

Andre' D. Samuel

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## **CURRICULUM VITAE**

**Objective:** To create STEM pipelines for diverse and marginalized communities through hand on life changing science experiences.

## EDUCATION

PhD Biology - *Specialty- Microbial Biochemistry/Molecular Modeling & Drug*

*Discovery*, Duquesne University, 2014

BS Biology – Specialty Microbiology - The University of The District of Columbia,

2002

Pre-Veterinary Medicine - Tuskegee University 1989-1992

## EXPERIENCE

### **2018-Present:**

#### **Founder, President & CEO- The Citizen Science Lab-**

Build relationships with community stakeholders funders, schools and community organizations. Continue to build brand of the CSL manage expansion of lab sites, marketing, branding and culture. Manage staff, report on progress at board meetings. Spokes persons for organization, attend conferences on behalf of the organization

### **2014-2018:**

**Director of The Citizen Science Lab-** Urban Innovation21, Pittsburgh, PA

Charged with heading the start up of a nonprofit program with a focus on STEM outreach in Pittsburgh. Build relationships with community, stakeholders, design lab space, branding, and curriculum. Hire and manage staff, report on progress at board meetings.

**2007-2014:**

**Biology PhD Student/TA** Duquesne University, Pittsburgh, PA

Research focus is Characterization of Cold shock related proteins (Csp) and their mutants in *Escherichia coli* K12 using molecular modeling and virtual screening of lead compounds to inhibit their functions as means to develop novel antibiotic targets. TA for courses such as general biology and honors biology.

**2004-2007:**

**Research Specialist IV**, *The University of Pittsburgh, Pittsburgh, PA*

*This position required daily work to be carried out in the presence of Mycobacterium tuberculosis infected non-human primates in a BSL 3 level laboratory. Experience with assays such as ELISpot, Lymphocyte Proliferation, Erythrocyte Sedimentation, Live tissue and cell culture of Mycobacterium tuberculosis and Simian Immunodeficiency Virus.*

**Duties-** Procedures on non-human primate models included but not limited to bronchial alveolar lavage, blood collection, and physical exams, Radiology, PFT, infusion of Monoclonal Antibodies, Maintained database and study records for all studies. Preparation of tissue samples for RNA isolation & histological review, primate necropsy. Management of the BSL3 laboratory and supplies, managed data collection, scheduled procedures, trained and supervised lower level technicians. Establish and maintained improved enrichment programs and increased efficiency of the lab resulting in colony size increase from 16 to 70 primates on study.

**2001-2004:**

**Head Research Animal Laboratory Technologist**, *The George Washington University, Washington, DC*

The scope of this project was to develop and test DNA vaccines for Hookworms in canine, rat, and hamster models

**Duties-** Perform various laboratory assays such as ELISAs, CBC, serum chemistry analysis, parasite testing, QEC, immunoprecipitation, SDS Page, western blot. Administer test compounds to animal subjects, histopathology, collection of biological specimens from test subjects, collect and maintain all pertinent data for non-clinical studies. Organize and maintain all study records

Maintain inventory of samples and data from previous studies for reference whenever necessary. Maintain and order all supplies.

**2000-2001:**

**Head Research Study Technician, Covance Inc. Vienna VA**

Toxicology and carcinogenicity studies in rodents,

**Duties-** Collection and documentation of pertinent data, which included animal observation, test material administration and clinical sample collection.

Ensure that studies are compliant with regulatory guidelines (GLP). Maintain all records for assigned studies. Review of all data collected. Monitoring of animal rooms and health conditions. Mastering of various laboratory techniques such as IP injection, infusion pump administration, IV tail injection, oral gavage, and various bleed techniques etc. Run all aspects of studies and provide reports to study director.

**2000:**

**Microbiology Technician, Labcorp, Herndon, VA**

Inoculation and incubation of bacterial specimens Ova and parasite testing **Duties-**  
Bacterial Plate reading and colony counting In vitro diagnostics  
Isolation of bacterial colonies

**1989-1999:**

**Veterinary Technician, Adams Morgan Animal Clinic, Washington, DC**

**Duties-** Assist in surgical procedures, Physical exams, Administering of medication, Blood and other biological specimen collection Radiography. Perform various in-house laboratory testing (serum analysis, RBC counts, Heart worm diagnosis, etc.)

*Animal Model Experience-*

Non-human primates: BAL, necropsy, blood collection, sedation, radiographs, monoclonal antibody infusion,

Rodents (rats, mice, rabbits & hamsters): IV tail injections, oral gavage, blood collection, necropsy, air pouch, and sedatio

Canines: blood collection, vaccinations, radiographs, necropsy

## PUBLICATIONS

The search for novel lead antibacterial compounds by targeting the Csps of *E.coli* K12 (in preparation), Andre Samuel, Nancy Trun 2013

Use of the air pouch model to investigate immune responses to a hookworm vaccine containing the Na-ASP-2 protein in rats. Mendez S, D Samuel A, Antoine AD, Ahn S, Hotez P. Parasite Immunol. 2008 Jan;30(1):53-6.

Vaccination with irradiated *Ancylostoma caninum* third stage larvae induces a Th2 protective response in dogs.

Fujiwara RT, Loukas A, Mendez S, Williamson AL, Bueno LL, Wang Y, Samuel A, Zhan B, Bottazzi ME, Hotez PJ, Bethony JM. Vaccine. 2006 Jan 23;24(4):501-9

Expression of the *Necator americanus* hookworm larval antigen Na- ASP-2 in *Pichia pastoris* and purification of the recombinant protein for use in human clinical trials.

Goud GN, Bottazzi ME, Zhan B, Mendez S, Deumic V, Plieskatt J, Liu S, Wang Y, Bueno L, Fujiwara R, Samuel A, Ahn SY, Solanki M, Asojo OA, Wang J, Bethony JM, Loukas A, Roy M, Hotez PJ. Vaccine. 2005 Sep 15;23(39):4754-64

Immunogenicity of the Hookworm Na-ASP-2 Vaccine Candidate: Characterization of Humoral and Cellular Responses after Vaccination in the Sprague Dawley Rat

Ricardo T. Fujiwara, Jeffrey Bethony, Lilian L. Bueno, Yan Wang, So Yeong Ahn, Andre Samuel, Maria Elena Bottazzi, Peter Hotez and Susana Mendez Human Vaccines 2005 May-Jun;1(3):123-8

## ACCOMPLISHMENTS & AWARDS

2020-Carnegie Science Center's Leadership in STEM Education award.

2017-PSAYDEN After School Champion Award

2017-Iota Phi Foundation's Excellence in Education Award.

2016-President's Volunteer Service Award

2015-BMe Leadership Award

1999- Dean's List, University of the District of Columbia

2001- Induction into Beta Kappa Chi National Scientific Honor Society 2001- Elected Vice President of Beta Kappa Chi UDC chapter 2002- Selected as 1 of 20 national entries to attend the National Institutes of Health Bio-Trac program in Immunology

## COMMUNITY SERVICE

1) Duquesne University-

a) IBC Committee for Dept. of Environmental and Biological Sciences

b) Duquesne University School of Medicine Advisory Board

2) Environmental Charter School- Board member

3) The Phipps Conservatory- Board member

4) Omicello Cares- Board member