Curriculum Vitae

DATE: 02-16-17

NAME: Kyle A. Murphy

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EMAIL: kyle.murphy@rutgers.edu

CITIZENSHIP: USA

EDUCATION:

A. Undergraduate

Rutgers University
New Brunswick, NJ 08901
BS in Biochemistry *January 2001*

B. Graduate

Rutgers University
New Brunswick, NJ 08901
Ph.D. in Biochemistry *May 2008*

POSTGRADUATE TRAINING:

A. Postdoctoral Appointments

The Cancer Institute of New Jersey
OBGYN/Oncology, Laboratory of Dr. Lorna Rodriguez
July 2008 – July 2012

ACADEMIC APPOINTMENTS:

Department of Biochemistry and Microbiology
Rutgers University of New Brunswick, NJ
Instructor of Biochemistry (non-tenure track)
July 2012-Present

Department of OBGYN
The Cancer Institute of New Jersey
Adjunct Professor
July 2013-Present

CERTIFICATES:

Teaching Assistant Project, Master Faculty Observation Program, Rutgers University 2006-2007

Clinical Research Design Course, The Cancer Institute of New Jersey 2012

TEACHING RESPONSIBILITIES:

A. Lectures or Course Directorships

Rutgers University, School of Environmental and Biological Sciences

- Introductory Biochemistry Lecture, Spring and Fall semesters
- Summer Hybrid Section of Introductory Biochemistry Lecture.
- Summer Online Section of Introductory Biochemistry Lecture.
- Mentor undergraduates in independent research on the molecular biology of cancer.

TEACHING EXPERIENCE

2012-present Lecturer of Biochemistry-Rutgers University, New Brunswick, New Jersey

- Classes taught
  - Introductory Biochemistry Summer Course (Fully Online & Hybrid)
  - Introductory Biochemistry Fall Course
  - Introductory Biochemistry Spring Course
  - Introductory Biochemistry Spring Course Online (two sections)
  - Introductory Biochemistry Lab Fall Course
  - Introductory Biochemistry Lab Spring Course
  - General Biochemistry Lecture 1/3 of Spring 2014 Course
  - Lectured in Contemporary Issues of Biochemistry 1 lecture/semester
- Responsible for lecture design, assessment design, office hours and grading of introductory biochemistry course.
- Designed and implemented a summer hybrid course for introduction to biochemistry lecture.
- Increased introductory biochemistry size from 188 students to a total of 300.
- Designed and implemented a fully online introductory biochemistry course.
- Engaged in using the Learning Assistant program to help provide support for in-person and online biochemistry classes.

2008-2012 Part-time Lecturer of Biochemistry-Rutgers University, New Brunswick, New Jersey

- Classes previously taught
  - Introductory Biochemistry Summer Course
  - Introductory Biochemistry Fall Course
  - Introductory Biochemistry Spring Course
  - Introductory Biochemistry Lab Fall Course
  - Introductory Biochemistry Lab Spring Course
  - General Biochemistry Lecture 1/3 of Spring Course
- Responsible for lecture design, exam preparation, office hours and grading.

AWARDS:

Hybrid Course Conversion Grant Program Award. Given to convert Introductory Biochemistry Lecture into a hybrid course for the summer of 2013. Award amount of $3,500.00 Course was delivered successfully.

Instructional Computing Funds award offered from Rutgers, School of Environmental and Biological Sciences 2015. Award was a new computer system with audio/visual editing capability.

COMMITEES:

Department of Biochemistry and Microbiology learning goals and assessment committee member
In charge of assuring learning goals are written and self-assessments are collected for the biochemistry classes in the department (2015-present).

Serving on the PEC committee for the Department of Biochemistry and Microbiology to review faculty submissions for compensation (2016).

SEBS assessment committee member (2016-present).

