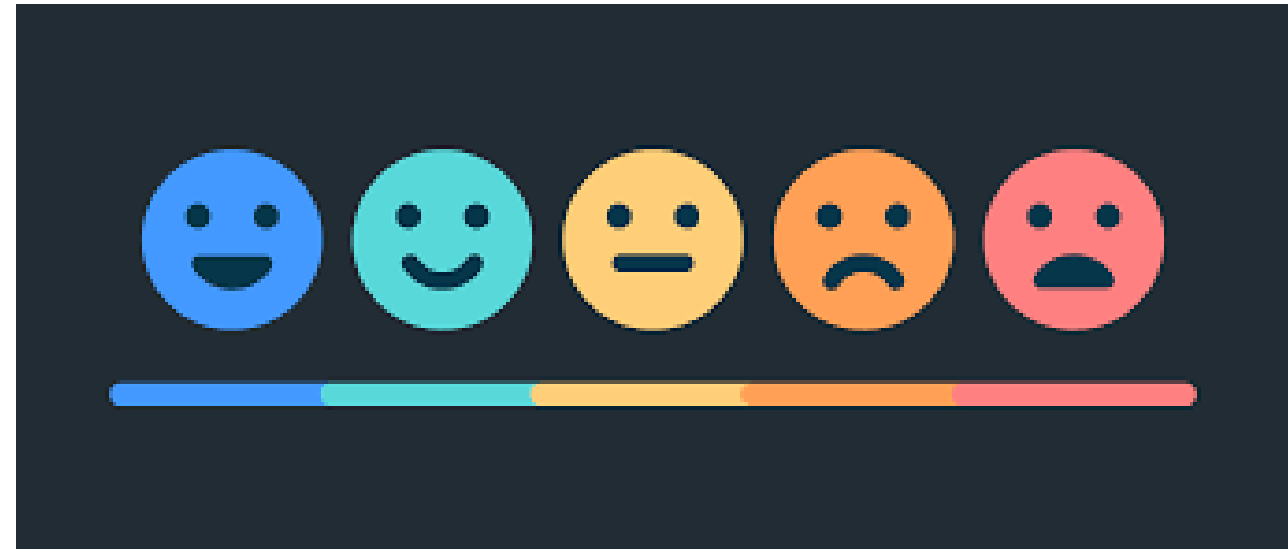
Clinical administrative responsibilities

2016 - Pres Medical Director, Department of Pathology and Immunology, HLA Laboratory of Barnes-Jewish Hospital

- Strategic planning and execution: To ensure the long-term success of the BJH HLA laboratory, I set ambitious goals and initiated a series of high-impact projects: 1) Transition to an HLA-specific laboratory information system HistoTrac for improved process and data management. 2) Standardization of serological testing and reporting. 3) Transition from Sanger sequencing to next-generation sequencing for high-resolution HLA typing.
- Personnel restructuring: Four laboratory staff members were promoted to fill one technical coordinator and three technical specialist positions. The restructuring allowed staff members to develop advanced knowledge and skills in serological testing, HLA typing, and laboratory information system, respectively, and to take increased responsibilities in the corresponding areas.
- Bridging the communication between BJH HLA laboratory and transplant providers: I acted as a liaison between the HLA laboratory and transplant providers to identify the unmet clinical need and to communicate the laboratory perspective. My educational outreach to transplant providers helped improve test ordering, result interpretation, and patient safety.

Feedback in the form of patient care evaluations

- Letter from a patient
- Letter from consulting physician
- Letter from consulting pathologist





Educational Contributions

CEP—Educational Contributions—Sections

- Direct teaching
- Curriculum development
- Educational leadership
- Learner assessment
- Development of new tools or processes
- New handouts or other guides (may be multimedia) for trainees
- Development of new methods of education
- Graduate students, fellows, medical students, residents for whom mentorship was provided
- Feedback in the form of course or teaching evaluations
- Educational publications

Direct Teaching Sessions

- Classroom, clinical, other
 - Indicate your role: Course Master, Lecturer, Small Group Leader
- Describe courses, lectures, symposia, panels
- Indicate target audience (medical students, nursing, residents, graduate students)
- Time commitment (number of hours per week, month, or year)
- Don't undervalue yourself
 - Same talk still has value
 - Go to person for.....

