Julio J. Álvarez Cardona, MD

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**EDUCATION:**

**Doctor of Medicine**

*Magna Cum Laude*

University of Puerto Rico School of Medicine in San Juan, Puerto Rico

Date of Graduation: June 2009

**Master of Public Health (M.P.H.) in Epidemiology**

University of Puerto Rico Graduate School of Public Health in San Juan, Puerto Rico

Date of Graduation: June 2005

**Bachelor of Science in Biology**

*Magna Cum Laude*

University of Puerto Rico Cayey Campus

Date of Graduation: June 2004

**POST-DOCTORAL TRAINING:**

**Oncology-Transplant Infectious Diseases Fellowship: 2019-2020**

University of Texas MD Anderson Cancer Center in Houston, Texas

Date of Graduation: January 2020

**Infectious Diseases Fellowship: 2015-2017**

University of Puerto Rico School of Medicine in San Juan, Puerto Rico

Date of Graduation: June 2017

**Internal Medicine Internship and Residency: 2012-2015**

University of Puerto Rico School of Medicine in San Juan, Puerto Rico

Date of Graduation: June 2015

**Internal Medicine Internship: 2009-2011**

University of Texas Southwestern Medical Center in Dallas, Texas

Date of Graduation: April 2011

**BOARD CERTIFICATIONS:**

**American Board of Internal Medicine-Infectious Diseases**

Year of Initial Certification: 2017

Current Certification Status: Certified

**American Board of Internal Medicine**

Year of Initial Certification: 2015

Current Certification Status: Certified

**MEDICAL LICENSURES:**

Florida Medical License, ME 143035

Current Status: Active through 2022

Texas Medical License, P1041

Current Status: Active through 2021

**EXAMINATIONS:**

**USMLE Step 3**-Approved on first attempt

2011

**USMLE Step 2 CS**-Approved on first attempt 2008

**USMLE Step 2 CK**-Approved on first attempt 2008

**USMLE Step 1**-Approved on first attempt

2007

**PROFESSIONAL EXPERIENCE:**

**Orlando Health Infectious Diseases Medical Group**

**February 2020-Present**

As an infectious diseases faculty attending physician my work involves:

* Full time clinical duties at the Orlando Regional Medical Center Level One Trauma Center
* Director of Bone Marrow Transplant Infectious Disease
* Teaching internal medicine residents, infectious diseases fellows and visiting medical students
* Take care of patients at infectious diseases clinics once a week

**Veterans Affairs Caribbean Healthcare System- San Juan, Puerto Rico**

July 2017-December 2018

As an internal medicine hospitalist my work involved:

* Caring for inpatients at the Respiratory Care Unit and observation beds ward
* Leading the hospital’s rapid response team
* Being the internal medicine consultant at the emergency room
* Evaluating and treating patients at the emergency room fast track area for urgencies
* Coordinating medical care with subspecialists and healthcare personnel
* Administrative duties in quality assurance and utilization programs including performing peer and utilization reviews
* Academic duties including resident teaching and supervision when needed

**ACADEMIC EXPERIENCE**

Orlando Health Infectious Diseases Faculty Attending Physician:

* Lectures to fellows include:
* Stem cell transplant related-infections
* Prosthetic joint infections
* Neutropenic fever in cancer patients
* Board Review Topics: Transplant and Cancer Infectious Diseases