Learning Assistants Advisory Board (2016-present)

University Senator (2017-2018)

SERVICE:

Provide continual opportunities for undergraduates to engage in research in the lab space provided by Drs. White and Cooper and funding provided by Dr. Lorna Rodriguez of the CINJ. (2012-present)

Academic advising on course selection and degree requirements for undergraduate biochemistry majors. (2012-present)

Freshman academic advising of potential chemistry and biological science majors. (2013-present)

Transfer student academic advising for biochemistry majors. (2013-present)

PASS remediation program at SEBS for struggling second semester freshmen. (2016-preent)

Served as an honors thesis committee member for Ashley Gallagher from Hatem Sabaawy's Lab (2016)

Served as a biochemistry section judge at the William Patterson Undergraduate Research Symposium (2016)

Submitted to be a judge for the 2016 North Jersey Regional Science Fair (2016/2017)

Have written over 50 letters of recommendation for students from my 301 class. (2012-present)

Served as an award bearer at the National Special Olympics at Rider University (2014)

Learning Assistants Advisory Board (2016-present)

Freshmen Academic Mentoring (FAM) Instructor (2016-present)

Faculty Mentor for FIGS (2016)

PUBLICATIONS:

A. Refereed Original Article in Journal

1. Miletti-Gonzalez, K. E., **Murphy, K**., Kumaran, M. N., Ravindranath, A. K., Wernyj, R. P., Kaur, S., Miles, G. D., Lim, E., Chan, R., Chekmareva, M., Heller, D. S., Foran, D., Chen, W., Reiss, M., Bandera, E. V., Scotto, K., Rodriguez-Rodriguez, L.; Identification of Function for CD44 Intracytoplasmic Domain (CD44-ICD): Modulation of Matrix Metalloproteinase 9 (MMP-9) Transcription via novel promoter response elementi; J Biol Chem, 287: 18995-9007, 2012

2. Villano CM, **Murphy KA**, Akintobi A, White LA.; 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) induces matrix metalloproteinase (MMP) expression and invasion in A2058 melanoma cells; Toxicol. Appl. Pharmacol. 210(3):212-24, 2006

3. **Murphy KA**, Villano CM, Dorn R, White LA.; Interaction between the aryl hydrocarbon receptor and retinoic acid pathways increases matrix metalloproteinase-1 expression in keratinocytes.; J Biol Chem 279(24):25284-25293, 2004

B. Books, Monographs and Chapters

1. **Murphy KA**, Quadro L, White LA.; 75:33-67 The Intersection Between the Aryl Hydrocarbon Receptor (AhR)- and Retinoic Acid-Signaling Pathways; Vitam Horm, 2007

C. Other Articles (Reviews, Editorials, etc.) In Journals; Chapters; Books; other Professional Communications

1. Kung T, **Murphy KA**, White LA.; The aryl hydrocarbon receptor (AhR) pathway as a regulatory pathway for cell adhesion and matrix metabolism. Biochem Pharmacol; 77(4):536-46, 2009
2. Hillegass JM, **Murphy KA**, Villano CM, White LA.; The impact of aryl hydrocarbon receptor signaling on matrix metabolism: implications for development and disease; Biol Chem 387(9):1159-1173, 2006

PRESENTIONS:

2016 NJEDge.Net Annual Conference, Princeton, New Jersey
How Biochemistry Online Students Learned by Creating Claymation and Rap Videos (and other stories about online course development).