UNDERGRADUATE MEDICAL EDUCATION

Lecturer, "Patient Safety and Safe Medication Use", Practice of Medicine, Washington University School of Medicine (2013 – Present)

- One 1 hour lecture to 120 2nd year medical students (120 student-contact-hours/year)

Small Group Leader, "Fever", Infectious Diseases Course, Washington University School of Medicine (2012)

- One 2 hour small group session with 20 medical students (40 student-contact-hours/year)

Small Group Leader, "Gram Negatives", Infectious Diseases Course, Washington University School of Medicine (2012)

- One 2 hour small group session with 20 medical students (40 student-contact-hours/year)

Small Group Leader, "Virology", Infectious Diseases Course, Washington University School of Medicine (2011)

- One 2 hour small group session with 20 medical students (40 student-contact-hours/year)

Small Group Leader, "Infection Control" Infectious Diseases Course, Washington University School of Medicine (2010)

- One 2 hour small group session with 20 medical students (40 student-contact-hours/year)

Small Group Leader, "Gram Positives", Infectious Diseases Course, Washington University School of Medicine (2010)

- One 2 hour small group session with 20 medical students (40 student-contact-hours/year)

GRADUATE MEDICAL EDUCATION

Course Master, Patient Safety and Quality Improvement, Infectious Diseases Division (2013 – Present)

- Teach a 2-4 week elective for ID fellows on patient safety and quality improvement methodology
- Three 2 hour sessions per week (84 – 168 total fellow-contact-hours/year)

Course Master, Quality Improvement Elective, Department of Medicine (2013 – Present)

- Teach a 2 week elective for IM residents on quality improvement in healthcare
- Provide mentorship for resident quality improvement project
- 4 hours of lecture per elective (28 total student-contact-hours/year)
- 3 hours of project mentorship per elective (21 total resident-contact-hours/year)

Lecturer, Clinical Microbiology Case Conference

- Weekly case conference designed for the education of infectious diseases physicians with an emphasis on laboratory diagnostic methods.
- Topics based on cases from Barnes-Jewish Hospital.
- Present ~ 6 times per year

Lecturer, Molecular Microbiology Lecture Series

- Didactic lecture designed for the education of clinical pathology residents and fellows, infectious diseases fellows and rotating medical students.
- Present ~2 times per year

Lecturer, Clinical microbiology teaching sessions

- Monthly lecture series designed for the continuing education of medical laboratory technologists
- One-hour topics include updates in susceptibility testing, urine culture interpretation, specimen collection, medical hardware, etc.
- Present ~2 times per year

Direct teaching

Classroom



- 2012 - 2020 Lecturer, Blood bank serology (first-year medical students), Washington University School of Medicine
This is one of the laboratory sessions in the "Immunology block"; three contact hours/year, 30-40 students/group.
- 2012 - 2020 Lecturer, HLA testing for renal transplantation, Washington University School of Medicine
Large-group teaching for the second-year medical students, one contact hour/year.
- 2014 - Pres Lecturer and course director, HLA laboratory rotation and lecture series, Washington University School of Medicine
The week-long rotation is offered in each quarter (a total of 40 hours/year).
Participants include:
- Pathology residents (8-10 trainees/year)
 - Fellows from Transfusion Medicine, Molecular Genetics, Transplant Nephrology, Transplant Cardiology, Lung Transplant, and Pediatric Hematology-Oncology(4-8 trainees/year)
 - Technologists from the HLA laboratory.

SECTION 4. RESEARCH ACTIVITIES

	Activity	Role	Level of Learner	Number of learners	Frequency/contact hours	Years of Participation
1.	Didactic Lecture	Lecturer/ Facilitator	2 nd Year Medical Students	Entire class	1 hour/year	2016-Present
2.	Plate Rounds for Medical Students	Small Group Facilitator	2 nd Year Medical Students	10-12	6 hours/year	2016-Present
3.	Didactic Lecture	Lecturer/ Facilitator	Pathology Residents	10-12	6 hours/year	2015-Present
4.	Didactic Lecture	Lecturer/ Facilitator	Infectious Disease Fellows	10-12	1 hour/year	2017-Present

COMMUNITY EDUCATIONAL ACTIVITIES:

Majic 104.9 FM and KATZ Hallelujah AM 1600, St. Louis, MO. February 6, 2011
Live radio interview on colorectal cancer screening during the “Health Connections” segment on the “Sunday Morning Live” show

KSDK Channel 5 (NBC), St. Louis, MO. October 18, 2011
Answer live questions from viewers on colorectal cancer screening as part of the “8 Ways to Stay Healthy and Prevent Cancer” segment