**FLORIDA STATE UNIVERSITY-ASSOCIATE PROFESSOR OF MEDICINE**

**ONCOLOGY-TRANSPLANT INFECTIOUS DISEASES FELLOWSHIP:**

* **Stem Cell Transplant/Lymphoma/Myeloma:** One month of experience at present (expected three months at the end of training) at the MD Anderson Cancer Center where I was directly involved and strengthened my skills in diagnosing/managing complex lymphoma/myeloma and post-allogeneic SCT (MUD, mis-matched, double-cord, haplo) with fungal infections including disseminated candidemia/histoplasmosis/cryptococcosis/PJP; viral complications such as disseminated CMV/Adenovirus/HHV-6 encephalitis, post SCT EBV lymphoproliferative disease, respiratory viruses such as RSV, PIV-3, Human Metapneumovirus and Influenza; parasitic infections including disseminated strongyloidiasis with concomitant acute GVHD; and non-infectious complications such as chronic GVHD and post-CART cells cytokine release syndrome among others.
* **Leukemia:** Two months of experience at present (expected three months at the end of training) in diagnosing and managing patients during all stages of leukemia/myeloproliferative diseases treated with common and experimental chemotherapy presenting with fungal infections (disseminated aspergillosis, disseminated mucormycosis disseminated fusariosis and endemic mycoses such as cryptococcosis, histoplasmosis, coccidiomycosis and blastomycosis) and complicated bacterial infections (MRSA, MDR Pseudomonas, CRE E.coli, CRE Klebsiella).
* **Solid Tumors:** One month of experience at present (expected two months at the end of training) strengthening skills in diagnosing/managing an array of infectious complications including surgical wound infections, prothestic joint infections, CNS post-surgical/hardware (ventriculitis) infections, complicated catheter-related blood stream infections and those related to infectious and non-infectious complications following immune-checkpoint inhibitor therapy.
* **General Internal Medicine/ICU:** One month of experience (ongoing) in diagnosing and managing infectious complications in chronically ill and end-stage solid tumor cancer patients in addition to critically ill patients including SCT/lymphoma, myeloma, leukemia and solid tumors.
* **Antimicrobial Stewardship**: Four months of experience at present (expected ten months at the end of training) involved in bedside multidisciplinary rounds with pharmacy doctors experts in infectious diseases. Participting in in-depth discussions regarding the best initial therapy (empiric/targeted; optimal dose/frequency) taking into consideration patient’s risk factors, comorbidities (renal/liver dysfunction), previous microbiology results (susceptibilities/resistance patterns) and potential drug-drug interactions (especially between azoles and chemotherapies). We were also involved in the process of therapy de-escalation to avoid resistance, adverse effects while ensuring cost-effectiveness. All decisions were made using available scientific evidence, institutional protocols and antibiograms.
* **Continuity Clinics:** Two months of continuity clinic experience with the world re-known and well-published fungal infections expert Dr. Dimitrios Kontoyiannis where I was involved in the long-term post-discharge care of cancer patients with very complex and interesting infectious complications including: fungal, bacterial and parasitic etiologies.
* **Teaching Experience:** As part of my clinical rotations I have been involved in teaching international/local visiting students, residents and fellows. Also, I have participated in weekly case discussions at the MD Anderson Cancer Center in addition to didactic activities at Baylor College of Medicine.
* **Solid Organ Transplant:** One month rotation at Memorial Hermann Hospital in Houston (upcoming)

**INFECTIOUS DISEASES EXPERIENCE: FELLOWSHIP**

**General Infectious Diseases Inpatient Consults: 13 months; University District Hospital at Puerto Rico Medical Center- San Juan Puerto Rico**

* Evaluated, diagnosed and treated bacterial, tuberculous, fungal, viral and parasitic infections in the medicine and surgery units as well as their ICUs
* Extensive exposure to severely immunocompromised patients in the rheumatology, inflammatory bowel disease, hematology-oncology, and bone marrow transplant units
* Managed neutropenic patients and complex infections including aspergillosis, fusariosis, mucormycosis and fungal septic arthritis among others.
* Broad exposure to intricate infections in the ophthalmology, otorhinolaryngology, urology, orthopedic and trauma surgery, neurosurgery units (including complex CNS hardware infections).

**Clinical Microbiology: 1 month**

* Antimicrobial assay techniques
* Antimicrobial susceptibility testing
* Diagnostic serologic tests
* General and anaerobic bacteriology, including blood culturing, antibiotic susceptibility testing, antibiotic assay methods and immunofluorescent diagnostic studies
* Molecular biology techniques, including polymerase chain reaction and DNA probing
* Performance of Gram stains and other stain techniques on selected specimens
* Setup of biological specimens for cultures
* Techniques used in the virology, mycology, mycobacteriology and parasitology laboratories

