Papa Kobina Van Dyck

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Research Interests

Biophysics, Protein Structure and Dynamics, Bioinformatics and Computational Biology, Optical and Fluorescence Microscopy, and Cell Biology

Education

University of Notre Dame (IN), *Doctor of Philosophy* *08/2020 -*
Biophysics
Advisor: Katharine A. White
Research: *Determining pH-dependent functions of ionizable residue networks*

DePauw University (IN), *Bachelor of Arts* *08/2016 - 05/2020*
Cell and Molecular Biology
Minors in Statistics and Physics
Advisor: Pascal Lafontant
Research: *Cauterization as a simple method for regeneration studies in the zebrafish heart*

Relevant Research

pH Sensitive Proteins and Cell Behaviors
Advisor: Katharine A. White - University of Notre Dame (IN) *05/2021 -*

Cardivascular Regeneration Studies in the Zebrafish
Advisor: Pascal Lafontant - DePauw University (IN) *08/2017 - 05/2020*

Cellular Environment Effects on Protein Stability and Dynamics
Advisor: Emily J. Guinn - DePauw University (IN) *08/2018 - 12/2019*

Neuroimaging Data Science
Advisor: Joshua Vogelstein - Johns Hopkins University (MD) *05/2018 - 08/2018*

Publications

[1] **Papa Kobina Van Dyck** , *Natasha Hockaden, Emma C Nelson, Alyssa R Koch, Kamil L Hester, Neil Pillai, Gabrielle C Coffing, Alan R Burns, Pascal J Lafontant.* Cauterization as a simple method for regeneration studies in the zebrafish heart *Journal of cardiovascular development and disease 7 (4), 41*

Conference Talks & Poster Presentations

[1] **Characterizing pH Molecular Mechanisms of Networks of Ionizable Residues**
Biophysical Society Annual Meeting 2022- Poster *2/2022*

[2] **Characterizing pH Molecular Mechanisms of Networks of Ionizable Residues**
AfroBiotech 2021- Poster *10/2021*

[3] **Characterizing pH Molecular Mechanisms of Networks of Ionizable Residues**
25th Annual John V. O'Connor Biochemistry and IBMS Research and Education Conference- Poster *10/2021*

[4] **Belonging and Optics of DePauw University's STEM Departments**
HSTEM 2021 NSF Conference- Talk and Poster *6/2021*

[5] **Examination of the effect of a Histidine tag and pH on the energy landscape of ACBP.**
Experimental Biology Conference- Poster *4/2020*

[6] **Cautery Injury Response in Zebra Fish**
Indiana Physiological Society Annual Meeting- Poster *3/2020*

[7] **Examination of the effect of a Histidine tag and pH on the energy landscape of ACBP**
Midwest Conference on Protein Folding, Assemblies, & Molecular Motions- Poster *5/2019*

[8] **Structure, Development, and Functional Morphology of the Cement Gland of the Giant Danio**
Indiana Physiological Society Annual Meeting- Poster *3/2019*

Leadership, Outreach, & Mentoring

Biophysical Society Student Chapter (Co-Founder)	*4/2021-*
Biophysics Student Selected Seminar Speaker (Organizer)	*4/2021*
Black Graduate Student Association (Treasurer)	*12/2020-*
Students of Color in STEM (Co-Founder)	*8/2018 - 05/2020*
First Year Experience Program	*05/2019 - 05/2020*
Being Human in STEM- DePauw Chapter	*01/2020 - 05/2020*

Achievements

Honors and Awards:

Biophysical Society Travel Grant	*11/2021*
Prindle Prize (Science Thesis Award)	*05/2020*
Douglas A. & Phyllis G. Smith Student Faculty Collaborative Award	*04/2019*
Winner- Science Ethics Bowl	*08/2017*
Science Research Fellowship	*08/2016*

Scholarships:

John S. & Dorothy M. Medaris Scholarship	*04/2017*
Dr. Hakki B Ogelman Endowed Scholarship	*04/2017*
Bonner Scholarship	*04/2016*
Ubben DePauw Trust Scholarship	*04/2016*

Memberships

Biophysical Society

American Society for Biochemistry and Molecular Biology

Teaching Experience

DePauw University (IN)
Teaching Assistant

CHEM120: Structure and Properties of Organic Molecules (Fall 2018- Fall 2019)

BIO241: Intermediate Cellular Biology (Spring 2020)

Academic Resource Center-Quantitative Tutor

Biology- Introductory Courses, Cell Biology, Molecular Biology, Genomics, Biostatistics, and Bioinformatics

Chemistry- General Chemistry, and Organic Chemistry

Physics- Introductory Courses, Modern Physics, Nuclear Physics, Classical Physics

Mathematics- Calculus 1-3, all Statistics Courses

Updated: December, 2021