KNLC Channel 24, St. Louis, MO. February 11, 2012
Interview on colorectal cancer screening on the “Bernie Hayes Show”

Majic 104.9 FM and KATZ Hallelujah AM 1600, St. Louis, MO. August 19, 2012
Live radio interview on colorectal cancer screening during the “Health Connections” segment on the “Sunday Morning Live” show

Curriculum Development

- Describe course content
 - New course
 - Description of changes made to existing course
- Target Audience
 - Elective, core rotation, student interest group, graduate students
- Time commitment
- Dates

- Course Director, Molecular Pathology 1: **Appointed 07/2013**
 - **Developed** molecular pathology course for PGY-1 residents to give an overview of molecular diagnostics and the utility of these tests in the diagnosis of infectious and non-infectious disease (see attached course description).
 - **Conduct** approximately 20 small group discussions/year.
 - **Administer** end of rotation objective evaluations and **provide feedback** to residents

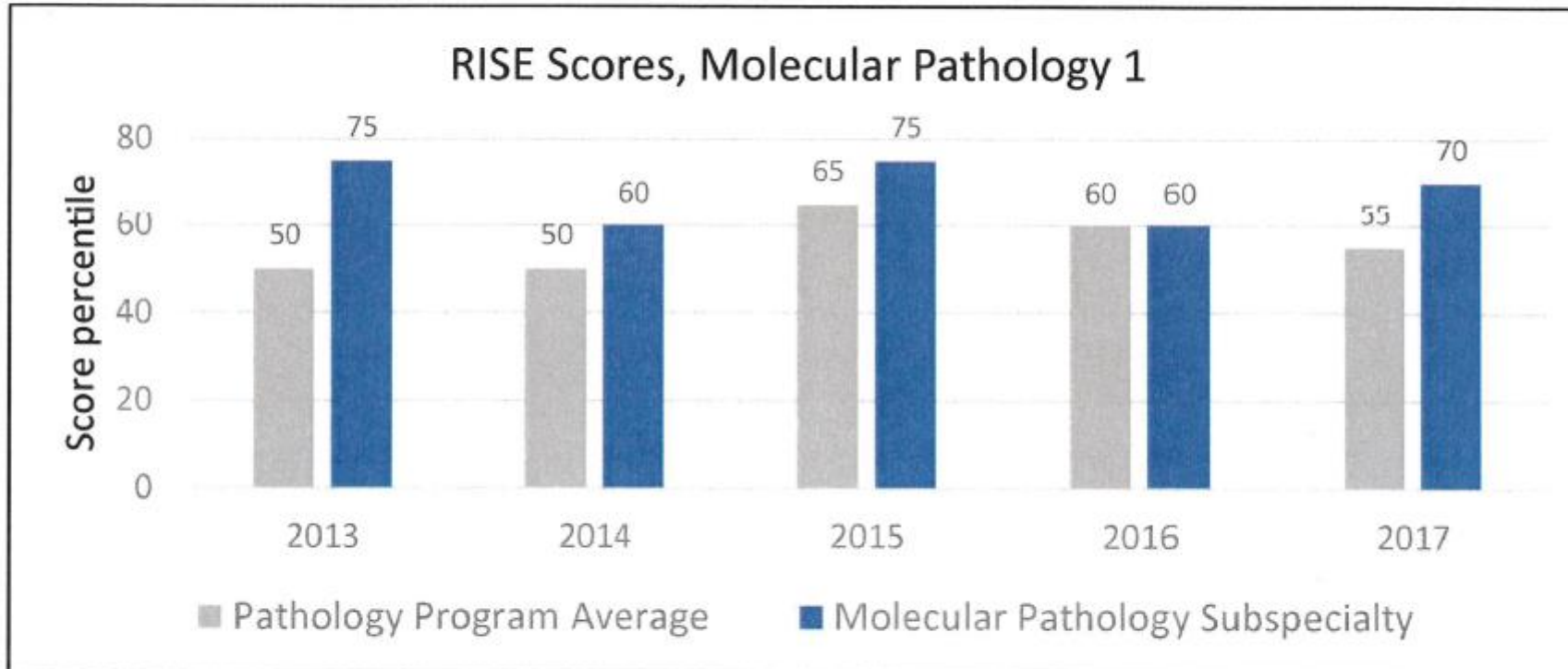


Fig 1. The average program percentile achieved on the resident in-service exam (RISE), subspecialty molecular pathology, was generally **10-25% higher** than the overall pathology program average and **ranged from 60-75%** when compared to molecular pathology scores from other FMLH residency programs.