**Transplant Infectious Diseases: 2 months**

* Rotation at the largest transplant hospital in the Caribbean Auxilio Mutuo Hospital transplant center
* Infected bone marrow transplant (allogeneic and autologous hematopoietic stem cell transplant)
* Infected solid organ (kidney, pancreas, liver) transplant patients
* Diagnosed and managed patients with CMV colitis, BK viremia/viruria
* Vesicoureteral reflux causing recurrent UTIs in kidney transplant patients
* Liver abscesses in patients with orthotopic liver transplant
* Pulmonary histoplasmosis in bone marrow autologous stem-cell transplant recipients
* Graft-versus host disease in allogeneic stem-cell transplant patients
* Evaluated patients at the pre and post-transplant infectious diseases clinics

**HIV/Hepatitis C Clinic: 2 years**

**Veteran’s Administration Caribbean Healthcare System: 1 year**

* Extensive experience in the medical, psychological and social aspects of infection with HIV and AIDS
* Acute management and follow-up of naïve and experimented HIV patients, as well as complications secondary to treatment and/or virus
* Working with antiretroviral therapy
* Screening, prevention and treatment of other medical conditions
* Determining hepatitis C staging and evaluating patients using vibration controlled transient elastography (Fibroscan)

**Puerto Rico Community Network for Clinical Research on AIDS (PR CoNCRA): 1 year**

* Managed complex HIV/AIDS and HIV/Hep C/Hep B co-infected patients (many from underserved areas)

**General ID Clinic: 2 years**

* Managed and provided follow-up to patients from all of Puerto Rico.
* Diagnosis included common bacterial infections to complex orthopedic hardware infections, non-tuberculous mycobacterial infections and complex urologic infections among others.
* Home IV antibiotics coordination

**RESEARCH EXPERIENCE:**

**Study Protocol**: A9880114

**Study Title:** “Evaluation of Cardiovascular Manifestations in a Puerto Rican Population with

Confirmed Dengue Infection”: 2014-2015

**Study Title:** Characteristics of Laboratory Positive Locally Acquired Chikungunya in Puerto Rico: 2014-2015

**Study Protocol:** A5330116

**Study Title:** “Schistosomiasis in Puerto Rico: Frequency of Positive Circumoval Precipitin Test (COPT) in the 21st century”: 2016-2017

**Study Protocol:** A0690217

**Study Title:** “Epidemiology of Viral Respiratory Infections at a Tertiary Care Center in Puerto Rico Using a Rapid Multiplex PCR Respiratory Pathogen Panel”: 2017-2019

**INVITED ORAL AND POSTER PRESENTATIONS:**

***Not Your Typical Garden Variety Septic Arthritis***

Presented at the ACP Puerto Rico Meeting: 2017

***Angioedema: A Rare but Serious Complication Following Administration***

***of Tissue Plasminogen Activator***

Presented at the ACP Puerto Rico Meeting: 2016

***Histoplasmosis: A Rare but Serious Etiology of Lymphocytic Meningitis in AIDS Patients***

Presented at the ACP Puerto Rico Meeting: 2016

***Spinal Cord Myelitis in a Patient with AIDS: Toxoplasma vs Histoplasma?***

Presented at the ACP Puerto Rico Meeting: 2016

***Evaluation of Cardiac Manifestations in a Puerto Rican Population with Confirmed Dengue Infection***

Presented at the UPR School of Medicine Internal Medicine

Clinical Research Symposium: 2015

***Characteristics of Laboratory Positive Locally Acquired Chikungunya in Puerto Rico***

Presented at the ACP Puerto Rico Meeting: 2014; Third Place Winner-Research Category

***Beware of Strangers in Patients with Fever and Flank Pain***

Presented at the ACP Puerto Rico Meeting and Annual Meeting of Physician Surgeons of Puerto Rico: 2013

***Hydrogen peroxide stimulates AP-1 activity which promotes human aortic smooth muscle cells hypertrophy***

Performed at Universidad Autónoma de Madrid; Madrid, Spain

Presented at UPR-School of Medicine: 2006

***Clinical Conditions Associated to Environmental Exposures: Epidemiological Study of Two***

***Communities at Juana Diaz*, *Puerto Rico***

Presented at the UPR-Graduate School of Public Health: 2005

We presented the results of increased prevalence of respiratory conditions at the exposed living sites. The

results enabled the community to change public policy regarding the location of the polluting sites.