2016 NJEDge Faculty Showcase, Stevens Institute of Technology
"Introductory biochemistry: The art of biochemistry in the digital age"
2011 Cancer Institute of New Jersey, New Brunswick, NJ
"CD44 Transcriptional Control of MDR1"
2010 Department of Biochemistry and Microbiology, Rutgers University, New Brunswick
"Putative DNA Binding Site of CD44"
2010 Cancer Institute of New Jersey , New Brunswick, NJ
"Putative DNA Binding Site of CD44"
2007 Department of Biochemistry and Microbiology Seminar Series, Rutgers University, New Brunswick, NJ "The Effect of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin on matrix metalloproteinases

POSTERS:

N. Daigham, C. Corby, P. Brites, L.A. White, L. Rodriguez, **K.A. Murphy** (2016) The Regulation of the MTOR Signaling by CD44 in Breast, Wayne, NJ, William Patterson University Undergraduate Research Symposium

X. Shi, A. Spirollari, E. Stamboliski, S. Kaur, L.A. White, **K.A. Murphy** (2015) The Effects of Cis-Diammineplatinum(II) Dichloride on Zebrafish Development., New Brunswick, NJ, Rutgers SETAC regional meeting

S. Sarwar, V.K. Oriole, S. Kaur, **K.A. Murphy**, L.A. White, L. Rodriguez-Rodriguez (2015) The Effect of CD44 Expression on Drug-resistance and cell migration in the zebrafish xenotransplant model., New Brunswick, NJ, Rutgers Undergraduate Research Symposium, Aresty Program

X. Shi, A. Spirollari, E. Stamboliski, S. Kaur, L.A. White, **K.A. Murphy** (2015) The Effects of Cis-Diammineplatinum(II) Dichloride on Zebrafish Development., New Brunswick, NJ, Rutgers Undergraduate Research Symposium, Aresty Program

S. Sarwar, V.K. Oriole, S. Kaur, **K.A. Murphy**, L.A. White, L. Rodriguez-Rodriguez (2014) The Effect of CD44 Expression on Drug-resistance and cell migration in the zebrafish xenotransplant model. , Philadelphia, PA Mid-Atlantic Regional Zebrafish Meeting

X. Shi, A. Spirollari, E. Stamboliski, S. Kaur, L.A. White, **K.A. Murphy** (2014) The Effects of Cis-Diammineplatinum(II) Dichloride on Zebrafish Development. , Philadelphia, PA Mid-Atlantic Regional Zebrafish Meeting

Murphy, K.A. and White, L. A. (2008) Interaction between the aryl hydrocarbon receptor (AhR) and the Ras/Raf signaling pathways is required for AhR- induced expression of matrix metalloproteinases. Society of Toxicology 47th Annual Meeting, Seattle, WA

Murphy, K.A. and White, L. A. (2007) 2,3,7,8-tetrachlorodibenzo-*p*-dioxin induced matrix metalloproteinase-1 expression in A2058 melanoma cells requires the AhR and Erk pathways. Society of Toxicology 46th Annual Meeting, Charlotte, NC

Murphy, K.A. and White, L.A. (Nov 30th 2006) 2,3,7,8-tetrachlorodibenzo-*p*-dioxin induced matrix metalloproteinase expression in A2058 melanoma cells. Frontiers of Biopharmaceutical Sciences Symposium, Rutgers University, Piscataway, NJ

Murphy, K.A. and White, L.A. (2006) 2,3,7,8-tetrachlorodibenzo-*p*-dioxin induced matrix metalloproteinase expression in A2058 melanoma cells. Society of Toxicology 45th Annual Meeting, San Diego, CA

Murphy, K.A. and White, L.A. (2005) 2,3,7,8-tetrachlorodibenzo-*p*-dioxin alters expression of retinoic acid receptors in normal human keratinocytes. Society of Toxicology 44th Annual Meeting, New Orleans, LA

MEETING/WORKSHOPS:

2016 NJEDge Faculty Showcase held at Stevens Institute of Technology in Hoboken, NJ

2015 Reflections on Reflections: Its Role in Teaching and Learning
March 18, 2015 Rutgers Livingston Campus Student Center

2014 Designing Scientific Teaching Tools for Underlying Concepts and Skills for BMB Education
American Society of Biochemistry and Molecular Biology, Montclair State University, Montclair, NJ

2014-2015 Teaching and Technology workshop, Rutgers University, College Avenue Campus.