2014 - Pres

HLA rotation (Histocompatibility Testing and Immunogenetics)

The HLA lecture series introduces histocompatibility testing and immunogenetics to pathology residents and fellows, clinical fellows from transplant programs, and technologists from the HLA Laboratory.

The curriculum covers the following topics:

- HLA testing for renal transplantation
- HLA matching for hematopoietic stem cell transplantation
- HLA typing by next-generation sequencing
- HLA serological testing: antibody screen, identification, DSA reporting, and crossmatch
- HLA and disease association

The lectures are supplemented with bench demonstration, discussions of clinical cases, and journal club.

Curriculum Development

Mycology didactic sessions for Laboratory Medicine Residents

- Developed curriculum for weeklong short course
- Topics covered include clinically relevant yeasts, dimorphic molds, hyaline molds, dematiaceous molds, and antifungal susceptibility testing
- Developed case study questions for discussion during 2 sessions
- Course occurs 4 times per year for 2-3 residents each time

Molecular Infectious Diseases test validation workshop

- Introduced mock test validation project for Microbiology, Molecular, and Chemistry Fellows in Laboratory Medicine
- Project involved scenario-based validation of a molecular assay from pre-analytical aspects through post-validation follow-up
- Included two presentation by the participating fellows on test selection and validation of chosen test
- Topics covered include quantitative CMV testing, multiplex panels for gastrointestinal pathogens, and screening methods for human papilloma virus

Educational Leadership

- Positions held within the department, school, and nationally
- Courses developed
- Education policy
- Target audience

LOCAL CURRICULAR DEVELOPMENT AND OVERSIGHT ACTIVITIES:

Undergraduate and Graduate Medical Education Patient Safety and Quality Improvement Curriculum Working Group, Chair

Office of Medical Student Education, Washington University School of Medicine, **2012 – 2013.**

Final report available on request.

Undergraduate Medical Education Patient Safety and Quality Improvement Curriculum Working Group, Chair

Office of Medical Student Education, Washington University School of Medicine, **2013 – present.**

Committee on Medical Education

Office of Medical Student Education, Washington University School of Medicine, **2010 – present.**

LCME (Liaison Committee on Medical Education) Medical Student Subcommittee, Chairperson

Washington University School of Medicine, **2006 – 2007.**

Final report available on request.

- 2016 - 2019 Site director for PA students from Rosalind Franklin University of Medicine and Science
For several years the department had considered becoming a rotation site for PA students, allowing them to learn in our clinical environment and providing a recruiting pipeline. I set up the necessary administrative measures (including a letter of agreement) to allow a student to rotate with us each year for a nine-month period. We have had four trainees to date in this successful program. In 2018 the program was expanded to include autopsy training.
- 2017 - Pres Chair of clinical competency committee for AP/CP residency program
Given my interest in resident education, I was asked to chair the subcommittees that review our AP and AP/CP residents every six months to assign them to Milestones under the Next Accreditation System. My work has included authoring our CCC's description (policy manual), carrying out annual quality improvement, and revising surgical pathology resident evaluation forms.
- 2018 - Pres Organizer for AP resident/fellow didactic schedule
The formal didactic component of our residency program consists of lectures and unknown slide sessions. When I took over this program I moved the sessions to the noon time slot to improve attendance. While each section within anatomic pathology sets its own curriculum, I take responsibility for balancing the sections, sequencing them, obtaining commitments from faculty to lecture, sending reminders and distributing feedback surveys. After the first year of the program, 81% perceived the sessions as valuable while 19% had no opinion. I also give a number of the didactics, including cervix, vagina, vulva, uterus grossing, breast biomarkers, breast grossing, and unknowns.

Educational Leadership

- 2014 - Pres Invited lectures at local, regional, and national/international conferences.
(See the "Major Invited Professorships and Lecture" section of the C.V.)
- 2015 - 2017 AABB Cellular Therapies Education Committee
Contributions: Participate in conference calls to identify topics for the development of AABB cellular therapy education modules.
- 2016 - Pres Co-chair, Trainee Research Day (TRD) committee, Department of Pathology and Immunology, Washington University School of Medicine. TRD is the platform for department-wide sharing and celebration of research products by clinical trainees and their mentors.
Contributions: Planning and coordinating for the event, inviting outside guest faculty, recruiting trainee committee members, scoring abstracts, and judging presentations.