**PUBLICATIONS:**

Alvarez-Cardona JJ, Whited LK, Chemaly RF. Brincidofovir: understanding its unique profile and potential role against adenovirus and other viral infections.

Future Microbiol. 2020 Apr;15:389-400.

Malek AE, Taremi M, Spallone A, Alvarez-Cardona JJ, Kontoyiannis DP. Necrotizing soft tissue invasive aspergillosis in a cancer patient treated with immunosupressants due to checkpoint inhibitor-induced hepatitis.

J Infect. 2020 Feb;80(2):232-254.

De León-Borrás R, **Álvarez-Cardona J,** Vidal JA, Guiot HM. *Ceftazidime/avibactam for refractory bacteremia, vertebral diskitis/osteomyelitis with pre-vertebral and bilateral psoas pyomyositis secondary to Klebsiella pneumoniae Carbapenamase-Producing Bacteria (KPC).* PR Health Sci J. 2018; 37(2):128-131.b

Calo WA, Quintana R, Catoni I, Valle Y, **Alvarez JJ**, Colón WM, Delgado MS, Estrella M, González AL, Kallis M, Marrero VM, Meléndez L, Miranda AI, Nieves K, Osorio L, Rodríguez JM, Torres A, Suárez E, Ortiz AP. *Clinical conditions associated to environmental exposures: an epidemiologic study of two communities in Juana Diaz, Puerto Rico.* PR Health Sci J. 2009; 28 (2): 126-34.

**MEMBERSHIPS AND PROFESSIONAL SOCIETIES:**

Infectious Diseases Society of America

Infectious Diseases Society of Puerto Rico

American College of Physicians

Puerto Rico College of Physicians Surgeons

**AWARDS AND HONORS:**

**Senior Resident with the Highest In-Training Exam Score**

University of Puerto Rico-School of Medicine

Internal Medicine Department

Award Date: June 2015

**Second Year Resident with the Highest In-Training Exam Score**

University of Puerto Rico-School of Medicine

Internal Medicine Department

Award Date: June 2014

**Academic Excellence in Pathophysiology**

University of Puerto Rico-School of Medicine

Department of Pathophysiology

Award Date: June 2008

**Outstanding Academic Excellence and Leadership in the field of Public Health**

University of Puerto Rico-Graduate School of Public Health

Department of Epidemiology

Award Date: June 2005

**National Dean’s List of Honor**

University of Puerto Rico-Cayey Campus:

2003-2004

**βββ-Biology Honor Society;**

University of Puerto Rico- Cayey Campus:

2002 – Present

**Honor Tuition**

University of Puerto Rico- Cayey Campus:

2001-2004

**COMMUNITY SERVICE:**

**Car-d-Day:** 2014

Outpatient cardiology clinics sponsored by the College of Physicians Surgeons of Puerto Rico at Parque Central in San Juan, Puerto Rico. I had the opportunity to screen patients for hypertension, interpret EKGs and provide counseling regarding lifestyle and risk factor modification.

**Capetillo Annual Health Clinics:** 2005-2009

As a medical student I participated in the internal medicine clinics for the underserved community of Capetillo in Río Piedras, Puerto Rico. Responsibilities included obtaining medical histories and performing physical examinations to adult patients.

**Relevo por la Vida contra el Cáncer” (Relay Race Against Cancer)**: 2003-2004

Activity sponsored by the American Cancer Society in which I had the opportunity to run on a track at Cayey, P.R. for recollection of funds destined to cancer research.

**EXTRACURRICULAR ACTIVITIES:**

UPR School of Medicine Student Council-Class Representative: 2007-2009

UPR School of Medicine Class of 2009 Basketball and Softball Player and Coach: 2005-2009

**ADDITIONAL QUALIFICATIONS:**

American Heart Association Advanced Cardiac Life Support and Basic Life Support Certification

Fluent in Spanish and English

**PERSONAL INTERESTS:**

Spending time with the family; playing basketball, baseball, softball and jogging; reading and traveling