Learner Assessment

- New tools or process
- Target audience
- Outcome

2020 - Pres

Standardized Video Interview Program, WUSM

I am leading a project to incorporate unidirectional, asynchronous standardized video interviews into the medical student selection process at WUSM in order to better assess communication skills, cultural competency, ethical responsibility, and other competencies essential to entering medical students. The project is supported by a Loeb Teaching Fellowship.

2018 - 2019

Implementation of the SurveyMonkey Apply applicant tracking system for pathology fellowships

Pathology fellowships do not use the ERAS Match or its associated applicant portal. In our department, applications have historically been managed by hand, using computer files emailed to program coordinators, stored on a local server and forwarded as needed to program directors. This system was cumbersome, time-consuming and prone to errors and privacy lapses. In order to remedy these issues, I spearheaded a project to adopt a vended applicant tracking system. I identified needs and available solutions, solicited bids, made a recommendation and championed its adoption. I took responsibility for the build phase as well as optimization and familiarization among the faculty and coordinators for our 15 fellowships.

New Handouts or Other Guides for Trainees

- Include a link if on-line content
- Can include multi-media
- Service manuals

Development of new methods of education, utilization of new pedagogies in existing courses, or changes to curricula to improve outcomes

- Checklists
- New ways of delivering educational material
- Structured clinical examination

Development of new methods of education

- Transfusion Medicine Questions/Transfusion News Question of the Day (2011-present)

Along with a colleague from Harvard, I co-founded a free educational website for transfusion medicine (URL: <https://transfusionnews.com/path-questions/>). We release 3-6 new multiple-choice questions per week, with an interface to record users' scores and provide an explanation for correct answers. Questions are either written by editors or contributed by users, but all content is original. To date, we have released >1,200 questions. I serve as co-editor and edit every question before release, in addition to having written 248 questions myself. In 2014, the website merged into Transfusion News to expand its audience (currently >7,000 users worldwide). Time commitment includes 3-4 hours per week to select and edit questions.

Development of new methods of education

- Mock CAP mock inspection:

To teach our pathology trainees (~25 every other year) about clinical laboratory accreditation, I supervise them in performance of the BJH and SLCH bi-annual College of American Pathologists (CAP) mock laboratory inspection. I assign the trainees to lab sections, educate them on how to perform the inspection, then meet with them prior to the final inspection summation to review their recommendations. Time commitment includes 3-5 hours of preparation and 4-6 hours of supervision every other year.

Graduate students, fellows, medical students, residents for whom mentorship was provided

- **Meaningful** mentorship experiences
- List name of mentee, time-period, activity
- Include current position of mentees who have completed mentorship period
- Divide into sections for different types of mentees (medical student, fellow, faculty, graduate student, etc.)
- Briefly describe mentorship provided
 - Graduate and medical students, residents, fellow, other faculty
 - Career development
 - One-on-one training in specific area of expertise

MENTORSHIP

- Shadi Parsaei, MD, ID Fellow, Washington University School of Medicine (2013 – Present)
 - o Provided research and career development mentorship
 - o Current Position: Fellow, Washington University School of Medicine
- Courtney Chrisler, MD, ID Fellow, Washington University School of Medicine (2013 – Present)
 - o Provided research and career development mentorship
 - o Current Position: Fellow, Washington University School of Medicine
- Michael Slade, MD Candidate (2017), Washington University School of Medicine (2013)
 - o Provided research mentorship during Summer internship
 - o Current Position: Medical Student, Washington University School of Medicine
- Nikhil Das, Aspire Program, Washington University School of Medicine (2013)
 - o Provided research mentorship during Summer internship
 - o Current Position: High School Student
- Arielle Yang, MD, IM Resident, Washington University School of Medicine (2013 – Present)
 - o Provided research mentorship for a quality improvement project
 - o Current Position: PGY-3 IM Resident, Washington University School of Medicine
- Jonathan Byrd, MD, IM Resident, Washington University School of Medicine (2013 – Present)
 - o Provided research mentorship for a quality improvement project
 - o Current Position: PGY-3 IM Resident, Washington University School of Medicine

Feedback in the form of course or teaching evaluations

- Medical school teaching feedback
- Resident and clinical fellow feedback
- May include course evaluations
 - Letter from course master with summary of evaluation scores
- Evaluation of short course, etc. at national meetings
- Awards and recognition for educational excellence

Educational publications

- Books, chapters, and traditional publications
- Can include web-based materials if publically accessible
 - Med Ed Portal
 - NEJM Knowledge+ <https://knowledgeplus.nejm.org/>
 - Clinical Chemistry Trainee Council Pearls of Laboratory Medicine

➤ Authorship of textbooks

- Authored chapter “Fundamentals of Clinical Virology” in *Tietz Textbook of Clinical Chemistry and Molecular Diagnostics, 6th Ed.* This is considered the premier textbook for pathologists training in clinical chemistry and molecular diagnostics.
- Invited to author chapter “Escherichia, Salmonella, Shigella” in *Manual of Clinical Microbiology, 12th Ed.* This is considered the premier textbook for pathologists training in clinical microbiology.

➤ Development of electronic educational course

- Currently authoring “Viral Diagnostics” course for the New England Journal of Medicine (NEJM) Knowledge + / AACC Learning Lab for Clinical Microbiology. This educational program is an adaptive e-learning product for preparation for certification and continuing medical education (CME). The target audience is trainees in medical school, residency, and fellowship programs, as well as clinical faculty seeking CME credits.

Annual Summaries

- May include as an attachment
- Be selective



Other

- Any relevant and unique clinical or educational contribution that is not included in the CV or elsewhere in the CEP



Example--Other

- Leadership of a Core Facility
 - Scope of work
 - Number of peer-reviewed publications supported by facility over a specific time period (example 5 years)
 - Number of grants supported by core facility
 - Number of people supervised

Example--Other

- Research Track Faculty
 - Contributions to major grant preparation
 - Contributions to major laboratory programs
 - Specific role on grants you are a co-I or collaborator on

Other (use selectively)

- Elements of Scholarship that are not otherwise captured
 - Summary of metrics such as *h*-index, *i10* index, number of citations for major publications
 - Downloads may be especially important for papers “consumed not cited”
 - Methods
 - Educational
- Social media reach

Keeping the document up to date

- Ongoing placeholders
 - Red text or highlight
 - Helps with record keeping
 - Schedule yourself detailed update 2 to 3 times annually

Summary--Clinician-Educator Portfolio (CEP)

- Executive summary of faculty work and contributions that are not generally included in traditional academic resumes
- Supplement to the CV that is a detailed compendium of clinical, educational, and service activities
- Showcases what makes you special!
- (Note: P&I CEP Library in progress for more examples)

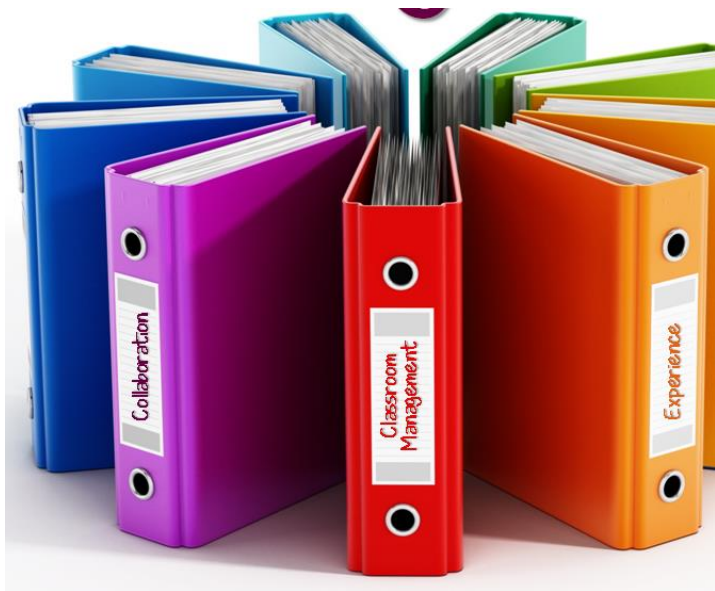
Thank You! (and Questions)

- Thank you to everyone who shared examples
- Please take a few minutes to fill out your workshop evaluation (sent via e-mail)
- Part II (workshop) up next for those participating

THANK
YOU!



Clinician-Educator Portfolio Workshop



Pathology & Immunology Office of Faculty Development
March 2021

Workshop Agenda

- Welcome
- Part 1: CEP review by senior faculty member (20 minutes)
- Part 2: Peer review of CEP (20 minutes)
- Part 3: Questions/Discussion (10 minutes)
 - Share a “protip” you learned during the workshop